Cochise County
Board of Supervisors

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ANN ENGLISH
Chairman
District 2

PATRICK G. CALL
Vice-Chairman
District 1

PEGGY JUDD
Supervisor
District 3

EDWARD T. GILLIGAN
County Administrator

ARLETHE G. RIOS
Clerk of the Board

AGENDA FOR REGULAR BOARD MEETING
Tuesday, September 12, 2017 at 10:00 AM
BOARD OF SUPERVISORS HEARING ROOM
1415 MELODY LANE, BUILDING G, BISBEE, AZ 85603

ANY ITEM ON THIS AGENDA IS OPEN FOR DISCUSSION AND POSSIBLE ACTION

PLEDGE OF ALLEGIANCE

THE ORDER OR DELETION OF ANY ITEM ON THIS AGENDA IS SUBJECT TO MODIFICATION AT THE MEETING

ROLL CALL
Members of the Cochise County Board of Supervisors will attend either in person or by telephone, video or internet conferencing.

The Board may permit public comment during the discussion of any item on this agenda. If you wish to be heard on a specific item, please sign up to be heard using the 'Specific Item' on the speaker form provided, and please list the item about which you wish to be heard. Persons will be permitted three minutes to speak.

Note that some attachments may be updated after the agenda is published. This means that some presentation materials displayed at the Board meeting may differ slightly from the attached version.

CALL TO THE PUBLIC

This is the time for the public to comment. Members of the Board may not discuss items that are not specifically identified on the agenda.

PRESENTATION

Presentation of Proclamation to Mr. Livingston Sutro, Chair of the National Alliance on Mental Illness (NAMI) of Southeastern Arizona declaring September 30, 2017 to be National Alliance on Mental Illness Awareness Day in Cochise County.

CONSENT

Board of Supervisors

1. Adopt Resolution 17-18 accepting a grant from the Gila River Indian Nation as a pass through for the Sunsites-Pearce Fire District in the amount of $11,000.

2. Approve the Minutes of the regular meeting of the Board of Supervisors of August 22, 2017.

3. Approve a Proclamation declaring September 30, 2017 to be National Association of Mental Illness Awareness Day in Cochise County.

4. Approve acceptance of Quit Claim Deed from Mary A. Blake (Grantor) to Cochise County for real property described as Lots 8, 9, and 10 in Block 641 of Arizona Sun Sites, Unit No. 5, as recorded in Book 4 of Maps and Plats, page 83, records of Cochise County, Arizona and; Lots 11 and 12 in Block 370 of Arizona Sun Sites, Unit No. 3, as recorded in Book 4 of Maps and Plats, page 52, records of Cochise County, Arizona as recommended by the Highway & Floodplain Division.

5. Approve an Intergovernmental Agreement (IGA) between Cochise County, Graham County, and Greenlee County to establish the fiscal and administrative responsibilities for the Cochise Private Industry Council, Inc. (hereinafter known as CPIC) AKA Arizona at Work, Southeastern Arizona Workforce Development hereinafter referred to as “Consortium”.

6. Approve a contract with Century Link for E911 Managed Service through the State of Arizona's overarching contract for the newly created Southeast Arizona Communications Center (SEACOM).

County Sheriff

7. Approve contract 2018-II-001 between Cochise County and the Governor's Office of Highway Safety for $25,000 in overtime funds for the Driving Under the Influence (DUI) Enforcement Program effective October 1, 2017 to September 30, 2018.

8. Approve contract 2018-PTS-015 between Cochise County and the Governor's Office of Highway Safety in the amount of $10,000 for overtime and employee related expense funds for Selective Traffic Enforcement Program (STEP) effective October 1, 2017 to September 30, 2018.

Emergency Services

9. Adopt Resolution 17-19 to approve the Cochise County Multi-Jurisdictional Hazard Mitigation Plan 2017 as required by the Disaster Mitigation Act of 2000.

Finance

10. Approve demands and budget amendments for operating transfers.

Human Resources

11. Approve the appointments of Ms. Liz York and Ms. Donna Hilton to the Cochise County Merit Commission commencing September 12, 2017 and ending September 11, 2021.

ACTION

Board of Supervisors

12. Approve the award of Invitation for Bid 17-32-BOS-03 for Southern Arizona Children's Haven Arson Remediation Repair to B-R Constructors Inc. in the amount of $119,119 and four possible Add Alternates in the amount of $45,981.00 for a total of $165,100.

13. Approve Contract between the SouthEastern Arizona Governments Organization (SEAGO) and Cochise County for technical assistance for the completion of the Southern Arizona Children's Haven Project, granted through the Community Development Block Grant (CDBG) in fiscal year 2016-17 in the amount of $16,831.

Community Development

14. Approve Final Plat and Assurance Agreement for completion of Subdivision Improvements, Docket S-16-01 for The Highlands at Inde Final Plat Lots 1-10, Tract 1, Common Area "A" with Pioneer Title Agency as trustee under trust number 70100206.

County Sheriff

15. Approve Grant Agreement HT-17-2727 for the Drug, Gang, and Violent Crime Control funding with the Arizona Criminal Justice Commission in the amount of $157,700 for overtime salaries and fringe benefits (ERE) effective January 1, 2017 through December 31, 2018.

Court Administration

16. Approve appointment of Gary W. Ramaeker to serve as Justice of the Peace Pro Tempore for Justice Court Precinct 5 as authorized under A.R.S. §22-121 for a term commencing on September 12, 2017 to and including June 30, 2018, and approve his appointment as Juvenile Hearing Officer as authorized under A.R.S. §8-323.

Facilities

17. Approve the award of Invitation for Bid (IFB) No. 17-26-FAC-04 for Improvements to the Bisbee Douglas International Airport Reconstruct Taxiway A for the Facilities Management Department to Pavex Corporation in the amount of $673,025.

REPORT BY EDWARD T. GILLIGAN COUNTY ADMINISTRATOR -- RECENT AND PENDING COUNTY MATTERS

SUMMARY OF CURRENT EVENTS

Report by District 1 Supervisor, Patrick Call

Report by District 2 Supervisor, Ann English

Report by District 3 Supervisor, Peggy Judd

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Cochise County Board of Supervisors
1415 Melody Lane, Building G Bisbee, Arizona 85603
520-432-9200 520-432-5016 fax board@cochise.az.gov

Presentations / Special Events

Regular Board of Supervisors Meeting **Board of Supervisors**

Meeting Date:	09/12/2017		
Presentation of NAMI Awareness Day Proclamation			
Submitted By:	Arlethe Rios, Board of Supervisors		
Department:	Board of Supervisors		
Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	1
NAME of PRESENTER:	Ann English	**TITLE of PRESENTER:**	Chairman
Mandated Function?:	Not Mandated	**Source of Mandate or Basis for Support?:**	
Docket Number (If applicable):			

Information

Agenda Item Text:

Presentation of Proclamation to Mr. Livingston Sutro, Chair of the National Alliance on Mental Illness (NAMI) of Southeastern Arizona declaring September 30, 2017 to be National Alliance on Mental Illness Awareness Day in Cochise County.

Background:

na

Department's Next Steps (if approved):

na

Impact of NOT Approving/Alternatives:

na

To BOS Staff: Document Disposition/Follow-Up:

na

Budget Information

Information about available funds

Budgeted: ☐ **Funds Available:** ☐ **Amount Available:**

Unbudgeted: ☐ **Funds NOT Available:** ☐ **Amendment:** ☐

Account Code(s) for Available Funds 1:

Fund Transfers

Attachments

No file(s) attached.

Consent 1.

Regular Board of Supervisors Meeting **Board of Supervisors**

Meeting Date:	09/12/2017		
Resolution to accept funds as a pass through for Sunsites Pearce Fire District			
Submitted By:	Arlethe Rios, Board of Supervisors		
Department:	Board of Supervisors		
Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	2
NAME of PRESENTER:	n/a	**TITLE of PRESENTER:**	n/a
Docket Number (If applicable):	n/a		
Mandated Function?:	Local Mandate or Policy	**Source of Mandate or Basis for Support?:**	

Information

Agenda Item Text:

Adopt Resolution 17-18 accepting a grant from the Gila River Indian Nation as a pass through for the Sunsites-Pearce Fire District in the amount of $11,000.

Background:

This is the first grant we've had from Gila River Nation – usually it's only Tohono (since most tribes contribute to state and don't distribute funds directly) The Tohono Nation has a grant contract form but this tribe needs a Resolution. They may have a grant contract as well that comes out. We do not act as a pass through to non-profits – only special taxing districts. We've done this in the past for Elfrida Water District.

WHERAS the Sunsites-Pearce Fire District is in receipt of a grant award from the Gila River Indian Community in the amount of $11,000
The Sunsites-Pearce Fire District, operating since 1973, is a special taxing district formed in Cochise County.
Funding for these grants is provided by a portion of Gila River Casino's annual revenues as a provision of Proposition 202 approved by Arizona voters in 2002, which created gaming compacts between the State of Arizona and Arizona Tribes. The intent of this funding is to support cities, towns and counties in providing government services that benefit the general public.
Many Indian Nations contribute their portion of funding directly to the state for distribution; the Gila River Indian Community chooses a direct disbursement to local governments.

These grants funded under Prop 202 contribute millions of dollars to various programs throughout the state.
Since 2003 the Gila River Indian Community has supported Arizona communities and residents through our annual revenue sharing program. We assist city, town and county governments and non-profit organizations to provide services in the areas of economic development, education, healthcare, public safety and transportation.

The district is in need of supplemental funding to purchase a set of specialty "Rescue Stabilization Tools"

to assist in emergency extrications from motor vehicles.

The District participates in a mutual aid agreement and assists other agencies within Cochise County and the region.
The County will receive funds on the behalf of the District. The County will disperse the funds to the District upon receipt from GRIC. The District will procure the equipment and comply with all additional grant requirements.

Department's Next Steps (if approved):

Send one original resolution to Chief Steinberg to submit to Gila River Nation.

Impact of NOT Approving/Alternatives:

The fire district will not be able to receive funding.

To BOS Staff: Document Disposition/Follow-Up:

Mail one original signed resolution to Chief Steinberg

Joshua Steinberg
Fire Chief
Sunsites-Pearce Fire District
Office: 520-826-3645
Cell: 520-508-6994
Fax: 520-826-3586
jsteinberg@sunsitesfire.org

Attachments

Application
Background
Resolution

Gila River Indian Community Grant Application
Grant Cycle 2017

Cover Sheet

Municipality Information		
1. Date of Application: 3/19/2017 **(NOTE: Click or use up/down arrow keys to move among fields)**		
2. Name of City, Town or County: Cochise County Arizona		
3. Mayor (City or Town) or Board of Supervisor's Chairman (County): Ann English, Chairman of the Board of Supervisors		
4. Mailing Address: 1415 Melody Lane, Building G		
5. City: Bisbee	**State:** Arizona	**Zip Code:** 85603
6. Acknowledgement of Submission by Authorized Municipality Representative: **Typed Name/Title:** Ann English, Chairman **Signature:** X Ann English		
Applicant Information		
7. Department/Organization Name: Sunsites-Pearce Fire District		
8. Is this a 501c non-profit Organization? ☒ **No** ☐ **Yes** **If yes, attach IRS Determination Letter**		
9. Application Contact Person: Josh Steinberg **Title:** Fire Chief		
10. Phone Number: 520-826-3645		
11. Mailing Address: PO Box 507, 105 N Tracy Rd		
12. City: Pearce	**State:** Arizona	**Zip Code:** 85625
13. Email Address: jsteinberg@sunsitesfire.org **Website Address:** sunsitesfire.org		
Project Information		
14. Project Name: Rescue Stabilization Tools		
15. Purpose of Grant: To update and procure rescue stabilization tools for safe and rapid emergency extrication		
16. Priority Funding Area	Public Safety	
17. Annual amount requested	$11,000	
18. Number of years that funding is requested	1	
19. Total amount requested (annual amount x number of years)	$11,000	
20. Has your organization received past funding from GRIC? If yes, list each year and amount	NO	
21. Geographic area served	Eastern Cochise County	

For Office Use Only:		
Data Entry	Receipt	Evaluation
Outcome ☐ Approval Recommended/Amount $		☐ Denial

Gila River Indian Community Grant Application
Grant Cycle 2017

Narrative

Please structure your proposal to provide the following information in the order indicated. Provide the narrative in paragraph form in the text field provided. Please be thorough but strive for brevity.

1. Briefly describe the organization's history, mission and goals.

   Sunsites-Pearce Fire District was formed in 1973 to serve and protect the residents of Cochise and Pearce, Arizona, and surrounding areas in rural eastern Cochise County. The mission statement is to provide excellence and professionalism in fire and emergency medical services by maintaining the highest level of standards in education and training while providing the utmost degree of safety, security, and compassion to our members and community. The goals of the organization include developing personnel and maintaining equipment to provide prompt, effective responses to all hazards emergency incidents.

2. If the applying organization is non-municipal or a non-profit 501c, please describe your relationship with Arizona municipalities including past and present support, whether it be through partnerships, collaborations, in-kind contributions, grants, tax-based funding or other. Describe the supporting municipality's role in this project. If the applying organization is a municipality governmental sub-division please enter the text "Not applicable."

Sunsites-Pearce Fire District, (SPFD), is a special tax district in Cochise County and receives funds from property taxes and other revenue through the Cochise County Treasurer's Office. SPFD has its own operations and planning budget which uses the funds described above. The Cochise County Board of Supervisors has agreed to allow special districts to utilize them as an accepting agency and pass through for grant funds including this project. We work with Mrs. Lisa Marra, Cochise County Grants Coordinator, on projects that require our County's assistance for grant implementation.

3. Describe the proposed project and planned goals and activities.

   The proposed project, "Rescue Stabilization Tools" is to purchase a set of specialty tools designed to enhance the safety of an emergency extrication of a victim in a motor vehicle or other unstable environment. These tools have become industry standard for these types of rescues, and are made to set up easily and rapidly. Specifically, the tools are airbags, a set of three for different weight classes; two sets of telescoping struts of different lengths; and the asscociated hoses and accessory package for operating the airbags. Activities planned for this project include weekly inspections, bi-yearly training with the tools, and of course any emergency rescue which cannot be planned per se, but the personnel and equipment will be ready.

4. Describe how the proposed project satisfies one or more of the priority funding areas identified by the Gila River Indian Community.

"Rescue Stabilization Tools" project satisfies the area of Healthcare by providing access to patients involved in a motor vehicle or other entrapment, and the area of Public Safety by enhancing the efforts of our fire department.

5. Identify the needs/problems to be addressed, target population and number of people to be served by the project.

   The problems which will be addressed by this project will be the lack of current up- to- date stabilization equipment, which results in the problem of a lower level of safety for the rescuers and victims. The population of the district served is approximately 3,500, but there are two major state highways 191 and 181, which run through the area served and the number of people using these highways daily is much higher than the population. We also respond to mutual aid requests from the Elfrida Fire District and the City of Willcox which are our neighboring agencies. Furthermore, we are participants in the Cochise County Mutual Aid agreement in which we have agreed to assist anywhere in Cochise County or neighboring Counties.

6. Define the project as a new or continuing program.

   This project is continuing our rescue mission and adding new components. This will assist us in completing our mission by providing a safer work environment and expedited patient extrication.

7. Provide a brief timeline including start and finish dates. Indicate if the timeline is flexible.

   The timeline is flexible. The equipment would be purchased when the grant is awarded, within two to three weeks. The equipment will be used for a projected use of 10-15 years.

8. Identify other organizations, partners or funders participating in the project and their roles.

   Not applicable.

9. Would you be able to implement the proposed plan if your organization received partial funding for this project?

   If our organization received partial funding for this project we would be able to partially implement the plan by purchashing either airbags or struts, but we would not be able to purchase both under the current budget.

10. Describe your plan for project sustainability beyond the grant period. If this is a program/project previously funded by the Gila River Indian Community describe efforts made towards the previously described sustainability plan.

    The project sustainability plan is to maintain the tools in good operating order by performing weekly operational checks, keeping the tools clean and readily accessible in case of emergency.

11. Describe your plan to document progress and results.

The plan to document progress and results is to have checklists of the weekly checks and to have at least two district-wide drills involving the tools each year. In the event of an emergency use of the tools will be logged in the National Fire Incident Reporting System, (NFIRS). It is hoped that the use of the tools will help the fire department in lowering the crash to hospital times for victims. The goal for this time is under 60 minutes.

12. Indicate any application to and/or awards made by a tribe other than the Gila River Indian Community for state shared revenues for this and any other project for the past five (5) years. If this information is included in a separate attachment, please indicate that here.

    We have applied to the Tohono O'odam Nation in 2012 through 2016. In those years we have requested funds for an ambulance (twice), mobile data computers, self contained breathing apparatus, and hydraulic extrication equipment but we were not awarded any grant funds for those years.

Project Budget

Budget Period: 2017-2018

For each budget item listed here please provide a narrative description on the following Project Budget Detail page.

Proposed Budget Expense (list each budget item)	Amount requested from GRIC	Amount requested or secured from other funders	In Kind contributions	Total Budget
1. Strut System, 2 sets, one large, one small	$5,340.00	$0	$0	$5,3400.00
2. High pressure lifting air bags, 12 ton, 20 ton, 32 ton	$3,270.00	$0	$0	$3,270.00
3. Accessory package for airbags, includes hoses, air controller, high pressure regulator, shut off valve, hard plastic case	$1,681.00	$0	$0	$1,681.00
4. Estimated taxes, 8.6 percent	$885.00	$0	$0	$885.00
5. Click here to enter text.	$0	$0	$0	$0
6. Click here to enter text.	$0	$0	$0	$0
7. Click here to enter text.	$0	$0	$0	$0
8. Click here to enter text.	$0	$0	$0	$0
9. Click here to enter text.	$0	$0	$0	$0
10. Click here to enter text.	$0	$0	$0	$0
11. Click here to enter text.	$0	$0	$0	$0
12. Click here to enter text.	$0	$0	$0	$0
13. Click here to enter text.	$0	$0	$0	$0
14. Click here to enter text.	$0	$0	$0	$0
15. Click here to enter text.	$0	$0	$0	$0
16. Click here to enter text.	$0	$0	$0	$0
17. Click here to enter text.	$0	$0	$0	$0
Total Budget	$11,176.00	$0	$0	$11,176.00

Project Budget Detail

Please provide a narrative description for each of the project budget items listed on the previous page. Include the dollar figure and how it was derived.

1. The strut system is a specialized telescoping rod system which comes in two sizes to accommodate for varying angles and different vehicle configurations. The struts are designed to help stabilize unstable vehicles from which victims will need to be extricated from. They come in large and small, are telescoping to adjust to the situation and for ease of storage. The struts are made from a heavy duty alloy metal and have become industry standard for extrication and rescue situations. They are sold as a system which includes 2 large and 2 small with the dollar figure derived from a quote received from Extrication Concepts, LLC on 02/27/2017 for $5,340.00 for the set.

2. The high pressure air bags are made from a steel reinforced kevlar material which prevents the airbag from failing and allows for interlocking of different sized airbags. The same feature which allows for interlocking when 2 bags are used together also prevents the airbags from slipping on all surfaces dry or wet. The package we are hoping to purchase has one 12 ton, one 20 ton and one 32 ton bag. The 12 ton bag can lift to a height to 8.9 inches; the 20 ton bag can lift to a height of 11.4 inches; the 32 ton bag can lift to a height of 15 inches. The bags are marked with reflective markings for high visibility when working at night. The bags are chemical and ozone resistant and have low profile edges to enhance insertion under a vehicle with minimal clearance. The dollar figure of $3,270.00 was derived from a quote received from Extrication Concepts, LLC on 02/27/2017.

3. The accessory package for the air bags includes a large hard plastic storage case, one high pressure regulator, one dual air controller, two sixteen foot hoses and one thirty-two foot hose, and two shut off valves for the air hoses. The dollar figure of $1,681.00 was derived from a quote received from Extrication Concepts, LLC on 02/27/2017.

4. Taxes on $10,291 for the total of the items above was derived using 8.6 percent sales tax for the State of Arizona, a dollar figure of $885.00.

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11. Click here to enter text.

12. Click here to enter text.

13. Click here to enter text.

14. Click here to enter text.

15. Click here to enter text.

16. Click here to enter text.

17. Click here to enter text.

Other explanation: Click here to enter text.

Marra, Lisa M

From: Josh Steinberg [jsteinberg@sunsitesfire.org]
Sent: Tuesday, August 22, 2017 6:41 PM
To: Marra, Lisa M
Subject: Fwd: Gila River Indian Community Grant Application - Phase II Notification

Mrs. Marra,

We just received this email today. Please let me know what the next step will be in this process.

Thank you for your assistance.

With Great Thanks,

Josh Steinberg

-------- Forwarded Message --------
Subject: Gila River Indian Community Grant Application - Phase II Notification
Date: Tue, 22 Aug 2017 23:04:30 +0000
From: Cheryl Pablo <Cheryl.Pablo@gric.nsn.us>
To:(jsteinberg@sunsitesfire.org) <jsteinberg@sunsitesfire.org>

Good Afternoon Chief Steinberg,

The Gila River Indian Community Grants Review Committee has completed its review of applications submitted for our 2017 grants cycle. I am pleased to inform you that the application submitted for the Sunsites-Pearce Fire District Rescue Stabilization Tools will be recommended for approval in the amount of $11,000.00.

In order to move the application forward we will require a resolution from the Cochise County Board of Supervisors acknowledging their willingness to accept the grant from the Gila River Indian Community for the proposed amount and purpose. The Gila River Indian Community does not enter into formal Intergovernmental Agreements for the purpose of these grants, so this requested resolution along with the resolution approved by the Gila River Community Council will serve to effectuate this grant. Please be aware that this "Phase II" of the grant cycle does not constitute an actual award. Final approval is contingent upon the receipt of the requested Municipal Resolution no later than September 21, 2017 and by approval of the Gila River Indian Community Council. You will be notified of a final decision no later than October 25, 2017.

Congratulations on advancing to the next phase of the grant cycle! We are happy to support such a great effort that benefits so many of our Arizona residents. If you have any questions please contact Cheryl Pablo or Terri Enos at the GRIC Office of Special Funding, 520-562-9698, extension 258 or 259.

Cheryl

Cheryl Pablo

Program Administrator | Gila River Office of Special Funding | P.O. Box 2172 | Sacaton, AZ 85147 | O: 520-562-9698, ext. 259 | C: 520-610-9131 | www.gilariver.org

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Marra, Lisa M

From: Josh Steinberg [jsteinberg@sunsitesfire.org]
Sent: Monday, March 27, 2017 12:16 PM
To: Marra, Lisa M
Subject: Re: Gila River grant

Mrs. Marra,

You are the best. The grant is due this Friday. I apologize for the late notice but we found out that the grant was open late. I hope that it will work out. Thank you very much for your assistance.

With Great Thanks,

Joshua Steinberg
Fire Chief
Sunsites-Pearce Fire District
Office: 520-826-3645
Cell: 520-508-6994
Fax: 520-826-3586
jsteinberg@sunsitesfire.org

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On 3/27/2017 11:25 AM, Marra, Lisa M wrote:

> Good morning Chief
> I am copying our Clerk of the Board, Arlethe Rios on this email as she will work with Supervisor English to get her signature so you can submit the grant application. If you are awarded the grant, please do contact us asap upon notification as that would need to go on a formal agenda for our Board to approve and accept funding – all part of our normal process. As discussed the County can act as the pass through on this grant similar to our procedure for the Tohono O'odham grants.
>
> Arlethe will work with Chairman English to get this signed and back to you as quickly as possible so we don't hold up your process. Please let me know if there is anything else we can assist with and good luck on your application!
> L
>
> **Lisa M. Marra**

Communications & Community Relations Administrator
Cochise County Board of Supervisors
1415 Melody Lane, Building G
Bisbee, AZ 85603
520-432-9742 Phone
520-432-5016 (fax)
520-727-1390 (cell)

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From: Josh Steinberg [mailto:jsteinberg@sunsitesfire.org]
Sent: Friday, March 24, 2017 12:04 PM
To: Marra, Lisa M
Subject: Re: Gila River grant

Mrs. Marra,

That sounds great. I have attached the application that contains the cover letter. We will be finishing the narratives next week.

Thank you very much. You are awesome.

Joshua Steinberg
Fire Chief
Sunsites-Pearce Fire District
Office: 520-826-3645
Cell: 520-508-6994
Fax: 520-826-3586
jsteinberg@sunsitesfire.org

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On 3/23/2017 7:50 AM, Marra, Lisa M wrote:

> Chief Steinberg
>
> Can you send me the cover sheet for review? It would be Cochise County and we can act as the pass through on the Gila River grant similar to Tohono as that is our policy. I just need to see what they need for a signature so I can make it happen through proper channels. Thank you and hope all is well. You are attending the planning meeting next week for Sunsites Pearce Community plan??

Lisa M. Marra
Communications & Community Relations Administrator
Cochise County Board of Supervisors
1415 Melody Lane, Building G
Bisbee, AZ 85603
520-432-9742 Phone
520-432-5016 (fax)
520-727-1390 (cell)

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www.cochise.az.gov

From: Josh Steinberg [mailto:jsteinberg@sunsitesfire.org]
Sent: Wednesday, March 22, 2017 4:42 PM
To: Marra, Lisa M
Subject: Gila River grant

Mrs. Marra,

We are in the process of applying of the Gila River Indian community grant. On the cover sheet, is has a place for municipality information. Due to us needing a pass through, would that information be the County? It also requires a signature. Please let me know if you have any guidance. As always we thank you for all that you have done for us. I will have to come see you one of these days.

Thank you,

--
Joshua Steinberg
Fire Chief
Sunsites-Pearce Fire District
Office: 520-826-3645
Cell: 520-508-6994
Fax: 520-826-3586
jsteinberg@sunsitesfire.org

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RESOLUTION 17-

ACCEPTING A GRANT FROM THE GILA RIVER INDIAN NATION AS A PASS THROUGH FOR THE SUNSITES-PEARCE FIRE DISTRICT

WHEREAS, the Sunsites-Pearce Fire District, operating since 1973, is a special taxing district formed in Cochise County; and

WHEREAS, the Sunsites-Pearce Fire District is in receipt of a grant award from the Gila River Indian Community in the amount of $11,000; and

WHEREAS, funding for these grants is provided by a portion of Gila River Casino's annual revenues as a provision of Proposition 202 approved by Arizona voters in 2002, which created gaming compacts between the State of Arizona and Arizona Tribes and the intent of this funding is to support cities, towns and counties in providing government services that benefit the general public; and

WHEREAS, many Indian Nations contribute their portion of funding directly to the state for distribution; the Gila River Indian Community chooses a direct disbursement to local governments; and

WHEREAS, The district is in need of supplemental funding to purchase a set of specialty "Rescue Stabilization Tools" to assist in emergency extrications from motor vehicles,

NOW, THEREFORE, Cochise County is accepting funding as a pass through for Sunsites-Pearce Fire District per the Gaming Grants requirements of the Gila River Indian Nation.

APPROVED AND ADOPTED this 12th day of September, 2017.

_____
Ann English, Chairman
Cochise County Board of Supervisors

ATTEST:

_____
Arlethe G. Rios
Clerk of the Board

APPROVED AS TO FORM:



_____
Britt Hanson,
Chief Civil Deputy County Attorney

			Consent 2.
Regular Board of Supervisors Meeting			**Board of Supervisors**
Meeting Date:	09/12/2017		
Minutes			
Submitted By:	Melissa Belasco, Board of Supervisors		
Department:	Board of Supervisors		
Presentation:	No A/V Presentation	**Recommendation:**	
Document Signatures:		**# of ORIGINALS Submitted for Signature:**	
NAME of PRESENTER:	n/a	**TITLE of PRESENTER:**	n/a
Mandated Function?:		**Source of Mandate or Basis for Support?:**	

Information

Agenda Item Text:
Approve the Minutes of the regular meeting of the Board of Supervisors of August 22, 2017.

Background:
Minutes

Department's Next Steps (if approved):
Signed minutes routed for processing and posted on the internet.

Impact of NOT Approving/Alternatives:
n/a

To BOS Staff: Document Disposition/Follow-Up:
Scan to OnBase and File.

Budget Information

Information about available funds

Budgeted: ☐	**Funds Available:** ☐	**Amount Available:**
Unbudgeted: ☐	**Funds NOT Available:** ☐	**Amendment:** ☐

Account Code(s) for Available Funds
1:

Fund Transfers

Attachments

Minutes

PROCEEDINGS OF THE COCHISE COUNTY BOARD OF SUPERVISORS
REGULAR MEETING HELD ON
Tuesday, August 22, 2017

A regular board meeting of the Cochise County Board of Supervisors was held on Tuesday, August 22, 2017 at 10:00 a.m. in the Board of Supervisors' Hearing Room, 1415 Melody Lane, Building G, Bisbee, Arizona.

Present:	Ann English, Chairman; Patrick G. Call, Vice-Chairman; Peggy Judd, Member
Staff Present:	Edward T. Gilligan, County Administrator; Britt W. Hanson, Chief Civil Deputy County Attorney; Arlethe G. Rios, Clerk of the Board

Chairman English called the meeting to order at 10:00 a.m.

ANY ITEM ON THIS AGENDA IS OPEN FOR DISCUSSION AND POSSIBLE ACTION

PLEDGE OF ALLEGIANCE

THE ORDER OR DELETION OF ANY ITEM ON THIS AGENDA IS SUBJECT TO MODIFICATION AT THE MEETING

The Board may permit public comment during the discussion of any item on this agenda. If you wish to be heard on a specific item, please sign up to be heard using the 'Specific Item' on the speaker form provided, and please list the item about which you wish to be heard. Persons will be permitted three minutes to speak.

CALL TO THE PUBLIC

Chairman English opened the call to the public.

No one chose to speak and Chairman English closed the call to the public.

This is the time for the public to comment. Members of the Board may not discuss items that are not specifically identified on the agenda.

CONSENT

Board of Supervisors

1. Approve the Minutes of the regular meeting of the Board of Supervisors of August 8, 2017.

2. Ratify a Letter of Congratulations to Chief Emeritus Lee Edward Lewis, San Jose Fire District for his service to his community during his 40 year involvement with the fire district.

County Schools

3. Approve Intergovernmental Agreement (IGA) SABG-GR-16-040116-01 between the Arizona State Office of Youth, Faith, & Family and the Cochise County School Superintendent's Office for substance abuse prevention for the period of April 1, 2016 through September 30, 2016 in the amount of $20,000.

   Chairman English noted that there was typos and the correct agreement number was SABG-GR-17-040117-02 and the correct dates were July 1, 2017 through September 30, 2017.

4. Approve Amendment 2 to Intergovernmental Agreement (IGA) SABG-GR-16-040116-02 between the Arizona State Office of Youth, Faith, & Family and the Cochise County School Superintendent's Office for substance abuse prevention for the period of October 1, 2016 through September 30, 2017 in the amount of $40,000.

County Treasurer

5. Adopt Resolution 17-16 authorizing Cochise County Treasurer to collect and disburse the property taxes for 2017.

Court Administration

6. Approve amendment 1 to the contract with Revolutionary Text, LLC for remote reporting services.

Finance

7. Approve demands and budget amendments for operating transfers. Warrants Nos. 19817-20015, 20027-20130, were issued in the amount of $1,635,672.12.

   Pursuant to A.R.S. §11-217(C), the published minutes shall include all demands and warrants approved by the Board in excess of one thousand dollars except that multiple demands and warrants from a single supplier or individual under one thousand dollars whose cumulative total exceeds one thousand dollars in a single reporting period shall also be published. The voided warrants are listed below:

Fund	Vendor	Amount
211	Aerial Solutions II LLC	$399,99.33
171	Miner, Tom	$79.92
124	Guerrero-Sisneroz, Kristina S.	$139.78

   Issued warrants are listed as an attachment at the end of the minutes.

   Vice-Chairman Call moved to approve items 1-7 on the consent agenda. Supervisor Judd seconded the motion and it carried unanimously.

PUBLIC HEARINGS

Board of Supervisors

8. [ITEM TABLED FROM AUGUST 8, 2017 MEETING]: Adopt Resolution 17-13 granting a Telecommunications and Fiber Optic Services franchise to Level 3 Communications, LLC.

   Supervisor Judd moved to remove the item from the table. Vice-Chairman Call seconded the motion and it carried unanimously.

   Mr. Hanson presented this item. Mr. Hanson noted that the applicant had agreed to the changes in the legal wording proposed by the County Attorney's Office and staff was recommending approval of the franchise.

   Chairman English opened the public hearing.

   No one chose to speak and Chairman English closed the public hearing.

   Vice-Chairman Call moved to adopt Resolution 17-13 granting a Telecommunications and Fiber Optic Services franchise to Level 3 Communications, LLC. Supervisor Judd seconded the motion.

   Chairman English called for the vote and it was approved 3-0.

ACTION

Board of Supervisors

9. Approve Memorandum of Understanding (MOU) 2017-081 between the Department of Public Safety (DPS) and Cochise County in the amount of $166,666 to be used for prosecutorial and jail expenses incurred from individuals charged with drug trafficking, human smuggling, illegal immigration and other border related crime.

   Ms. Rios explained that DPS had requested this MOU to be administered by the Board since the funding was being split between two elected offices. She noted that representatives from the Attorney's Office and the Sheriff's Office were present to answer any questions regarding the use of the funding.

   Supervisor Judd moved to Approve Memorandum of Understanding (MOU) 2017-081 between the Arizona Department of Public Safety (DPS) and Cochise County in the amount of $166,666 to be used for prosecutorial and jail expenses incurred from individuals charged with drug trafficking, human smuggling, illegal immigration and other border related crime. Vice-Chairman Call seconded the motion.

   Chairman English asked Mr. McIntyre if he knew what percentage of the total costs accrued by criminal attorneys handling these cases this funding would cover.

   Mr. McIntyre said he did not have an exact percentage, but noted that the funding would offset costs generally paid for by the County's general fund. He added that he could provide a report on cases dealing with these issues.

   Chairman English asked Commander Bradshaw about projects in the jail that this funding would impact.

   Commander Bradshaw said that funding had been used for some security upgrades and would be used to pay for costs directly related to the 17% of inmates who are not US Citizens. He offered to also send a report to the Board showing jail demographics.

   Chairman English called for the vote and it was approved 3-0.

Community Development

10. Adopt Resolution 17-17 updating the Cochise County Road Design and Construction Standards and Specifications for Public Improvements.

    Ms. Karen Lamberton, County Transportation Officer, Community Development, presented this item using a PowerPoint presentation. Ms. Lamberton gave the background and noted that a work session had been held in June to discuss the proposed changes. She noted that there had been a lof of feedback and most of it was positive. At this time staff recommended adoption of this update and added that this was a great tool for our employees and citizens to better communicate. She stated that the new standards reflect changes and improvements in road technologies over the past 14 years. She reported that the update included 6 revised roadway sections, 1 new roadway cross section, and 40 updated design details along with a revised narrative and specifications consistent with nationally recognized standards and procedures.

    The Board thanked staff for their work on this update.

    Vice-Chairman Call moved to adopt Resolution 17-17 updating the Cochise County Road Design and Construction Standards and Specifications for Public Improvements. Supervisor Judd seconded the motion.

    Chairman English called for the vote and it was approved 3-0.

County Schools

11. Approve Intergovernmental Agreement (IGA) No. SABG-GR-18-070117-02 between the State of Arizona Governor's Office of Youth, Faith, and Family and the Cochise County School Superintendent's Office to provide guidance and direction for five schools for the Healthy Families/Healthy Youth Pilot Program for the period of July 1, 2017 through September 30, 2017 in the amount of $98,835.

    Ms. Debbie Prow, County School's Office, presented this item. She gave the background on the IGA and said that this grant was focused on teaching parents on the best way to communicate with their children about drug and alcohol abuse. She stated that the grant would be serving 5 schools in the County.

    Supervisor Judd moved to approve Intergovernmental Agreement (IGA) No. SABG-GR-18-070117-02 between the State of Arizona Governor's Office of Youth, Faith, and Family and the Cochise County School Superintendent's Office to provide guidance and direction for five schools for the Healthy Families/Healthy Youth Pilot Program for the period of July 1, 2017 through September 30, 2017 in the amount of $98,835. Vice-Chairman Call seconded the motion.

    Chairman English called for the vote and it was approved 3-0.

Facilities

12. Approve Airport Improvement Plan Grant Offer #3-04-0013-011-2017 from the Federal Aviation Administration (FAA) in the amount of $741,497 with a local match share of $37,075 for the Reconstruction of Taxiway A at the Bisbee Douglas International (BDI) Airport.

    Mr. Jay Howe, Facilities Director, presented this item. Mr. Howe said that this was for the reconstruction and noted that there would be a county match, which would also be matched by

the Arizona Department of Transportation (ADOT).

Vice-Chairman Call amended the motion to approve Airport Improvement Plan Grant Offer #3-04-0013-011-2017 from the Federal Aviation Administration (FAA) in the amount of $741,497 with a local match share of $36,399.01 for the Reconstruction of Taxiway A at the Bisbee Douglas International (BDI) Airport. Supervisor Judd seconded the motion.

Chairman English called for the vote and it was approved 3-0.

REPORT BY EDWARD T. GILLIGAN COUNTY ADMINISTRATOR -- RECENT AND PENDING COUNTY MATTERS

Mr. Gilligan said that staff was currently conducting interviews for the Highway and Floodplain Director position and those should be finalized in September with a recommendation on an offer to the best candidate.

SUMMARY OF CURRENT EVENTS

Report by District 1 Supervisor, Patrick Call

Vice-Chairman Call said he would be attending the Mayor/Managers Luncheon next week and the Cochise County Recharge Network (CCRN) meeting.

Report by District 2 Supervisor, Ann English

Chairman English stated that she had been involved with two events that focused on honoring volunteers in her community. She added that she hoped this would encourage other citizens to volunteer countywide.

Report by District 3 Supervisor, Peggy Judd

Supervisor Judd said she would be attending the Arizona/Sonora Council meeting in Tucson.

Chairman English adjourned the meeting at 10:38 a.m.

APPROVED:

_____
Ann English, Chairman

ATTEST:

_____
Arlethe G. Rios, Clerk of the Board

C Co. Demands 8.22.17

19719	08/03/2017	C County/Sheakley/National Bank	$11,692.17
19720	08/03/2017	ECMC	$283.65
19721	08/03/2017	General Revenue Corporation	$262.13
19722	08/03/2017	Licking County CSEA	$178.61
19723	08/03/2017	NYS Child Support Processing Cntr	$32.00
19724	08/03/2017	Paul D. Guglielmo	$66.74
19725	08/03/2017	Pre-paid Legal Srvc, Inc. dba LegalShield	$1,361.74
19726	08/03/2017	Support Payment Clearinghouse	$6,068.96
19727	08/03/2017	The Hameroff Law Group, PC	$335.57
19728	08/03/2017	U.S. Dept of Education	$157.62
19729	08/03/2017	ACE Hardware	$2,065.48
19730	08/03/2017	ACT Env, Inc.	$1,450.00
19731	08/03/2017	Alco Stores Inc	$20.17
19732	08/03/2017	Anasazi Pet Boarding and Grooming	$125.00
19733	08/03/2017	Aqua Life	$16.50
19734	08/03/2017	AZ Association Superior Court Admin	$150.00
19735	08/03/2017	AZ Dept of Corrections	$234.97
19736	08/03/2017	AZ Dept of Corrections ASPC-Tucson	$81.00
19737	08/03/2017	AZ Dept of Env Quality	$4,337.66
19738	08/03/2017	AZ Public Service - APS	$14,626.35
19739	08/03/2017	AZ State Prison Complex	$4,711.06
19740	08/03/2017	AZ Water Comp	$3,654.67
19741	08/03/2017	AZ Pros Attorneys' Advisory Council APAAC	$650.00
19742	08/03/2017	Azam, Syed T.	$1,250.00
19743	08/03/2017	B & D Lumber and Hardware	$62.29
19744	08/03/2017	B-R Constructors, Inc.	$31,797.90
19745	08/03/2017	Banner-Univ Phy Healthcare, Inc.	$750.00
19746	08/03/2017	Beacon Secure	$16.00
19747	08/03/2017	Benson, City of	$459.36
19748	08/03/2017	Bisbee NAPA	$1,044.38
19749	08/03/2017	Bowie Water Imp District	$110.96
19750	08/03/2017	Bradley R Johnson MD PLLC	$500.00
19751	08/03/2017	Cardinal Health Inc.	$1,576.14
19752	08/03/2017	Central Alarm Incorporated	$90.00
19753	08/03/2017	CenturyLink	$2,347.02
19754	08/03/2017	CenturyLink	$9,184.06
19755	08/03/2017	C County Highway & Floodplain Dept	$16.81
19756	08/03/2017	Contreras, Nora	$201.47
19757	08/03/2017	Copper Queen Community Hospital	$66.00
19758	08/03/2017	County Supervisors Association	$62,693.00
19759	08/03/2017	CRM of America LLC	$6,627.84
19760	08/03/2017	Dease, Iona	$2,070.00
19761	08/03/2017	Destiny Software, Inc.	$3,750.00
19762	08/03/2017	Empire SW LLC	$3,368.33
19763	08/03/2017	Fitness Equipment Source, Inc.	$5,156.37
19764	08/03/2017	Gil, Manuel	$100.00
19765	08/03/2017	Hodges Glass Co Inc	$1,957.96
19766	08/03/2017	Hodges, Brigitta	$30.95
19767	08/03/2017	Honeman, Van G.	$329.40
19768	08/03/2017	Hubble, Anthony D	$250.00
19769	08/03/2017	Integrity Security Solutions, Inc.	$250.00
19770	08/03/2017	Interstate Battery	$227.90
19771	08/03/2017	Jensen's Sierra Vista Mortuary	$500.00
19772	08/03/2017	Jimenez, Elizabeth Sarah	$993.75
19773	08/03/2017	Keefe Commissary Network, LLC	$99.61
19774	08/03/2017	Kennedy Kleaning Supplies, Inc.	$1,265.57
19775	08/03/2017	Merle's Automotive Supply, Inc.	$1,247.31
19776	08/03/2017	Mindful Lactation LLC	$72.00
19777	08/03/2017	Mortensen, Cynthia	$25.21
19778	08/03/2017	Mundt, Lester Eugene	$59.40
19779	08/03/2017	Mustang Mall LLC	$600.00
19780	08/03/2017	National Business Institute, Inc.	$359.00
19781	08/03/2017	National Business Institute, Inc.	$349.00
19782	08/03/2017	NeuroAssessment & Consulting, PLC	$2,150.00
19783	08/03/2017	Nyander, Penny Sue	$551.60
19784	08/03/2017	Occup Health Cntrs of the SW, P.A.	$143.00
19785	08/03/2017	Prudential Overall Supply	$106.05
19786	08/03/2017	Pueblo del Sol Water Comp	$11.56
19787	08/03/2017	Reed, Cynthia - Court Reporter	$60.00
19788	08/03/2017	RWC International, LTD	$8,728.34
19789	08/03/2017	Saguaro Podiatry Ass	$359.03
19790	08/03/2017	Schlesinger, Aaron	$3,322.30
19791	08/03/2017	Scott, Joseph	$50.00
19792	08/03/2017	Sierra Vista NAPA	$118.19
19793	08/03/2017	SWern Scale Co., Inc.	$1,024.80
19794	08/03/2017	Sparkletts	$349.99
19795	08/03/2017	Stericycle Inc.	$2,035.47
19796	08/03/2017	S Springs Valley Electric Coop, Inc.	$1,529.58
19797	08/03/2017	Tomlinson, Bryan K	$100.00
19798	08/03/2017	Townsend, Fredrick C	$100.00
19799	08/03/2017	Travers & Assoc. Aviation Ins. Agency,LLC	$7,000.00
19800	08/03/2017	Tucson Tallow Co., Inc.	$375.00
19801	08/03/2017	UniFirst Corporation	$1,542.39
19802	08/03/2017	United Fire Equipment Co	$1,238.16
19803	08/03/2017	Valley Telephone Coop, Inc.	$840.66
19804	08/03/2017	VCA Apache Animal Hospital	$68.75
19805	08/03/2017	Walmart	$70.00
19806	08/03/2017	Waxie Sanitary Supply	$72.54
19807	08/03/2017	Western Emulsion, Inc	$16,651.91
19808	08/03/2017	Western Emulsion, Inc	$127,458.79
19809	08/03/2017	Willcox Auto Parts Inc.	$329.10
19810	08/03/2017	Willcox, City of	$862.98
19811	08/03/2017	Williamson, Daniel	$6,050.00
19812	08/03/2017	WIST Office Products Co	$408.29
19813	08/03/2017	Barnett, John	$64.82
19814	08/03/2017	C County Sheriff's Dept	$11,613.10
19815	08/03/2017	Orozco, Sara X	$140.00
19816	08/03/2017	Parker, Jason B.	$700.00
19817	08/04/2017	Aerial Solutions II LLC	$39,999.33
19818	08/08/2017	Address Data Srvc, Inc.	$625.00
19819	08/08/2017	Amazon.com LLC	$518.39
19820	08/08/2017	AZ Dept of Corrections	$444.29
19821	08/08/2017	AZ Dept of Transportation	$1,625.41
19822	08/08/2017	AZ Water Comp	$890.11
19823	08/08/2017	Baker & Taylor, LLC	$2,587.94
19824	08/08/2017	Bisbee NAPA	$1,336.86
19825	08/08/2017	Bisbee Towing	$200.00
19826	08/08/2017	Cable One	$305.44
19827	08/08/2017	Canyon Vista Med Cntr	$897.70
19828	08/08/2017	Cengage Learning, Inc.	$287.90
19829	08/08/2017	CenturyLink	$1,390.00
19830	08/08/2017	CenturyLink	$174.83
19831	08/08/2017	C County Justice Court #2	$47.09
19832	08/08/2017	Copper Queen Community Hospital	$107.10
19833	08/08/2017	Copper Queen Med Ass	$68.00
19834	08/08/2017	Cornerstone Env Group, LLC	$74,861.67
19835	08/08/2017	Corona, Melissa E.	$535.00
19836	08/08/2017	Demco Inc.	$180.23
19837	08/08/2017	Douglas NAPA	$110.36
19838	08/08/2017	Douglas, City of	$28.58
19839	08/08/2017	Esparza, Elaine	$102.00
19840	08/08/2017	Haws, Jared	$235.00
19841	08/08/2017	Interim Public Mngmt, LLC	$7,954.00
19842	08/08/2017	Interstate Battery	$120.47
19843	08/08/2017	Jury Systems Incorporated	$5,220.00
19844	08/08/2017	K12 Handhelds, Inc.	$1,641.48
19845	08/08/2017	Lawley Motors LLC	$1,293.13
19846	08/08/2017	Merle's Automotive Supply, Inc.	$1,322.37
19847	08/08/2017	Miner, Tom	$79.92
19848	08/08/2017	O'Rielly Chevrolet, Inc.	$361.11
19849	08/08/2017	OCLC Online Comp Lib Cntr, Inc.	$801.57
19850	08/08/2017	Prudential Overall Supply	$152.33
19851	08/08/2017	Rodriguez, Steven Anthony	$20.00
19852	08/08/2017	Ron Turley Ass, Inc.	$218.40
19853	08/08/2017	Royal Western Motel	$25.00
19854	08/08/2017	RWC International, LTD	$2,109.56
19855	08/08/2017	Safelite Autoglass Corp.	$237.71
19856	08/08/2017	Senergy Petroleum LLC	$8,305.87
19857	08/08/2017	SourceHOV	$101.66
19858	08/08/2017	Sparkletts	$128.74
19859	08/08/2017	Stamback Septic Service	$3,193.21
19860	08/08/2017	Tracking Products, Inc.	$102.00
19861	08/08/2017	Trademark Visual, Inc.	$100.45
19862	08/08/2017	Valley Telephone Coop, Inc.	$1,240.24
19863	08/08/2017	Voyager Fleet System, Inc.	$3,359.82
19864	08/08/2017	Watson Chevrolet Inc	$267.63
19865	08/08/2017	Webb, Robert Joseph	$28.99
19866	08/08/2017	West Press	$3,206.49
19867	08/08/2017	Willcox Auto Parts Inc.	$173.97
19868	08/08/2017	WR Ryan Comp	$555.78
19869	08/08/2017	Gonzales, Manuel V.	$12.00

19870	08/08/2017	Jennings, Jeffery	$16.81
19871	08/08/2017	Sharp, Mandy Dawn	$33.61
19872	08/10/2017	ACE Hardware	$66.67
19873	08/10/2017	Anasazi Pet Boarding and Grooming	$125.00
19874	08/10/2017	AZ Dept of Corrections	$1,478.55
19875	08/10/2017	AZ Dept of Economic Security	$7,421.27
19876	08/10/2017	AZ Public Service - APS	$6,760.06
19877	08/10/2017	AZ State Prison Complex	$3,180.51
19878	08/10/2017	AZ Supreme Court	$10,300.00
19879	08/10/2017	Aztec Welding Supply Comp	$2,611.57
19880	08/10/2017	B & D Lumber and Hardware	$310.77
19881	08/10/2017	Bella Vista Water Comp-Liberty Water	$1,253.93
19882	08/10/2017	Benson, City of	$814.53
19883	08/10/2017	Bowie Water Imp District	$55.48
19884	08/10/2017	Budget Towing	$312.00
19885	08/10/2017	Bug-Wiser Exterminating, Inc.	$1,030.00
19886	08/10/2017	Cable One	$238.26
19887	08/10/2017	Calhoun, Sandra	$100.00
19888	08/10/2017	CDW Government	$3,410.78
19889	08/10/2017	CEMEX Const Mtrls South, LLC	$10,807.29
19890	08/10/2017	CenturyLink	$2,274.94
19891	08/10/2017	CenturyLink	$461.20
19892	08/10/2017	Civic Research Inst. Inc	$179.95
19893	08/10/2017	Clear Springs Utility, Inc.	$166.19
19894	08/10/2017	C County Juvenile Court Srvc	$302.48
19895	08/10/2017	C Supplies, Inc.	$27.77
19896	08/10/2017	Computrust Software Corporation	$13,447.50
19897	08/10/2017	Copygraphix Inc.	$23,983.83
19898	08/10/2017	Coverttrack Group Inc.	$2,153.61
19899	08/10/2017	Crop Production Service Inc	$977.40
19900	08/10/2017	Culligan of Tucson	$583.14
19901	08/10/2017	CureMD.com, Inc.	$11,463.75
19902	08/10/2017	D L Sales Corp	$267.16
19903	08/10/2017	D Square Const, LLC	$230,099.10
19904	08/10/2017	DataBank IMX LLC	$973.75
19905	08/10/2017	Dell Marketing LP	$3,334.03
19906	08/10/2017	Deneke, Buffy	$369.60
19907	08/10/2017	Diamondback Police Supply Co	$570.13
19908	08/10/2017	Doose, Carolyn Jene	$30.19
19909	08/10/2017	Douglas, City of	$1,246.32
19910	08/10/2017	E-Z Messenger	$60.00
19911	08/10/2017	E-Z Messenger	$180.00
19912	08/10/2017	Election Systems & Software LLC	$1,388.11
19913	08/10/2017	Elfrida Water Imp District	$26.21
19914	08/10/2017	English, Ann S.	$646.05
19915	08/10/2017	Federal Express Corporation	$27.59
19916	08/10/2017	Gasper, Louis C	$15.66
19917	08/10/2017	Geodesy	$12,212.50
19918	08/10/2017	German, Gloria G.	$150.00
19919	08/10/2017	Gomez, Mary Conlogue	$150.00
19920	08/10/2017	Granite Const Comp	$2,471.21
19921	08/10/2017	Green, Patty J.	$300.00
19922	08/10/2017	Gruhn, Sylvia Diane	$150.00
19923	08/10/2017	Harper, Vicky	$250.00
19924	08/10/2017	Howard, Katie A	$135.00
19925	08/10/2017	Interstate Battery	$1,557.58
19926	08/10/2017	JWS Web Design LLC	$1,050.00
19927	08/10/2017	KE&G Const Inc.	$9,108.10
19928	08/10/2017	Keefe Commissary Network, LLC	$5,964.05
19929	08/10/2017	Kluegel, Spencer G.	$39.96
19930	08/10/2017	Kolen, Harriet H	$25.92
19931	08/10/2017	Kuttner, Barbara L	$27.00
19932	08/10/2017	Legend Technical Srvc, Inc.	$32.00
19933	08/10/2017	LexisNexis Risk Data Mngmt, Inc.	$81.60
19934	08/10/2017	Little Caesars	$79.30
19935	08/10/2017	McGinnis, Michael S	$150.00
19936	08/10/2017	Mission Communications, LLC	$1,750.20
19937	08/10/2017	NCS Pearson, Inc.	$79.00
19938	08/10/2017	NI Government Srvc Inc	$221.18
19939	08/10/2017	Nyander, Penny Sue	$229.60
19940	08/10/2017	Office of Vital Records	$4,010.00
19941	08/10/2017	Porta-Pot	$824.25
19942	08/10/2017	PTS-Prisoner Trans Srvc America LLC	$1,216.75
19943	08/10/2017	Raymond Klumb, Architect	$260.00
19944	08/10/2017	RevolutionaryText, LLC	$6,449.47
19945	08/10/2017	Ricoh USA, Inc.	$381.10
19946	08/10/2017	Rocco, Tracey	$26.84
19947	08/10/2017	Rodriguez, Shari A.	$150.00
19948	08/10/2017	Safelite Autoglass Corp.	$336.54
19949	08/10/2017	Solarwinds Network Mngmt	$4,224.00
19950	08/10/2017	SW Disposal LC	$210.52
19951	08/10/2017	SW Gas Corporation	$769.94
19952	08/10/2017	Sparkletts	$84.43
19953	08/10/2017	Spillman Technologies, Inc.	$157,684.02
19954	08/10/2017	St. David Domestic Water Imp District	$975.02
19955	08/10/2017	Streitfeld, Stephen V. MD PC	$1,750.00
19956	08/10/2017	S Springs Valley Electric Coop, Inc.	$1,062.29
19957	08/10/2017	Trinity Srvc Group, Inc.	$44,160.87
19958	08/10/2017	Trinity Srvc Group, Inc.	$6,691.23
19959	08/10/2017	UniFirst Corporation	$206.12
19960	08/10/2017	United Fire Equipment Co	$286.22
19961	08/10/2017	Valley Telephone Coop, Inc.	$35.78
19962	08/10/2017	VCA Apache Animal Hospital	$48.08
19963	08/10/2017	Verizon Wireless	$10,514.89
19964	08/10/2017	Versatile Information Products, Inc	$3,701.00
19965	08/10/2017	Vision Business Products	$56.87
19966	08/10/2017	Waste Mngmt of AZ, Inc.	$621.03
19967	08/10/2017	Wells, Doris K.	$840.00
19968	08/10/2017	West Press	$686.35
19969	08/10/2017	Wick Communications	$1,073.09
19970	08/10/2017	Wick Communications	$643.85
19971	08/10/2017	Willcox Auto Parts Inc.	$398.86
19972	08/10/2017	Willcox, City of	$3,319.06
19973	08/10/2017	WIST Office Products Co	$181.65
19974	08/10/2017	Wolfe, Philip	$100.00
19975	08/10/2017	Zavadin, Norbert W.	$15.12
19976	08/10/2017	Zumar Industries Inc	$7,728.44
19977	08/10/2017	Aviles, Roberto	$193.24
19978	08/10/2017	C County Treasurer	$100.00
19979	08/10/2017	Cooke, Deanna	$3.81
19980	08/10/2017	Eichelberger, Dan	$100.00
19981	08/10/2017	Knudsvig, Paul	$59.76
19982	08/10/2017	Meracle, Tim	$100.00
19983	08/10/2017	Notary Bond Agency	$70.00
19984	08/10/2017	Wolfinger, Benton Earl	$200.00
19985	08/15/2017	AZ Counties Ins Pool	$6,061.00
19986	08/15/2017	AZ Dept of Corrections	$72.50
19987	08/15/2017	AZ Waste Oil Service, Inc.	$750.00
19988	08/15/2017	Auto Club of America, Corp	$100.00
19989	08/15/2017	Banner-Univ Med Cntr South Camp LLC	$743.44
19990	08/15/2017	Bisbee NAPA	$1,262.24
19991	08/15/2017	Bisbee Towing	$125.00
19992	08/15/2017	C Family Advocacy Cntr, Inc	$3,925.00
19993	08/15/2017	Copper Queen Community Hospital	$460.59
19994	08/15/2017	Flores, Juan P	$500.00
19995	08/15/2017	IP Access International, Inc	$2,268.00
19996	08/15/2017	Lawley's Team Ford	$60.34
19997	08/15/2017	Med Diagnostic Imaging Group	$442.07
19998	08/15/2017	Merle's Automotive Supply, Inc.	$784.78
19999	08/15/2017	Northern C Community Hospital, Inc.	$378.92
20000	08/15/2017	O'Rielly Chevrolet, Inc.	$227.31
20001	08/15/2017	Rummel Const, Inc	$166,411.62
20002	08/15/2017	Safelite Autoglass Corp.	$642.89
20003	08/15/2017	Senergy Petroleum LLC	$5,738.38
20004	08/15/2017	Sheakley Pension Administration Inc.	$870.25
20005	08/15/2017	Shoemaker, Brad	$175.00
20006	08/15/2017	Sierra Vista NAPA	$216.09
20007	08/15/2017	Southern AZ Children's Advocacy Cntr-SACAC	$1,050.00
20008	08/15/2017	The Bisbee Observer LLC	$186.01
20009	08/15/2017	Watson Chevrolet Inc	$719.21
20010	08/15/2017	Willcox Auto Parts Inc.	$286.10
20011	08/15/2017	WR Ryan Comp	$1,857.82
20012	08/15/2017	AZ Dept of Revenue	$285.00
20013	08/15/2017	Kowalec, Janice	$2,313.32
20014	08/15/2017	Moreno, Mayra A	$167.45
20015	08/15/2017	S Springs Valley Electric Coop, Inc.	$5,119.98

Consent 3.

Regular Board of Supervisors Meeting **Board of Supervisors**

Meeting Date: 09/12/2017

Approve Proclamation: Declare 9/30/17 NAMI Awareness Day

Submitted By: Arlethe Rios, Board of Supervisors

Department: Board of Supervisors

Presentation: No A/V Presentation **Recommendation:**

Document Signatures: **# of ORIGINALS Submitted for Signature:**

NAME of PRESENTER: n/a **TITLE of PRESENTER:** n/a

Mandated Function?: **Source of Mandate or Basis for Support?:**

Information

Agenda Item Text:

Approve a Proclamation declaring September 30, 2017 to be National Association of Mental Illness Awareness Day in Cochise County.

Background:

Proclamation attached as requested by NAMI SE AZ.

Department's Next Steps (if approved):

Send signed proclamation to NAMI.

Impact of NOT Approving/Alternatives:

n/a

To BOS Staff: Document Disposition/Follow-Up:

Print two originals, file one and send the second one to Livy Sutro.

Budget Information

Information about available funds

Budgeted: ☐ **Funds Available:** ☐ **Amount Available:**

Unbudgeted: ☐ **Funds NOT Available:** ☐ **Amendment:** ☐

Account Code(s) for Available Funds

1:

Fund Transfers

Attachments

Proclamation

Cochise County
Board of Supervisors

Public Programs...Personal Service
www.cochise.az.gov

ANN ENGLISH
Chairman
District 2

PATRICK G. CALL
Vice-Chairman
District 1

PEGGY JUDD
Supervisor
District 3

EDWARD T. GILLIGAN
County Administrator

ARLETHE G. RIOS
Clerk of the Board

PROCLAMATION

National Association on Mental Illness (NAMI)
Awareness Day
September 30, 2017

WHEREAS, the Cochise County Health Department has identified support for those suffering from mental illness as a strategic priority for Cochise County; and

WHEREAS, NAMI is a valuable community resource providing support, education, and advocacy for those impacted by mental illness; and

WHEREAS, Mental Illness Awareness is important for the community; and

WHEREAS, NAMI is sponsoring a bicycle ride in Cochise County on September 30, 2017 to raise funds to continue providing services through their programs; and

NOW THEREFORE, the Cochise County Board of Supervisors hereby proclaim September 30, 2017 as **National Association on Mental Illness Awareness Day** in Cochise County and proudly endorses the Bike Ride Event at the Windemere Hotel in Sierra Vista**.**

PASSED AND ADOPTED this 12th day of September, 2017.

_____	_____	_____
Ann English, Chairman	Patrick G. Call, Vice-Chairman	Peggy Judd, Supervisor

1415 Melody Lane, Building G
Bisbee, Arizona 85603
520-432-9200
520-432-5016 fax
board@cochise.az.gov

Consent 4.

Regular Board of Supervisors Meeting **Board of Supervisors**

Meeting Date:	09/12/2017		
Acceptance of Parcel from Mary A. Blake as a donation to the County			
Submitted By:	Rebecca Reynolds, Board of Supervisors		
Department:	Board of Supervisors		
Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	1
NAME of PRESENTER:	n/a	**TITLE of PRESENTER:**	n/a
Docket Number (If applicable):			
Mandated Function?:	Not Mandated	**Source of Mandate or Basis for Support?:**	

Information

Agenda Item Text:

Approve acceptance of Quit Claim Deed from Mary A. Blake (Grantor) to Cochise County for real property described as Lots 8, 9, and 10 in Block 641 of Arizona Sun Sites, Unit No. 5, as recorded in Book 4 of Maps and Plats, page 83, records of Cochise County, Arizona and; Lots 11 and 12 in Block 370 of Arizona Sun Sites, Unit No. 3, as recorded in Book 4 of Maps and Plats, page 52, records of Cochise County, Arizona as recommended by the Highway & Floodplain Division.

Background:

Ms. Mary A. Blake, reached out to the County to donate a piece of property she no longer had any use for. Through the land donation process the parcel gets reviewed by Highways, Planning, Facilities, and Solid Waste to research if it is useful for the county. The Highways Division recommended acceptance of the land donation because it would be useful to Highways operations. After proper paperwork was put together, we reached out to Ms. Mary A. Blake, who signed all needed documents to move forward with the donation.

Department's Next Steps (if approved):

Record Quit Claim Deed to ensure property is in County's name.

Impact of NOT Approving/Alternatives:

The County will not acquire the parcel.

To BOS Staff: Document Disposition/Follow-Up:

Record Quit Claim Deed

Attachments

Quit Claim Deed

When recorded mail to:
Cochise County Board of Supervisors
1415 W. Melody Lane
Bisbee, AZ 85603

Exempt pursuant to
A.R.S. 11-1134.A.3

QUIT CLAIM DEED

For valuable consideration, I, MARY A. BLAKE, hereafter called the Grantor(s), hereby quit claims to **Cochise County**, State of Arizona, hereafter called the Grantee(s), all of our interest in the following real property together with all rights and privileges appurtenant thereto, to wit:

Lots 8, 9, and 10 in Block 641 of ARIZONA SUN SITES, Unit No. 5, as recorded in Book 4 of Maps and Plats, page 83, records of Cochise County, Arizona
and;
Lots 11 and 12 in Block 370 of ARIZONA SUN SITES, Unit No. 3, as recorded in Book 4 of Maps and Plats, page 52, records of Cochise County, Arizona.

IN WITNESS WHEREOF, this instrument has been duly signed and executed this 22 day of August, 2017.

Mary A. Blake

STATE OF FLORIDA)
: ss.
County of SEMINOLE

This instrument was duly acknowledged before me this 22nd day of AUGUST, 2017, by Mary A. Blake, for the purpose and consideration herein contained.

My Commission Expires:
07/08/2018

CLIFF J. CHIN
MY COMMISSION # FF 101449
EXPIRES: July 8, 2018
Bonded Thru Budget Notary Services

Notary Public

ATTEST:

Arlethe G. Rios, Clerk of the Board

ACCEPTANCE:

Ann English, Chairman
Board of Supervisors

Consent **5.**

Regular Board of Supervisors Meeting **Board of Supervisors**

Meeting Date: 09/12/2017

Southeastern Arizona Workforce Investment Area Agreement

Submitted By: Arlethe Rios, Board of Supervisors

Department: Board of Supervisors

Presentation: No A/V Presentation **Recommendation:**

Document Signatures: **# of ORIGINALS Submitted for Signature:**

NAME of PRESENTER: n/a **TITLE of PRESENTER:** n/a

Mandated Function?: **Source of Mandate or Basis for Support?:**

Information

Agenda Item Text:

Approve an Intergovernmental Agreement (IGA) between Cochise County, Graham County, and Greenlee County to establish the fiscal and administrative responsibilities for the Cochise Private Industry Council, Inc. (hereinafter known as CPIC) AKA Arizona at Work, Southeastern Arizona Workforce Development hereinafter referred to as “Consortium”.

Background:

This agreement outlines the terms and conditions under which the Consortium members shall govern and administer job training services in the aforementioned counties under Title 2 of the Workforce Innovation and Opportunity Act (WIOA) of 2014 (WIOA).

Department's Next Steps (if approved):

n/a

Impact of NOT Approving/Alternatives:

The consortium will not have the legal right to administer WIA services and funds.

To BOS Staff: Document Disposition/Follow-Up:

Send a fully executed agreement to Vada Philips:

Vada Phelps
Executive Director
900 Carmelita Drive
Sierra Vista, AZ 85635
Office: (520) 439-3542
vphelps@cpic-cas.org
ARIZONAatWORK.com/southeasternaz

Budget Information

Information about available funds

Budgeted: ☐ **Funds Available:** ☐ **Amount Available:**

Unbudgeted: ☐ **Funds NOT Available:** ☐ **Amendment:** ☐

Account Code(s) for Available Funds 1:

Fund Transfers

Attachments

Agreement

SOUTHEASTERN ARIZONA WORKFORCE INVESTMENT AREA
FOR
LOCAL GOVERNANCE

This Intergovernmental Agreement, hereinafter, referred to as, "Agreement" is entered into between Cochise County, a body politic and corporate of the State of Arizona (Cochise) and Graham County, a body politic and corporate of the State of Arizona, (Graham) and Greenlee County, a body politic and corporate of the State of Arizona (Greenlee), to establish the fiscal and administrative responsibilities for the Cochise Private Industry Council, Inc. (hereinafter known as CPIC) AKA Arizona at Work, Southeastern Arizona Workforce Development hereinafter referred to as "Consortium". This agreement outlines the terms and conditions under which the Consortium members shall govern and administer job training services in the aforementioned counties under Title 2 of the Workforce Innovation and Opportunity Act (WIOA) of 2014 (WIOA).

WHEREAS, the Workforce Innovation and Opportunity Act (WIOA) of 2014 and WIOA Regulations were developed to implement the WIOA, and authorize the expenditure of federal funds for job training programs in locally determined Workforce Areas: and

WHEREAS, Cochise, Graham and Greenlee County Boards of supervisors, respectively hereby establish as a local workforce area for the purpose of administering WIOA funds and services, and

THEREFORE, in consideration of the agreement of the parties hereinafter set forth, the Counties agree to the following:

1. **Liability of funds:**
   Cochise, Graham and Greenlee Counties, through their Boards of Supervisors, respectively approve the designation of Cochise County as Grant Recipient for the Consortium, with liability for said funds as noted in WIOA 107(d) (12) (B) (I) (l) as required under 20 CFR Part 667.705, the Chief Elected Officials are liable in their official capacity and are not personally liable for misuse of WIOA funds.
   .
2. **Grant and fiscal agent recipient and signatory:**
   Cochise, Graham and Greenlee Counties, through their Boards of Supervisors, respectively approve the designation of Cochise County as Grant Recipient for Consortium, with liability for said funds, as required by WIOA 107(d)(12)(B)(I)(l).

It is acknowledged by Graham and Greenlee Counties through their respective Boards of supervisors, that Cochise County has been selected and approved the designation of Cochise Private Industry Council, Inc. (CPIC) DBA Arizona at Work, Southeastern Arizona Workforce development (SAWD), as Administrative Entity and Fiscal Agent for the Consortium with liability for the administration and fiscal control as outlined in WIOA and 107(d) (12) (B) (I) (II) and 20 CFR 679.420. The Chairman of the Chief Elected Officials of Cochise County as part of his/her authority will be the designated signatory authority.

3. **Fiscal agent designation:**
   Cochise County and CPIC shall establish fiscal control and fund accounting procedures as necessary to assure the proper disbursal of, and accounting for, federal funds allocated to all programs and said procedures shall ensure that all financials transactions carried out are conducted and records maintained in accordance with generally accepted accounting principles. CPIC shall comply with all applicable uniform accounting principles and administrate requirements for grants and agreements, included in the appropriate circulars and rules as promulgated by the Federal Office of Management and Budget, United States Department of Labor and the State of Arizona, Department of Economic Security, as applicable.

4. **Local Board budget approval:**
   The CPIC will present the annual budget to the consortium for review and recommendations as required under WIOA 107(d) (12) (A) and 20 CFR 679.370(o) for the purpose of carrying out the duties of the local board. This budget does not include program operations.

5. **Participating chief elected officials:**
   Cochise county, though CPIC shall establish and maintain a Local Workforce Investment Board, representative of the Consortium and as required by the Act, for the purpose of advising and consenting to the operations of the CPIC and otherwise providing oversight to the provision of WIOA Services. The local board shall consist of the members as required by the WIOA law.

   Upon receiving a selection of choices from CPIC Members for the Consortium as required by the Act shall appoint members.

6. **Amendment or change to the elected official agreement:**
   The agreement will be changed or amendments will be added upon agreement of all parties in writing as necessary including how an election may impact this existing agreement. All amendments or changes will be maintained at the local administrative entity office and available for monitoring.
   The effective date of this agreement shall be upon signature by all parties to the agreement, whichever occurs first. This agreement is annually and automatically reviewed for an indefinite duration, or until such time that a member should decide to

terminate its membership. Any member may withdraw by giving 180 days written notice to Cochise County, CPIC and other members of the Consortium. In such cases, all pertinent terms of the agreement shall continue in effect for the remaining members.

Cochise County shall continue as the Grant Recipient for an indefinite period, or until all parties to the Agreement, which the other's concurrence, determine to modify the agreement.

Cochise Private Industry Council, Inc. shall continue as the Administrative entity and Fiscal Agent for an indefinite period of until all parties to the agreement with the other's concurrence, determine to modify the agreement.

Modifications to this Agreement shall be written amendment and signed by all parties to the agreement.

7. **Designation of a chief lead elected official:**

   The Chief Elected Officials are liable for all WIOA Title 1B funds in the local area, and required to approve or provide guidance on the Local Board Activities and will act on behalf of the other chief elected officials. The chief lead elected official shall be the Chairman of the Cochise County Board of Supervisors and is the individual selected by the participating chief elected officials who may act on behalf of the other chief elected officials in Cochise County.

8. **Local Board member representation:**

   The CPIC will assist the chief elected official to ensure local board representation is fair and equitable across the local area.

9. **Communication:**

Periodically, the CPIC will develop a Strategic Plan with regard to the administration of WIOA services within the Consortium as may be required by either the Arizona Department of Economic Security (DES) WIOA Administration and/or the Governor's County on Workforce Policy. Upon completion of the Strategic Plan and prior to submittal to DES, the CPIC will provide a copy of the plan for review by the respective Board of supervisors for all counties in the Consortium. Graham and Greenlee Counties may then submit a letter of recommendation for approval or submit recommendations for revision. Final approval of the plan shall require approval of counties in the Consortium by their respective Boards of supervisors.

The local boards and chief elected officials will meet once a year as possible.

Cochise County, through its Administrative entity, CPIC, shall develop programs, services and budgets for all member counties of the Consortium within the constraints of WIOA, inclusive of adult, Youth and Dislocated worker Services. CPIC shall ensure the delivery of

effective programs which provide the most beneficial mix of services to eligible residents and private or public employers within the Consortium.

Contact persons for the member counties and CPIC, under this agreement are as follows:

, County Administrators

Edward T. Gilligan
1415 Melody Lane, Bisbee AZ 85603

Terry Cooper, Graham County Manager
921 Thatcher Blvd., Safford, AZ 85546

Kay Gale, Greenlee County Manager
P.O. Box 908, Clifton, AZ 85533

Vada Phelps, CPIC Executive Director
900 Carmelita Drive, Sierra Vista, AZ 85635

ANNUAL REPORT AND AUDITS:

CPIC shall provide an annual Report at the end of each program year to each of the respective member counties inclusive of the following information, or a per County basis:

*the location of the local CPIC office and identify the staff that are working there.

*Number of Adult, Youth and Dislocated worker Participants that were registered, served and exited during each program year.

*The number of Sumer Youth Participants that were served each summer and the location where they accomplished a work experience component.

*The overall number of residents served in the local One Stop Office that was not registered as Participants.

*The amount of funding that was expended specifically within each county for provision of WIOA services.

The Annual report should also include the following information with regard to the overall Consortium:

*Copies of any programmatic or fiscal Quality Assurance and/or Monitoring Reports and Responses that were issued by either DES, WIOA Administration of the U.S. Department of Labor.

*A copy of the annual performance measures report issued by DES WIOA Administration which indicates the overall performance of the Consortium.

*A copy of the most recent single audit Act Report of Federal Financial assistance that may have been accomplished with regard to CPIC services.

GOVERNING STATE LAW:

All matters governed by the Agreement shall be subject to the conflict of interest provisions of A.R.S. 38-501 through A.R.S. 38-511, as well as, such other relevant provisions in A.R.S. that are applicable to the planning, implementation and delivery of WIOA services in the Consortium and as contained in the Strategic plan.

SHARED GOVERNMANCE AGREEMENT

1. **Local Board Membership**
   a. Terms

   Board appointments shall consist of staggered terms. Such terms are for two and four year periods. Upon expiration of an appointee's term of office subsequent appointments shall be for a four-year term.

   b. Nomination

   A nomination committee shall be appointed from volunteers of the full board by the President/Chair. At the next meeting of the board, the nomination committee shall present a list of board members that have consented to serve the position of President/chair, Vice President, Secretary or Treasurer if elected.

   The Board members present at the meeting that the ballot is submitted shall vote for one board member for President/Chair, one board member for Vice President, one board member for secretary and one board member for Treasurer by raise of hands. The board members receiving the majority of the votes will be elected to serve in the capacity of the office for which they were elected as stated above, until replaced.

   For each position that requires a nomination, the local board shall submit to the appointing chief elected officials of the local area a document or letter signed by the chief executive officer or designee identifying the individual being nominated. The document or letter must also acknowledge the nominee's optimum policy-making authority and include documentation of curriculum vitae, resume or work history supporting the qualification of the nomination.

   c. Appointment

   Local Board member appointments will be made by the chief elected officials and submitted to the local administrative entity either in a form of a letter evidenced within minutes of meetings, or other official communication.

   d. Change in status

   Local Board members who no longer hold the position or status that made them eligible, Local Board member must resign or be removed by the chief

elected officials immediately upon notification to the Local Board Chair of the change of status as representative of the Board.

e. Mid-term appointments
Local Board members replacing out-going member mid-term will serve the remainder of the out-going member term.

f. Vacancies
The Local Board vacancies must be filled within120 days of the vacancy. The chief elected officials are authorized to make all reappointments of members. Reappointments must be made with 120 days, of the term expiration. In the event a vacancy cannot be filed within 120 days, the local administrive entity will request a waiver in writing to the Director of the State Workforce Development Board with an explanation of why a vacancy was not filled in the 120 day timeframe and a description of the process underway to fill the vacancy. The local administrative entity will maintain written approval of the waiver request by the Director of the State workforce Development Board and will be monitored according to the process outlined in their approved waiver request.

g. Removal
The Local Board members will be removed by the chief elected officials if that member is found to be guilty of more or more of the following offenses:
*Fraud in securing an appointment
*Neglect of duties required by the board member
*Drunkenness while performing duties as a board member
*Addiction to the use of narcotics or habit-forming drugs
*Conviction of a felony or a misdemeanor involving moral turpitude.
*Documented violation of conflict of interest
*Failure to meet Local Board member representative requirements defined in the WIOA and this policy
*After three unexcused absences as decided by the Board, that seat will be declared vacant.

The state administrative entity reserve the right to conduct an investigation regarding allegations of wrong doing that result in the removal of a board member. Chief elected officials and local workforce boar chair will be formally notified in advance of any such investigation and the results.

2. Relationship between chief elected officials and the Local Board

a. Local Plan requirements

The local 4 year plan will be developed and submitted to the Governor in partnership between the chief elected officials and the local board. The local plan shall support the strategy described in the Sate plan in accordance with

section 102(b)(1) (E) and be consistent with the State plan. At the end of the first 2-year period of the 4 year local plan the Board will review the local plan and in partnership with the chief elected official, shall prepare and submit modifications to the local plan to reflect changed in labor market and economic conditions or any other factor affecting the implementation of the local plan.

It will include an analysis of the regional economic conditions, analysis of the knowledge and skills needed to meet the employment need of the employers in the region, An analysis of the workforce in the region, an analysis of the workforce development activities, a description of the local board's strategic vision and goals, and a strategy to work with the entities that carry out the core programs to align resources available to the local area, a description of the workforce development system that identified the programs that are included in the system and how the local Board will work with those entities.

Prior to the date on which the local board submits the local plan they shall
*Make copies of the proposed local plan to the public through electronic and other means, including public hearings and local news media.
*allow members of the public, including representatives of business, representatives of labor organizations, and representative of education to submit to the board comments on the proposed local plan
*not later than the end of the 30 day period beginning on the date that the proposed local plan is made available,
*include with the local plan submitted to the Governor any comments that represent disagreement with the plan.

b. Budget and approval

A budget will be developed in conjunctions with the Chief Elected officials and will present the annual budget to the consortium for review and recommendations as required under WIOA 107(d) (12) (A) and 20 CFR 679.370(o) for the purpose of carrying out the duties of the local board. This budget does not include program operations.

The approved minutes of the approval of the Local Board and the Chief Elected Official will be the documentation of approval of the budget.

c. Selection of Operators and providers

A guideline and process has been completed - WIOA 107(d)(10)(A) through (E) and the State Workforce Development Board policy, including the process for getting chief elected official agreement on the selections. The process has been completed by Cochise County Procurment office, and approved by the Cochise County Board of Supervisors.

d. Youth activities

At this time the Local Board does not plan to establish and Youth Committee. However, should the Local Board decided to establish a standing youth committee the composition of and appointment procedures will be in accordance with (20 CFR 681.110). Should the board decided not to

establish a standing youth committee, the local board will carry out its responsibilities for youth activities under the youth formula programs as described by the law.

The Local Board will monitor an evaluate youth activities at their quarterly Board Meetings. Any recommenders, changes or concerned will be addressed by Board Staff.

e. Program oversight

The Local Board in partnership with the chief elected officials will provide program oversight responsibilities as outlined in WIOA 107(d) (9). The Local Board will adopt the document that the State of Arizona develops to provide oversight and evaluate quarterly or anytime they deem necessary.

f. Performance accountability measures

The local Board will use performance measure results as provided by the State to reach an agreement with the chief elected officials and the Governor in accordance with WIOA 107(d) (9).

The process the Local Bard will use to reach agreement with the Chief Elected Officials and the Governor for local performance accountability will be through discussions and consensus between the two boards.

g. Local Board policy

A policy will be developed with the participation of members of the Local Board and staff. It will presented to the local Board for comment, approval, disapproval, modification including implantation, with notice to the chief elected official for their approval.

h. Memorandum of Understanding

A MOU will be developed by all partners for all workforce system programs and presented to the Local Board and will include the chief elected officials with the understanding between workforce system partners and the local board.

3. Authorized Signatures

The MOU will be signed by all the appropriate persons of all partners which will then be submitted the Local Board. At that time the MOU partnership agreement will be signed by the chairman of the Board of Supervisors in Cochise County and by the local board chair.

4. Amendments, change or election

The Agreement will be changed or amendments will be added upon agreement of all parties in writing as necessary including how an election may impact this existing agreement. All amendments or changes will be maintained at the local administrative entity office and available for monitoring.

The effective date of this agreement shall be upon signature by all parties to the agreement, whichever occurs first. This agreement is annually and automatically reviewed for an indefinite duration, or until such time that a member should decide to terminate its membership. Any member may withdraw by giving 180 days

written notice to Cochise County, CPIC and other members of the Consortium. In such cases, all pertinent terms of the agreement shall continue in effect for the remaining members.

Cochise County shall continue as the Grant Recipient for an indefinite period, or until all parties to the Agreement determine to modify the agreement.

The One Stop Operator will be a function of the Cochise County Procurement Office in accordance with their approved policies and procedures to secure professional services.

CPIC will use the policies and procedures included in their finance manual, which depend on the services and costs involved.

Cochise Private Industry Council, Inc. shall continue as the Administrative entity and Fiscal Agent for an indefinite period of until all parties to the agreement with the other's concurrence, determine to modify the agreement.

Modifications to this Agreement shall be written amendments and signed by all parties to the agreement.

5. Communication with Elected Officials

Periodically, the CPIC will develop a Strategic Plan with regard to the administration of WIOA services within the Consortium as may be required by either the Arizona Department of Economic Security (DES) WIOA Administration and/or the Governor's County on Workforce Policy. Upon completion of the Strategic Plan and prior to submittal to DES, the CPIC will provide a copy of the plan for review by the respective Board of supervisors for all counties in the Consortium. Graham and Greenlee Counties may then submit a letter of recommendation for approval or submit recommendations for revision. Final approval of the plan shall be completed by Cochise County Board of Supervisors.

The local boards and chief elected officials will meet once a year as possible.

Cochise County, through its Administrative entity, CPIC, shall develop programs, services and budgets for all member counties of the Consortium within the constraints of WIOA, inclusive of adult, Youth and Dislocated worker Services. CPIC shall ensure the delivery of effective programs which provide the most beneficial mix of services to eligible residents and private or public employers within the Consortium.

Contact persons for the member counties and CPIC, under this agreement are as follows:

Edward T. Gillian, County Administrator
1415 Melody Lane, Bisbee AZ 85603

Terry Cooper, Graham County Manager
921 Thatcher Blvd., Safford, AZ 85546

Kay Gale, Greenlee County Manager
P.O. Box 908, Clifton, AZ 85533

Vada Phelps, SAWD Executive Director
900 Carmelita Drive, Sierra Vista, AZ 85635

6. Communication with Public

The Local Board provides information through the web-site, Facebook, posted open meetings, information regarding the activities of the local board as required by WIOA 107(e) and 20 CFR 679390, including the following:

a. Information about the Local Plan, or modification to the local plan, before submission of the plan
b. List of affiliation of Local Board Members
c. Selection of one-stop operators
d. Award of grants of contract to eligible provides or workforce development activities
e. Minutes of formal Meetings of the Local Board
f. Local Board Bylaws

IN WITNESS WHEREOF, the parties hereto have affixed their signature to this Agreement titled Southeastern Arizona Workforce Development Area Consortium Agreement between Cochise Private Industry Council and Cochise, Greenlee and Graham Counties.

COCHISE COUNTY BOARD OF SUPERVISORS:

CHAIRMAN DATE

COCHISE PRIVATE INDUSTRY COUCIL, INC. dba ARIZONA@WORK – SOUTHEASTERN ARIZONA WORKFORCE DEVELOPOMENT:

RON CURTIS – PRESIDENT/CHAIRMAN DATE

IN WITNESS WHEREOF, the parties hereto have affixed their signature to this Agreement titled Southeastern Arizona Workforce Development Area Consortium Agreement between Cochise Private Industry Council and Cochise, Greenlee and Graham Counties.

GREENLEE COUNTY BOARD OF SUPERVISORS:

CHAIRMAN DATE

COCHISE PRIVATE INDUSTRY COUCIL, INC. dba ARIZONA@WORK – SOUTHEASTERN ARIZONA WORKFORCE DEVELOPOMENT:

RON CURTIS – PRESIDENT/CHAIRMAN DATE

IN WITNESS WHEREOF, the parties hereto have affixed their signature to this Agreement titled Southeastern Arizona Workforce Development Area Consortium Agreement between Cochise Private Industry Council and Cochise, Greenlee and Graham Counties.

GRAHAM COUNTY BOARD OF SUPERVISORS:

CHAIRMAN DATE

COCHISE PRIVATE INDUSTRY COUCIL, INC. dba ARIZONA@WORK – SOUTHEASTERN ARIZONA WORKFORCE DEVELOPOMENT:

RON CURTIS – PRESIDENT/CHAIRMAN DATE

Consent 6.

Regular Board of Supervisors Meeting **Board of Supervisors**

Meeting Date:	09/12/2017		
Century Link Contract for SEACOM E911 Managed Service			
Submitted By:	Arlethe Rios, Board of Supervisors		
Department:	Board of Supervisors		
Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	1
NAME of PRESENTER:	n/a	**TITLE of PRESENTER:**	n/a
Docket Number (If applicable):			
Mandated Function?:	Not Mandated	**Source of Mandate or Basis for Support?:**	

Information

Agenda Item Text:

Approve a contract with Century Link for E911 Managed Service through the State of Arizona's overarching contract for the newly created Southeast Arizona Communications Center (SEACOM).

Background:

The State of Arizona contracts with Century Link for e911 services and other government entities can use this contract.

Department's Next Steps (if approved):

Send approved contract to Tom Alinen.

Impact of NOT Approving/Alternatives:

SEACOM will not have the ability to deal with e911 services.

To BOS Staff: Document Disposition/Follow-Up:

See next steps.

Attachments

SEACOM Agreement

CENTURYLINK® 9-1-1 AGREEMENT

This CenturyLink 9-1-1 Agreement ("Agreement") is between CenturyLink Sales Solutions, Inc., as contracting agent on behalf of the applicable CenturyLink affiliated entities providing Services ("CenturyLink") and Southeastern Arizona Communications (SEACOM) ("Customer") and is effective on the date the last party signs it ("Effective Date"). CenturyLink may withdraw this offer if Customer does not execute and deliver the Agreement to CenturyLink on or before **December 1, 2017** ("Cutoff Date"). Using CenturyLink's electronic signature process for the Agreement is acceptable.

SOUTHEASTERN ARIZONA COMMUNICATIONS	**CENTURYLINK SALES SOLUTIONS, INC.**
Authorized Signature	Authorized Signature
Name Typed or Printed	Name Typed or Printed
Title	Title
Date	Date

Customer's address for notices:
Customer's facsimile number (if applicable):
Person designated for notices:

1. Services. Customer may purchase the products and services ("Services") in service exhibits ("Service Exhibits") attached to the Agreement. Additional Service Exhibits will only be added to this Agreement by amendment during the Initial Term. The Service Exhibits attached to the Agreement as of the Effective Date and incorporated by this reference are shown below. Services are purchased under this Agreement at the rates and charges in effect at the time of the addition(s) by an Order Form signed by authorized representatives of both parties. All Services will be coterminous with the Agreement.

- **CENTURYLINK MANAGED NG9-1-1 ESINET BUNDLE OFFER ATTACHMENT**
- **CENTURYLINK NEXT GENERATION 9-1-1 SERVICE EXHIBIT**
- **CENTURYLINK AIRBUS HOSTED VESTA SERVICE EXHIBIT**
- **DOMESTIC CENTURYLINK IQ® NETWORKING SERVICE EXHIBIT**
- **LOCAL ACCESS SERVICE EXHIBIT**
- **DOMESTIC NETWORK DIVERSITY® SERVICES EXHIBIT**
- **CENTURYLINK® SELECT ADVANTAGE® SERVICE EXHIBIT**
- **CENTURYLINK NG9-1-1 WITH MANAGED 9-1-1 CPE SERVICE LEVEL AGREEMENTS**
- **ATTACHMENTS, EXHIBITS, SERVICE GUIDES, OR SOWS INCORPORATED INTO THE SERVICE EXHIBITS**
- **CENTURYLINK NG9-1-1 WITH MANAGED 9-1-1 CPE TECHNICAL DOCUMENT SERVICE EXHIBIT FOR STATE OF ARIZONA 9-1-1 SYSTEM**

2. Term. Customer selects the following "Initial Term" of the Agreement: 60 months; code 600055.The Agreement begins on the Effective Date and the Initial Term begins on the Start of Service Date. Renewals require a new agreement between the parties. The parties agree to negotiate a new agreement 90 days prior to the conclusion of the Term. At the end of the Initial Term, if Customer continues to use Services after the parties fail to negotiate a new Agreement, the Agreement will continue on a month to month basis ("Extension Term") until either party provides 30 calendar days' notice to terminate the Agreement and CenturyLink may increase the Service rates at the end of the Initial Term, upon at least sixty (60) calendar days prior written notice, provided that the foregoing shall not restrict any increases based on Regulatory Activity. The Initial Term and each Extension Term are referred to as the "Term."

3. Termination.

3.1 Service. Either party may terminate an individual Service that is not purchased as part of a bundled Service offering: (a) in accordance with the individual Service Exhibit's term requirements with 60 calendar days' prior written notice to the other party (or 30 calendar days notice if during the Extension Term), or (b) for Cause. If Service is terminated by Customer for Convenience or by CenturyLink for Cause, then Customer will pay Cancellation Charges. "Cancellation Charge" means the cancellation charge described in the applicable Service Exhibit and charges incurred by CenturyLink from a third party provider as a result of an early termination. "Cause" means the failure of a party to perform a material obligation under the Agreement, which failure is not remedied: (a) for payment defaults by Customer, within five days of separate written notice from CenturyLink of such default; or (b) for any other material breach, within 30 calendar days after written notice (unless a different notice period is specified in this Agreement). "Convenience" means any reason other than for Cause.

3.2 Agreement. Either party may terminate the Agreement and all Services by: (a) providing written notice to the other party of its intention not to renew the Agreement at least 60 calendar days prior to the expiration of the then current Term (or 30 calendar days notice if during the Extension Term) or (b) for Cause. Cause to terminate an individual Service Exhibit will not constitute Cause to terminate the Agreement; rather, Cause to terminate the entire Agreement for Service-related claims will exist only if Customer has Cause to terminate all or substantially all of the Services under the Service Exhibit or Tariff. If the Agreement is terminated by Customer for Convenience or by CenturyLink for Cause prior to the conclusion of the Term, then Customer will pay the total Cancellation Charges that apply for terminating all CenturyLink Services at the time the Agreement is terminated.

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3.3 Unpaid Charges. Customer will remain liable for charges accrued but unpaid as of the termination date.

4. Rates and Charges.

4.1 General. Services will receive the applicable rates specified in a Bundle Offer Attachment, Service Exhibit, Attachment to a Service Exhibit, Order Form or SOW for the duration of the Initial Term. Notwithstanding anything to the contrary in a Service Exhibit, Order Form or SOW, CenturyLink may modify rates and charges after the Initial Term if the Agreement continues on a month to month basis and Customer receives Services. CenturyLink reserves the right to revise rates if Regulatory Activity affects the cost of providing Service. CenturyLink also reserves the right to modify rates after the conclusion of each Service's minimum service period upon not less than 30 calendar days' prior written notice to Customer; provided that CenturyLink may reduce the foregoing notice period or modify rates or discounts prior to the conclusion of the minimum service period, as necessary, if such modification is based upon Regulatory Activity. Provision of Service under this Agreement may involve Independent Providers. Charges for Service only include Service provided within CenturyLink Territory up to the meet point of the Independent Provider. Other charges which involve work performed by the Independent Provider will be in addition to CenturyLink's charges and will be negotiated separately between Customer and the Independent Provider. "CenturyLink Territory" means CenturyLink's local service areas in the following states: Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. "Independent Providers" means telephone companies, Incumbent Local Exchange Carriers ("ILECs"), means Competitive Local Exchange Carriers ("CLECs"), or other communications service providers, (i.e., wireless carriers and/or interconnected VoIP providers).

4.2 CPI Adjustment. The PSAP will only consider a CPI adjustment when provided a detailed quote with an adjustment amount not to exceed 2% per annum or the change in CPI, whichever is less. Further, the adjustment shall only be recognized at the end of the initial five year term and shall establish the fixed rate the next five year term.

5. Billing and Payment. CenturyLink may begin invoicing for specific Services as specified in the applicable Service Exhibit. Customer must pay CenturyLink all charges within 45 days after the invoice date. Any amount not paid when due is subject to late interest at the lesser of 0.66% per month or the maximum rate allowed by law. In addition to payment of charges for Services, Customer must also pay CenturyLink any applicable Taxes assessed in connection with Services. Taxes may vary and are subject to change. If Customer is exempt from any Tax, it must provide CenturyLink with an appropriately completed and valid Tax exemption certificate or other evidence acceptable to CenturyLink. CenturyLink is not required to issue any exemption, credit or refund of any Tax payment for usage before Customer's submission of valid evidence of exemption. "Tax" or "Taxes" means foreign, federal, state, and local excise, gross receipts, sales, use, privilege, or other tax (other than net income) now or in the future imposed by any governmental entity (whether such Taxes are assessed by a governmental authority directly upon CenturyLink or the Customer) attributable or measured by the sale price or transaction amount, or surcharges, fees, and other similar charges that are required or permitted to be assessed on the Customer. CenturyLink may reasonably modify the payment terms or require other assurance of payment based on Customer's payment history or a material and adverse change in Customer's financial condition. Customer will not pay for the Services with funds obtained through the American Recovery and Reinvestment Act (or ARRA) or other similar stimulus grants or loans that would obligate CenturyLink to provide certain information or perform certain functions unless each of those functions and obligations is explicitly identified and agreed to by the parties in this Agreement or in an amendment to this Agreement.

6. Confidentiality; Publicity. Except to the extent required by an open records act or similar law, neither party will, without the prior written consent of the other party: (a) disclose any of the terms of the Agreement or use the name or marks of the other party or its Affiliates; or (b) disclose or use (except as expressly permitted by, or required to achieve the purposes of, the Agreement) the Confidential Information of the other party. "Confidential Information" means any information that is not generally available to the public, whether of a technical, business or other nature and that: (a) the receiving party knows or has reason to know is confidential, proprietary or trade secret information of the disclosing party; and/or (b) is of such a nature that the receiving party should reasonably understand that the disclosing party desires to protect such information against unrestricted disclosure. The parties understand and agree that subscriber information may be considered to be Confidential Information under state or federal laws or regulations, and there are certain duties and responsibilities imposed by this Agreement and by law or Tariff with regard to the use and distribution of such information. Subscriber Information contains names, address and telephone numbers of telecommunication service subscribers, including published and non-listed telephone service. Confidential Information will not include information that is in the public domain through no breach of the Agreement by the receiving party or is already known or is independently developed by the receiving party. Each party will use reasonable efforts to protect the other's Confidential Information, and will use at least the same efforts to protect such Confidential Information as the party would use to protect its own. CenturyLink's consent may only be given by its Legal Department. A party may disclose Confidential Information if required to do so by a governmental agency, by operation of law, or if necessary in any proceeding to establish rights or obligations under the Agreement. CenturyLink will not be deemed to have accessed, received, or be in the possession of Customer Confidential Information solely by virtue of the fact that Customer transmits, receives, accesses or stores such information through its use of CenturyLink's Services. Confidential Information may include CenturyLink end user information that consists of names, addresses and telephone numbers of telephone service subscribers of CenturyLink and of other service providers (to the extent the information has been provided to CenturyLink for inclusion in CenturyLink's 9-1-1/E9-1-1 database), including non-published and non-listed telephone service. The parties understand that the use of CenturyLink end user information involves certain duties and responsibilities imposed by law or Tariff with regard to the use and distribution of such information. CenturyLink end user information will be provided to Customer on a call-by-call basis and will be used by Customer only for the purpose of responding to 9-1-1 emergency calls. Confidential Information will not include information that is in the public domain through no breach of this Agreement by the receiving party or is already known or is independently developed by the receiving party.

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7. Limitation of Liability.

7.1 General. NEITHER PARTY, ITS AFFILIATES, AGENTS, OR CONTRACTORS WILL BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, RELIANCE, PUNITIVE, OR CONSEQUENTIAL DAMAGES OR FOR ANY LOST PROFITS OR REVENUES OR LOST DATA OR COSTS OF COVER RELATING TO THE SERVICE OR THE AGREEMENT, REGARDLESS OF THE LEGAL THEORY UNDER WHICH SUCH LIABILITY IS ASSERTED WITH REGARD TO ANY SERVICE RELATED CLAIM BY CUSTOMER FOR DAMAGES THAT IS NOT LIMITED BY THE PRECEDING SENTENCE, CUSTOMER'S EXCLUSIVE REMEDIES FOR SUCH CLAIM WILL NOT EXCEED THE TOTAL MRCs OR USAGE CHARGES PAID BY CUSTOMER TO CENTURYLINK FOR THE AFFECTED SERVICE IN THE ONE MONTH IMMEDIATELY PRECEDING THE OCCURRENCE OF THE EVENT GIVING RISE TO THE CLAIM. CENTURYLINK'S LIABILITY FOR ANY LOSS OR DAMAGE ARISING FROM ERRORS, INTERRUPTIONS, DEFECTS, FAILURES, OR MALFUNCTIONS OF THIS SERVICE OR ANY PART THEREOF CAUSED BY THE NEGLIGENCE OF CENTURYLINK WILL NOT EXCEED THE GREATER OF $50.00 OR AN AMOUNT EQUIVALENT TO THE PRO RATA CHARGES FOR THE SERVICE AFFECTED DURING THE PERIOD OF TIME THAT THE SERVICE WAS FULLY OR PARTIALLY INOPERATIVE. This limitation of liability will not apply to Customer's payment obligation for charges under the Agreement, (e.g., Service charges, Taxes, interest, and Cancellation Charges). IN ADDITION, CENTURYLINK WILL NOT BE LIABLE FOR ANY DAMAGE THAT RESULTS FROM INFORMATION PROVIDED TO CUSTOMER BY ANY OTHER DATA PROVIDER(S).

7.2 Personal Injury; Death; Property Damages. CENTURYLINK, ITS AFFILIATES, AGENTS AND CONTRACTORS (INCLUDING WITHOUT LIMITATION, ANY SERVICE PROVIDER PROVIDING SERVICES ASSOCIATED WITH ACCESS TO 911 EMERGENCY SERVICE) WILL NOT HAVE ANY LIABILITY WHATSOEVER FOR ANY PERSONAL INJURY TO OR DEATH OF ANY PERSON, FOR ANY LOSS, DAMAGE OR DESTRUCTION OF ANY PROPERTY RELATING TO THE USE, LACK OF ACCESS TO OR PROVISION OF, 911 EMERGENCY SERVICE.

8. No Warranties. CENTURYLINK DISCLAIMS ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES OF TITLE, NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO ADVICE OR INFORMATION GIVEN BY CENTURYLINK, ITS AFFILIATES, AGENTS, OR CONTRACTORS OR THEIR RESPECTIVE EMPLOYEES WILL CREATE ANY WARRANTY. NO GUARANTEES ARE PROVIDED FOR THIS SERVICE. CUSTOMER ASSUMES TOTAL RESPONSIBILITY FOR USE OF THE SERVICE. IF CENTURYLINK INTEGRATES ANY RECORDS PROVIDED TO CENTURYLINK BY ANY OTHER DATA PROVIDER, FOR INCLUSION IN THE CUSTOMER'S 9-1-1 DATA, CENTURYLINK MAKES NO REPRESENTATION OR WARRANTY AND ASSUMES NO LIABILITY REGARDING THE ACCURACY OF THE DATA PROVIDED BY ANY OTHER DATA PROVIDER. IN ADDITION TO ANY OTHER DISCLAIMERS OF WARRANTY STATED IN THE AGREEMENT, CENTURYLINK MAKES NO WARRANTY, GUARANTEE, OR REPRESENTATION, EXPRESS OR IMPLIED, THAT ALL SECURITY THREATS AND VULNERABILITIES WILL BE DETECTED OR THAT THE PERFORMANCE OF THE SERVICES WILL RENDER CUSTOMER'S SYSTEMS INVULNERABLE TO SECURITY BREACHES, OR THAT THE SERVICES WILL BE PROVIDED ERROR-FREE.

9. Non-Appropriations. Customer intends to continue this Agreement for its entire Term and to satisfy its obligations hereunder. For each fiscal period for Customer: (a) Customer agrees to include in its budget request appropriations sufficient to cover Customer's obligations under this Agreement; (b) Customer agrees to use all reasonable and lawful means to secure these appropriations; (c) Customer agrees it will not use non-appropriations as a means of terminating this Agreement in order to acquire functionally equivalent products or services from a third party. Customer reasonably believes that sufficient funds to discharge its obligations can and will lawfully be appropriated and made available for this purpose. In the event that Customer is appropriated insufficient funds, by appropriation, appropriation limitation or grant, to continue payments under this Agreement and has no other funding source lawfully available to it for such purpose (as evidenced by notarized documents provided by Customer and agreed to by CenturyLink), Customer may terminate this Agreement without incurring termination charges by giving CenturyLink not less than 30 days' prior written notice. Upon termination and to the extent of lawfully available funds, Customer will remit all amounts due and all costs reasonably incurred by CenturyLink through the date of termination.

10. Governing Law; Dispute Resolution.

10.1 Billing Disputes. If Customer disputes a charge in good faith, Customer may withhold payment of that charge if Customer makes timely payment of all undisputed charges when due and provides CenturyLink with a written explanation of the reasons for Customer's dispute of the charge within 90 days after the invoice date of such amount. If CenturyLink determines, in its good faith, that the disputed charge is valid, CenturyLink will notify Customer and within five business days after CenturyLink's notification, Customer must pay the charge and accrued interest.

10.2 Governing Law; Forum. The Agreement will be governed by the laws of the State in which the Customer's principal office is located without regard to its choice of law principles. Any legal proceeding relating to this Agreement will be brought in a U.S. District Court, or absent federal jurisdiction, in a state court of competent jurisdiction, in the location of the party to this Agreement not initiating the action, as indicated in the Notices section. CenturyLink may, at its discretion, initiate proceedings in Denver, Colorado to collect undisputed amounts billed. This provision is not intended to deprive a small claims court or state agency of lawful jurisdiction that would otherwise exist over a claim or controversy between the parties. "State" means one of the 50 states of the United States or the District of Columbia.

10.3 Waiver of Jury Trial and Class Action. Each party, to the extent permitted by law, knowingly, voluntarily, and intentionally waives its right to a jury trial and any right to pursue any claim or action relating to this Agreement on a class or consolidated basis or in a representative capacity.

10.4 Limitations Period. Any claim relating to the Agreement must be brought within two years after the claim arises other than Customer disputing an amount in an invoice, which must be done by Customer within 90 days after the invoice date of the disputed amount.

11. HIPAA. CenturyLink does not require or intend to access Customer data in its performance hereunder, including but not limited to

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any confidential health related information of Customer's clients, which may include group health plans, that constitutes Protected Health Information ("PHI"), as defined in 45 C.F. R. §160.103 under the Health Insurance Portability and Accountability Act of 1996 ("HIPAA Rules"). To the extent that any exposure to PHI is incidental to CenturyLink's provision of Service and not meant for the purpose of accessing, managing the PHI or creating or manipulating the PHI, such exposure is allowable under 45 CFR 164.502(a)(1)(iii).

12. Notices.

12.1 Legal Notices. All Legal notices to CenturyLink must be in writing, sent to 1801 California St., #900, Denver, CO 80202; Fax#: 888-778-0054; Attn.: Legal Department, and to Customer at its then current address as reflected in CenturyLink's records; Attn.: General Counsel or other person designated for notices. Unless otherwise provided herein, all notices will be deemed given: (a) when delivered in person to the recipient named above; (b) three business days after mailed via regular U.S. Mail; (c) when delivered via overnight courier mail; or (d) when delivered by fax if duplicate notice is also sent by regular U.S. Mail.

12.2 Termination Notices. Customer's notice of termination for Services must be sent via mail, facsimile or e-mail to Carlos Simmonds, 20 E. Thomas Rd., Phoenix, AZ 85012; e-mail: carlos.simmonds@centurylink.com; Fax#: 602-279-5250, and mail or fax a copy to the Legal Department, as outlined in 12.1 above. Such termination is effective 30 calendar days after CenturyLink's receipt of the notice, unless a longer period is otherwise required.

13. Installation, Maintenance and Repair. Provision of Services is subject to availability of adequate capacity and CenturyLink's acceptance of a complete Order Form. Customer will reasonably cooperate with CenturyLink or its agents to install, maintain, and repair Services. Customer will provide or secure at Customer's expense appropriate space and power; and rights or licenses if CenturyLink must access the building of Customer's premises to install, operate, or maintain Service or associated CenturyLink equipment. CenturyLink may refuse to install, maintain, or repair Services if any condition on Customer's premises is unsafe or likely to cause injury. Customer is responsible for any facility or equipment repairs on Customer's side of the demarcation point. Customer may request a technician dispatch for Service problems. CenturyLink will assess a dispatch fee if it determines the problem is on Customer's side of the demarcation point or was not caused by CenturyLink's facilities or equipment on CenturyLink's side of the demarcation point.

14. General. Customer may not assign the Agreement or any of its rights or obligations under the Agreement without the prior written consent of CenturyLink, which consent will not be unreasonably withheld. Customer may not assign to a reseller or a telecommunications carrier under any circumstances. Customer represents that it is not a reseller of any telecommunication services provided under this Agreement as described in the Telecommunications Act of 1996, as amended or applicable state law and acknowledges it is not entitled to any reseller discounts under any laws. Customer's use of Service must comply with all applicable laws. CenturyLink may change features or functions of its Services; for material changes, CenturyLink will provide 30 calendar days prior written notice, but may provide a different notice period if the change is based upon Regulatory Activity or Tariff provisions. The Agreement is intended solely for CenturyLink and Customer and not to benefit any other person or entity. If any term of the Agreement is held unenforceable, such term will be construed as nearly as possible to reflect the original intent of the parties and the remaining terms will remain in effect. Neither party's failure to insist upon strict performance of any provision of the Agreement will be construed as a waiver of any of its rights hereunder. All terms of the Agreement that should by their nature survive the termination of the Agreement will so survive. In the event of a conflict in any term or condition of any documents that govern the provision of the Service hereunder, the following order of precedence will apply in descending order of control: Bundle Offer Attachment, Service Exhibit, the Agreement, Order Form, SOW and CenturyLink records. If Services are provided pursuant to a Tariff as described in the applicable Service Exhibit, the order of precedence will apply in the following descending order of control: Tariff, Service Exhibit, the Agreement, Order Form, SOW and CenturyLink records. Neither party will be liable for any delay or failure to perform its obligations hereunder if such delay or failure is caused by a Force Majeure Event. "Force Majeure Event" means an unforeseeable event beyond the reasonable control of that party, including without limitation: act of God, fire, explosion, lightning, hurricane, labor dispute, cable cuts by third parties, acts of terror, material shortages or unavailability, government laws or regulations, war or civil disorder, or failures of suppliers of goods and services. Except Service modifications initiated by CenturyLink, all amendments to the Agreement must be in writing and signed by the parties' authorized representatives. However, any change in rates, charges, or regulations mandated by the legally constituted authorities will act as a modification of any contract to that extent without further notice. CenturyLink provides the Services as an independent contractor. The Agreement will not create an employer-employee relationship, association, joint venture, partnership, or other form of legal entity or business enterprise between the parties, their agents, employees or affiliates.

15. Definitions.

"Affiliate" means any entity controlled by, controlling, or under common control with a party.

"MRC" means monthly recurring charge.

"NRC" means nonrecurring charge.

"Order Form" includes both order request forms and quotes issued by CenturyLink. If a CenturyLink service requires a quote to validate the Order Form pricing, the quote will take precedence over the order request form, but not over the Service Exhibit.

"Regulatory Activity" is a regulation or ruling by any regulatory agency, legislative body or court of competent jurisdiction, including, but not limited to, Federal Communication Commission, or State public utility commission, rules, regulations, or requirements, applicable to 9-1-1 Service Providers that increase the costs to provide services to Customers.

"SOW" means a statement of work attached hereto or referenced in this Agreement.

"Start of Service Date" means the date CenturyLink notifies Customer that a Managed ESInet Bundle to be provided under this Agreement is provisioned and ready for use by Customer. The parties will document the Start of Service Date by the Customer issuing a "Certificate of Start of Service" in the form attached to this Agreement.

"Tariff" includes as applicable: CenturyLink state tariffs, price lists, price schedules, administrative guidelines, catalogs, and rate and

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term schedules incorporated by this reference and posted at http://www.centurylink.com/tariffs.

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This CenturyLink Managed NG9-1-1 ESInet Bundle offer attachment ("Attachment") is subject in all respects to CenturyLink

9-1-1 Agreement ("Agreement") and applicable Service Exhibits between Customer and CenturyLink, all of which must be executed between the parties for the offer in this Attachment to apply. All capitalized terms that are used but not defined in this Attachment are defined in the Agreement or other Service Exhibit.

1. Scope. Customer may purchase the Managed NG9-1-1 ESInet solution ("Managed ESInet Bundle") under this Attachment. "Managed ESInet Bundle" is a combination of the CenturyLink Next Generation ("NG") 9-1-1 Service, CenturyLink MPLS IQ Private Port, Local Access Service, Managed VESTA Call Handling Service, Statements of Work and Service Guides.

2. Eligibility and Restrictions. Customer will receive all of the applicable Service elements in the Managed ESInet Bundle by placing an Order for a 60 month Term, with the Term commencing on the Start of Service Date. The following subsections of Section 2 describe what is included and excluded from the Managed ESInet Bundle.

2.1. CenturyLink Next Generation (Next Gen) 9-1-1 Routing Service. "Next Gen 9-1-1 Routing Service" means a specialized managed network for processing 9-1-1 calls from both traditional voice and non-traditional voice and data networks, as further described on the CenturyLink Next Generation 9-1-1 Service Exhibit to the Agreement. The Next Gen 9-1-1 Routing Service for the Managed ESInet Bundle includes Location Data Management, 9-1-1 Routing, and i3 Routing enabled by the i3 functional elements described in Section 10.6 of the CenturyLink NG9-1-1 with Managed 9-1-1 CPE Technical Document**.** Next Generation 9-1-1 Routing Service requires the input of selective routing database (SRDB) updates from the database management system. The Next Generation i3 Routing Service requires the input of geospatial data from the Emergency Call Routing Function (ECRF) and routing rules from the Policy Routing Function (PRF).

2.2 IQ MPLS Private Ports and Local Access. CenturyLink will provide IQ MPLS Private Ports and Local Access (as described on Service Exhibits to this Agreement, and collectively "IP Connectivity") between the Next Gen 9-1-1 Routing Service and the Customer's location. All equipment related to IP Connectivity and deployed at the Customer location to support Managed ESInet Bundle will be owned and supplied by CenturyLink during the Term of the Agreement. The IP Connectivity will meet the following requirements:

- QoS IP "Backbone Prioritization" to allow the management of the prioritization of 9-1-1 voice/data/OAM network traffic.
- Industry standard P.01 grade of service. CenturyLink will apply the P.01 standard over the supplied IP Connectivity.
- CenturyLink will provide card level mapping when orders for circuits are placed. CenturyLink will use commercially reasonable efforts to disclose any single points of failure that may exist in the IP Connectivity due to network convergence for IP Connectivity.
- Monitor and Notification. CenturyLink will monitor MPLS IQ Private Port devices 24x7x365 for up/down status and notify Customer of faults.
- Local Access Services is included, however, Local Access Services will not be provided on a redundant or diverse basis unless expressly stated in this Agreement or an Order for Service.
- IP Connectivity bandwidth for Customer will be provided to be sufficient for purposes of managing the data transport needs of customer based on the then existing Managed ESInet Bundle.
- If Customer desires to purchase additional or upgrade applications or services, CenturyLink may require that Customer purchase additional IP Connectivity in order to meet bandwidth requirements for the new applications or services.
- In certain instances, limitations of existing Local Access facilities may require upgrades to facilities into Customer's location in order to accommodate additional bandwidth. CenturyLink may require that Customer pay non-recurring special construction charges in order to upgrade facilities into Customer's location.

2.3 Managed VESTA Call Handling Service. The Managed VESTA Call Handling Service manages the call processing and delivery of 9-1-1 calls and ALI/ANI information to a call taker position at the Customer location in conjunction with the other Managed ESInet Bundle Services, as described on the CenturyLink Airbus Hosted Vesta Service Exhibit. The Managed VESTA Call Handling Service includes Airbus VESTA Call Handling equipment in a hosted environment, and managing core software including:

- VESTA 9-1-1 Call Handling
- VESTA Analytics MIS
- VESTA Locate Mapping
- DataSync Map Updates
- HP workstations at the PSAP

The Managed VESTA Call Handling Service will be provided during the Term that Customer purchases the Managed ESINet Bundle. CenturyLink or its vendors own all of the equipment and software related to the Managed VESTA Call Handling Service and only provides the services to customer on a licensed basis. Additional services may be provided subject to Statements of Work or Service Guides referenced in the CenturyLink Airbus Hosted Vesta Service Exhibit.

The following features and functionality being purchased by Customer as of the Effective Date of this Agreement are listed in Section 2 of the CenturyLink Airbus Hosted Vesta Service Exhibit This Managed ESInet Bundle, as currently designed, will only deliver voice 9-1-

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1 requests for assistance from Wireline, Wireless, and VoIP telephone devices. Future functionality, such as, the delivery of pictures and video (Media Services) are not included. Text-to 911 may be available through a separate agreement, subject to CenturyLink approval. Any other services not explicitly defined in this agreement are not available.

2.4 Network Diversity Services. The following Network Diversity Services, as more fully described on the Domestic Network Diversity Service Exhibit, are included in the Managed ESInet Bundle:

- Domestic Private Line Diversity Service. Diverse IQ MPLS Private Port connectivity, subject to the availability of existing facilities.
- Optical Wavelength Diversity Service
- Networking Diversity Service

Local Access Diversity Service is included if Customer already has diverse Local Access Services into the Customer location as of the Effective Date of the Agreement. If Local Access Diversity Service does not currently exist at the Customer location, it may be available for Customer, subject to additional charges, including, but not limited to, special construction charges. In some instances, the Local Access Diversity Service may share common network facilities, infrastructure, or buildings with the primary circuit.

2.5 Service Level Agreements. The document CenturyLink NG9-1-1 with Managed 9-1-1 CPE Service Level Agreements, October 2, 2015 (the "Service Level Agreements") is attached to the Agreement and incorporated by reference. The Service Level Agreements state the goals for CenturyLink to provide and manage the Services that make up the Managed ESInet Bundle. For purposes of the Managed ESInet Bundle, the Service Level Agreements apply instead of any standard service level agreements or other SLAs that are referenced in any Service Exhibit to the Agreement for Services that are part of the Managed ESInet Bundle.

2.6 Security. CenturyLink will take commercially reasonable efforts to protect the Services that compromise the Managed ESInet Bundle from security threats, however, because the Services, and certain monitoring features, utilize Internet protocols, CenturyLink makes no express or implied warranty that the Services will be protected from malicious attacks, including but not limited to, denial of service attacks, trojans, viruses, worms and that other malicious attacks will never reach Customer's Services. The Managed ESInet Bundle does not include security analytics, penetration testing, compliance, mitigation or remediation unless Customer elects to purchase additional services separately, which may be available from CenturyLink subject to CenturyLink approval.

2.7 Upgrade. During a Service Term, Customer may upgrade its Managed ESInet Bundle ("Upgrade"), if upgrade features, functionality, or other portions of the bundle are made available by CenturyLink. An Upgrade of one portion of the Managed ESInet Bundle may require upgrades of other aspects of the bundle. CenturyLink is not required to provide any upgrades in features of functionality during the term of this Agreement, except as expressly stated in this Agreement. CenturyLink may require a revised Term with any potential Upgrades.

3. Pricing. Customer will pay the rates set forth in a quote or, if applicable, as set forth in Addendum A. A Managed ESInet Bundle quote is a service order request submitted on a form issued by CenturyLink and signed by Customer that includes the type and details of the specific Managed ESInet Bundle ordered by Customer. CenturyLink will not waive any Local Access ancillary charges, including Construction charges, as applicable. Quotes will be governed by the terms and conditions set forth in the Agreement, the applicable Service Exhibits and this Offer Attachment.

3.1 If Customer wishes to order a new Managed ESInet Bundle or modify an existing Managed ESInet Bundle as an Upgrade, Customer and CenturyLink must enter into a separate written amendment to this Agreement.

3.2 Managed ESInet Bundle Pricing. The Managed ESInet Bundle Port MRC includes the MRCs for the Managed ESInet Bundle Port that is provided as a Service during the Term. CenturyLink will waive End-to-End Performance Reporting MRCs. The Managed ESInet Bundle pricing is exclusive of, and may not be combined with any other current offers, promotions, or discounts that may apply to any portion of the bundle. After the Service Term for a Managed ESInet Bundle expires, CenturyLink may modify pricing for the Managed ESInet Bundle. Upgrades and additional Managed ESInet Bundle orders after an initial order may be subject to then-current Managed ESInet Bundle pricing or negotiated between the parties thru an amendment. Additional Services that are described in this Agreement but not included in the Managed ESInet Bundle may be purchased by Customer separately by a separate Order or by an amendment to this Agreement.

3.3 Local Access Pricing. Local Access rates (not included in the Bundle) are in a quote, if available.

3.4 Upgrade NRC. Customer must be required to pay applicable NRC's for any Upgrade.

4. Term; Cancellation.

4.1 Term. The term of an individual Managed ESInet Bundle begins on the Start of Service Date and will continue for the number of months as specified in Customer's order for a Managed ESInet Bundle ("Service Term"), per individual PSAP location. The Service Term is indicated in the quote or the pricing table in Addendum A.

4.2 In the event Customer informs CenturyLink that it is unable or unwilling to accept Service at the Start of Service Date, the subject Service will be held available for Customer for a period not to exceed 30 business days from such date ("Grace Period"). If after

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the Grace Period, Customer still has not accepted Service, CenturyLink may either: (a) commence with regular monthly billing for the subject Service; or (b) cancel the subject Service. If Customer cancels an order for Service prior to the date the Service is available for use, or is unable to accept the Service during the Grace Period and CenturyLink cancels the Service at the end of the Grace Period, termination charges may apply.

4.3 Customer and CenturyLink agree to begin discussions regarding the renewal or discontinuation of Service 90 days before expiration of the Agreement. Renewals will require a new Agreement.

4.4 Customer may enter into a new service agreement upon agreement of CenturyLink that establishes a greater available term period for the Managed ESInet Bundle without incurring non-recurring or termination charges.

4.5 Cancellation. Upon cancellation of a Managed ESInet Bundle, Customer will remain liable for charges accrued but unpaid as of the cancellation date. If a Managed ESInet Bundle is canceled by Customer other than for Cause, or by CenturyLink for Cause, before the conclusion of its Service Term, Customer will pay: (a) a Managed ESInet Bundle Cancellation Charge equal to: (i) 100% of the Managed ESInet Bundle's MRC multiplied by (1) the number of 9-1-1 Call Taker Positions, and (2) the number of months remaining in the initial 60 months of the Service Term, if any; plus the Local Access Cancellation Charges set forth in the Local Access Service Exhibit. If at the time that Customer terminates 9-1-1 Call Taker Positions, CenturyLink and another PSAP execute an amendment to add the same number of 9-1-1 Call Taker Positions to the other PSAP's agreement with CenturyLink, CenturyLink will, in good faith, waive the Cancellation Charges, subject to reasonable move charges and the parties reaching a mutually acceptable amendment, which may include an extension of the term of the Agreement with the surviving PSAP. In all instances, any applicable Local Access Cancellation Charges will apply.

5. Miscellaneous. All other terms not specifically set forth in this Attachment, including without limitation, any other rate elements, are as stated in the Agreement and Service Exhibits and will remain in effect. The Managed ESInet Bundle Pricing will become effective as soon as practicable, but in no event later than the second full billing cycle following the Agreement or Amendment Effective Date. If there is a conflict between any of the following documents, the order of control is: this Bundle Offer Attachment, the Service Exhibits, and the Agreement. This Attachment and the Agreement set forth the entire understanding between the parties as to the subject matter herein and supersede any prior written or verbal statements, representations, and agreements concerning the subject matter hereof.

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ADDENDUM A
CENTURYLINK MANAGED NG9-1-1 ESINET BUNDLE PRICING

1. Monthly Recurring Charges; Non-Recurring Charges.

1.1 Customer will pay the rates for all Service monthly recurring rate elements ("MRC") as shown below or as otherwise chargeable, as applicable. The amounts stated below are exclusive of Taxes, which will be separately invoiced, as applicable, for any sub-elements of the MRC, including any applicable Arizona Transaction Privilege Tax. The MRC applies to each 9-1-1 call taker position for each Customer location ("9-1-1 Call Taker Position").

Description	Monthly Recurring Charge (MRC)	Nonrecurring Charge (NRC)
ALI, i3 Core components, IP Selective Routing and IP Transport Services (NG91-1 ESInet Service)*****	$800 per 9-1-1 Call Taker Position	$0
Hosted Vesta Call Handling Service	$1200 per 9-1-1 Call Taker Position	$10,727 per Customer location

1.2 Implementation Non-Recurring Charge. In addition to the MRC and NRC amounts above, upon receipt of Customer's Order for the Managed ESInet Bundle, CenturyLink will invoice Customer a non-recurring charge ("Implementation NRC") in the amount of $0.00 provided the Implementation NRC has been previously satisfied under separate Agreement in Arizona. The Implementation NRC will be subject to Taxes as separately stated on the invoice, including Arizona Transaction Privilege Tax. Customer will pay the Implementation NRC, and applicable Taxes, within 60 calendar days of the invoice date. After the Start of Service Date, the Implementation NRC will become non-refundable. CenturyLink may offer the Managed ESInet Bundle to other Customers that may pay a different, reduced, or no Implementation NRC.

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Qwest Corporation d/b/a CenturyLink QC ("CenturyLink") provides Next Generation 9-1-1 Services under the terms of this Service Exhibit. Customer represents that it is a PSAP, or an authorized agent of one or more PSAPs, and that it is authorized to subscribe to the Service and respond to public emergency calls.

1. Definitions.

"Agreement" means the agreement between Customer and CenturyLink that this Service Exhibit is attached to and incorporated by reference.

"ALI" means Automatic Location Identification.

"CLEC" means Competitive Local Exchange Carrier.

"Data Transport" means traditional E9-1-1 circuits used to deliver the ALI to the PSAP that are provided under the terms of a CenturyLink tariff, price list, price schedule, administrative guideline, catalog, and other rate and term schedules (hereinafter, whether individually or together, "Tariff"). Data Transport is not offered under this Service Exhibit.

"Independent Providers" means telephone companies, ILECs, CLECs, or other communications service providers, (i.e., wireless carriers and/or interconnected VoIP providers).

"ILEC" means Incumbent Local Exchange Carrier.

"IP" means Internet Protocol.

"MSAG" means Master Street Address Guide.

"NENA" means National Emergency Number Association.

"PSAP" means Public Safety Answering Point which is a communications facility operated on a 24-hour basis that is assigned the responsibility to receive 9-1-1 calls and, as appropriate, notifies or dispatches public or private safety services or extends, transfers, or relays 9-1-1 calls to an appropriate public or private safety agency.
A PSAP is an agency or party authorized to receive and respond to emergency calls.

"CenturyLink Territory" means CenturyLink's local service areas in the following states: Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming.

"SOW" means a statement of work attached hereto or referenced in this Service Exhibit.

2. Service Description.

2.1 CenturyLink will provide, and Customer will purchase, the CenturyLink Next Generation ("NG") 9-1-1 service provided under this Service Exhibit ("Service" or "NG 9-1-1 Service"). Service enables the routing of 9-1-1 dialed calls to a Customer–designated PSAP over an IP network. Service is provided as described in this Service Exhibit and in a SOW or Service Guide, if applicable. In the event of a conflict between the terms of any SOW or Service Guide and the terms of this Service Exhibit, the terms of this Service Exhibit will control. The number "9-1-1" is intended as a universal emergency telephone number that provides the public direct access to a PSAP. A PSAP is an agency authorized to receive and respond to emergency calls. PSAPs are designated by the Customer and specified in Attachment(s) to this Service Exhibit. Service includes components necessary for the answering, transferring, and forced disconnect of emergency 9-1-1 calls originated by persons within the servicing area(s). CenturyLink does not answer and forward 9-1-1 calls, but furnishes the use of its facilities to enable the Customer's NG 9-1-1 and/or 9-1-1 personnel to respond to such calls. PSAP information, service locations, and addresses are shown on Attachment 1, incorporated by reference into this Service Exhibit. By checking the box below, the applicable Service Guide is incorporated into this Service Exhibit. Service Guides that are not specifically incorporated will not be considered part of this Service Exhibit.

☐ Service Guide(s) are hereby incorporated into this Service Exhibit.

- **CenturyLink / West A9-1-1 Service Guide – Routing**
- **CenturyLink / West A9-1-1 Service Guide – Location Data Management**

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2.2 CenturyLink will not provide Service to less than an entire central office service area. Service does not include facilities provided by Independent Providers.

2.3 Customer will use the NG 9-1-1 Service only for receiving and responding to requests for emergency assistance. Customer will be responsible for ensuring the PSAP will also use the NG 9-1-1 Service as prescribed herein. Any other use of the database will result in immediate termination of Service.

2.4 CENTURYLINK ACCEPTS NO RESPONSIBILITY FOR OBTAINING OR FOR THE ACCURACY OF SUBSCRIBER, STATION, OR END-USER RECORD INFORMATION RECEIVED FROM INDEPENDENT TELEPHONE COMPANIES, CLECS, OR PRIVATE TELECOMMUNICATIONS SYSTEMS, SUCH AS PBX OR SHARED TENANT SERVICES.

2.5 Customer will provide an MSAG to CenturyLink for use in the database preparation. The MSAG must follow the NENA recommended United States Postal Service street name and directional addressing standard. Customer will ensure that each participating telephone service provider's records are sent electronically in the NENA format for database updates as specified by CenturyLink. CenturyLink will not deliver Service until each participating telephone service provider's records for Customer's service area match the applicable Master Street Address Guide at a rates shown below. Customer is fully responsible for correcting all erroneous records and achieving such rate.

State	**Rate**
Minnesota	98%
Washington	97%
Oregon	97%
New Mexico	96%
Other (within CenturyLink's 14 state territory)	98%

2.6 Customer must promptly notify CenturyLink if Customer believes that the Service is not functioning properly.

2.7 CenturyLink will perform inspection and/or monitoring of its facilities on a routine basis, to discover errors, defects and malfunctions that might affect the Service. Customer understands and acknowledges that this inspection and monitoring may not detect all errors that may occur. Some Service-related issues may arise that impact and delay or prevent call delivery. Some Service-related issues may occur which the system will not recognize and will therefore not cause an automatic rerouting of calls to an alternate destination. Customer may authorize CenturyLink to manually implement an alternate call route as required.

3. Term.

3.1 The term of this Service Exhibit will expire upon the termination of any Order under the Agreement for the Managed ESInet Bundle, as defined in the CenturyLink Managed NG9-1-1 ESInet Bundle Offer Attachment to the Agreement.

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ATTACHMENT 1

PSAP INFORMATION:

SERVICE LOCATION:

BILLING NUMBER:

The central offices and Customer PSAP locations included in this Attachment are as follows:

Central Offices:

CENTURYLINK CENTRAL OFFICE	NXX	INDEPENDENT TELEPHONE COMPANY AND/OR CLEC CENTRAL OFFICES	NXX

Central Office Addresses:

PSAPs:

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1. INTRODUCTION

A9-1-1® Routing Service ("Service") is a fully managed solution offering emergency call delivery over a managed Internet Protocol ("IP") network. The Service includes the following:

- West's ESInet, provided by CenturyLink, provides a multi-layer redundant IP network architecture for high system availability.
- A9-1-1 Routing provides routing of 9-1-1 calls from both traditional and next generation voice networks.

2. RESPONSIBILITY MATRIX

The following matrix outlines the typical responsibilities of each party (CenturyLink, West and CUSTOMER) for the implementation and ongoing provision of the Service. Where all parties have been listed, additional detail on the responsibilities of each party is included in the Sections below.

Task	Responsibility
Project Implementation	
Project Management	West/CenturyLink
TSP Communications	West
TSP Integration Architecture	West
Develop West Methods and Procedures	West
A9-1-1 Service System Architecture	West
PSAP Facilities	CUSTOMER
PSAP Facility Site Preparation (floor space, power, etc.)	CUSTOMER
PSAP Facility Site Survey	West
PSAP Configurations/Lists - Routing, Transfer, etc.	CenturyLink/West
A9-1-1 Routing Selective Router Database ("SRDB") Data	West
Non-West PSAP Equipment Note: This may be legacy equipment or new equipment purchased under another CUSTOMER agreement and or non-West PSAP equipment, such as CAD system, voice recording equipment, and radio system; if applicable.	CUSTOMER
Training on Service	West
End to End Testing of Service Prior to Production	West/CenturyLink
Final Data Load into SRDB	West/TSP
Develop Plan and Execute Migration Testing	West/CenturyLink
Production Turn-up of Service	West/CenturyLink
Ongoing Responsibilities	
A9-1-1 Routing Application and System Upgrades	West
A9-1-1 Routing Log storage and Backups	West
A9-1-1 Routing Metrics	West
A9-1-1 Routing Network and System Maintenance	West

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Task	Responsibility
A9-1-1 Routing Network and System Monitoring	West
Maintain West Methods and Procedures	West
Problem Reporting, Triage and Resolution	West/CenturyLink
TSP Communications	West

Table 1: Responsibility Matrix

3. PROJECT IMPLEMENTATION

3.1 Overview

CenturyLink and West's Solution Delivery approach to plan, configure, network engineer, implement, test, document, train, and support West Advanced 9-1-1 Service follows west's Solution Delivery methodology. The lifecycle begins with solution definition and architecture activities. During these initial phases, the joint CenturyLink and West team members verify system application and implementation requirements, refine the solution architecture, and finalize the plan for solution deployment. Following definition and architecture phases, the West team orders, installs, configures, tests, and trains users on CUSTOMER-facing solution components as part of solution integration and deployment effort. Following successful deployment, the maintenance phase begins. The primary goal of the lifecycle methodology is that the project aligns with overall CUSTOMER expectations, and is tailored to fit the needs of CUSTOMER. The Project Plan phases are described below.

Solution Definition

The first phase in the solution lifecycle is the Solution Definition phase, which begins with the kickoff and alignment process. During this process, key members of the joint project team unite to identify roles, responsibilities, critical success factors, project challenges, elaborate on specific strategies and project options, confirm E9-1-1 project scope, and finalize plans to expedite solution delivery plans and resources. The proposed solution is reviewed in order to align each primary stakeholder with a common vision and strategy for unified team design and planning.

Solution Architecture

During the Solution Architecture phase, the detailed solution design is finalized based on confirmed requirements. During this phase, the team analyzes the current systems, operations, and operational procedures, identifies the human factors needs, considers implementation options, and with the CUSTOMER, commits the detailed solution design and implementation schedule.

Stakeholder participation to identify processes and standard operating impact is critical in this process to support a successful integration of the new system. Current procedures, connectivity, and routing policies are examined so that the appropriate practices are carried forward to the new system environment. Examples of important areas considered include load balancing philosophies and default routing rules.

Initial planning for connectivity from the telephone service providers to the Points of Interconnection ("POI") also begins in the architecture phase. Key solution architecture planning activities include:

- Detailed solution design and schematics (onsite, site to site, site to West, firewalls, routers, etc.)
- IP specifications
- Telephone service provider connectivity specifications
- Physical requirements (e.g., equipment room design, floor loading)
- Call transfer requirements
- Training plan and schedule
- Refined project plan and timeline

Solution Integration

During the Solution Integration phase, the components of the solution, including processes, applications, servers, network components, and data flow, are ordered, engineered and readied for deployment. All network, regional, data center, and CUSTOMER premises components are delivered, and the equipment rooms and other facilities are readied.

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Coordination with wireline, wireless, and VoIP telephone service providers is an essential part of this stage to plan for the Service management transition. Telephone service providers receive all necessary information and detail to obtain connectivity to the West systems and the service provider's connectivity to the POIs is engineered and ordered.
Working closely with the CUSTOMER and stakeholder groups, the project team designs customized provisioning plans (including incoming trunk route plans, bridge lists, and dialing plans). Additionally, the documentation and training developers customize the user and process documents and various training courseware, if needed, to meet the needs of the CUSTOMER.

Solution Deployment

During the Solution Deployment phase, all network components and equipment connectivity is validated and acceptance tests are performed, metrics tracking, reporting is initiated, and training is provided. After complete non-live call testing, the system begins supporting live 9-1-1 traffic.
In preparation for deployment and in partnership with CenturyLink, the West Project Manager finalizes the cutover plan, including procedures for notification concerning schedule specifics.
Prior to the commencement of cutover, the project team members will hold a cutover meeting with CenturyLink and the CUSTOMER and the telephone service providers. The purpose of this meeting is to discuss the progress of activities and the cutover readiness.
PSAP training is provided in accordance with the detailed training rollout plans. The system will then undergo a system acceptance test and quality walkthrough. Once complete, and in agreement with the CUSTOMER, a live-traffic cutover will then commence. Once live traffic has moved to the system, the maintenance period begins.

Solution Maintenance

The Solution Maintenance phase begins once live traffic is transferred onto any part of the system. During this phase, CenturyLink and West provide ongoing tiered support services to monitor service level performance, manage help desk requests, escalate support procedures, and support the CUSTOMER to reach the highest level of operational excellence. The solution support team is in place to receive, analyze, and rectify problems and information requests.

3.2 West Project Support

West designates a project manager to act as West's project lead and the primary interface with the CenturyLink project lead and the CUSTOMER's appointed contact for project collaboration. Project collaboration includes:

- Coordination of project kickoff meeting with CUSTOMER
- Coordination with CUSTOMER for implementation planning and design and requirements definition
- Identification and communication of key milestone dates and events for the implementation timeline
- Program tracking of the master project plan and task management of the project implementation
- Coordinate and manage all necessary CenturyLink and West resources to complete the Service deployment activities
- Work with CenturyLink and the CUSTOMER PSAP to develop a detailed project plan that includes milestones for each project phase

Note: This plan is refined over the course of the project as mutually agreed by both parties.

- Appoint a CenturyLink Program Manager

Note: Following the deployment phase completion, the CenturyLink Program Manager will serve as CUSTOMER's primary point of contact for issues resolution, escalations, enhancement requests, and planning.

- Provide CUSTOMER with an emergency support 24x7x365 contact number, a routine support contact list, and an escalation contact list.

Note: It is the responsibility of each party to update and publish these lists on a regular basis.

3.3 CenturyLink Project Support

CenturyLink designates a 9-1-1 operations contact to act as CenturyLink's project lead for the duration of the project. The CenturyLink's project lead works with the West project lead to:

- Assist with the coordination of the project kickoff meeting with West and CenturyLink technical resources;
    - Coordinate CenturyLink's technical resources for implementation planning and design and requirements definition;

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- Reporting and verify problems related to the project;
- Facilitate ongoing communications with West; and
- Assign appropriate CUSTOMER Personnel and experienced call takers at each PSAP who understand the overall impact of the transition of the 9-1-1 systems and can assist in the overall impact planning for transition activities such as testing and migration.

Note: This activity may include West and CenturyLink's appropriate technical and operational groups to assure a solid understanding of the network architecture, data exchange procedures, PSAP needs, standard operational procedures, and services as designed for the CUSTOMER.

3.4 TSP Communications and Trunk Migration Plan

West works with CenturyLink to develop a joint communication to each PSAP, government organization, and appropriate TSPs outlining the scope of Service to be implemented, a high-level implementation schedule, and key contact information for each entity. West distributes the communication on behalf of CenturyLink.

West takes responsibility for:

- Facilitating the establishment of TSP communication guidelines with CenturyLink and the CUSTOMER;
- Adhering to these guidelines for the project implementation and Service duration;
- Working with the CenturyLink and the CUSTOMER to determine and agree on the strategy for all TSP trunk migrations;
- Establishing expectations with each TSP;
- Managing communication to the TSP for items related to Service on behalf of the CenturyLink; and
- Escalating to CenturyLink, as appropriate, regarding TSP initiatives; requesting CenturyLink intervention when necessary.

4. A9-1-1 ROUTING – SERVICE DESCRIPTION

The system supporting the Service is comprised of redundant, regionally diverse facilities that process an inbound emergency call, determine the correct PSAP according to the ESN and pre-configured routing rules, and send the call to the appropriate Hosted CPE of CUSTOMER's PSAP.

4.1 A9-1-1 Routing - Call Flow

1) Normal Call Flow will be followed where a TSP has 9-1-1 trunks terminated at an A9-1-1 Routing POIs.
2) 9-1-1 call is made; call sent to TSP switch
3) TSP switch sends call to West Regional Gateway via West POI
4) West Regional Gateway sends call to Service, which determines call routing instructions
5) Service routes call to appropriate Hosted PSAP CPE
6) PSAP CPE delivers call to PSAP workstation

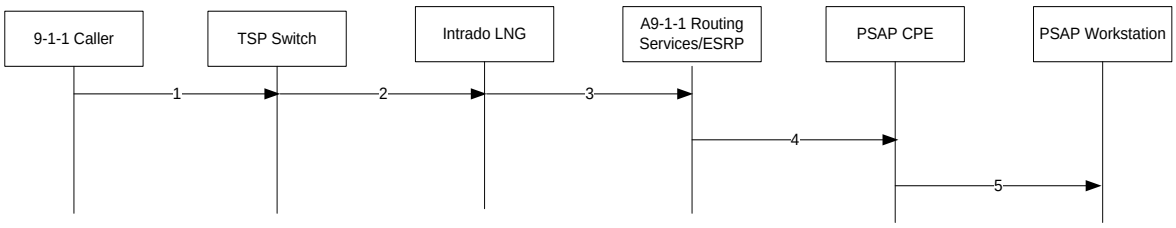


Figure 1: High Level Call Flow

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4.2 A9-1-1 Routing Rules

The Service will process all inbound emergency calls based on the configured routing rules for the PSAP. The A9-1-1 Routing rules allow:

- Management of wireline, wireless, VoIP, and Telematics call types
- Identification of each end office, TSP or MSC trunk for either selective routing or trunk-only routing, based on:
  - Selective Routing: Calling party ANI, ANI match to an ESN and an Electronic Switching System Identification ("ESSID"), or PANI used to look up ANI for WRLS and VoIP calls; and
  - Trunk Only Routing: Incoming End Office trunk is assigned an ESN/ESSID which relates to a specific ingress trunk group.

West will coordinate the data provisioning with each TSP and confirm information to support the signal provisioning for trunks incoming from the End Office or MSC to West, including the following data:

- Incoming signal type
- Call type
- Implied numbering plan administration ("NPA"), if applicable
- PANI administration, if applicable

4.3 TSP Trunk Migration

West works with the ILEC to place the PSAP in-service via the ILEC's legacy selective router and ILEC End Offices wholly contained within the PSAP's boundaries for all traffic and in parallel works with each TSP to plan for and execute the migration of its 9-1-1 call traffic to the Service. Once the PSAP has been placed in-service on A9-1-1 Routing via aggregated traffic from the ILEC, each TSP will be requested to establish connectivity from each TSP end office ("EO") and MSCs serving CUSTOMER's PSAPs to at least two A9-1-1 Routing POIs. Each TSP will be responsible for the cost of ordering and maintaining required circuits to connect to the POIs such that each EO has routes to at least two POIs for diversity and redundancy. Single POI connectivity from any EO is not warranted under this contract.

Each TSP may connect to West's A9-1-1 Routing system using any of the following interfaces:

9-1-1 Call Signaling Type	Call From TSP
VoIP 9-1-1	X
SIP (NNI Specification)	X
PRI/NI-2 (wireline, NCAS)	X
Analog CAMA I+7 (I always = 0)	X
DS1 CAMA I+7 (I always = 0)	X
DS1 CAMA 7 (No I digit)	X
SS7 Wireline/NCAS (10 digits)	X

Note: An interim configuration may be required to allow TSP trunk migrations to be performed on a trunk-by-trunk basis to the A9-1-1 Routing system.

If a TSP requires an interface not included in the table above, West will use commercially reasonable efforts to include these additional interfaces.

CenturyLink and West are not responsible for any TSP charges including ILEC for 9-1-1 trunks from TSP End Offices to the A9-1-1 Routing system.

CenturyLink flat rate service fees provide for the delivery of Services for all TSP subscribers within CUSTOMER's jurisdiction, regardless of increase or decrease in subscriber count during the Term. In the month that CUSTOMER migrates to Managed Services, CenturyLink will invoice for Managed Services and CenturyLink legacy 911 bundled tariff

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services will no longer be invoiced to CUSTOMER.CUSTOMER will continue to be responsible for any existing TSP charges related to TSP presenting the 9-1-1 call (voice and ANI) data to the A9-1-1 Routing network. CUSTOMER will also continue to be responsible for any existing charges from other 9-1-1 service providers related to 9-1-1 call transfer to PSAPs on foreign SRs, or any other services outside the scope of this Service Guide. If CUSTOMER is currently obligated to pay for TSP TN data (SOI files) and/or End Office trunks, this agreement does not eliminate that obligation.

4.4 Voice and Data Transfer and Bridge Capabilities

The Service supports the following flexible transfer and bridge capabilities:

- Selective Transfer/Bridge: The ability for the call taker to transfer an incoming 9-1-1 call to another agency by pressing a button labeled with the type of agency; e.g., “Fire,” on the PSAP call-handling equipment.
- Fixed Transfer/Bridge: The ability for the call taker to use a single button on the call taker’s display and transfer unit to complete either a transfer or three-way conference.
- Manual Transfer/Bridge: The ability for the call taker to complete a manual transfer.

Interconnection with the legacy 9-1-1 service provider’s SRs and ALI systems will require the cooperation of such service provider. The Service assumed that all transfers will continue to be completed to agencies as currently, conducted via PSTN without ANI or ALI. If the legacy 9-1-1 service provider does not support the inter-ALI connectivity, an alternate method of call transfer processing will be required. The alternative to inter-ALI connectivity is for both West and the legacy service provider to provision TN data into their respective ALI systems. This method is also known as ‘dual loading’. In using this method, the call transfer is performed (including ANI) via the interconnection between the legacy service provider and West Selective Routing solutions. ALI is provided by the 9-1-1 Service Provider for the receiving PSAP.

4.5 Implementing Configurable PSAP Attributes

West will provision the PSAP configurable attributes as requested by CUSTOMER. The CUSTOMER identifies which personnel at each of CUSTOMER’s PSAPs are authorized to request PSAP configurable attribute changes.

West will configure a minimum of the following PSAP configurable attributes for each of CUSTOMER’s PSAPs.

- Route Lists/Routing Rules:
  - Primary and alternate routes
  - Selective transfer star code destinations (i.e. *11 thru*19) for first responders, Police, Fire, and EMS
  - Fixed bridge lists (i.e. *20 thru *49) such as poison control or neighboring PSAPs
  - PSAP abandonment routing rules

PSAP preferred routing instructions apply to the following:

- PSAP Abandonment Routing: Specific routing instructions to be applied if the PSAP must evacuate the facility.
- PSAP Alternate Routing: Specific routing instructions to be applied as alternate location for routing if all lines to the primary PSAP are busy, or the primary PSAP is closed for a period of time. Multiple, prioritized alternate route destinations are supported.
- PSAP Default Routing: Specific default routing instructions to be applied for each incoming trunk group. 9-1-1 calls are routed to the default PSAP if an ANI failure occurs, unintelligible digits received from end office, or other rare causes.
- PSAP Destinations and Route Lists: PSAP is able to specify a unique route list for each routing rule. These route lists allow for designation of a primary target for call routing and includes numerous prioritized alternate destinations such as:
  - PSAP served by A9-1-1 Routing
  - PSAP served by a non-West selective routing service
  - PSTN number
  - Busy
  - Treatment message

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- Tone

- PSAP Trunk Group Management: Each incoming trunk group is individually designated to carry a particular call type and/or combination of call types (wireless, wireline, VoIP, Telematics).

Note: All PSAP data is gathered during the Definition Phase of the project.

4.6 Modifying Configurable PSAP Attributes

Following production turn-up of the Service, West will complete PSAP configurable attribute changes within five Business Days of receipt of a written request (including email) from CUSTOMER or authorized CUSTOMER PSAP personnel.

All requests must be submitted to the West Project Manager for review and implementation or, following Production Turn-up, to the West Program Manager. The five Business Day timeline may be exceeded if the West Project/Program Manager determines that that further discussion is needed with PSAP before implementing the changes, for example where the change is technically unadvisable or unfeasible.

For PSAP abandonment, CUSTOMER may contact the CenturyLink Network Reliability Operation Center (NROC) to engage the configured PSAP Abandonment Rules. The CenturyLink NROC will engage the PSAP Abandonment Rules within 15 minutes of receiving a PSAP abandonment request.

4.7 A9-1-1 PSAP Management Portal

The A9-1-1 PSAP Management Portal ("PMP") is a web-based tool that will provide CUSTOMER and CUSTOMER's PSAP administrators view only access to A9-1-1 Routing configurations and call activity. The PMP allows authorized users to view A9-1-1 Routing configurations for each PSAP, including call transfers, routing, and other configurations. In addition, the user may research Call Detail Records for call activity based on a specific date range. Each PSAP is accessed via a unique logon.

Currently, the PMP is accessed through West via West's Universal Portal ("IUP").

PMP can provide the following information:

- Primary Route–ESNs that route to your PSAP as Primary;
- Alternate Route–ESNs where CUSTOMER's PSAP serves as the alternate for another PSAP;
- Default Routs–End Offices that use CUSTOMER's PSAP as the default route for calls. Includes ESN, TSP, CLLI, and ESCO; and
- Abandoned Routs–abandonment Route where CUSTOMER's PSAP serves as the abandonment route for another PSAP.

4.8 Split Rate Center Scenarios

Wireline end offices where CUSTOMER PSAPs receive West's Service and some end users are served by another entity's 9-1-1 routing service are considered to be "split end offices" or "split wire centers"). The following considerations must be finalized prior to implementation of Service.

- TSP or ILEC may be requested to "sort" the 9-1-1 call traffic at the split wire center (end office) within a rate center, and directly route all 9-1-1 traffic that is destined for the CUSTOMER from the split wire center to the West A9-1-1 Routing network where the TSP or ILEC have the predominate number of subscribers in the rate center for selective routing

Note: Such capability is possible where TSPs or ILEC integrate the MSAG into the front-end service provisioning process and set appropriate attributes on each line at the end office to effectuate routing over the proper trunk group to the proper 9-1-1 routing service.

- Where West has the predominate number of subscribers in a given rate center, West may act as the aggregator of the traffic and deliver the traffic back to the ILEC.
- West will work cooperatively with the TSP and the LEC to establish call routing and call handoff arrangements.
- West will work with TSPs and LECs to resolve wire center overlap issues.

Note: West's A9-1-1 Routing implementation depends on TSP and LEC cooperation to resolve

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5. REPORTING TOOLS

West will provide a web-based tool, Clear View, for metrics reporting.

5.1 Clear View Reporting Tool

West will provide CUSTOMER with up to three Clear View Reporting tool user accounts per CUSTOMER PSAP for access to Service metrics. Clear View provides a number of breakout reports which can be queried based on a daily, weekly, or monthly basis. CUSTOMER may determine the distribution of these user accounts between CUSTOMER's administrative staff and CUSTOMER's PSAPs.

West will assign each Clear View reporting tool user a unique user ID, password, and a Secure ID token ("User Account"). User Accounts may not be shared. West will work with CUSTOMER to determine and configure the appropriate data access profile for each user account. User accounts, which may include a physical security device (e.g. West-issued token or card) to support two-factor authentication, may not be shared. Additional User Accounts or replacement of a misplaced security device are subject to additional Security Device fees.

West currently posts data updates to daily data sets by 9:00AM Mountain Time ("MT"), and updates to monthly data sets by the sixth business day of each month immediately following the reporting month. CUSTOMER will be able to access one year of metrics data through the Clear View Reporting tool. CUSTOMER metrics report requests older than one year are out of scope and subject to change order.

West will provide support services for the Clear View reporting tool during West Normal Business Hours, defined as Monday through Friday 8:00 AM to 5:00 PM Mountain Time, excluding West holidays.

5.2 Reports

The following are reports for the Service provided with the Clear View tool. Additionally, for any specific call, call detail is available through the West A9-1-1 PMP.

- Clear View call processing and call status reports include:
  - Event Count Reports per Hour– provides metrics for total calls in which CUSTOMER's PSAP participated by hour for a day, week or month
  - Event Count Report by Trunk Group – provides metrics for total calls in which CUSTOMER's PSAP participated and provides metrics for calls attempted, calls transferred out, calls transferred in
  - Event Count by Routing Reason and Destination – Indicates counts where CUSTOMER's PSAP participated as the Primary versus Alternate, whether the call was answered or busy, for Default versus Selective routed, and for call where the destination was "Not Available" (includes abandoned, rejected, transferred and handed-off calls). Provides metrics for total calls, initial calls, calls transferred out, and calls transferred in for each category.
  - Event Count by Type – Indicates counts by call type (wireless, wireline, VoIP) where CUSTOMER's PSAP is primary, and provides metrics for total calls, initial calls, calls transferred out, and calls transferred in.
  - Event Count by Incoming Trunk – Indicates the number of calls sent to CUSTOMER's PSAP by each trunk, and provides metrics for total calls, initial calls, calls transferred out, and calls transferred in for each category.
  - Bridge Call Summary – provides metrics for calls bridged in or out by bridge type (fixed, selective, manual). Call detail is available for each bridged call.
  - Routing Database Processing – provides a breakout of initial calls where CUSTOMER's PSAP was Primary by selectively routed versus default routed with a No Record Found ("NRF") breakout
  - Event Setup Time – provides statistics on the time to route and deliver calls where your PSAP is Primary, including the minimum, maximum, median and average times.

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1.1. Service Summary

West's Location Data Management Service (the "Service"), provided by CenturyLink, provides hosted location and CUSTOMER information database systems and services, including Master Street Guide (MSAG) validation, service order input ("SOI") processing and validation, and metrics reporting. This Service Guide provides CUSTOMER with the following information:

- Responsibility Matrix
- Project implementation tasks to move to the Service
- Detail on the Service, including a services description and response times
- Operational coordination between CenturyLink, West, and CUSTOMER

1.2. Responsibility Matrix

The following matrix outlines the typical responsibilities of each party for the Service. Where all parties have been listed, the party with primary responsibility is listed first. Additional detail on the responsibilities of each party is included in the Sections below. Failure of a party to satisfactorily complete a required task could materially impair West's ability to provide the Service.

Task	**Responsibility**
Project Implementation	
Project Management	West/CenturyLink
Telecommunications Service Provider (TSP) Coordination	West/CenturyLink
Develop West methods and procedures • West's operations • West's interface with TSPs, county/municipal coordinators, and each CUSTOMER PSAP	West
Process Documentation	West/CenturyLink
Location Data Management Service system architecture	West
PSAP facilities	CenturyLink & CUSTOMER
Wire Center Overlap Resolution Data Integrity	West/TSP
MSAG Extracts	CenturyLink & CUSTOMER
TN Record Extracts	West/TSPs
MSAG Analysis	West
TN Record Analysis	West
MSAG Data – Issue Resolution	West/CUSTOMER
TN Record Data – Issue Resolution	West/CUSTOMER/TSP
Selective Router Database ("SRDB") Updates	West
Non-West PSAP Equipment • This may be legacy equipment or new equipment purchased under another CUSTOMER agreement. • Non-West PSAP Equipment includes the Computer Aided Dispatch ()CAD system and the radio system if applicable	CUSTOMER
End to End Testing	West/CenturyLink
Final Data Load – MSAG, TN Record	West/TSP/CenturyLink
Training on Location Data Management Systems and Service (PSAPs, TSPs, Third Party Providers)	West/CenturyLink

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Task	Responsibility
Develop plan and execute Migration Testing	West/CenturyLink
Production Turn-up	West/CenturyLink
Ongoing Responsibilities	
TSP Coordination	West
TSP Escalation Point	CenturyLink
Maintain West methods and procedures • West operations • West interface with TSPs, county/municipal coordinators and each CUSTOMER PSAP	West
Data Integrity	
MSAG Build/Maintenance	West/CenturyLink
Service Order Processing	West
Error Correction and Referral	West/CenturyLink/TSP
TN Data Extracts and Distribution	West
MSAG Data Extracts and Distribution	West
Basic LNP Processing	West
Database Reconciliations	West
SRDB Updates	West
ESN/ELT Build/Maintenance	West/CenturyLink
ALI Discrepancy Reporting/Resolution	West/CUSTOMER/TSP
Metrics Reporting	West
Trend Analysis/Data Investigation	West/CenturyLink
System Monitoring	West
System Maintenance	West
System Upgrades	West
Log storage and backups	West
Problem Reporting	West/CenturyLink
Problem Triage and Resolution	West/CenturyLink
Single Point of Contact for CenturyLink & TSP Data Issues	West

Table 1: Responsibility Matrix

2. PROJECT IMPLEMENTATION

2.1. Overview

The Service implementation begins with a planning phase, where communications with the LEC and other TSPs are initiated, connectivity between the CUSTOMER's PSAP(s) and data collection and analysis begins.

Following the initial planning phase is data collection and simulations. West will work with each CUSTOMER PSAP to migrate location data management from the legacy ALI provider to the Location Data Management Service system. West will also work with each TSP and CUSTOMER PSAP to conduct data processing simulations.

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West will work with CenturyLink to schedule migration of each PSAP to the Service as data collection for each PSAP and TSP simulations are completed. The Service may be deployed in phases to allow for establishing the necessary agreements with the LEC and other TSPs.

The Service may be deployed in phases to allow for establishing the necessary agreements with the LEC and other TSPs.

2.2. Implementation Project Support

West designates a project manager to act as West's project lead and the primary interface with both CenturyLink and the CUSTOMER's appointed contact for implementation project collaboration, including identification and communication of key milestone dates and events for the implementation timeline. The West project lead manages overall program tracking of the master project plan and task management of the project implementation. Similarly, CenturyLink designates a 9-1-1 operations contact to act as the CenturyLink's project lead. The CenturyLink's project lead works with the West project lead in reporting and verifying problems, and facilitates ongoing communications with West.

The West and CenturyLink project leads will manage a kickoff meeting to establish communication strategies and contacts between the Parties, review the scope of the Service, and review the requirements and timelines. The project leads will facilitate additional meetings as necessary for implementation planning, design, and requirements definition. The meetings include both West and the CenturyLink's appropriate technical and operational groups to assure a solid understanding of the network architecture, data exchange procedures, PSAP needs, standard operational procedures, and Service as designed for the CUSTOMER.

For efficient project implementation, CenturyLink will assign appropriate personnel at each PSAP who understand the overall impact of the transition of the 9-1-1 services and can assist in the overall planning for transition activities such as testing and migration. The West project manager coordinates and manages the necessary West resources to complete the Location Data Management Service deployment activities. The West project manager works with each CUSTOMER PSAP to develop a detailed project plan that includes milestones for each project phase. This plan is refined over the course of the project as mutually agreed by both parties. The West and CenturyLink Project Managers will be available for regular status meetings and as necessary to ensure the project moves forward appropriately.

2.3. Contact Lists

West, CenturyLink, and CUSTOMER will exchange key contacts for technical, operational, and managerial personnel assigned to the Service deployment. In addition, West will provide CenturyLink with an emergency support 24x7x365 contact number, a routine support contact list, and an escalation contact list. It is the responsibility of each Party to update and publish these lists on a regular basis.

2.4. TSP Coordination

West works with CenturyLink to develop a joint communication to each PSAP, government organization, and appropriate TSPs outlining the scope of Service to be implemented, a high-level implementation schedule, and key contact information for each entity. West distributes the communication on behalf of CenturyLink.

West establishes expectations with each TSP and manages communication to the TSP for items related to Location Data Management Service on behalf of CenturyLink. West will escalate to CenturyLink as appropriate regarding TSP initiatives and will request CenturyLink intervention when necessary.

2.5. TN and MSAG Data Migration

West works with CenturyLink and each TSP to transition E9-1-1 data for each of CUSTOMER's PSAPs, including Telephone Number ("TN") records and tabular MSAG records to West's Location Data Management systems.

For the initial migration, CenturyLink is responsible for providing the following in accordance with the detailed project plan timeline:

- A full MSAG extract for the E9-1-1 service area of each CUSTOMER PSAP
- A complete list of all ESNs and ELTs in an electronic form for the E9-1-1 service area of each CUSTOMER PSAP

West works with each TSP to obtain a copy of TN records. On receipt of both the TN record extracts and the CUSTOMER's MSAG, West performs a data analysis. The data analysis consists of a TN simulation process to determine the percentage of TN records that will initially pass MSAG and data field validations prior to the load into the West location data management system. West will compare the CUSTOMER MSAG against each TSP's TN records and return all

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discrepancies to the TSP, to CenturyLink, or to the county/municipal coordinator, as appropriate for investigation and resolution.

Unless agreed otherwise, West requires the percentage of TNs that successfully pass MSAG validation ("Match Rate") in the TN simulation to be 98% or greater for all TSP TN records prior to data being loaded into West's production database management for data validation. If the Match Rate is less than 98% or the agreed upon rate, West will work jointly with the CUSTOMER and each TSP to increase the quality of the MSAG and TSP data to further increase the Match Rate, provided, however, that it is ultimately CUSTOMER's and each TSP's responsibility to reach the Match Rate.

CenturyLink and West will perform up to three TN simulations at no cost to CUSTOMER.

Once the Match Rate has been achieved, the TSP TN data is deemed acceptable to load into the West data management system.

The following services are out of scope and may be addressed through a change order:

- Data Transition services including MSAG builds and TN record loads for any municipality located outside CUSTOMER's E9-1-1 Service Area
- Conversion of MSAG data that is not in electronic form, creation of a new MSAG database, or repair to an MSAG that lacks defined emergency service zones (if needed) and/or ESNs
- GIS related services

2.6. Wire Center Overlap Resolution

West's Location Data Management implementation depends on TSP and LEC cooperation to resolve wire center overlap issues.

Wireline end offices for which 9-1-1 calls for some TNs need to route to a PSAP utilizing one location data management (ALI) service and 9-1-1 calls from other TNs need to route to a PSAP using a different location data management (ALI) service are considered to be "split end offices" or "split wire centers".

For these split end offices, the TSP will be requested to "sort" the TNs within the split wire center, and submit/maintain data for TNs that should route to CUSTOMER PSAPs to the West Location Data Management system.

Where the TSP cannot segregate the TN data at end office level, the TSP and West will work cooperatively with the TSP and the LEC to establish data provisioning and processing arrangements.

3. POST IMPLEMENTATION SERVICES

The Service includes hosted systems and data management services to deliver E9-1-1 location information to CUSTOMER's PSAPs.

Location Data Management Service include receiving and processing periodic tabular MSAG updates from CUSTOMER, receiving SOI records from TSPs, systematically validating such records against the tabular MSAG, correcting TN records that are not MSAG valid, and posting validated TN record updates to the ALI system and SRDB. TN error records are created for TN updates submitted that fail validations.

West's redundant ALI systems deliver E9-1-1 location information data in a conventional ALI format to the CUSTOMER's call handling system, for subsequent display on each PSAP CPE workstation.

West appoints an E9-1-1 data integrity manager to work with CUSTOMER and TSPs in reporting/verifying problems, reviewing/rectifying error reports, and managing system administration duties.

3.1. Service Order Exchange

West works with each TSP in CUSTOMER's E9-1-1 Service Area to determine the most appropriate connectivity for electronic service order data exchange. Depending on the TN Record volume, a dedicated circuit or secure Internet connectivity may be selected for data exchange.

West will provide the CUSTOMER and each TSP with data exchange guidelines (detailing input and output files with required data elements and error codes). West may periodically update the data exchange guidelines, as appropriate.

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3.2. West Portal

West will provide and maintain a hosted web-based interface to West's suite of web-based tools and applications, otherwise known as the West Portal ("IUP"). IUP will provide the CUSTOMER, its PSAPs, and TSPs secure access to applicable West support tools and documentation. The following web-based applications and information are available through IUP following user authentication through the West identity management system:

- 9-1-1 NET® – web-based data management interface
- ClearView Metrics – for access to metrics reports
- Document Library – for downloading training materials, user's guides, and other documentation
- File Transfer Tool – for upload/download of files such as extracts or SOI and errors/statistics files

3.3. 9-1-1 NET

West's web-based data management system, 9-1-1 NET, allows each CUSTOMER PSAP, TSPs, and West data analyst to perform a number of functions.

The 9-1-1 NET system provides PSAPs with online access to production 9-1-1 data, change requests/discrepancy reports, historic tracking and reporting capabilities. The system automatically returns a transaction number verifying the acceptance of the change request, which can be used later to search for the record.

With 9-1-1 NET, CUSTOMER PSAPs can access 9-1-1 data records in their E9-1-1 Service area, including MSAG records, TN and TN error records, past ALI responses, and ESN/ELT records, and request and track corrections to these records through change requests ("CRs") and discrepancy reports ("DRs"). Through 9-1-1 NET, CUSTOMER PSAPs are able to query for and export up to 10,000 records, and they can also obtain status information and metrics data.

With 9-1-1 NET, TSPs can access their TN records, TN error records, and TN change requests; process change requests (CRs/DRs) referred to them and view MSAG records.

3.4. User Account Configurations

West will work with CUSTOMER to configure user access to appropriate applications for each user or user type. Additionally, West will ensure each user account is configured with the appropriate data access profile.

West will provide CUSTOMER with up to three unique user accounts per CUSTOMER PSAP for access to West web applications through the IUP. West will assign each IUP user a unique user ID, password, and a secure ID token. User accounts may not be shared by multiple people. West will work with CUSTOMER to determine and configure the appropriate data access profile for each user account. Additional user accounts or replacement of a misplaced secure ID tokens are subject to additional fees.

West will separately provide and configure IUP user accounts for each TSP.

West will provide CUSTOMER user documentation including a user's guide for each West web application through the IUP.

3.5. Data Management Services

West has primary responsibility for data management tasks listed in Table 1. Tasks for which CenturyLink, CUSTOMER's PSAPs, the county/municipal coordinators in CUSTOMER's E9-1-1 Service Area, or the TSP have partial responsibility for are also identified. West will work with CUSTOMER to mutually agree on process flows for data management services between West, CUSTOMER's PSAPs, and the county/municipal coordinators. Any changes to the designated responsible Party will be mutually agreed on.

West will create and maintain process documentation for all data management services.

3.5.1. Address Corrections

CUSTOMER may submit TN record address corrections to West. West will work with the identified TSP for correction/resolution of the subscriber's address.

3.5.2. MSAG Maintenance

Each CUSTOMER PSAP and municipal/county coordinator in each CUSTOMER PSAP's E9-1-1 Service Area will submit all MSAG change requests and updates through 9-1-1 NET. CUSTOMER may also submit TN change requests through 9-1-1 NET. Each CUSTOMER PSAP will provide West with all additions and changes to ESNs and ELTs.

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On receipt of CUSTOMER's MSAG Change Requests through 9-1-1 NET, West will provide daily MSAG maintenance support, inclusive of inserts, changes, and deletes on current MSAGs and ESN/ELTs.

Special Projects such as readdressing, annexations, MSAG scrubs, and county-wide MSAG changes are considered 'MSAG Special Projects' and may require more than one business day. MSAG Special Projects that require more than 1,000 MSAG record changes are out of scope and may incur additional fees.

3.5.3. Error Correction Maintenance

West will return all MSAG-related TN errors directly to the appropriate TSP for correction. Each TSP will be responsible for resubmitting an electronic SOI record to West for final error correction when the record content must be changed to correct the error.

3.5.4. ESN/ELT Table Maintenance

West will manage ESNs in the West Data Management and ALI systems and the associated ELTs as provided by each CUSTOMER PSAP. This task consists of maintaining assigned ESNs and ELTs in system tables. West will provide CUSTOMER with ESN/ELT information on request.

3.5.5. Wire Center Boundary Conflicts

West will research wire center boundary conflicts that affect 9-1-1 call delivery. West will work with the LEC in resolving these conflicts. Geographic porting (porting outside of current rate center) is not included in wire center overlay issues.

3.5.6. Database Maintenance/Activities

West will correct or refer all errors, MSAG updates, and ALI discrepancies within one Business Day of receipt.

3.5.7. MSAG Distribution

West and CUSTOMER will mutually agree upon an MSAG distribution schedule not to occur more frequently than monthly. In accordance with the agreed schedule, West will distribute an electronic copy of CUSTOMER E9-1-1 Service Area MSAG to agencies and personnel authorized by CUSTOMER. With CUSTOMER approval, West will distribute electronic daily MSAG updates (deltas) to the TSPs.

3.5.8. No Record Found/Misroute Investigation/Discrepant Address

West will research and work with each TSP to resolve all NRF and ALI discrepancy reports once they have been submitted through 9-1-1 NET. West will investigate misroutes and refer the misroute to the applicable TSP if appropriate.

3.5.9. Database Reconciliation

For each TSP serving CUSTOMER's PSAPs, West will offer one database extract to each TSP on an annual basis for the TSP to perform its own database reconciliation. West does offer database reconciliation services to its CUSTOMERs for an additional fee.

3.5.10. NPA Splits/Overlays

NPA splits or overlays are the responsibility of the TSP. West will update databases and tables with revised NPA information provided by TSP. The TSP should provide at least three months advance written notice to West to coordinate the necessary changes. Requests of less than three months are out of scope and will require a change order.

3.5.11. Local Number Portability ("LNP") Services

West will provide LNP services in CUSTOMER's E9-1-1 Service Area in alignment with the NENA recommendations for LNP. It is each TSP's responsibility to fix its LNP errors. West provides LNP reports daily to the TSPs.

3.5.11.1. Company ID

West will validate service order activity for proper Company ID. West will provide the Company ID in the ALI data stream.

3.5.11.2. Function Codes

West will accept M ("Migrate") and U ("Unlock") function codes on service order activity.

3.5.11.3. Database Fields

West will provide fields in the TN database records to indicate whether the record is in a Locked or Unlocked status. LNP-related errors are also assigned error codes.

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3.5.11.4. LNP Reports

West will provide each TSP with the following LNP reports on a daily basis:

- Unlock exception report ("Stranded Unlocks")
- Migrate expired report
- Migrate received not unlocked report
- Migrate pending report
- Successfully migrated report

3.5.12. SRDB Updates

West will provide an SRDB update for all records that have successfully passed data validation by West's data management system. SRDB updates will be posted to the 9-1-1 Routing system within one business day following successful data validation.

3.5.13. Wireless, VoIP, and Telematics Support

West's database management systems support both VoIP and Wireless Phase I and Phase II E9-1-1 call processing. West validates pANI shell records submitted by TSPs or their third party providers against the West-maintained MSAG records, and uploads the pANI shell records into the ALI database systems. NENA Company ID is required on all pANI shell records.

West will build and maintain the ALI Steering Table on the ALI systems. The ALI Steering Table is used by the ALI system to determine which MPC/GMLC/VPC to query for E9-1-1 location information. All wireless, VoIP, and Telematics E9-1-1 location updates to the ALI system are via the E2 Interface (ANSI/J-STD-036-C-1).

West will establish agreements with each Wireless, VoIP, and Telematics TSP (or their third party database providers) for access to West's relevant systems. Wireless, VoIP and Telematics TSPs (or their third party database providers) are responsible for establishing and maintaining connectivity to these systems and bear all connectivity and support costs.

West will help support E9-1-1 troubleshooting in production as well as pre-production live ALI testing from the host ALI perspective. The support West provides includes (i) pulling log files, (ii) monitoring ALI bids from the PSAP, (iii) monitoring data traffic between ALI and a wireless or VoIP provider's MPC/GMLC/VPC, and (iv) verifying that the ALI Steering Tables are configured correctly.

3.6. Wireline ALI Steering

On execution of the necessary agreement, West will establish communications for ALI to ALI steering with neighboring ALI Systems. ALI to ALI steering will be performed for wireline 9-1-1 calls only.

At CUSTOMER's direction, West can support any of the following types of wireline ALI steering:

- Trunk steering, where the bid to an ALI system contains a unique trunk number to identify when a query should be steered to another ALI system.
- No Record Found ("NRF") steering, where an ALI steering query is sent to another specified ALI system when there is an NRF in the ALI database.

CUSTOMER acknowledges that coordination will be required between CUSTOMER and each TSP in the assignment and on-going management of English Language Translations ("ELTs") by ESN/ESSIDs. Without this coordination, the ELTs returned in the ALI response may not be correct.

West will perform initial system configuration on each West ALI system to set-up steering for Wireline TNs to/from each foreign ALI system. West will perform an initial ALI steering table set-up and load, and be responsible for its ongoing maintenance.

West will provide connectivity between each foreign ALI system and each West ALI serving CUSTOMER, where possible. Existing connectivity from foreign ALI to the West ALI serving CUSTOMER will be utilized, where possible. West will work with CUSTOMER to complete pre-production testing of ALI steering with each foreign 9-1-1 Service Provider.

West will provide production technical support and troubleshooting to CUSTOMER's PSAPs and to CUSTOMER for ALI steering related issues.

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4. METRICS REPORT TOOL

West will provide a web-based tool, ClearView, for metrics reporting.

4.1. ClearView Reporting Tool

ClearView provides a number of breakout reports which can be queried based on a daily, weekly, or monthly basis following login and authentication through the IUP. CUSTOMER may determine the distribution of these user accounts between CUSTOMER's administrative staff and CUSTOMER's PSAPs. West currently posts data updates to daily data sets by 9:00 AM Mountain Time (MT), and updates to monthly data sets by the sixth business day of each month immediately following the reporting month. CUSTOMER will be able to access one year of metrics data through the ClearView Reporting tool. CUSTOMER metrics report requests older than one year are out of scope and subject to change order.

West will provide support services for the ClearView Reporting Tool during West Normal Business Hours, defined as Monday through Friday 8:00 AM to 5:00 PM Mountain Time, excluding West holidays.

4.1.1. ClearView Reports for Location Data Management

West will provide CUSTOMER with the following ALI Management metrics reports through the ClearView reporting tool.

- Primary Metrics Summary Reports
  - Service Order Processing
  - Daily Error By Number of Records Processed
  - Unresolved Errors at End of Month
  - ALI System Availability
  - ALI Records Found
- Monthly TN Census Report
- Monthly ALI Retrieval Report
- Monthly ANI Failure Report
- System Performance Reports
- NRF Reports
- SOI Reports
- TSS Error Reports

5. MAPSAG®

MAPSAG IS A GIS DATA MANAGEMENT APPLICATION USED BY CITY OR COUNTY GIS PROFESSIONALS, OUTSIDE OF THE CALL TAKING ENVIRONMENT, ALLOWING THE END-USER TO CREATE AND MAINTAIN ACCURATE 9-1-1 GIS DATA AND TO SYNCHRONIZE THE GIS DATABASE AND THE 9-1-1 DATABASE. THE RESULT IS A "CHECKS AND BALANCES" APPROACH OF CONSISTENCY AND ACCURACY ACROSS DATABASES USED FOR ADDRESSING AND 9-1-1. MAPSAG IS INSTALLED LOCALLY, AT THE END-USER LOCATION, AND OPERATES THROUGH A SIMPLE INTERFACE WITHIN ESRI'S ARCGIS DESKTOP PRODUCT. VARIOUS TOOLBARS ARE AVAILABLE FOR ACCESSING THE AVAILABLE TOOLS AND FEATURES. THE FUNCTIONALITY THAT RESIDES IN THE ARCGIS DESKTOP FRAMEWORK REMAINS AVAILABLE WHILE USING MAPSAG, INCLUDING EDITING, DRAWING, LAYOUTS AND/OR SPATIAL QUERIES. AN EXAMPLE OF THE INTEGRATION OF MAPSAG AND ARCGIS DESKTOP IS THAT USERS CAN PERFORM A SPATIAL OR ATTRIBUTE QUERY AND USE THE RESULTING RECORDS FOR ANALYSIS BY THE MAPSAG TOOLS.

USING MAPSAG, ARCGIS DESKTOP AND A COMBINATION OF BOTH, NEW GIS DATA RECORDS (STREETS, STRUCTURES, POLYGONS ETC) CAN BE INPUT INTO THE GIS IN A NUMBER OF WAYS, INCLUDING FIELD GPS, ON-SCREEN DIGITIZING, IMPORT, AND AUTO-GENERATION. THE MAPSAG SOFTWARE CURRENTLY OPERATES IN THE LATEST VERSION OF ARCGIS FOR DESKTOP (CURRENTLY 10.2.X) AND WILL UTILIZE A PERSONAL GEODATABASE, FILE GEODATABASE OR AN ENTERPRISE GEODATABASE THROUGH ARCGIS SERVER ("ARCSDE").

MAPSAG SOFTWARE REQUIRES A LICENSED COPY OF ESRI'S ARCGIS FOR DESKTOP, TO BE PROVIDED BY THE END-USER OR CAN BE PURCHASED FROM WEST. ONE COPY OF MAPSAG WILL BE PROVIDED FOR EACH PSAP LOCATION.

ADDITIONAL OPTIONAL MODULES:

SIMPLECELL® TURNS CELL SECTOR AND CELL TOWER TABULAR DATA FROM WIRELESS CARRIER ROUTING SHEETS INTO VALUABLE GIS DATA THAT CAN BE APPLIED TO A VARIETY OF SITUATIONS.

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911 MAPBOOK GREATLY REDUCES THE EFFORT OF CREATING MAP BOOKS FROM GIS DATA. THE MAP BOOKS CAN THEN BE DISTRIBUTED IN HARD COPY OR PDF FORMAT TO FIRST RESPONDERS.

6. TRAINING

West will provide training for the Service to CUSTOMER PSAP personnel, county/municipal coordinators in the CUSTOMER E9-1-1 Service area, and each TSP.

The CUSTOMER is responsible for identifying the training attendees from each CUSTOMER PSAP, ensuring they attend the West provided training, and any expenses incurred by CUSTOMER's training attendees.

West will provide training materials and user documentation for all training sessions. CUSTOMER may reproduce and internally distribute copies of West provided training materials as necessary to CUSTOMER and CUSTOMER PSAP personnel only.

CUSTOMER and West will agree on a training schedule. West requires notice of rescheduling at least ten Business Days in advance or an additional fee may apply. West may combine multiple topics and/or target attendees from multiple CUSTOMER groups for maximum efficiency.

Training will be "train-the-trainer" format, which will enable CUSTOMER PSAPs to train new employees. The CUSTOMER is responsible for training additional personnel at CUSTOMER's PSAPs, as necessary, or contracting with West to provide additional training. Additional training is out of scope and will require a change order.

6.1. PSAP Administrators

West will provide one training session for CUSTOMER PSAP administrators. This training is expected to last up to two days and will be conducted as mutually agreed between West and CUSTOMER (e.g. webinar, onsite at central PSAP location, at West facilities). CUSTOMER may determine the number and type of employees attending the West training. This training will focus on:

- Location Data Management flow and processes
- IUP and IUP Tools
- 9-1-1 NET
- ClearView Reporting Tool

6.2. TSP Information Sessions and Training for County/Municipal Coordinators

West provides up to two information sessions of up to four hours for TSPs who serve the CUSTOMER E9-1-1 Service Area via telephone conference call. Topics will include data exchange procedures, data processing procedures, 9-1-1 NET9-1-1 NET, reporting problems to West and escalation procedures, and other mutually agreed upon topics. The information session(s) should be completed prior to the first TSP migration to West Service and must include participation by the designated West and CenturyLink Project Leads.

- West will separately provide training on 9-1-1 NET9-1-1 NET to county/municipal coordinators. Training will be via telephone conference call and will last approximately two hours.

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1. General. The Airbus DS Communications VESTA® Hosted Emergency Call Handling System (the "Service") is provided by CenturyLink QCC under the terms of the Agreement, this Service Exhibit, and any signed Order Forms are between CenturyLink QCC and Customer.

2. Service.

2.1 Description. The Service is provided to Customer by CenturyLink, an authorized Airbus DS Communications reseller. The Service only includes the features and functionalities described within this Section 2. The Service provides hosted emergency call handling functionality using a system that includes several Airbus DS Communications applications. These applications include: VESTA 9-1-1 Call Handling solution, VESTA Analytics MIS solution, VESTA Locate mapping solution, map updates via DataSync and the associated hardware, software and peripherals needed to deliver the Service.

The Service will provide the Customer with:

- Secure, geo-diverse, redundant hosted, multi-tenant infrastructure;
- VESTA® 9-1-1 advanced NG9-1-1 call-processing workstations;
- Functionality and performance equal to customer premise-based systems;
- Call Taker and Server Virus Protection and Patch Management, pre-tested and verified;
- Airbus DS Communications Software Support; and
- All HW/SW typically needed. See the list of hardware needed for a typical system below in or more details

The Service includes Airbus DS Communications software, hardware and equipment operating in geo-diverse CenturyLink provided data centers. Service includes Airbus DS Communications software and hardware which is made available to Customer and described in this Service Exhibit. The Service will be operated and maintained by CenturyLink along with Airbus DS Communications software support and managed services, including general software updates made available for the Service by Airbus DS Communications.

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2.2 ADVANCED CALL HANDLING SOLUTION. THE ADVANCED CALL HANDLING SOLUTION INCLUDES:

Option	Included?
VESTA 9-1-1	Included (Advanced Call Processing, or ACD) (Activated at Customer Discretion)
VESTA Analytics	Included
Virus Protection	Included
Security Patch Management	Included
Monitoring & Response	Included
VESTA Locate	Included
Agent Training	Included
Admin Training	Included (1) Class Per PSAP
Cutover Coaching	Included (1) Per PSAP
Field Engineering	Included Remote FE
Project Coordination	Included
Software Support	Included

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2.3 Feature Overview. The Service uses the configurable VESTA® 9-1-1 platform. A variety of features and configuration options are available depending on the package purchased by Customer. A high level summary of some of the key features of the Service is provided below.

A. Scalable IP-Based Solution. The Service leverages Session Initiation Protocol (SIP) technology and allows a Customer's PSAPs to:

- Scale without a practical upper limit to system provisioning.
- Move to a networked model that integrates data and voice.
- Implement call queues to meet call taker distribution needs.

B. VESTA 9-1-1 Features. The Service uses the VESTA 9-1-1 emergency call handling solution which provides a variety of configurable features including user features, call distribution and ACD features. A subset of these is provided below.

i. User Features.

The VESTA 9-1-1 solution is a purpose built, high capacity, no single point of failure emergency call taking platform. VESTA 9-1-1 is based on a modular architecture which allows components, such as gateways and network switches to be located independently from central controller, creating a flexible platform for configuring systems which meet customer resiliency requirements and installation environment.

The VESTA 9-1-1 User Interface offers custom layouts. These layouts can be designed to meet the requirements of each PSAP, as well as each user role. When Users log into to a selected role, the layout optimized for that role is automatically loaded/displayed. PSAP Administrators create highly functional layouts for each role using a large library of icons, custom colors, fonts, window layouts etc.

The VESTA 9-1-1 emergency call handling system also includes a variety of other features, some of which are discussed below:

- Warm or blind one button transfers.
- Distinctive ring tones on a per line basis, for audible line ringing identification.
- Abundant conferencing features, including adding and dropping participants and quick visualization of the conference through the conferencing window.
- Manual and automatic ALI re-bid and incorrect location reporting.
- Personal, shared and multiple line appearances that use color, icons and call status elements to offer fast identification and quick call status information to users.
- Configured to automatically forward admin line traffic according to business rules.
- Greetings manager which allows call takers to create and manage automated messages. VESTA 9-1-1 also offers a system wide automated messaging for specific queues.
- A high capacity of entry contacts and speed dial system for one click speed dial, contacts may be search at the simple or advanced level for the fastest lookup. Additionally through intelligent speed dialing and selective transfer agencies, speed dials are automatically displayed and dialed based on ESN.
- A configurable ALI display
- Instant Recall Recorder (IRR) & IRR Retrieval: Instant Recall Recorder (IRR) is a telephony, radio, and microphone-based message recording and recorded message handling device. Customer's agents can play back recently completed calls.
- Integrated TTY via Baudot with pre-programmable messages and HCO/VCO capabilities.

ii. Shared Call Appearance (SCA). Call takers can answer a call on a Shared Call Appearance.

iii. Multiple ACD Algorithms (If Activated). The Hosted Services supports Multiple ACD algorithms:

- **Ring all**: Directs the call to all available call takers in the group.
- **Circular**: Directs the call to the next available call taker in round robin fashion within the group.
- **Linear**: Directs the call to the first available call taker within the group with the highest priority setting.
- **Longest Idle**: Presents the call to the longest idle call taker in the group.

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iv. ACD Functionality (If Activated). The ACD functionality in the Hosted Service provides multiple features:

- **ACD Queue**: Allows lines and trunks to be assigned to specific queues. Each agent of the Customer can be a member of one or more ACD queues. Customer's agent will receive a call from a queue when they are logged on and ready.
- **Customer Agent Priority**: Allows a priority to be assigned to each Customer agent in a queue.
- **Queue Recorded Announcement**: A PSAP-recorded announcement can be played at intervals to callers waiting in a queue.
- **Not Ready**: Allows Customer's agents to complete tasks from a previous 9-1-1 call before a new call is presented.
- **Auto Answer**: The console automatically answers an ACD-routed call. The Auto Answer feature contains headset detection for console ACD ready state option. When this option is enabled, the console immediately enters a Not Ready state for ACD calls when the call taker unplugs the headset from the jack box. After the call taker plugs the headset into the jack box, the Ready button must be clicked to enable the call taker to receive ACD calls again.

C. **VESTA™ Analytics Features.** The VESTA Analytics solution provides emergency response center managers and system administrators with information on the volume of calls, performance of Customer agents, and Customer PSAP statistics. The VESTA Analytics solution is a browser-based application that uses information from a database to generate a number of statistical reports.

i. Feature Overview. The VESTA Analytics application features include:

- **Enhanced Operational Management** —Provides the ability to gather, organize, data-mine, and report near real-time information. VESTA Analytics incorporates an advanced data warehouse for improved performance for creating custom reports and searching for data.
- **Personnel Management** —Includes new 9-1-1 specific key performance indicators (KPIs) that help assess the performance within the call center for more informed decision-making regarding staffing.
- **Automated Evidence Organization** —Automatically associates related calls, and audio events into the context of individual incidents. This approach simplifies the tasks involved with reconstructing, organizing, searching, and archiving historical incident information.

ii. Metrics, Data and Reports. Through the VESTA Analytics browser-based tool, Customers can access metrics reports on their PSAP. In addition, the VESTA Analytics solution uses pre-processed data to display key performance indicators and activity thresholds for your site through its Dashboard. The Dashboard provides the following:

- Customer Agent Performance Overview
- Call Center Overview
- Daily Call Center Overview
- Dashboard Workbench

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VESTA Analytics Reports *(As of current version 2.4)*	
STANDARD REPORTS Caller perspective • Call Count by Hour • Call Count by Day • Call Count by Week • Call Count by • Call Count by Quarter • Call Count by Year • Call Count by Call Category • Call Count by Call Types • Call Average by Day vs. Hour • Call Count Comparison by Month • Call Duration • Overflow Count by Queue and Console • Call Count by Wait Time Range Customer agent perspective reports • Customer's Agent Transfer Average by Month • Customer's Agent Ring Count by Ring Time Range	**STANDARD REPORTS (Cont.)** Trunk/line perspective reports • Trunk & Line Utilization by Day vs. Hour **ADVANCED REPORTS** Caller perspective reports • Abandoned Call Summary • Answer Performance Customer's Agent perspective reports • Customer's Agent Statistics Comparison Report • Customer's Agent Efficiency Ranking Report • Customer's Agent Offline Count by Offline Time Range

Note: Ad hoc reports are not currently supported, and ad hoc reporting functionality will only be provided if available, as reasonably determined by CenturyLink.

D. VESTA™ Locate Features. The VESTA Locate solution is a mapped ALI application installed on each Customer workstation and allows agency personnel to locate 9-1-1 callers and direct emergency responses quickly and accurately. The DataSync application is used to pull updated map data to each workstation. The Customer is responsible for providing, updating and maintaining their map data. The VESTA Locate system features include:

- Incorporating multi-jurisdictional map data without merging data sets.
- ESRI projections for all data layers while preserving original coordinate systems.
- Login-based user right and map views through administrative control.
- Powerful data search tool based on utilizing attributes or spatial buffers.

2.4 Software, Hardware and Services provided for a typical system. The Service includes a variety of options as part of the purchase. A summary of the typical items provided is provided below.

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AIRBUS DS Communications CRITICAL MATTERS™

TYPICAL 2-9 POSITION PSAP/

Per Position	Per PSAP	Description
		Software
1		VESTA 9-1-1 Basic Call Handling
	Yes	VESTA Analytics MIS
1		VESTA Locate Mapping
	Yes	DataSync Map Updates
1		IRR
1		Activity View
1		CDR
1		EIM - ESInet Connection via RFAI
		Workstation Equipment
1		HP Workstation w/ Tower stand for VESTA
	2	HP Workstation w/ Tower stand for VESTA Analytics & Activity View
1		22" Monitor for VESTA Workstations
	2	22" Monitors for VESTA Analytics & Activity View
1		Genovation Keypad w/ 12ft cable
1		Sound Abritration Module (SAM) w/ speaker kit
	1	Color Inkjet Printer (USB) w/ 10 Ft Cable

Per Position	Per PSAP	Description
		Optional Items
Varies	Varies	Command Post
Varies	Varies	ACD (Advanced Call Taking)
Varies	Varies	End User Training
Varies	Varies	Field Engineering Services
Varies	Varies	Project Management Services
Varies	Varies	IP Phones

Per PSAP	Description
	PSAP Backroom Equipment
2	Cisco Switches w/redundancy
2	Voice Modules (Mediant 1000)
1	Mediant Chassis Bundle (Includes chassis and redundant power supply)
1	4-Port FXS Gateway
1	TS-4 Serial Port Terminal Server
1	Blackbox TL801A-R2 Data Share (Connects two RS-232 devices over 1 line)
1	Blackbox TL158A-R4 Data Cast (Provides up to 8 connections)
1	19in Equipment Rack
1	NAS Device
Varies	Misc cables and peripheral kits
	RJ45 4FT Cable, Serial cable, Surge Protector, Power Distribution Mount Kit, Wire Management, Rack Shelf, Ground Bar Mount Kit, Patch Panel Equipment
	Support Services
Yes	Airbus Software Support for length of contract
Yes	Hardware Support
Yes	Airbus Monitoring & Response
Yes	Virus Protection
Yes	Security Patch Management
	Implementation Services
Yes	Admin Training
Yes	Airbus Factory Staging
Yes	Cutover Coaching

This is a typical SW, Services and Equipment list. Please refer to a detailed quote from Airbus for full information. Quantities assume a full package is purchased and not ala carte.

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AIRBUS DS Communications CRITICAL MATTERS™

TYPICAL 10-19 POSITION PSAP/

Per Position	Per PSAP	Description
		Software
1		VESTA 9-1-1 Basic Call Handling (or Advanced)
	Yes	VESTA Analytics MIS
1		VESTA Locate Mapping
	Yes	DataSync Map Updates
1		IRR
1		Activity View
1		CDR
1		EIM - ESInet Connection via RFAI
		Workstation Equipment
1		HP Workstation w/ Tower stand for VESTA
	2	HP Workstation w/ Tower stand for VESTA Analytics & Activity View
1		22" Monitor for VESTA Workstations
	2	22" Monitors for VESTA Analytics & Activity View
1		Genovation Keypad w/ 12ft cable
1		Sound Abritration Module (SAM) w/ speaker kit
	1	Color Inkjet Printer (USB) w/ 10 Ft Cable

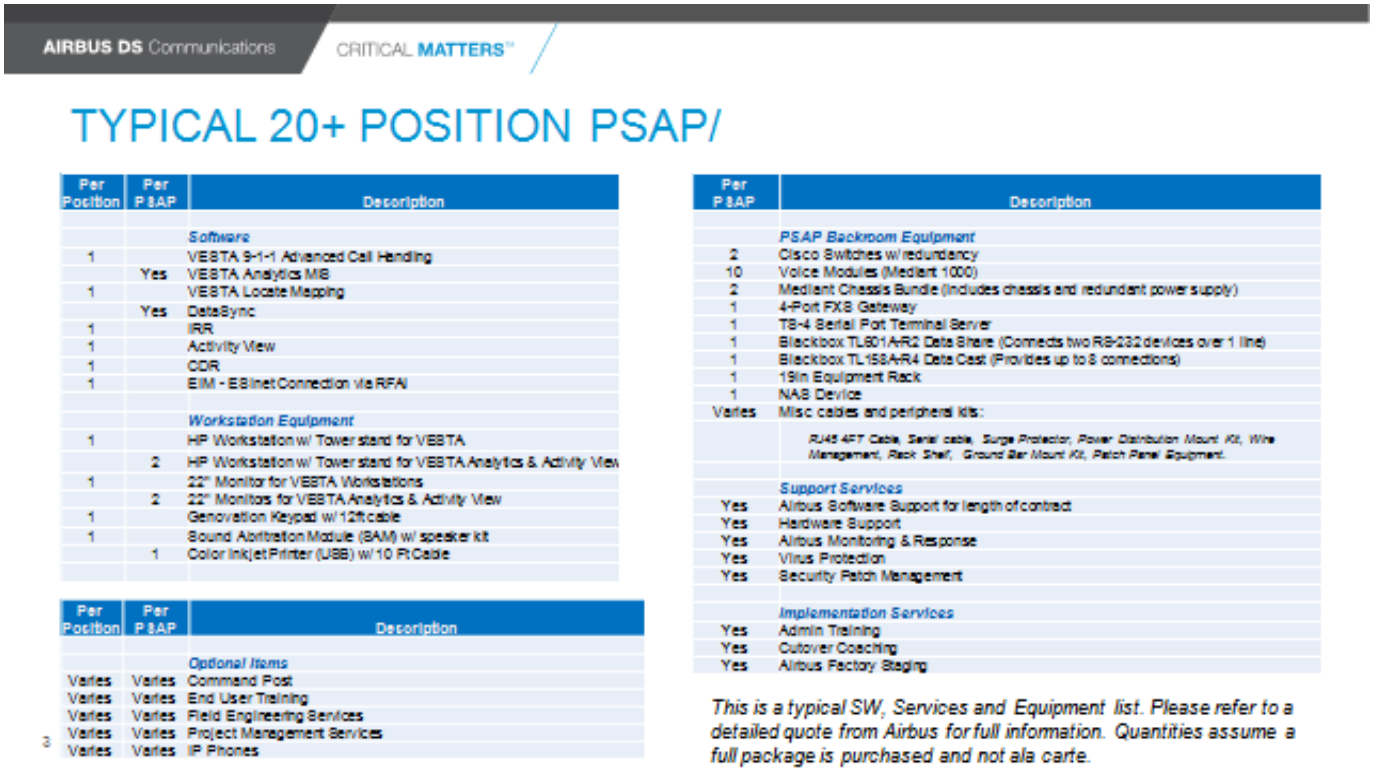
Per Position	Per PSAP	Description
		Optional Items
Varies	Varies	Command Post
Varies	Varies	ACD (Advanced Call Taking)
Varies	Varies	End User Training
Varies	Varies	Field Engineering Services
Varies	Varies	Project Management Services
Varies	Varies	IP Phones

Per PSAP	Description
	PSAP Backroom Equipment
2	Cisco Switches w/redundancy
5	Voice Modules (Mediant 1000)
1	Mediant Chassis Bundle (Includes chassis and redundant power supply)
1	4-Port FXS Gateway
1	TS-4 Serial Port Terminal Server
1	Blackbox TL801A-R2 Data Share (Connects two RS-232 devices over 1 line)
1	Blackbox TL158A-R4 Data Cast (Provides up to 8 connections)
1	19in Equipment Rack
1	NAS Device
Varies	Misc cables and peripheral kits:
	RJ45 4FT Cable, Serial cable, Surge Protector, Power Distribution Mount Kit, Wire Management, Rack Shelf, Ground Bar Mount Kit, Patch Panel Equipment.
	Support Services
Yes	Airbus Software Support for length of contract
Yes	Hardware Support
Yes	Airbus Monitoring & Response
Yes	Virus Protection
Yes	Security Patch Management
	Implementation Services
Yes	Admin Training
Yes	Cutover Coaching
Yes	Airbus Factory Staging

This is a typical SW, Services and Equipment list. Please refer to a detailed quote from Airbus for full information. Quantities assume a full package is purchased and not ala carte.

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AIRBUS DS Communications CRITICAL MATTERS™

TYPICAL 20+ POSITION PSAP/

Per Position	Per PSAP	Description
		Software
1		VESTA 9-1-1 Advanced Call Handling
	Yes	VESTA Analytics MIB
1		VESTA Locate Mapping
	Yes	DataSync
1		IRR
1		Activity View
1		CDR
1		EIM - ESInet Connection via RFAI
		Workstation Equipment
1		HP Workstation w/ Tower stand for VESTA
	2	HP Workstation w/ Tower stand for VESTA Analytics & Activity View
1		22" Monitor for VESTA Workstations
	2	22" Monitors for VESTA Analytics & Activity View
1		Genovation Keypad w/ 12ft cable
1		Sound Arbitration Module (SAM) w/ speaker kit
	1	Color Inkjet Printer (USB) w/ 10 Ft Cable

Per Position	Per PSAP	Description
		Optional Items
Varies	Varies	Command Post
Varies	Varies	End User Training
Varies	Varies	Field Engineering Services
Varies	Varies	Project Management Services
Varies	Varies	IP Phones

Per PSAP	Description
	PSAP Backroom Equipment
2	Cisco Switches w/ redundancy
10	Voice Modules (Mediant 1000)
2	Mediant Chassis Bundle (Includes chassis and redundant power supply)
1	4-Port FXS Gateway
1	TS-4 Serial Port Terminal Server
1	Blackbox TL601A-R2 Data Share (Connects two RS-232 devices over 1 line)
1	Blackbox TL158A-R4 Data Cast (Provides up to 8 connections)
1	19in Equipment Rack
1	NAS Device
Varies	Misc cables and peripheral kits:
	RJ45 4FT Cable, Serial cable, Surge Protector, Power Distribution Mount Kit, Wire Management, Rack Shelf, Ground Bar Mount Kit, Patch Panel Equipment.
	Support Services
Yes	Airbus Software Support for length of contract
Yes	Hardware Support
Yes	Airbus Monitoring & Response
Yes	Virus Protection
Yes	Security Patch Management
	Implementation Services
Yes	Admin Training
Yes	Cutover Coaching
Yes	Airbus Factory Staging

This is a typical SW, Services and Equipment list. Please refer to a detailed quote from Airbus for full information. Quantities assume a full package is purchased and not ala carte.

3

3. Acronyms

The following acronyms may appear in this document:	Term
ACD	Automatic Call Distribution
ALI	Automatic Location Identification
ANI	Automatic Number Identification
ESN	Emergency Service Number
HCO/VCO	Hearing Carry Over/Voice Carry Over
GIS	Geographic Information System
NROC	Network Reliability Operations Center
TTY	Teletypewriter

4. Monitoring and Maintenance

4.1 Datacenter Support

A. CenturyLink 9-1-1 Network Reliability Operations Center (NROC) uses solution partners/manufacturers Web-based portals to track all manufacturer related 9-1-1 equipment issues. These portals allow CenturyLink to communicate directly with its 9-1-1 equipment manufacturers and prioritize the severity of the repair problem with each manufacturer.

B. The portals will allow CenturyLink to receive hourly, daily, or weekly Service Ticket Alerts via e-mail for additional tracking purposes. The Web-based service and support command center provides CenturyLink with a direct escalation process for open manufacturer issues.

C. Included in our Managed Services offering is monitoring and response from our 9-1-1 equipment manufacturers and contractors. If CenturyLink partners recognize a repair issue at the PSAP site through the remote monitoring process, the partner will open up a ticket with CenturyLink NROC.

4.2 PSAP Support. CenturyLink 9-1-1 technicians provide installation and maintenance support of the Airbus DS Communications VESTA Hosted Emergency Call Handling System Seven (7) days per week, 24 hours per day, 365 Days per year

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to the 9-1-1 PSAP Centers. Support will be provided by CenturyLink 9-1-1 technicians, data technicians, network technicians and/or CenturyLink contractors.

4.3 Application Software and Firmware Program Upgrades. Application software and firmware program upgrades are defined as major enhancements to the already purchased product feature/functionality set. A product change is classified as major, in the discretion of CenturyLink and Airbus, based upon the impact of the change to the core functionality of the product. CenturyLink will be notified by an Airbus Product Change Notice, of all application software and firmware program upgrades, which occur within the term of the Service. The local CenturyLink account team will contact the customer to coordinate the upgrade at no additional charge provided that the Service is in effect. Any change in the numbers preceding the decimal point within the product version number constitutes a software program upgrade (for example a change from product version 1.40 to 2.00, or 2.11 to 3.00, or 3.20 to 4.00 et al will represent a software program upgrade).

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1. General. Domestic CenturyLink IQ® Networking Service ("Service") is provided by CenturyLink QCC under the terms of the Agreement, this Service Exhibit, and any signed quotes between CenturyLink QCC and Customer.

2. Service.

2.1 Description. Service is a data, IP, and a network management solution that is designed for connectivity between Customer's sites or public Internet connectivity.

2.2 Ports. CenturyLink offers Service in the following port ("Port") types:

(a) Internet Port. Internet Ports provide public Internet connectivity.

(b) Private Port. Private Ports provide WAN connectivity between Customer sites. Customer may allocate Private Port traffic up to 10 different closed user groups. Customer may request more than 10 point-to-point closed user groups. Quality of service ("QoS") traffic prioritization can be used with Private Ports. Ethernet Private Ports with real-time traffic that require QoS are subject to local access limitations.

2.3 Network Management Service. CenturyLink Network Management Service ("NMS") is a feature available for all Ports. Comprehensive Management is available with domestic Ports. The feature provides performance reporting, change management, configuration management, fault monitoring, management and notification of CPE and network related issues. CenturyLink will provide Select Management with each domestic Port unless (a) Customer notifies its CenturyLink sales representative that Customer opts out of Select Management for that Port or (b) Customer chooses Comprehensive Management for that Port, Customer may also request NMS management features for devices not associated with a CenturyLink IQ Networking Port in domestic locations with CenturyLink's prior approval. The NMS management types are set forth in more detail below.

(a) Monitor and Notification. Monitor and Notification is included with CenturyLink IQPorts CenturyLink will monitor the Customer devices 24x7x365 for up/down status using ICMP ping. CenturyLink will notify Customer if no response is received for a designated period. NMS will not provide any troubleshooting and incident resolution for device or network faults. "Monitor & Notification" is the only NMS option available for devices that do not support SNMP and/or are not certified for NMS.

(b) Comprehensive Management. Comprehensive Management includes all of the Select Management features as well as total customer agency and change management of complex routing functions within routers, switches, and firewall modules. This includes configuration and management of complex routing, switching, device NIC cards, firewall module configurations, and basic router internal firewall functions. CenturyLink acts as the Customer's single point of contact in managing the resolution of all service, device, and transport faults covered by Comprehensive Management and will work with any third party hardware and/or transport providers the Customer has under contract until all network issues are successfully resolved. With Internet security protocol ("IPSec"), CenturyLink can configure full mesh, partial mesh, or hub-and-spoke topologies with secure tunnels for remote communication between Customer locations. IPSec is only available on approved Cisco and Adtran devices. IPSec opportunities greater than 25 devices or with other manufacturer's devices require CenturyLink approval before submitting an order.

(c) CenturyLink Responsibilities. For NMS, CenturyLink will provide Customer with a nonexclusive service engineer team, which will maintain a Customer profile for the portion of the Customer's network where the devices covered by NMS reside. CenturyLink will work with Customer to facilitate resolution of service affecting issues with Select Management or Comprehensive Management.

(d) Customer Responsibilities.

(i) Customer must provide all information and perform all actions reasonably requested by CenturyLink in order to facilitate installation of NMS. If Customer limits or restricts CenturyLink's read/write access to a device, CenturyLink cannot support configuration backups. Customer is responsible for supporting CenturyLink in access, troubleshooting, and configuration requests made in accordance with normal troubleshooting and repair support activities.

(ii) For Comprehensive Management, Customer must execute the attached Letter of Agency (Attachment 1) to authorize CenturyLink to act as Customer's agent solely for the purpose of accessing Customer's transport services.

(iii) Depending on transport type, Customer's managed devices must comply with the following set of access requirements: (A) for NMS delivered via IP connectivity with an Internet Port or other public Internet service, devices must contain an appropriate version of OS capable of establishing IPsec VPNs; and (B) for NMS delivered with a Private Port, CenturyLink will configure a virtual circuit to access Customer's device at no additional charge. CenturyLink will add the NMS network operations center to the Customer closed user group to manage the devices within Customer's network.

(iv) Customer must provide a routable valid IP address to establish the NMS connection. Customer's primary technical interface person must be available during the remote installation process to facilitate installation of NMS. All Customer devices managed under NMS

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must be maintained under a contract from a CenturyLink approved onsite CPE maintenance provider. The response times for which Customer contracts with its CPE maintenance provider will affect CenturyLink's timing for resolution of problems involving Customer provided devices. The performance of the CPE maintenance provider is Customer's responsibility.

2.4 Multicast. Multicast is an optional feature for Private Ports. The feature enables IP multicast on the CenturyLink IP network.

2.5 VPLS. Layer 2 virtual private LAN service ("VPLS") is optional feature for Private Ports only. Private Ports with VPLS are supported on CenturyLink-certified Cisco equipment and are limited to the following connection and encapsulation methods: Ethernet 10 Mbps, 100 Mbps, 1000 Mbps with Ethernet encapsulation; DS1 and DS3 with Frame Relay encapsulation, and OC3 with ATM encapsulation. The following features are not available with Private Ports with VPLS: (a) usage reports; (b) the Precise Burstable or Data Transfer pricing methodologies; (c) the SLA's Reporting Goal; (d) VPN Extensions and (e) End-to-End Performance Reporting.

2.6 VPN Extensions. A VPN Extension is an optional feature for layer 3 multi protocol label switching ("MPLS") Private Ports and Enhanced Ports. The feature allows Customer to extend its Layer 3 MPLS closed user groups to Customer locations that are not served by CenturyLink's MPLS network ("Remote Location"). Customer can establish a tunnel through the Internet between the Customer's CPE at the Remote Location and the CenturyLink network device. The Customer provided CPE must support the CenturyLink service configurations and be installed as designated by CenturyLink or as otherwise agreed upon by the parties. Customer is responsible for the installation, operation, maintenance, use and compatibility of the Remote Location CPE. Customer will cooperate with CenturyLink in setting the initial configuration for the Remote Location CPE interface with the VPN Extension Service. Customer must use IP connectivity at the Remote Location that includes a static public IP address.

(a) Exclusions. CenturyLink will not debug problems on, or configure any internal or external hosts or networks (e.g., routers, DNS servers, mail servers, www servers, and FTP servers). All communication regarding the VPN Extension must be between CenturyLink and a Customer approved site contact that has relevant experience and expertise in Customer's network operations. The following features are not available with VPN Extensions: (i) End-to-End Performance Reporting; (ii) QoS; (iii) VPLS; and (iv) Multicast. VPN Extensions are not subject to the SLA.

2.7 Backbone Prioritization/Priority Queuing. Backbone Prioritization and Priority Queuing is available with individual domestic Private Ports. When this feature is configured on such Port, traffic originating from that Port will be designated at a higher class of service to the CenturyLink IP network than traffic originating from Private Ports without the feature or Internet Ports. The benefit from this feature is realized during periods of high network congestion. The feature may not be available at all locations or with Multicast in certain circumstances.

3. Ordering. For purposes of this Service Exhibit, "Order Form" means an electronic order confirmation process using an architecture confirmation document ("ACD") or other document that Customer and CenturyLink mutually agree to prior to submitting a Service order request. CenturyLink must approve each Order Form and Customer must send it via e-mail, fax, or other CenturyLink-approved electronic process to CenturyLink. Subject to availability, CenturyLink will assign /29 Internet address space for Customer during the use of a Port. Neither Customer nor any End Users will own or route these addresses. Upon termination of Service, Customer's access to the IP addresses will cease. If Customer requests special sequencing for Port installation, Customer must designate a Key Port. A "Key Port" is a Port that must be available on the network before adding additional domestic Port locations. The installation of the Key Port will determine the timelines for the installation of other domestic Ports. Customer may designate one Key Port within its CenturyLink IQ Networking network topology by notifying CenturyLink in writing of that request. Unless the parties otherwise agree in writing, Customer has sole responsibility for ordering, securing installation and ensuring proper operation of any and all equipment required to enable Customer to receive the Service.

4. Charges. Customer must pay all applicable MRCs and NRCs set forth in an attached pricing attachment, offer attachment, or a valid signed CenturyLink issued quote. Charges will commence within five days after the date CenturyLink notifies Customer that Service is provisioned and ready for use ("Start of Service Date"). Customer may order multiple Ports with multiple pricing methodologies in accordance with the pricing methodologies set forth below. Customer may change the pricing methodology (e.g., from Flat Rate to Precise Burstable) of a Port if: (a) the Port's new MRC remains the same or greater than the old MRC, and (b) the Port starts a new Service Term that is equal to or greater than the remaining number of months in the old Service Term, subject to a 12 month minimum. CenturyLink may change rates after the completion of a Port's Service Term with 60 days' notice. The net rate MRCs set forth in the pricing attachment, offer attachment or valid signed CenturyLink issued quote will be used to calculate Contributory Charges. Net rate MRCs are lieu of all other rates, discounts, and promotions. The End-to-End Performance Reporting, VPN Extension, SIG and Multicast features are provided on a month-to-month basis and either party may cancel a feature with 30 days' prior written notice to the other party. CenturyLink may upon 30 days prior written notice to Customer modify those features, including without limitation, their rates.

4.1 Pricing Methodologies.

(a) Flat Rate. The Flat Rate pricing methodology bills Customer a specified MRC for a given Port speed regardless of Customer's actual bandwidth utilization.

(b) Precise Burstable. Usage samples are taken every five minutes throughout the monthly billing cycle. Only one sample is captured for each five-minute period, even though there are actually two samples taken; one for inbound utilization and one for

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outbound utilization. The higher of these two figures is retained. At the end of the billing period, the samples are ordered from highest to lowest. The top 5% of the samples are discarded. The highest remaining sample is used to calculate the usage level, which is the 95th percentile of peak usage. For each Precise Burstable Port, Customer will pay an MRC calculated by multiplying Customer's 95th percentile of peak usage in a given month by the applicable MRC per Mbps. There is a minimum usage amount within each Precise Burstable Port classification ("Precise Burstable Minimum"). Customer will be billed the greater of the Precise Burstable Minimum or the actual charges based upon its 95th percentile of peak usage.

5. Term; Cancellation.

5.1 Term. The term of an individual Port (and associated features/Services, if applicable) begins on the Start of Service Date for that Port and continues for (a) the service term shown on the valid signed CenturyLink issued quote or the pricing attachment or (b), three years for other domestic Ports (each a "Service Term"). If Service is installed at multiple Customer locations or with multiple Ports at a Customer location, each separate Port (and associated features/Services) will have its own Start of Service Date. Upon expiration of a Service Term, CenturyLink IQ domestic Ports (and associated features/Services) will remain in effect on a month-to-month basis until canceled by either party with 60 days' notice.

5.2 Cancellation. Upon cancellation of a Service, Customer will remain liable for charges accrued but unpaid as of the cancellation date. If a Port and associated features/Services is canceled by Customer other than for Cause, or by CenturyLink for Cause, before the conclusion of its Service Term or Upgrade Service Term (as described in the "Upgrades" section), Customer will pay a "Cancellation Charge" equal to:

(a) Domestic Internet Port, Private Port or Enhanced Ports: (i) 100% of the Port and NMS MRCs multiplied by the number of months remaining in the first 12 months of the initial Service Term (or Upgrade Service Term), if any, plus (ii) 35% of the balance of those MRCs multiplied by the number of months remaining to complete the initial Service Term (or Upgrade Service Term) beyond the first 12 months, plus (iii) the amount of any NRCs discounted or waived if the Port has not remained installed for at least 12 months.

5.3 Waiver of Cancellation Charges.

(a) Upgrades. CenturyLink will waive the Cancellation Charges for a domestic Port if Customer: (i) upgrades a Port to another Port with a higher bandwidth (e.g., from a DS1 to a DS3) within the same pricing methodology and the new Port's MRC (with Local Access) is equal to or greater than the combined MRCs of the Port and the associated Local Access Service being terminated; (ii) upgrades the Port type to a higher Port type (e.g., from an Internet Port to a Private Port) within the same pricing methodology. All upgraded Ports must start a new Service Term equal to or greater than the replaced Port's remaining Service Term, subject to a 12 month minimum ("Upgrade Service Term"). If Customer cancels the upgraded Port before the completion of the Upgrade Service Term, Customer will pay the Cancellation Charges set forth in the Cancellation section above. In some cases an upgrade to a Port may trigger a Local Access charge under the Local Access Service Exhibit. **(b) Migration to Other CenturyLink Services.** CenturyLink will waive the Cancellation Charges for a domestic Port if Customer migrates the Port to new Analog VoIP Service or Data Bundle Solutions (a "New Service") as long as: (i) the New Service's MRC is equal to or greater than the combined MRCs of the Port and the associated Local Access Service being terminated; (ii) the New Service's minimum service term is at least as long as the then remaining Service Term of the Port being terminated; and (iii) the New Service is available.

6. Additional Disclaimer of Warranty. In addition to any other disclaimers of warranty stated in the Agreement, CenturyLink makes no warranty, guarantee, or representation, express or implied, that all security threats and vulnerabilities will be detected or that the performance of the Services will render Customer's systems invulnerable to security breaches. Customer is responsible for Customer's own network security policy (including applicable firewall and NAT policies) and security response procedures.

7. E-mail Notification. Customer acknowledges and agrees that CenturyLink may contact Customer via e-mail at the e-mail address provided to CenturyLink when Customer ordered the Service for any reason relating to the Service, including for purposes of providing Customer any notices required under the Agreement. Customer agrees to provide CenturyLink with any change to its e mail address.

8. AUP. All use of the Services must comply with the AUP located at http://www.centurylink.com/legal/, which is subject to change. CenturyLink may reasonably change the AUP to ensure compliance with applicable laws and regulations and to protect CenturyLink's network and customers. Any changes to the AUP will be consistent with the purpose of the AUP to encourage responsible use of CenturyLink's networks, systems, services, Web sites, and products.

9. SLA. Unless a Port is part of the Managed ESInet Bundle described in this Agreement, Ports other than CenturyLink IQ + Ports are subject to the CenturyLink IQ Networking Service Level Agreement ("SLA"), CenturyLink IQ + Ports are subject to the CenturyLink IQ + Port SLA and the NMS feature is subject to the NMS SLA. Each SLA is located at http://www.centurylink.com/legal/ and subject to change. For Customer's claims related to Service or NMS feature deficiencies, interruptions or failures, Customer's exclusive remedies are limited to those remedies set forth in the applicable SLA.

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ATTACHMENT 1

COMPREHENSIVE MANAGEMENT

LIMITED LETTER OF AGENCY
between
("Customer")
and
CenturyLink Communications, LLC f/k/a Qwest Communications Company, LLC ("CenturyLink")

This limited letter of agency ("LOA") hereby authorizes CenturyLink to act as the Customer's agent for the limited purpose of contacting Customer's designated Local Exchange Carrier ("LEC"), Interexchange Carrier ("IXC"), Internet Service Provider ("ISP"), or customer premises equipment ("CPE") maintenance provider in conjunction with CenturyLink Network Management Service. Network Management Service activities will consist of working with Customer's LEC, IXC, ISP, and/or CPE maintenance provider for the purpose of: (a) extracting information concerning transmission data elements carried over Customer's network connection; (b) identifying Customer's links or data link connection identifiers ("DLCIs"); (c) opening, tracking, and closing trouble tickets with the LEC, IXC, ISP, or CPE maintenance provider on Customer's transport links or CPE when an alarm or fault has been detected; (d) dispatching CPE repair personnel on behalf of Customer to CPE for which a fault has been detected; and (e) discussing fault information with the LEC, IXC or CPE maintenance provider on behalf of Customer to facilitate resolution of the problem.

CenturyLink does not assume any of Customer's liabilities associated with any of the services the Customer may use.

The term of this LOA will commence on the date of execution below and will continue in full force and effect until terminated with 30 days written notice by one party to the other or until the expiration or termination of the Network Management Service.

A copy of this LOA will, upon presentation to LEC, IXC, ISP, and/or CPE maintenance provider, as applicable, be deemed authorization for CenturyLink to proceed on Customer's behalf.

_____
Customer Company Name

_____
Authorized Signature of Customer

_____
Print or Type Name

_____
Title

_____
Date

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1. General. CenturyLink QCC will provide Local Access Service ("Service") under the terms of this Service Exhibit, the Agreement and the RSS.

2. Service Description and Availability.

2.1 Description. Service provides the physical connection between the Service Address and the CenturyLink Domestic Network. Service includes any entrance cable or drop wire to, and equipment maintained by CenturyLink at the Demarcation Point. All equipment owned by CenturyLink remains property of CenturyLink. Customer disclaims any interest in any equipment, property or licenses used by CenturyLink to provide Service. CenturyLink will not provide Service to a residential location, even if business is conducted at that location. Service is not a standalone service and Customer must have the Service in connection with another CenturyLink service for which a local loop is required.

2.2 Types of Service Technologies. CenturyLink uses the following different technologies to provide Service. Some technologies or speeds may not be available in all areas or with certain types of Service.

(a) Special Access. "Special Access" means Service using digital signal bandwidths DS0, DS1 and DS3 or Optical Carrier signal bandwidths OC3, OC12, OC48 and OC192.

(b) Ethernet Local Access ("ELA"). ELA is available at bandwidths varying from 1 Mbps to 1,000 Mbps (1G) and 10G (Cross-Connect Access only). ELA is available in the following options: Native Single-Class-of-Service (CoS) Low, Native Single-CoS Medium, Native Single-CoS High, Native Multi-CoS, ELA over SONET, or Ethernet Virtual Access ("EVA"). "Native Single-CoS Low" is a layer 2, switched, native service using a standard Ethernet offering from the local access provider. Native Single-CoS Low is not recommended for use with critical applications (i.e. voice), but is ideal for non-critical applications (i.e. Internet and email traffic). "Native Single-CoS Medium" is a layer 2, switched, native service using a better-than-standard Ethernet offering from the local access provider. Native Single-CoS Medium is ideal for a combination of non-critical and/or critical applications; typically varying voice, video, and data. "Native Single-CoS High" is a layer 2, switched, native service using the best Ethernet offering from the local access provider. Native Single-CoS High is ideal for critical applications; typically predictable and reliable voice and data. Native Single-CoS Medium and Native Single-CoS High are only available with the following CenturyLink services: CenturyLink IQ® Networking Internet Port, Private Port or Enhanced Port with Secure Internet Gateway, E-Line, or Ethernet Private Line ("EPL"). Native Single-CoS Medium or Native Single-CoS High circuit speed must match the maximum CenturyLink IQ Networking port, E-Line, or EPL bandwidth. "Native Multi-CoS" is a layer 2, switched, native service closely aligning the CenturyLink IQ Networking QoS and the local access provider's Ethernet class of service offering and is only available with CenturyLink IQ Networking Private Port or Enhanced Port with Secure Internet Gateway. At Customer's discretion, Native Single-CoS Low, Native Single-CoS Medium, Native Single-CoS High, or Native Multi-CoS may be used to support CoS for critical applications (i.e. voice). "ELA over SONET" is a layer 1, SONET-based service. EVA is a layer 2, Ethernet-based service that provides customers with a premium non-oversubscribed connection with Fast E and Gig E connection types. Customer may experience delayed installation intervals due to construction requirements and available bandwidths may be limited due to distance and available Ethernet-supported facilities from the local access provider.

(c) Wavelength Local Access. "Wavelength Local Access" means Service using wave division multiplexing technology. Wavelength Local Access is available at bandwidths of 1 GbE, 10 GbE LAN PHY, 2.5 G (OC48), 10 GbE WAN PHY (OC192), 40G, OTU1, OTU2, OTU3, 1G, 2G, 4G and 10G.

(d) DSL Local Access. "DSL Local Access" means Leased Access using digital subscriber line ("DSL") technology. DSL Local Access is available at bandwidths varying from 128 kbps/64 kbps to 15000 Mbps/1000 Mbps. Customer may experience delayed installation intervals due to Construction requirements and available bandwidths may be limited due to distance and available DSL-supported facilities from the local access provider.

(e) IP Connection. "IP Connection" is a Layer 3, symmetrical transport service that utilizes established dedicated IP and MPLS transport technologies. Customer agrees that it will use the IP Connection only for the provision of either (i) Wireline broadband Internet access (as defined in applicable Federal Communications Commission orders and regulations), or (ii) Wireline broadband Internet access plus additional information services, with Wireline broadband Internet access constituting a principal use. IP Connection provides connectivity between single Customer locations within an affiliate LEC metropolitan area and a "hub" location using industry standard dedicated IP and MPLS protocols. The transmission speed depends on the amount of bandwidth available at the respective Customer location, which may be dependent on available underlying technology at the location. Service is available over multiple designs, which may include but not be limited to symmetrical VDSL2 connectivity with MPLS transport supporting speeds up to 40/40mg and symmetrical GPON connectivity with MPLS transport supporting speeds up to 1G/1G, all providing an IP Connection over the given transport solution.

2.3 Types of Service. CenturyLink offers the following three types of Service: CenturyLink Provided Access, Customer Provided Access or Cross-Connect Access.

2.3.1 CenturyLink Provided Access. "CenturyLink Provided Access" or "CLPA" means either On-Net Access or Leased Access.

(a) On-Net Access. For On-Net Access, Customer must be located in a CenturyLink designated building in which On-Net Access is generally available. On-Net Access is generally available as Special Access (except at the DS0 bandwidth), ELA, and Wavelength Local Access. Depending on the Service Address, On-Net Access may be provided through an existing CPOP, newly built CPOP, existing intra-building local loop facilities, or connections to a third party provider where CenturyLink coordinates the connectivity

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between CenturyLink facilities and facilities of a service provider with whom CenturyLink is interconnected. On-Net Access is subject to the On-Net Service Level Agreement located at http://www.centurylink.com/legal/, which is subject to change.

(b) Leased Access. Leased Access is generally available as Special Access, ELA, Wavelength Local Access and DSL Local Access at the bandwidths described in this Service Exhibit for those access types. Customer may request a specific local access provider for Leased Access from a list of available providers with whom CenturyLink has interconnect agreements. CenturyLink will attempt to use the Customer requested provider, but both final routing and the provider actually used will be chosen by CenturyLink. Where available for Special Access, ELA and Wavelength Local Access, Customer may request CenturyLink to provide a separate fiber facility path for a protection system between the local access provider's serving wire center and the Service Address ("Protect Route"). Protect Route uses backup electronics and two physically separate facility paths in the provisioning of Service. If the working facility or electronics fail, or the Service performance becomes impaired, the facility is designed to automatically switch to the Service protect path in order to maintain a near-continuous flow of information between locations. Special Access and ELA are also generally available as a central office meet point at a local access provider central office to which Customer has a dedicated connection.

2.3.2 Customer Provided Access. "Customer Provided Access" or "CPA" means a local loop that Customer orders from a local access provider to connect Customer's premises to the CenturyLink Domestic Network at a connection point specified by CenturyLink. CenturyLink will provide Customer with a limited letter of agency ("LOA"), which is incorporated by this reference, authorizing Customer to act as CenturyLink's agent so that Customer's local access provider will connect Customer's premises to the CenturyLink Domestic Network. Customer will also need to execute a CPA-DAR Addendum for CPA POP with ELA or Wavelength Local Access. Customer will pay a CPA charge to CenturyLink when Customer uses the following: (a) Special Access CPA dedicated facilities or ELA CPA virtual local area network ("VLAN"), both of which are dedicated entrance facilities CenturyLink leases from a local access provider and that carry traffic only from CenturyLink; or (b) ELA CPA POP, which requires CenturyLink to provide space and power for the local access provider to install Ethernet equipment; or (c) Wavelength Local Access. Customer will pay a CPA charge to CenturyLink when Customer uses Special Access CPA non-dedicated facilities owned by local access providers and that carry traffic from multiple carriers, including CenturyLink, if the provider charges CenturyLink for those facilities. CPA ELA VLAN is an access type where CenturyLink will provision and assign an Ethernet virtual circuit from a CenturyLink POP to a Customer designated Ethernet facility leased from a common Ethernet service provider. This access will be used to connect to a CenturyLink VLAN assignment on a CenturyLink IQ Networking Internet or Private Port or E-Line. CenturyLink will not bill customer a CPA charge for an IP layer 3 expansion site because Customer, not CenturyLink, is responsible for ordering a cross-connect from the IP layer 3 expansion site manager to meet CenturyLink in the IP layer 3 expansion site's meet-me-room. CPA is the responsibility of Customer and CenturyLink will not pay for or troubleshoot components of CPA.

2.3.3 Cross-Connect Access. "Cross-Connect Access" or "XCA" means: (a) an intra-POP connection between certain Customer facilities with direct access to the CenturyLink Domestic Network and the CenturyLink backbone access point (either (i) located within CenturyLink's transport area where CenturyLink allows Customer to bring its own fiber directly to the CenturyLink fiber under an executed Direct Connect Agreement ("Direct Connect") or (ii) in an area where Customer has leased space in a CPOP, a remote collocation site, or a collocation hotel under a Telecommunications Collocation License Agreement or (b) a connection between a CenturyLink-determined data center and a CenturyLink IQ Networking Port, Optical Wavelength Service ("OWS"), or E-Line ("Data Center Access") under an executed CenturyLink TS Service Exhibit with a CenturyLink IQ Networking, OWS or E-Line Service Exhibit. Data Center Access is available in bandwidths of 100 Mbps, 1G, and 10G (CenturyLink IQ Networking and OWS only). Direct Connect requires splicing of Customer and CenturyLink fibers and cross-connection of individual circuits.

2.4 RSS. Customer understands that Service is an interstate telecommunications service, as defined by Federal Communications Commission regulations and represents while using the Service, more than 10% of its usage will be interstate usage.

3. Ordering. Upon acceptance of an order for a Service, CenturyLink will notify Customer of CenturyLink's target date for the delivery of that Service ("Estimated Availability Date"). Once CenturyLink notifies Customer of the Estimated Availability Date for a Service, cancellation fees or Cancellation Charges set forth in the Cancellation section below will apply to any cancellation of that order. If Customer fails to respond to CenturyLink's requests to arrange for the installation of a Service when CenturyLink is ready, CenturyLink may consider the affected Service order canceled. CenturyLink will use commercially reasonable efforts to install each such Service on or before the Estimated Availability Date, but the inability of CenturyLink to deliver Service by such date is not a default under the Agreement or this Service Exhibit.

4. Charges. Customer will pay the net rates set forth in the attached pricing attachment or a quote for Service issued by CenturyLink if the rates for Service at particular Service Address are not included in the pricing attachment, including all applicable ancillary service charges. CenturyLink invoices MRCs in advance and NRCs in arrears. If the Start of Service Date for any Service falls on any day other than the first day of the month, the first invoice to Customer will consist of: (a) the pro-rata portion of the applicable MRC covering the period from the Start of Service Date to the first day of the subsequent month; and (b) the MRC for the following month. Charges for Service will not be used to calculate Contributory Charges. Customer will receive the rates for Service as shown on the pricing attachment regardless of whether an NPA/NXX split or overlay occurs.

4.1 Ancillary Charges. Ancillary charges applicable to Service include but are not limited to those ancillary services set forth in this section. If an ancillary charge applies in connection with provisioning a particular Service, CenturyLink will notify Customer of the ancillary charge to be billed to Customer. Customer may either approve or disapprove CenturyLink providing the ancillary service.

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(a) Expedite. A local loop expedite charge applies to orders where Customer requests the delivery of Service one or more days before the Estimated Availability Date. Customer may only request to expedite CenturyLink Provided Access of Special Access and ELA orders (where underlying local access provider allows CenturyLink QCC to order an expedited service.)

(b) Extended Wiring. "Extended Wiring" means additional wiring required for orders where the Customer requested termination point for Service is not located in the same location as the Demarcation Point. The Demarcation Point is typically located at a suitable location in the basement or on the first floor of a Service Address where provision is made for termination of CenturyLink's outside distribution network facilities. Customer may only request Extended Wiring for (i) Special Access ordered as Leased Access, (ii) DSL Local Access, (iii) Ethernet Local Access (where available), and (iv) IP Connection.

(c) Construction. Construction charges apply if special construction is required to extend Service to a Demarcation Point not covered by Extended Wiring or other activities that may cause CenturyLink to incur expenses for provisioning the Service (e.g., special arrangements of LEC facilities or equipment required to activate the Service) ("Construction"). If Customer does not approve of the Construction charges after CenturyLink notifies Customer of the charges, the Service ordered will be deemed cancelled.

(d) Multiplexing. Customer may request multiplexing for Special Access where available. CenturyLink will multiplex lower level local loop into a higher local loop, or vice-versa, for an additional charge. CenturyLink offers multiplexing at a CPOP, at an On-Net Access building or at an ILEC/CLEC facility providing the Leased Access. For multiplexing at a CenturyLink On-Net Access building, CenturyLink provides multiplexed circuit handoffs to Customer at the same On-Net Access Service Address. For multiplexing at ILEC/CLEC facility, CenturyLink facilitates the delivery of multiplexed circuit handoffs to Customer at a single Service Address or at multiple Service Addresses per Customer's request. Multiplexing is generally available at DS1 and OCn circuit levels. Pricing for multiplexing at an ILEC/CLEC facility is on an individual case basis.

(e) Changes. Ancillary change charge applies where Customer requests CenturyLink to change a local loop to a different Service Address that is within the same Customer serving wire center as the existing local loop, but a Cancellation Charge does not apply.

5. Term; Cancellation.

5.1 Term. The term of an individual Service begins on the Start of Service Date for that Service and continues for the number of months specified in the attached pricing attachment for a particular Service Address or a quote for Service issued by CenturyLink if the rates for Service at particular Service Address are not included in the pricing attachment ("Initial Service Term"). Excluding voice loops and Data Center Access with a month-to-month Initial Service Term, the Initial Service Term will not be less than 12 months. Upon expiration of the Initial Service Term, Service will automatically renew for consecutive periods equal to the Initial Service Term length (a "Renewal Service Term"). CenturyLink may change rates at any time after the Initial Service Term, but will not change rates more than once during a Renewal Service Term.

5.2 Cancellation. Upon cancellation of a Service, Customer will remain liable for (a) charges accrued but unpaid as of the cancellation date (including MRCs, NRCs and Construction charges and other ancillary charges), (b) the amount of any NRCs that CenturyLink discounted or waived, if canceled during the first 12 months of the Initial Service Term and (c) any applicable cancellation fees and Cancellation Charges as set forth below.

(a) All Service Types—Cancellation After the Start of Service Date. If a Service is canceled by Customer other than for Cause, or by CenturyLink for Cause, before the conclusion of its Initial Service Term, Customer will pay a "Cancellation Charge" equal to: (i) 100% of the balance of the MRCs that otherwise would have become due for the unexpired portion of the first 12 months of the Initial Service Term, if any, plus (ii) 35% of the balance of the MRCs that otherwise would have become due for the unexpired portion, if any, of the Initial Service Term beyond the first 12 months.

(b) Moves. When Customer requests that CenturyLink move a local loop to a different Service Address that is not within the same Customer serving wire center as the existing local loop such move will be deemed a disconnect of the current local loop to which a Cancellation Charge applies and a new install of a new local loop.

(c) Waiver of Cancellation Charges. CenturyLink will waive the Cancellation Charge for a cancelled Service:

(i) When Customer cancels a Special Access ordered as Leased Access if it is (A) DS3 or less, (B) is not part of a bundle or package offering that required Customer to order the local loop with other service components and (C) the local loop's Start of Service Date was at least 12 months prior to the requested date of cancellation.

(ii) When Customer upgrades existing Special Access, Native Single-CoS Low/Medium/High, Native Multi-CoS, ELA over SONET, or Wavelength Local Access ("Existing CLPA Service") with new Service within the same specific type of Service technology at a higher Service speed (e.g., Special Access DS1 to Special Access DS3 or Native Single-CoS Low Fast E to Native Single-CoS Low Gig E) and with the same local access provider ("Upgraded CLPA Service"). The Upgraded CLPA Service will have a new Service Term beginning on its Start of Service Date. If the type of Service technology changes when Customer upgrades Existing CLPA Service, Customer must pay Cancellation Charges.

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(d) Customer Provided Access—Cancellation of Connectivity after Start of Service Date. To cancel CPA, Customer must provide CenturyLink with a written disconnect firm order confirmation ("DFOC") notice from Customer's CPA provider along with notice to cancel the CPA. If Customer fails to provide CenturyLink with the DFOC notice within 30 calendar days after CenturyLink's receipt of the notice to cancel the CPA, or if CenturyLink disconnects CPA for Cause, then CenturyLink may disconnect the CPA or require the CPA provider to do so. Customer will remain liable for charges for the connectivity to CPA (even if Customer cannot use the CPA) until: (i) Customer furnishes the required DFOC to CenturyLink; or (ii) either party cancels the associated CPA with the CPA provider.

6. Grooming. If CenturyLink plans to groom a circuit on which Service is provided, CenturyLink will provide a grooming notice to Customer. For CPA dedicated facilities grooming, Customer will provide a signed LOA to CenturyLink so that CenturyLink can order the necessary changes. Within 20 calendar days after receipt of that notice, Customer will: (a) notify CenturyLink of its approval, which may not be unreasonably withheld; (b) state its reason for refusing; or (c) request that CenturyLink provide Customer with an LOA so Customer can order the necessary changes. Customer's failure to respond within the 20-day period will constitute approval of the groom. If the groom results in Customer incurring additional NRCs from its local access provider and Customer provides sufficient proof of the local access provider charge, CenturyLink will issue a credit to Customer equal to the local access provider NRC for each groomed circuit. If Customer refuses the groom for On-Net Access, CenturyLink will, upon 20 calendar days' prior written notice, cancel the Service on that circuit and assess a Cancellation Charge. When Customer does not respond to a CPA dedicated facilities grooming notice or refuses a CPA dedicated facilities groom, Customer must either: (a) provide CenturyLink with a LOA/CFA so that CenturyLink can have the local access provider cancel the circuit; or (b) work directly with the local access provider to cancel the circuit. If Customer does neither of these things, CenturyLink will pass through to Customer any costs incurred by CenturyLink from the local access provider as a result of the circuit remaining in place. "CFA" means circuit facility assignment of the CenturyLink facility, as identified by CenturyLink, to which Customer must order a local loop for connection to the CenturyLink Domestic Network.

7. Definitions. Capitalized terms not defined in this Service Exhibit are defined in the Agreement.

"CenturyLink Domestic Network" means the CenturyLink network located within the contiguous U.S. states and Hawaii, which is comprised only of physical media, including switches, circuits, and ports that are operated by CenturyLink.

"CPOP" means a CenturyLink-owned physical point of presence that lies directly on the CenturyLink Domestic Network where direct interconnection between the CenturyLink Domestic Network and a local access provider's network is possible.

"Demarcation Point" means: (a) the physical interface between the CenturyLink Domestic Network and Customer's telecommunications equipment or (b) the physical interface between a local access provider connecting the CenturyLink Domestic Network to Customer's telecommunications equipment.

"Leased Access" means local backbone access circuits ordered and leased by CenturyLink from a local access provider chosen by CenturyLink.

"On-Net Access" means local backbone access circuits provided solely on CenturyLink owned and operated facilities.

"Service Address" means the business building where Customer receives the Service.

"Start of Service Date" for each circuit is the date Customer accepts the circuit, following notification by CenturyLink that the local loop is ready. The ready notification will be via phone call or e-mail. Customer has five days from CenturyLink's ready notification in which to inform CenturyLink if the circuit fails to operate error-free. Within the five-day timeframe, if Customer neither informs CenturyLink about errors nor accepts the circuit, the circuit will be considered to have been accepted and the Start of Service Date to have commenced on the fifth day following CenturyLink's ready notification, regardless of whether Customer placed traffic over the circuit. If Customer informs CenturyLink of circuit errors within the five-day timeframe, CenturyLink will promptly take necessary, reasonable action to correct the errors, and upon correction, notify Customer that the circuit is ready.

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1. General; Definitions. Capitalized terms not defined in this Service Exhibit are defined in the Agreement. CenturyLink QCC will provide Domestic Network Diversity enhancements ("Service" or "Diversity") to underlying services in the continental United States under the terms of the Agreement, RSS, and this Service Exhibit.

"Card Diversity" means the secondary or diverse circuit that originates and/or terminates onto a separate card on the same device within the same CenturyLink POP as the primary circuit.

"Dedicated IP Access" means a special access local loop connection, from the Customer premises to an IP POP ("POP").

"Device Diversity" means the secondary or diverse circuit that originates and/or terminates in a separate aggregation device (such as routers, switches) within the same IP POP as the primary service.

"ELA" or "Ethernet Local Access" means CenturyLink Provided Access using Ethernet over SONET technology and is available at bandwidths varying from 1 Mbps to 1,000 Mbps (1Gbps).

"IP POP" is a CenturyLink POP where IP edge routers are located on the CenturyLink Domestic Network and Networking Service is available.

"IP POP Diversity" means the diverse circuit that originates and/or terminates in a physically separate IP POP from the primary circuit.
"CenturyLink POP" means a point of presence ("POP") on the CenturyLink Domestic Network.

"CenturyLink Domestic Network" means the CenturyLink operated facilities located within the 48 contiguous states that consist of transport POPs, physical media, switches, circuits, and/or ports that are operated solely by CenturyLink.

"Single Circuit Diversity" unless otherwise stated in this Service Exhibit, means an individual circuit on the CenturyLink Domestic Network that either: (a) is routed to, or; (b) avoids a specified geographic location along the circuit's path between the originating and terminating CenturyLink transport POP buildings, subject to availability.

"SLA" means the service level agreement specific to the Service, located at http://www.centurylink.com/legal/, which is subject to change.

"Special Access" means CenturyLink Provided Access using Digital Signal speeds DS-0, DS-1, and DS-3 or Optical Carrier signal speeds OC-3, OC-12, OC-48, and OC-192.

"Switch Diversity" means the secondary or diverse circuit that originates and/or terminates in a separate CenturyLink switch from the primary circuit. Depending on available network facilities, the circuits may originate and/or terminate at the same or different CenturyLink POP.

"Transport Diversity" means two or more diversely related circuits that are independently routed on the CenturyLink Domestic Network transport systems between the originating and terminating CenturyLink POP buildings, subject to availability. At Customer's request and subject to availability, CenturyLink will provision diversely related Underlying Services from different CenturyLink POP buildings in the originating and/or terminating cities. In some instances, the diverse circuit may share common network facilities, infrastructure, and/or buildings with the primary circuit.

"Underlying Service" means an approved CenturyLink service offering on the CenturyLink Domestic Network that also supports Diversity.

2. Service.

2.1 Description. Diversity is an enhanced routing option that routes an Underlying Service according to either: (a) a Customer-defined routing between two or more diversely related circuit(s); or (b) a predefined path that either routes to or avoids a specified geographic location on the circuit path ("Single Circuit Diversity") according to Customer's requirements, unless otherwise noted below; and (c) identifies and maintains the diversely routed circuit(s) in the CenturyLink provisioning systems, until the Service is cancelled. Diversity does not provide switching and/or routing of Customer's digital transmissions between primary and diversely routed circuits in the event of a failure on any one circuit or port. CenturyLink only offers protection switching, if any, inherent with the Underlying Services. The Diversity options described in this Service Exhibit are subject to availability and technical feasibility. The SLA is effective as of the first day of the second month after initial installation of Service. The SLA provides Customer's sole and exclusive remedy for service interruptions or service deficiencies of any kind whatsoever for the Service. CenturyLink's Underlying Services include: Domestic Private Line Service, EPL, Optical Wavelength Networking Service (including Internet Ports, Private Ports, and Enhanced Ports), ATM Service, Frame Relay Service, Dedicated Domestic Outbound/Inbound Long Distance Service ("Long Distance"), and related Local Access Service. The Underlying Services will, except to the extent modified in this Service Exhibit, be offered pursuant to the terms and conditions of the Agreement, Service Exhibits, and/or RSS applicable to the Underlying Services.

2.2 Diversity Configurations. Diversity configurations vary based on the Underlying Service. See below for options, subject to available network facilities. In situations where network facilities are not available, CenturyLink offers Customer the option to specifically order diversity on an individual case basis

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(a) Domestic Private Line Diversity Service. Domestic Private Line Diversity Service is offered at DS-1, DS-3, OC-3, OC-12, and OC-48 transmission rates. CenturyLink does not offer DS-0 and Fractional DS-1 Domestic Private Line Diversity Services. CenturyLink's routing of the diverse Domestic Private Line circuit(s) is based on the route of the designated working path of the circuit(s). Domestic Private Line Diversity Service is offered in the following configurations, but not in combination: Single Circuit Diversity or Transport Diversity. In some instances, the diverse circuit may share common network facilities, infrastructure, and/or buildings with the primary circuit.

(b) EPL Diversity Service. EPL Diversity Service is offered at 50 Mbps, 100 Mbps, 150 Mbps, 600 Mbps, and 1000 Mbps transmission rates. CenturyLink's routing of the diverse EPL circuit(s) is based on the route of the designated working path of the circuit(s). EPL Diversity Service is offered in the following configurations, but not in combination: Single Circuit Diversity or Transport Diversity.

(c) Optical Wavelength Diversity Service. Optical Wavelength Diversity Service is offered as an unprotected point-to-point transmission path between an originating and terminating CenturyLink POP at 1 GbE, 2.5 Gbps and 10 Gbps transmission rates. Optical Wavelength Diversity Service is offered in the following configurations, but not in combination: Single Circuit Diversity or Transport Diversity.

(d) Networking Diversity Service. Networking is offered at DS-1, IMA (2xDS-1 up to 8xDS-1s)*, DS-3, OC-3, OC-12, and OC-48 transmission rates. Networking Diversity Service is offered in the following configurations but not in combination: POP Diversity (Single Circuit or Primary and Diverse Circuit), Device Diversity, or Card Diversity. Networking Single Circuit Diversity on the CenturyLink Domestic Network means a circuit that is routed to a specified IP POP. The secondary or diverse circuit cannot be used to load-balance Customer's traffic. The secondary or diverse circuit may share common network facilities, infrastructure, and/or buildings with the primary circuit.

2.3 Local Access Diversity Service. Local Access Diversity Service is an enhancement to Local Access that: (a) routes circuits based on Customer's reasonable routing requirements; and (b) identifies and maintains the Local Access circuits as diversely routed circuits in the CenturyLink provisioning systems. Local Access Diversity Service is offered with: (c) Special Access at DS-1, 2xDS-1 up to 8xDS-1*, DS-3, OC-3, OC-12, and OC-48 transmission rates; or (d) ELA at bandwidths varying from 1 Mbps to 1000 Mbps (1Gbps) and may include CenturyLink ordering circuits utilizing alternate Central Offices or alternate Serving Wire Centers. CenturyLink does not have direct control of the routing, installation, maintenance, performance, etc. of the third party local access facilities ordered on behalf of the Customer.

2.4 Ordering of Diversity Services. Upon acceptance of an Order Form, CenturyLink will notify Customer of its target date for the delivery of each Service ("Customer Commit Due Date"). CenturyLink will use commercially reasonable efforts to install each Service on or before the Customer Commit Due Date, but the inability of CenturyLink to deliver Service by that date will not be a default under the Agreement.

2.5 Service Conditions.

(a) CenturyLink will not provide special construction as part of the Service. Any requests for special construction are handled on an individual case basis.

(b) Customer understands and agrees that CenturyLink has no visibility into the location of fiber strands, conduits, and other network facilities of other carriers and that CenturyLink will not attempt to identify and/or manage other carrier's facilities as part of the Service. Customer understands and agrees that Diversity is offered on On-Net facilities only. Furthermore, Customer understands and agrees that CenturyLink may rearrange (groom) Customer's circuits in accordance with standard CenturyLink network maintenance activities. If a CenturyLink-initiated network rearrangement removes the Customer's diversity, then CenturyLink will notify Customer to determine alternative Diversity solutions, if any.

(c) Customer may experience increased latency on diversely routed circuit(s) as a result of increased actual routing mileage.

(d) Single Diverse Circuit Additional Mileage Charges. If CenturyLink, in its sole discretion, determines that Customer's specified geographic routing criteria on a Single Circuit Diversity request results in excessive additional mileage, CenturyLink may charge Customer actual mileage charges on the Underlying Service.

(e) Customer acknowledges that diverse circuits must have traffic on them in order for CenturyLink to monitor connectivity.

3. Term; Cancellation. The term of this Service Exhibit will begin on the Effective Date of the Agreement (or, if applicable, an amendment to the Agreement if Customer adds this Service Exhibit after the Effective Date of the Agreement) and will continue until the termination of the last Service ordered under this Service Exhibit. Service will automatically terminate on the termination of the Underlying Service. In the event Customer cancels Diversity on an Underlying Service, Customer will pay for the Diversity provided through the effective date of the cancellation and all third party cancellation charges that apply.

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4. Charges. Customer will pay all charges set forth in a valid quote sheet attached to the Order Form for Diversity or in a Pricing Attachment, in addition to the charges for the Underlying Services. If backhaul routing is required to complete Customer's Diversity order for Networking (including Internet Ports and Private Ports,) ATM Service, Frame Relay Service, or Long Distance, Customer will pay the backhaul charges for each diversely routed circuit and for iQ Networking service, the Backhaul Pricing Attachment will be attached to this Service Exhibit. Billing will begin once the circuit is available for testing or use by Customer with the Diversity activated or once Diversity has been added to an existing circuit. List rates will be used to calculate Contributory Charges. The Service is not entitled to the QTA Discount.

* The DS-1s within an Nx bundle must all connect to the same POP

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1. General; Definitions. This Service Exhibit for Products and Services (collectively "Solutions") is attached to and subject in all respects to the CenturyLink Total Advantage or CenturyLink Loyal Advantage agreement between CenturyLink QCC and Customer. Capitalized terms not defined herein are defined in the Agreement. CenturyLink QCC will provide Solutions under the terms of the Agreement, the Service Exhibit, the Purchase Order and/or SOW. This Service Exhibit may not be used for the purchase of voice, data or IP services. In the event of a conflict in any term of any documents that govern the provision of Solutions hereunder, the following order of precedence will apply in descending order of control: any SOW, this Service Exhibit, the Agreement, and any PO. With respect to the Agreement, "Service" is replaced by "Solution" as defined herein, and "Order Form" is replaced with "Purchase Order" as defined herein.

"Change Order" means any change, submitted by Customer to CenturyLink or CenturyLink to Customer, to a SOW that was previously agreed upon by CenturyLink and Customer. Customer will be responsible for all charges related to such SOW Change Order.

"CPE" means either: (a) Customer Purchased Equipment, or (b) Customer Premises Equipment; and consists of hardware, software and materials used in the transport and/or termination/storage of data and voice transmission.

"Products" means CPE and Software offerings from CenturyLink.

"Purchase Order" or "PO" means either (a) a written document issued by Customer for the procurement of Solutions from CenturyLink; or (b) a CenturyLink quote or service order signed by Customer.

"Services" means offerings from CenturyLink that (a) install, maintain or manage CPE; (b) support Customer network management objectives, or (c) are consulting, professional, technical, development, and/or design services.

"Software" means software license offerings.

"SOW" means a statement of work that provides specific details, agreed to by CenturyLink and Customer, relating to the Solution purchased under a PO or the SOW. Agreement on the terms of the SOW will be satisfied by CenturyLink sending the final version of the SOW to Customer; and Customer's signature on the SOW.

2. CenturyLink Select Advantage Solutions.

2.1 Purchase. Customer may purchase Solutions by issuing a PO to CenturyLink, or executing an SOW. If a PO issued by Customer contains any preprinted terms, those terms will not amend, modify or supplement this Service Exhibit in any way whatsoever, notwithstanding any provisions in a PO to the contrary. Any PO or SOW must (a) reference and incorporate this Service Exhibit and its Effective Date, and (b) contain the Customer's exact legal name.

2.2 Limitation of Liability. IN ADDITION TO THE LIMITATION OF LIABILITY UNDER THE AGREEMENT, CENTURYLINK'S TOTAL AGGREGATE LIABILITY ARISING FROM OR RELATED TO SOLUTIONS PURCHASED UNDER THIS SERVICE EXHIBIT, UNLESS OTHERWISE STATED IN THE DETAILED DESCRIPTIONS OR SOW, WILL IN NO EVENT EXCEED: (A) FOR CLAIMS ARISING OUT OF PRODUCTS, THE AMOUNT OF THE PRODUCT SET FORTH IN THE PO RELATING SOLELY TO THE AFFECTED PRODUCT; AND (B) FOR CLAIMS ARISING OUT OF NONRECURRING SERVICES, THE AMOUNT OF THE SERVICE SET FORTH IN THE PO OR SOW.

3. Term; Termination. This Service Exhibit will commence on the Effective Date of the Agreement (or, if applicable, an amendment to the Agreement if this Service Exhibit is added to the Agreement after its Effective Date), and will remain in effect until canceled by either party upon 30 days prior written notice to the other party, or as otherwise stated in the SOW. If Service is terminated for any reason other than Cause, Service may be subject to Termination Charges as set forth in the Detailed Descriptions or SOW. Termination will not affect obligations under Purchase Orders accepted prior to the effective date of termination, and this Service Exhibit will remain in effect as to such obligations in the event it would otherwise have terminated.

4. Charges. Charges for Solutions will be specified in each PO or SOW and are due and payable upon Customer's receipt of the invoice or as otherwise stated in the PO or SOW. Any payment not received within 30 days after the invoice date may be subject to interest charges as permitted by applicable law. Customer will not be eligible for any discounts or promotional offers other than those specifically set forth in an executed PO.

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1. Service Level Agreements ("SLA" or "SLAs") Mean Time to Repair

CenturyLink Supplied Network CPE Failure Reported	Severity Level	Replacement Timeline
Monday through Sunday 12:00 am to 11:59pm	Level 1 CenturyLink Network is completely inoperative or severely impacted resulting in no call delivery to PSAP CPE.	Begin trouble isolation and diagnostics upon detection with no more than two hours mean time to repair.
Monday through Sunday 12:00 am to 11:59pm	Level 2 CenturyLink Network is partially inoperative with one link or router still working providing 100% call delivery capability to each PSAP.	Begin trouble isolation and diagnostics within two hours of detection with no more than four hours to repair.

2. CenturyLink 9-1-1 Routing or ALI Delivery

9-1-1 Routing and ALI Delivery Availability Performance Agreement is 99.999%.**This based on the routing and delivery of calls and ALI even when default or contingency routing or bypass procedures are invoked.**

2.1. Severity Level 1

9-1-1 Selective Routing and ALI Delivery	Severity Level	Notification Timeline	Examples
Monday through Sunday 12:00 am to 11:59pm	Level 1 Routing and ALI Delivery is completely inoperative or severely impacted where network or data communication problems on the CenturyLink system prevent CenturyLink from routing 9-1-1 calls or delivery of ALI.	CenturyLink will provide initial notification to affected PSAP and/or regional entity and the State 9-1-1 Program Manager as soon as possible within 30 minutes of the reported outage. Regular status updates will be provided within every two hours until issue is resolved based on FCC Rules.	PSAP not receiving calls, audio is not working if even only intermittent calls, End office traffic is not able to reach PSAP, unable to deliver location and caller information, network hardware or circuit failure at PSAP or core node..
Resolution procedure: CenturyLink will correct the service disruption or provide a procedure for customer to bypass or work around such disruption in order to continue operations if possible. If a bypass procedure is utilized, CenturyLink will provide the customer with an action plan for the development of the final resolution, and CenturyLink will continue resolution activity until full service is restored to the customer.			

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2.2. Severity Level 2

Monday through Sunday 12:00 am to 11:59pm	Level 2 9-1-1 Routing and ALI Delivery Services are severely or critically impaired, where major functions are operative but functioning with limited capacity or critical elements are no longer redundant.	CenturyLink will provide initial notification of the issue by contacting the affected PSAP, regional entity and 9-1-1 program manager as soon as possible within 30 minutes of a 50% or greater loss of trunk capacity or the identification of the service disruption. Regular status updates will be provided as mutually agreed upon between CenturyLink and the customer contact until the issue is resolved.	Examples: reduced incoming trunk capacity.
Resolution procedure: CenturyLink will correct the service disruption or provide a procedure for customer to bypass or work around such disruption in order to continue operations if possible. If a bypass procedure is utilized, CenturyLink will provide the customer with an action plan for the development of the final resolution, and CenturyLink will continue resolution activity until full service is restored to the customer.			

3. A9-1-1 Network Availability

Mean Opinion Score (MOS) (Provided by West)	4.0	The Mean Opinion Score (MOS) goal is 4.0. The network operations center (NOC) will actively monitor the network's quality using the industry standard MOS that automatically activates alarms on the router if the MOS score dips below a specific value. If the MOS score drops to 4.00 or below, a Cisco Embedded Event Manager (EEM) script will failover the call to the alternate IP network instance with no impact to the quality of the call. The EEM will continue to monitor the "failed" path and will require 16 consecutive four-second tests scoring above a MOS of 4.0 in order to begin using the previous MPLS path. With this configuration, the system will consistently achieve greater than 4.0 MOS.
Jitter Threshold	Less than (20) ms	Jitter shall not exceed twenty (20) milliseconds.
Packet Loss	Less than 0.5%	Monthly average packet loss between demarcation points not to exceed 0.5%.
Network Availability	99.999%	Core network components are 99.999% for the Host/Remote core components up to the last serving PSAP Central Office (CO).

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4. Host/Remote MPLS Network SLA

VIPER Remote MPLS Circuit Availability	99.9%	DS1 and higher bandwidths from the last PSAP serving CO to the VIPER remote sites is 99.9%
VESTA Remote MPLS Circuit Availability	99.9%	DS1 and higher bandwidths from the last PSAP serving CO to the VESTA remote sites is 99.9%

5. Software, Hardware, and Firmware SLAs related to VIPER and VESTA Hosted/Remote Equipment

9-1-1 Software Upgrades– Includes feature enhancements	CENTURYLINK will provide a minimum of (1) software upgrade per year for Airbus and West Host / Remote systems. These upgrades will be applied within (9) months from general availability and after they have been Approved For Use (AFU) by CENTURYLINK.
9-1-1 Software Upgrades and Patches– Software with primarily “bug” fixes	CENTURYLINK will install software upgrades or and patches as required to correct software defects as they are released by the software manufacturer and have been AFU by CENTURYLINK. Installation of all upgrades and patches will be installed within 90 days from AFU date.
9-1-1 Anti-Virus Definitions	CENTURYLINK will install all Anti-Virus software definitions as these are released by each 9-1-1 system manufacturer. Anti-Virus definitions will be installed within 30 days of release.
Operating System (OS) Patches and Service Packs	CENTURYLINK will install all OS security patches and/or service packs after each 9-1-1 manufacturer has tested and approved for deployment and CENTURYLINK has AFU. As OS patches and security updates can require PSAP downtime to apply, if and as required, schedule for installing OS security patches will be submitted within 30 days from AFU Date.
Hardware Refresh	CENTURYLINK will refresh manufacturer supported Hardware components (equipment still supported by manufacturer) to support software as outlined above. CENTURYLINK will replace any end of support hardware on or before 15 days of manufacturer end of support date or upon a mutually agreed date.
Firmware –	CENTURYLINK will schedule or update any firmware as released by the manufacturer and within three (3) months after AFU certification as required to support delivered feature functionality.
Operating System Upgrades -	CENTURYLINK will install new workstation and server OS to support 9-1-1 system software as required. Timing will be dependent on when Software Upgrades are scheduled and will be done at that time.

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6. i3 Functional Elements (Pass thru from West)

<table>
<tr><td colspan="3">Transitional IPSR Solution = 99.999%</td></tr>
<tr><td colspan="3">The A9-1-1 IP Routing Service is architected to provide 99.999% availability to deliver 9-1-1 voice calls to the West A9-1-1 IP Routing demarcation point identified as the egress port for the A9-1-1 router located at each data center defined for this solution. This equates to a cumulative service downtime not to exceed 5.26 minutes per year.
A9-1-1 IP Routing Service availability is measured by the cumulative number of minutes of downtime when the A9-1-1 Routing Service is unable to deliver 9-1-1 voice calls to the West A9-1-1 Routing demarcation point. The duration of the A9-1-1 Routing service downtime will be determined by data contained in the A9-1-1 Routing system log files. Isolation of the A9-1-1 IP Routing service from PSAPs that occurs as a result of circumstances beyond West’s Span of Control is not considered as West service downtime (e.g. Lack of last mile diversity or redundancy, customer provided network, customer dictated non-diverse &/or redundant connectivity).
The A9-1-1 IP Routing Service includes the following components: IPSR, LNG, and BCF.</td></tr>
<tr><td>ALI Service</td><td>99.999%</td><td>The A9-1-1 ALI service is architected to provide 99.999% availability to deliver ALI response to the ALI demarcation point in response to an ALI bid. A9-1-1 ALI Service availability is measured by the cumulative number of minutes of downtime when the A9-1-1 ALI Service is unable to deliver ALI response to the ALI demarcation point. Isolation of the A9-1-1 ALI service from PSAPs that occurs as a result of circumstances beyond West’s Span of Control is not considered as West service downtime (e.g. Lack of last mile diversity or redundancy, customer provided network, customer dictated non-diverse &/or non-redundant connectivity).</td></tr>
<tr><td colspan="3">i3 Solution Components = 99.999%</td></tr>
<tr><td colspan="3">The A9-1-1 i3 Routing Service is architected to provide 99.999% availability to deliver 9-1-1 voice calls to the West A9-1-1 i3 Routing demarcation point.
A9-1-1 i3 Routing Service availability is measured by the cumulative number of minutes of downtime when the A9-1-1 Routing Service is unable to deliver 9-1-1 voice calls to the West A9-1-1 Routing demarcation point. The duration of the A9-1-1 Routing service downtime will be determined by data contained in the A9-1-1 Routing system log files. Isolation of the A9-1-1 i3 Routing service from PSAPs that occurs as a result of circumstances beyond West’s Span of Control is not considered as West service downtime (e.g. Lack of last mile diversity or redundancy, customer provided network, customer dictated non-diverse &/or redundant connectivity).
The A9-1-1 i3 Routing Service includes the following components: LNG and ESRP and Location Data Management ECRF, LIS, & CIDB Components.</td></tr>
<tr><td colspan="3">* Isolation of the A9-1-1 i3 ECRF, LIS, or CIDB service from PSAPs that occurs as a result of circumstances beyond West’s Span of Control is not considered as West service downtime (e.g. Lack of last mile diversity or redundancy, customer provided network, customer dictated non-diverse &/or non-redundant connectivity).</td></tr>
<tr><td colspan="3">Provisioning Components: West's i3 provisioning components are architected to provide reliability as prescribed by the NENA i3 standard; and, where not specifically stated in the i3 standard, to be in compliance with the current direction of the NENA i3 working group. For example, West's i3 LVF services provisioning interface (LVF with Locology®) is designed to meet/exceed 99.9% availability. This is in concert with the direction from the NENA i3 working group. West</td></tr>
<tr><td>LVF Service</td><td>99.9%</td><td>The LVF is designed to meet/exceed 99.9% availability. Availability is determined as defined in NENA 08-506 section 3.4.</td></tr>
</table>

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7. VIPER & VESTA Service Availability

VIPER	99.999%	The **A9-1-1 VIPER Service** will be 99.999% available to present 9-1-1 voice calls to call answering devices (i.e. Power 911) at the Customer PSAP, as measured by the cumulative number of minutes of downtime when the system is unable to deliver 9-1-1 voice calls to at least one endpoint. This equates to a cumulative system downtime not to exceed 5.26 minutes per year. Measurement Method: Down time starts when 9-1-1 voice calls cannot be delivered to any of Customer's call answering devices. The duration of the VIPER system downtime will be determined by data contained in the VIPER log files and provided in outage reports to the customer.
VESTA	99.999%	The VESTA Distributed GEO Diverse System is architected to provide 99.999% availability to deliver 9-1-1 voice calls to answering devices (i.e. Vesta 911) at the Customer PSAP, as measured by the cumulative number of minutes of downtime when the system is unable to deliver 9-1-1 voice calls to at least one endpoint. . This equates to a cumulative service downtime not to exceed 5.26 minutes per year. Measurement Method: Down time starts when 9-1-1 voice calls cannot be delivered to any of Customer's call handling end points. The duration of the VESTA system downtime will be determined by data contained in the VESTA log files and provided in outage reports to the customer.

8. CENTURYLINK CPE Response

CENTURYLINK CPE Response Times includes the following with our Agreement. CPE Response Time shall be defined as the amount of time expired between the time in which the issue is reported to the CENTURYLINK NOC to the time that a qualified technician is actively trouble shooting the issue either remotely or on-site.		
Response Time Coverage	2 Hours 1.5 Hours for Maricopa and Pima County	Response Time Coverage - Seven (7) days per week, 24 hours per day, 365 Days of the year with a two (2) hour (maximum) response time to have a CENTURYLINK technician on site if related issue cannot be resolved remotely for all 9-1-1 related hardware, software, network repair/maintenance issues or events. This includes all Holidays. Response Times for PSAPS in Maricopa Region and Pima County will be provided in a 90 minute (maximum) on-site response time.
Reporting Trouble	20 seconds	One (1) 800 Number is provided to all PSAP's for both 9-1-1 Network and Equipment repair issues. The CENTURYLINK 9-1-1 NOC has a call-answering objective of answering 80% of all 9-1-1 calls with 20 seconds.
System Spares	NA	CENTURYLINK maintains manufacturer recommended spares at (12) Arizona CENTURYLINK facilities.

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9. i3 Availability

Timing for delivery of i3 functionality cannot be guaranteed until the scope of the NENA ratified functionality is evaluated and the State of Arizona has determined a desire for that functionality. There are many items in the current i3 definition that Authorities have not yet requested and may not see fruition, some even potentially being eliminated in latter versions of i3. Our commitment is that "within 3 months of each NENA i3 version release, CENTURYLINK will provide a schedule for the incorporation of all applicable updates to each of its solution components. Updates to feature functionality for included core components will be provided no later than 18 months from each i3 version release and Customer determining a desire for the applicable functionality. Furthermore, CENTURYLINK will work with the State of Arizona to identify i3 functionality that the State desires to implement in a timely manner and provide date commitments for those items. With the intensive involvement of Airbus and West Standards Development Organization staff in the NENA development group, this good faith dialog with the State for desired functions would be on an informed basis.

10. End Of Support Routing Components – Commitment to Replace EOS Equipment

Testing is currently being done to determine suitable devices for moving forward. As with any devices in the critical call delivery path, the target system availability is 99.999%. Specific device replacement make/model will be pending ongoing tests and if made a service offering, the specific devices will meet these Service Level Agreements. CENTURYLINK and West will replace any EOS equipment on or before 15 days of manufacturer end of support date or upon a mutually agreed date. This will be done at no cost to customer.

11. CENTURYLINK Legacy 9-1-1 Trunk Diversity and Service Reliability – Commitment for Diversity Design

CenturyLink and West have worked together to create an environment where the traffic is more evenly distributed between the West ECMC's located in Englewood and Miami. CenturyLink and West are also working to distribute End Office (EO) traffic equally between West's Trunking Gateways (TGW) where feasible. For load balancing purposes, CenturyLink and West will separate the end office routing to the TWGs. The end offices in the Tucson LATA will use the Tucson TWG as the primary route with overflow trunks to the Phoenix TWG. Likewise, the end offices in the Phoenix LATA will route to the Phoenix TWG as the primary with overflow trunks to the Tucson TWG. Additionally, the TWGs will continue to load balance by alternately sending calls to each of the ECMCs.

12. Excused Downtime for all SLAs

This Service Level Agreement will not apply, and no time or lack of Service availability will be calculated for any event that adversely impacts the Service that is caused by: (a) the acts or omissions of Customer, its employees, contractors or agents or its end users; (b) the failure or malfunction of equipment, applications or systems not owned or controlled by CenturyLink or its vendors or agents under its control; (c) Force Majeure Events, as defined in the Agreement; (d) scheduled service maintenance, alteration or implementation; (e) the unavailability of required Customer personnel, including as a result of failure to provide CenturyLink with accurate, current contact information; (f) CenturyLink's lack of access to the Customer premises where reasonably required to restore the Service; (g) Customer's failure to release the Service for testing or repair and continuing to use the Service on an impaired basis; (h) improper or inaccurate network specifications provided by Customer.

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- **CENTURYLINK AIRBUS HOSTED VESTA STATEMENT OF WORK**
- **CENTURYLINK NG9-1-1 WITH MANAGED 9-1-1 CPE STATEMENT OF WORK FOR INFRASTRUCTURE IMPLEMENTATION**

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This Statement of Work ("SOW") is subject to the agreement between CenturyLink Communications, LLC f/k/a Qwest Communications Company, LLC ("CenturyLink") and <CUSTOMER> ("Customer") under which Customer has agreed to the terms and conditions for purchase of installation, implementation and ongoing maintenance of NG911 equipment ("CPE") which was signed by Customer on <ENTER DATE the Agreement was signed> (the "Agreement"). Qwest Communications Company, LLC d/b/a CenturyLink QCC completed a name change to CenturyLink Communications, LLC on April 1, 2014. References in supporting agreements or other documents, to Qwest Communications Company, LLC or its predecessors are replaced with "CenturyLink Communications, LLC." Capitalized terms not defined herein are defined in the Agreement. **This SOW will not become effective unless and until CenturyLink and Customer have executed the Agreement referenced in this section.**

Under this SOW CenturyLink will provide a professional services solution for implementation of NG911 Hosted CPE ("Project"). The Project might include a recommendation to purchase other CenturyLink products or services. CenturyLink will be the prime contractor for all services and products associated with this Project. For the support required under this SOW, CenturyLink will be working with Airbus ("Subcontractor"). Accordingly, references to "CenturyLink" in this SOW may or may not include Subcontractor as the context may require; provided, however, that Subcontractor is not a party to the Agreement or this SOW and as such any formal dispute or claim regarding this Project will be between Customer and CenturyLink. CenturyLink will be fully responsible for the performance of all work to be performed hereunder, which is dependent upon the accuracy of information provided by Customer, in accordance with the Agreement and this SOW.

CenturyLink does not require or intend to access Customer data in its performance hereunder, including but not limited to any confidential health related information, that constitutes Protected Health Information ("PHI"), as defined in 45 C.F. R. §160.103 under the Health Insurance Portability and Accountability Act of 1996 ("HIPAA Rules"). To the extent that any exposure to PHI is incidental to CenturyLink's provision of the Service or Work Product provided under this SOW, and not meant for the purpose of accessing, managing the PHI or creating or manipulating the PHI such exposure is allowable under 45 CFR 164.502(a)(1)(iii). However, to the extent that CenturyLink is required to access PHI in the course of providing Services to Customer and acts in the capacity of a Business Associate, the parties' obligations will be governed by the Business Associate Addendum of the underlying Agreement.

1. Introduction

This SOW sets forth the responsibilities of CenturyLink, Airbus and the PSAP Customer (CUSTOMER) for Airbus Managed Hosted Vesta Services implementation services and ongoing professional services described herein ("Services").

2. Services Overview

CenturyLink, through Airbus, will provide Managed Hosted VESTA Services to the CUSTOMER for the solution which combines Airbus's Managed Hosted VESTA Services (also referred to as "Managed Hosted VESTA") with Airbus routers and network monitoring services; in conjunction with CenturyLink's transport services to provide an end-to-end 9-1-1 emergency call handling solution ("Managed Hosted VESTA Solution") for CUSTOMER.

2.1. Managed Hosted VESTA Hosted Call Handling

2.1.1 Managed Hosted VESTA Services

Managed Hosted VESTA Service is purchased as part of a bundle from CenturyLink, along with West® A9-1-1 Routing Service and Location Data Management Service for CUSTOMER.

The Managed Hosted VESTA Services provide hosted call handling functionality over a system that includes VESTA, servers and workstations installed at each CUSTOMER PSAP. Airbus will provide and

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maintain redundant, regionally diverse systems for Managed Hosted VESTA Call Handling, including hosted VESTA. Hosted equipment will be located in CenturyLink's data centers. As part of Managed Hosted VESTA Services, Airbus provides, installs, configures core functions of, and monitors all required host end system components. Airbus also provides and configures core functions of all Airbus required PSAP based equipment ("CPE") including servers, position equipment and networking equipment (routers and switches). CenturyLink installs, maintains and provides on-site Airbus certified technicians for all CPE including servers, position equipment and networking equipment (routers and switches). CenturyLink and Airbus will work with each CUSTOMER to determine and implement initial VESTA configurations. CenturyLink will work with the end-users on any future desired configuration changes and will coordinate all such changes with Airbus as required. CenturyLink, though Airbus, will provide the CUSTOMER with the following services:

- ✓ Managed Hosted VESTA Services
- ✓ Installation of host end equipment
- ✓ Training

CenturyLink will provide the CUSTOMER with the following services as it pertains to Managed Hosted VESTA:

- ✓ During installation activities, CenturyLink will have primary responsibility for the following:
  - Project Management
  - Receipt and inventory of equipment at PSAPs
  - Installation of CPE including servers, position equipment and networking equipment.
  - Cabling
  - All telco facing coordination and installation activities (from the demark back)
- ✓ Project Surveys. These are to be completed by an Airbus Certified CenturyLink technician and the completed survey must be provided to the Airbus Project Manager within five business days of completion.
- ✓ Tier 1 Support

Work performed by the CUSTOMER outside of the above parameters will result in a voiding of warranty, cancellation of maintenance services, additional service fees, recertification, reinstatement or any of the above. Airbus authorizes CenturyLink Airbus Certified technicians to perform move, add and change orders without assistance from, but with coordination with, Airbus unless the activity includes the installation of a software upgrade. Upgrades will require coordination with Airbus and assistance as required to make necessary host end changes. Included in the permitted activities are installation of knowledge bases and feature releases not part of a software upgrade and installation of additional positions.

If CenturyLink is required to dispatch on-site to repair an issue caused by CUSTOMER, CenturyLink may invoice CUSTOMER for its related time and travel expenses.

2.1.2 Responsibility Matrix

The following matrix outlines the responsibilities of each party for the Managed Hosted VESTA Services. Where both parties have been listed, the first-named party is lead, and this SOW more specifically defines the responsibilities of each party.

Task	**Responsibility**
Project Implementation	
Project Management	CenturyLink with Airbus support
Project Plan for A9-1-1 Solution	West/CenturyLink
Managed Hosted VESTA System Architecture	Airbus

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Managed Hosted VESTA Services Network Architecture	Airbus
Network Architecture contained within the Managed Hosted VESTA Solution	Airbus
Redundant MPLS Connectivity between the ECMCs, CenturyLink data center, and each CUSTOMER Facility– Establish and test connectivity	CenturyLink
CUSTOMER Facilities	CenturyLink/CUSTOMER
CUSTOMER Facility Site Preparation (floor space, power, etc.)	CUSTOMER/CenturyLink
CUSTOMER Facility Project Survey for Airbus Managed Hosted VESTA Services PSAP Equipment	CenturyLink/Airbus
Project Survey Analysis and Report	Airbus
Project Survey Guideline and Documentation	Airbus/CenturyLink
Site Readiness as addressed in Project Survey Analysis and Report	CenturyLink/CUSTOMER
PSAP Data Collection, Configurations/Lists – Star Codes, Transfer, Contact List, etc.	CenturyLink/Airbus/CUSTOMER
Airbus Managed Hosted VESTA Services PSAP Equipment – Install and Maintain and CUSTOMER Facility	CenturyLink
Airbus Managed Hosted VESTA Services PSAP Equipment – Provide and Stage	Airbus
Managed Hosted VESTA Services Training	Airbus
Pre-production and End to End Testing	Airbus/CenturyLink/CUSTOMER
Develop Migration plan and execute Migration Testing	Airbus/ CenturyLink/CUSTOMER
Managed Hosted VESTA Services Production Turn-up	Airbus/ CenturyLink/CUSTOMER
MIS Reporting	CUSTOMER
Managed Hosted VESTA Services– Monitoring	Airbus/CenturyLink
Managed Hosted VESTA Services - Tier 1 Maintenance	CenturyLink
Network Monitoring and Maintenance	Airbus/CenturyLink
Managed Hosted VESTA Services Upgrades	Airbus/CenturyLink
Managed Hosted VESTA Services Log storage and backups	Airbus/CenturyLink
Problem Reporting	CenturyLink/CUSTOMER/Airbus
Problem Triage and Resolution	CenturyLink/Airbus/CUSTOMER
Airbus Managed Hosted VESTA Services Network Capacity Management	Airbus
MPLS Network Capacity Management	Airbus
Managed Hosted VESTA Solution Network Capacity Management	Airbus

Table 1: Responsibility Matrix

2.1.3 Scalable, IP-Based Solution

Managed Hosted VESTA Service leverages Session Initiation Protocol ("SIP") technology.

Managed Hosted VESTA Services provides CUSTOMER PSAPs with:

- ✓ No upper limit in regard to number of End-users

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- ✓ A networked model that integrates data and voice traffic
- ✓ Implementation of call queues to meet call taker distribution needs

2.1.4 Configurable Call Distribution and Integrated Automatic Call Distribution ("ACD") Features

Managed Hosted VESTA Services provide a configurable layering of options and features for call distribution within each CUSTOMER and between other PSAPs (Other PSAPs must be on the Managed Hosted VESTA Services Platform) as necessary for backup scenarios.

Managed Hosted Services support **Shared Call Appearance (SCA),** where call takers can answer a call on a Shared Call Appearance.

Managed Hosted VESTA Services support Multiple ACD algorithms (If Activated):

- ✓ **Ring All:** Directs the call to all available call takers in the group
- ✓ **Circular:** the call to the next available call taker in round robin fashion within the group.
- ✓ **Linear:** Directs the call to the first available call taker within the group with the highest priority setting.
- ✓ **Longest Idle:** Presents the call to the longest idle call taker in the group.

Managed Hosted VESTA ACD provides multiple features:

- ✓ **ACD Queue:** Allows lines and trunks to be assigned to specific queues. Each agent of the Customer can be a member of one or more ACD queues. Customer's agent will receive a call from a queue when they are logged on and ready.
- ✓ **Customer Agent Priority:** Allows a priority to be assigned to each Customer agent in a queue.
- ✓ **Queue Recorded Announcement:** A PSAP-recorded announcement can be played at intervals to callers waiting in a queue.
- ✓ **Not Ready:** Allows Customer's agents to complete tasks from a previous 9-1-1 call before a new call is presented.
- ✓ **Auto Answer:** The console automatically answers an ACD-routed call. The Auto Answer feature contains a headset detection for console ACD ready state option. When this option is enabled, the console immediately enters a Not Ready state for ACD calls when the call taker unplugs the headset from the jackbox. After the call taker plugs the headset into the jackbox, the Ready button must be clicked to enable the call taker to receive ACD calls again.

2.1.5 VESTA Workstations

Managed Hosted VESTA Services include workstations that provide agents with on-screen call control of emergency and administrative calls. All workstations will be considered Managed Hosted VESTA Services PSAP Equipment.

VESTA also provides the following user features:

- ✓ **Warm or blind one button transfers**.
- ✓ **Distinctive ring tones** on a per line basis, for audible line ringing identification.
- ✓ Multiple **conferencing features**, including adding and dropping participants and quick visualization of the conference through the conferencing window.
- ✓ Manual and **automatic ALI re-bid** and incorrect location reporting.

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- ✓ Personal, shared and **multiple line appearances** that use color, icons and call status elements to offer fast identification and quick call status information to users.
- ✓ Configured to automatically forward admin line traffic according to business rules.
- ✓ **Greetings manager** which allows call takers to create and manage automated messages. VESTA 9-1-1 also offers a system wide automated messaging for specific queues.
- ✓ A high capacity of entry contacts and **speed dial** system for one click speed dial, contacts may be search at the simple or advanced level for the fastest lookup. Additionally through intelligent speed dialing and selective transfer agencies, speed dials are automatically displayed and dialed based on ESN.
- ✓ A **Configurable ALI display**
- ✓ **Instant Recall Recorder** (IRR) & IRR Retrieval: Instant Recall Recorder (IRR) is a telephony, radio, and microphone-based message recording and recorded message handling device. Customer's agents can play back recently completed calls.
- ✓ **Integrated TTY** via Baudot with pre-programmable messages and HCO/VCO capabilities.

The VESTA User Interface offers custom layouts. These layouts can be designed to meet the requirements of each PSAP, as well as each user role. When Users log into to a selected role, the layout optimized for that role is automatically loaded/displayed. PSAP Administrators create highly functional layouts for each role using a large library of icons, custom colors, fonts, window layouts etc.

CenturyLink or Airbus will provide and install intelligent workstations at each CUSTOMER facility.

- ✓ Two LCD monitors per position – brands as determined by CenturyLink and Airbus. Additional monitors, per application, will be supported at the request of the CUSTOMER. Touch screen monitors are not currently supported.
- ✓ Each position will be adjusted to the electrical characteristics of a given handset or headset model. As such, in PSAPs where multiple models are used, the CUSTOMER will be responsible for ensuring the handset or headsets are only used at the positions specifically adjusted for those models.
- ✓ A Handset
    - o The CUSTOMER may elect to provide headsets for selected positions. Any headset used on the system must be approved by Airbus for compatibility. A current list of approved headsets is available upon request.

CenturyLink or Airbus will provide, install and maintain one current model color laser printer at each CUSTOMER facility. The CUSTOMER will be responsible for ink, toner and paper.

2.1.6 Managed Hosted VESTA Service Responsibilities

2.1.6.1 Point of Contact

Airbus Responsibility:

Airbus will provide a Program Manager for CenturyLink and CUSTOMER who will act as the Single Point of Contact ("SPOC") with West for the A9-1-1 Routing, A9-1-1 Location Data Management service, and for the Managed Hosted VESTA planning and deployment phases. Individual project managers may also be assigned by Airbus for each of the functions above as a support for the SPOC.

CenturyLink Responsibility:

CenturyLink will designate a project manager as the single point-of-contact for the CUSTOMER for all planning and deployment phase activities for the services.

2.1.6.2 Project Management and Detailed Project Plan

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Airbus Responsibility:

Airbus will provide project management for all Airbus Managed Hosted VESTA responsibilities under this SOW. Airbus will co-ordinate with CenturyLink in developing an integrated Managed Hosted VESTA Solution project plan for transition activities. The Managed Hosted VESTA Solution project plan will include milestones for each project phase and will be updated over the course of the project as mutually agreed upon by all parties. Airbus will support CenturyLink in their CUSTOMER project management efforts.

Airbus will provide support personnel to complete Airbus responsibilities in a timely manner as set forth in the project plan. Airbus will be responsible for all travel expenses for Airbus personnel.

CenturyLink/CUSTOMER Responsibility:

CenturyLink will provide project management for the CUSTOMER for all Managed Hosted VESTA responsibilities of CenturyLink under this SOW.

The CUSTOMER will provide support personnel to complete all responsibilities of the CUSTOMER under this SOW in accordance with the mutually agreed upon final project plan.

2.1.7 Managed Hosted VESTA Configurable Attributes

Airbus Responsibility:

Airbus will work with the CUSTOMER to create a data collection form to support the information required to configure Managed Hosted VESTA for the CUSTOMER PSAP.

CenturyLink/CUSTOMER Responsibility:

CenturyLink and the CUSTOMER will provide Airbus with a complete list of configurations for the CUSTOMER PSAP in accordance with the detailed project plan.

2.1.8 Workstations

Airbus Responsibility:

Airbus will install and monitor each Workstation. The Airbus Network Operations Center (NOC) captures alarms on all Airbus provided equipment including the CUSTOMER equipment including the workstations.

CUSTOMER Responsibility:

The CUSTOMER will provide the following space for each workstation:

- ✓ 7” x 17” x 15” either on or under the desktop
- ✓ 18” x 10” x 21” on the desktop for each monitor

The CUSTOMER will provide power, ground, and environmental controls for the workstations to be installed at each CUSTOMER Facility as follows:

- ✓ HVAC - Each Call taker and Supervisor workstation position with two 22” Monitors will dissipate a maximum of 1950 BTUs per/hour.
- ✓ A minimum of two 15-ampere circuits (20A recommended) to provide diverse power for the workstations. Each circuit must be wired to an individual circuit breaker. Each circuit must provide two fourplex outlets with individual hot, neutral and ground wires at a position location. One 15-ampere circuit can support up to three workstations, if there are more than 6 positions, additional dedicated circuits must be installed, one additional for each three workstations. Workstations should be distributed evenly across the circuits. Circuits for workstations should be connected to UPS.
- ✓ Additional circuits may be required for other non-emergency equipment.
- ✓ Each position should be prepared with two (4 x 120 VAC) outlets as follow:
    - o Two power receptacles for monitors
    - o One Power connector for the PC (NEMA 5 15P)

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- One additional power receptacle for miscellaneous

2.1.9 CUSTOMER PSAP Training

Airbus Responsibility:

2.1.9.1 Admin Training

Airbus is providing (1) Train the Trainer (TTT) Sentinel Admin class, (1) Activity View Admin class, (1) Vela Admin class, (1) DataSync Admin class, per PSAP. Airbus is utilizing a Train the Trainer approach for all end user Agent training.

2.1.9.2 Train the Trainer Training – Agents

Airbus will provide one (1) TTT Agent class per year. These classes will be hosted in Arizona at a customer or CenturyLink facility to be determined. Attendees can be either CenturyLink associates or CUSTOMER PSAP designates. Train the Trainer classes will cover all Agent topics as well as tips to train the call takers specific to the PSAP.

2.1.9.3 Cutover coaching

Supplied whereby a Airbus trainer will be on site on the floor of the PSAP on the day of the cutover to answer any questions and or assist the call takers as they transition to the new system.

2.1.9.4 Quarterly Webinars

Airbus's training department will develop a value added free quarterly webinar based service to review what's new, answer questions, etc. Topics are TBD, but might include:

- ✓ Major System Changes
- ✓ New Features
- ✓ Important need to know information

2.1.10 Production Turn-up

Airbus Responsibility:

Airbus will work with CenturyLink and the CUSTOMER to mutually agree on a Testing and Production Migration Plan. The Testing and Production Migration plan will cover pre-production end to end testing and production testing with CenturyLink and the CUSTOMER, and deployment. During pre-production testing, technical support will be provided during Airbus Normal Business Hours. System testing and the production migration for each CUSTOMER PSAP will be implemented according to the detailed project plan.

CenturyLink/CUSTOMER Responsibility:

CenturyLink and the CUSTOMER will work with Airbus to execute testing of the Managed Hosted VESTA Call handling system in accordance with the detailed project plan. CenturyLink will provide onsite support during the Production Turn-up at the CUSTOMER Facility.

2.1.11 Monitoring, Maintenance, and Support

CenturyLink /CUSTOMER Responsibility:

CenturyLink will perform maintenance and software/equipment upgrades at the PSAP location for Managed Hosted VESTA Services.

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CenturyLink will provide On-site Support Services by Airbus certified technicians to assist with issues that require System expertise in troubleshooting and restoration at the End-User's location.

On-Site Support Service includes:

Dispatch a technician to End-User's site when the issue cannot be resolved remotely.

- ✓ When on-site, assist End-User in performing System diagnostics.

For On-Site Support Services the CUSTOMER will:

- ✓ Brief on-site CenturyLink technician on issue(s) and actions taken.
- ✓ Allow CenturyLink both on-site and remote access to the System. Remote access is made utilizing a secure VPN to each site.
- ✓ Validate issue resolution prior to close of the case.
- ✓ Cooperate with CenturyLink and perform all acts that are reasonable or necessary to enable CenturyLink to provide the On-Site Support Services. These include maintaining a suitable environment (heat, light, and power) and providing the technician with full, free, and safe access to the System. All sites must be accessible by standard service vehicles.

Airbus Responsibility:

Airbus will provide application level monitoring for Airbus provided network elements. Airbus will monitor the Managed Hosted VESTA systems including network elements, backroom equipment and workstations.

Airbus will provide Remote Technical Support to CenturyLink's Network Reliability Operations Center (NROC) for the Airbus System. Help desk support is available 24/7 through both a toll free hotline and a secure End-User Internet portal. All service inquiries are tracked.

Requests made for Airbus personnel onsite will be made available to CUSTOMER at an additional cost.

2.1.12 Software Release Updates

Airbus Responsibility:

Application software and firmware program updates are defined as minor enhancements to the already purchased product feature / functionality set. A product change is classified as minor, in the discretion of Airbus, based upon the impact of the change to the core functionality of the product. Customers will be notified by an Airbus Product Change Notice, of all application software and firmware program updates, which occur within the term of the Service. The Customer shall then contact CenturyLink, who in turn will contact Airbus to order the update at no additional charge provided that the Service is in effect. Application software and firmware program updates will roll into the existing Service, thereby not extending the term of the Service. Any change in the two numbers following the decimal point within the product version number constitutes an application software program update (for example a change from product version 1.10 to 1.20, or 2.11 to 2.12, or 3.20 to 3.30 et. al. will represent an application software program update). A change from PSC15 version A to PSC15 version B will represent a firmware program update.

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1.0 Overview

This Statement of Work describes the hardware, software, and services that CenturyLink will deploy and build out as the necessary CenturyLink infrastructure to support the State of Arizona PSAP's Managed NG9-1-1 and Customer Premise Equipment (CPE) solution (call answering equipment). The network resulting from this SOW will be used exclusively for the benefit of 9-1-1 Centers in the State of Arizona, and may benefit 9-1-1 Centers in other counties or parts of the State that Customer is not located. CenturyLink will solely and exclusively own and license any of the hardware, software, and services that are implemented under this SOW, and the infrastructure will be used to provide services on a subscription or license basis for a defined term to Customer as described in an Agreement between CenturyLink and Customer.

2.0 Network Components

CENTURYLINK will install and/or provision the following network components to support the core functions of the NG9-1-1 and CPE infrastructure. CENTURYLINK will provide all hardware, software, and services to build out all network components. This includes:

- Emergency Services (ES) trunks from the four (4) Arizona CENTURYLINK legacy selective routers to one of two (2) Legacy Network Gateways (LNG)
- At each LNG, two (2) diverse 1Gig CenturyLink IQ™ Private Port circuits to the CENTURYLINK MPLS cloud for LNG to ECMC (Emergency Communications Management Center) connectivity
- A 1Gig point-to-point circuit between the two Arizona LNGs
- At each ECMC, two (2) diverse 1Gig **CenturyLink IQ™** Private Port circuits to the CENTURYLINK MPLS cloud for LNG to ECMC connectivity
- At each ECMC, two (2) diverse 1Gig circuits to VIPER host systems for NG9-1-1 IP SIP call delivery from the IP Selective Router (IPSR) or i3 functional components to VIPER host
- Provisioning, through the West WAN, of VIPER node to node connectivity between the ECMC
- At each ECMC, two (2) diverse 1Gig **CenturyLink IQ™** Private Port circuits to the CENTURYLINK MPLS cloud for NG9-1-1 IP SIP call delivery from the IPSR or i3 functional components to VESTA host
- Two (2) 1Gig point-to-point layer 2 circuits for connectivity between each VESTA core
- At each ECMC, two (2) diverse 1Gig **CenturyLink IQ™** Private Port circuits to the CENTURYLINK MPLS cloud for VIPER Host to Remote connectivity
- At each VESTA host site, two (2) diverse 1Gig **CenturyLink IQ™** Private Port circuits to the CENTURYLINK MPLS cloud for VESTA host to remote connectivity
- At each VESTA host site, one (1) **CenturyLink IQ™** Internet Port circuit to the CENTURYLINK MPLS cloud for VESTA to Airbus NOC connectivity and CENTURYLINK VPN access
- At the Airbus NOC, two (2) **CenturyLink IQ™** Internet Port circuit to the CENTURYLINK MPLS cloud for VESTA to Airbus NOC connectivity
- Two (2) diverse **CenturyLink IQ™** Private Port circuits from the CENTURYLINK MPLS cloud to Phase I PSAPs for VIPER or VESTA host to remote connectivity
- CENTURYLINK will provide all routers, network switches, firewalls, and gateways required for network connectivity

3.0 Legacy Network Gateway (LNG)

CENTURYLINK will provide, install and/or provision the following NG9-1-1 components at each Legacy Network Gateway (LNG):

- Required space in two (2) LNG Data Centers for equipment hardware
- Rack space, racks, and protected AC power in data centers
- Gateways installed at each LNG to convert analog CAMA trunks to IP SIP trunks
- Routers and firewalls
- Terminal Servers
- Network Monitoring and Managed Services hardware and applications
- All Network components from Section 1.0

4.0 Emergency Communication Management Center (ECMC)

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CENTURYLINK will provide, install and/or provision the following NG9-1-1 and CPE components at each Emergency Communications Management Center (ECMC)

- Required space in two (2) ECMC Data Centers for equipment hardware
- Rack space, racks, and protected AC power for all ECMC equipment including Internet Protocol Selective Router (IPSR).
- Event Logging Services
- Clear View Reporting Services
- Network Monitoring and Managed Services hardware and applications
- All Network components for Section 1.0

5.0 VIPER Host Sites

CENTURYLINK will provide, install and/or provision the following VIPER CPE components at each Emergency Communications Management Center (ECMC)

- Required space in two (2) ECMC Data Centers for equipment hardware
- Rack space, racks, and protected AC power for all VIPER equipment
- All VIPER Geo Diverse Multi-Node host servers, software, applications, and gateways
- Network Monitoring and Managed Services hardware and applications
- All Network components for Section 1.0
- All costs for required security equipment
- NMS Monitoring Probes – Used to conduct service level measurements for end-to-end VoIP (SIP) call testing

6.0 VESTA Host Sites

CENTURYLINK will provide, install and/or provision the following VESTA CPE components at each VESTA Host Location

- Required space in two (2) VESTA Host Data Centers for equipment hardware
- Rack space, racks, and protected AC power for all VESTA equipment
- All VESTA Distributed Geo Diverse host servers, software, applications, and gateways
- Network Monitoring and Managed Services hardware and applications
- All Network components for Section 1.0
- All costs for required security equipment
- NMS Monitoring Probes – Used to conduct service level measurements for end-to-end VoIP (SIP) call testing

7.0 Phase I PSAP Remote Sites

CENTURYLINK will provide, install, and/or provision the following CPE components at each remote PSAP site:

- Required racks for network components
- Extend D-Marks to customer's equipment room
- Provide and install network routers, firewalls, and switches as required
- Network Monitoring and Managed Services hardware and applications
- All Network components for Section 1.0

8.0 Network Operations Centers (NOC)

Included in this SOW is all cost for CENTURYLINK, West, and Airbus-DS to build out the required NOC infrastructures. This may include placement of hardware, reconfiguration of existing hardware and/or software, remote monitoring services for network and CPE components, and reporting engines to meet requirements as described in the CENTURYLINK Service Exhibit.

9.0 Testing

CENTURYLINK will test all infrastructure core components before turning up PSAPs. This will include:

- Test all IP network elements to validate meets or exceeds network metrics
- Test all ES trunks for proper routing and voice quality
- Test and validate system monitoring for core infrastructure is working

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- Test VPN remote access is working

Example of pre-testing to be performed:

- Test Setup
  - Two (2) test trunk groups will be created, one for routing to VIPER system and other for routing to VESTA position
  - Test positions will be installed for each NG9-1-1 system
- Test 9-1-1 calls will be placed to measure the following
  - Call routed to the proper 9-1-1 system, VIPER or VESTA
  - ANI and ALI were sent and received
  - Voice quality and MOS scores will be tested and measured
  - Transfer to legacy PSAP was successful including ANI and ALI
  - Transfer from legacy PSAP was successful including ANI and ALI

Note: Testing above is for critical NG9-1-1 call delivery to the host system. Further in depth Host to Remote PSAP testing will be conducted for each PSAP as it is being installed and prepped for system turn-up.

10.0 Deliverables

- Detailed Network Design for:
  - LNG
  - ECMC
  - VIPER Geo Diverse Multi Node Host
  - VESTA Geo Diverse Host
- Testing Results – Written report detailing the successful pre-testing from section 9 of the NG9-1-1 infrastructure before making the system active.

11.0 Schedule and Milestones

The below list consists of the milestones identified for the implementation of this Statement of Work:

Milestone	Description	Start Date	Stop Date
1	**Agreements Completed -** Infrastructure SOW and Infrastructure Agreement signed and completed	TBD	TBD
2	**Definition Phase**	TBD	TBD
3	**Architecture Phase**	TBD	TBD
4	**Integration Phase**	TBD	TBD
5	**PSAP and Host Orders and Installation**	TBD	TBD
6	**Deployment Phase**	TBD	TBD
7	**Maintenance Phase**	TBD	TBD

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Definition of Terms

Term	Definitions
ALI	Automatic Location Identification
BGP	Border Gateway Protocol
CAD	Computer Aided Dispatch
CAMA	Centralized Automatic Message Accounting
CDR	Call Detail Record
CE	(Customer Edge) MPLS Router at customer site. CENTURYLINK will provide this equipment with the Managed 9-1-1 Solution
CPE	Customer Provided Equipment
CUG	Closed User Group
DDOS	Distributed Denial of Service Attack
Diversity	Two paths with no single point of failure with two complete entrance facilities
DOS	Disk Operating System
ECMC	Emergency Call Management Center. Location of IP Selective Router, i3 functional elements, and VIPER Hosts
ECRF	Emergency Call Routing Function
ELT	English Language Translations
EM Trunk	Emergency Management Trunk
EO	End Office
ES Trunk	Emergency Services Trunk
ESInet	The network the i3 architecture runs on
ESN	Emergency Services Number
ESQK	Emergency Service Query Key
ESRD	Emergency Services Routing Digit
ESRK	Emergency Service Routing Key
ESSID	Electronic Switching System Identification
FW	Frequency Modulation
Gateway	Gateways are used to convert legacy TDM (Time Division Multiplexing) voice calls to IP
GIS	Geographic Information Systems
GPS	Global Positioning System
GUI	Graphical User Interface
HSRP	Hot Standby Router Protocol
ILEC	Independent Local Exchange Carrier
IP	Internet Protocol
IPP	IP Precedence
IPSR	IP Selective Router
IQ MPLS	IQ MPLS Private Port - CENTURYLINK Product name for a private MPLS network.
KVM	Keyboard, Video, and Mouse
LATA	Local Access and Transport Area
LNG	Legacy Network Gateway - Interfaces between the legacy network and the ESInet
LSR	Legacy Selective Router
LSRG	Legacy Selective Router Gateway
LVF	Location Validation Function
MOA	Memorandum of Agreement
NGAP	Next Gen Aggregation Point
NPD	Numbering Plan Digit (1 digit number assigned to represent an area code. Example: 2 = 602, 3 = 520)
OAM	Operations, Administration and Management
PE	(Provider Edge) CENTURYLINK network equipment used to provision its IP Network
PGM	PSAP Gateway Manager
POP	Point of Presence - an artificial demarcation point where servers, routers, and other devices are located

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PSAP	Public Safety Answering Point
QoS	Quality of Service
RCL	Regional Co Location - Now referred to as LNG
RFAI	Request for Assistance Interface
RTT	Real Trip Time
SBC	Session Border Control
SIP	(Session Initiated Protocol) – The protocol used for initiating, managing, and terminating VoIP traffic over an IP network
SLA	Service Level Agreement
SR	Selective Routing
SRDB	Selective Routing Database
SS7	Signaling System 7
TDM	Time Division Multiplexing
TG	Trunk Group
TN	Telephone Number
TSP	Telecommunication Service Provider - TSP means a provider of wireline, wireless, VoIP, MLTS (shared tenant or PBX providers) or any other service provider permitting its End Users of such technology to access a PSAP by dialing the digits 9-1-1 and having the applicable 9-1-1 Governing Authority's approval to access said PSAP(s). TSP for the purpose of this Agreement includes, but is not limited to, all ILECs, CLECs, CMRS, VoIP or other service providing entities requiring access to West Comm's Intelligent Emergency Network®.
TSS Database	Transaction Services System – A data management system developed by West that processes and maintains data for ALI retrieval and selective routing for enhanced 9-1-1 systems.
VoIP	Voice over IP
VPN	Virtual Private Network - a logical private network running over 1 physical connection.
VRRP	Virtual Router Redundancy Protocol

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1.0 NEXT GEN 9-1-1 ROUTING SERVICES OVERVIEW

CENTURYLINK's Next Gen 9-1-1 Routing is a specialized managed network for processing 9-1-1 calls from both traditional voice and non-traditional voice and data networks. Next Gen 9-1-1 Routing provides traditional selective routing functionality and IP-enabled interface alternatives. Next Gen 9-1-1 Routing is a service for the routing and delivery of 9-1-1 calls from end office, central office, control office, mobile switching center, and IP-enabled interface alternatives (hereafter collectively referred to as "End Office") to STATE designated PSAPs over a CENTURYLINK IQ MPLS Private Port, rather than routing such calls through the ILEC's selective router. Next Gen 9-1-1 Routing includes the delivery of ANI and supports 8 (NPD+7) or 10 digits. Next Gen 9-1-1 Routing service requires the input of selective routing database (SRDB) updates from the database management system. Other SRDB data sources are anticipated in the future. As such, all TNs/ESRKs/ESRDs/ESQKs as well as all such pseudo ANI schemas which may be propagated via the NENA recommended standards or any national standards body, routed with the Next Gen 9-1-1 Routing solution must be available to CENTURYLINK database management services as set forth in this Technical document.

Next Gen 9-1-1 Routing allows for specific call routing rules to be defined by CENTURYLINK. These include, but are not limited to:

- Selective Routing
- Trunk Only Routing
- PSAP Abandonment Routing
- Alternate Routing
- Default Routing
- Any other optional routing functionality that may become available through Next Gen 9-1-1 Routing services

PSAPs will work with CENTURYLINK to define and manage the PSAP's routing rules during the data gathering stage of the implementation. If PSAP or CENTURYLINK determines that changes need to be made, CENTURYLINK will make these changes without disruption of service.

2.0 INCREMENTAL ALI MANAGEMENT SERVICES

IPSR Routing service requires the input of SRDB updates from the TSS database management system. As such, all TNs/ESRKs/ESRDs/ESQKs that are to be routed with the Next Gen 9-1-1 Routing solution must be managed through the TSS database management services.

2.1 ALI TO ALI STEERING FOR WIRELINE 9-1-1 CALLS

As part of Next Gen 9-1-1 Routing services, CENTURYLINK will initiate communications with non-CENTURYLINK ALI providers for ALI to ALI steering via CENTURYLINK provided IP connectivity. ALI to ALI steering will be performed for wireline 9-1-1 calls only.

CENTURYLINK acknowledges that ALI to ALI steering covered by this Technical document will only address the steering scenarios defined in Section 2.1.

CENTURYLINK acknowledges that coordination will be required between CENTURYLINK and other 9-1-1 service providers in the assignment and on-going management of English Language Translations ("ELTs") (ESN/ESSIDs). Without this coordination, the ELTs may not work properly. CENTURYLINK cannot guarantee the cooperation of other 9-1-1 service providers.

In the event that there are multiple 9-1-1 service providers in the area, CENTURYLINK will initiate efforts to work with these service providers to identify the appropriate method of obtaining the ALI data.
The following ALI to ALI steering scenarios are not covered by this Technical document (see Section 2.2, Out-of-Scope requests):

- The non-CENTURYLINK ALI system does not support ALI to ALI steering.
- The non-CENTURYLINK ALI system ALI to ALI interface does not meet the CENTURYLINK interface specification.
- The selective router (SR) owner differs from the ALI owner.

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- The PSAP is served by multiple SRs, but trunk number sent in each wireline ALI Query does not correspond to the SR.
- The PSAP receives transferred calls from multiple Non-CENTURYLINK PSAPs served by different non-CENTURYLINK ALI systems, but multi-steering rules cannot be configured to distinguish which non-CENTURYLINK ALI to query.

2.2 OUT-OF-SCOPE REQUESTS

PSAP requests that are beyond the scope of the deliverables outlined in this Technical document will require an enhancement request to CENTURYLINK. CENTURYLINK will reply using the Document of Understanding ("DOU") form outlining PSAP's request and CENTURYLINK's proposed solution. CENTURYLINK will respond in writing, as needed.

2.3 ENHANCEMENTS FOR NEXT GEN 9-1-1 DATA PSAPS

CENTURYLINK will complete and maintain Next Gen 9-1-1 Data and ALI-M enhancements to support ALI to ALI steering for PSAPs using Next Gen 9-1-1 Data

3.0 PS/ALI

The PS/ALI product will allow Private Switch or Centrex End Users within the CENTURYLINK region to manage Private Switch Subscriber information specifically allowing the Private Switch or Centrex End Users to create and update Private Switch Subscriber records with detailed station-level location information. The Private Switch detailed, station-level Subscriber information will be available to the PSAP during a 9-1-1 call to allow emergency responders to know the location of the calling party from a Private Switch system in a large or multi-building facility. These services are governed by this Technical document. Charges for these services will be handled in the following ways:

- Existing CENTURYLINK PS/ALI customers that are converted to a 9-1-1 routing that require CAMA trunks to be moved to the West LNG will be converted at no charge and monthly port fees will be waived
- New CENTURYLINK PS/ALI customers will require the appropriate network security measures in place, at no cost to West.
- New CENTURYLINK PS/ALI customers that require CAMA trunks to be terminated on the West LNG will be charged PS/ALI fees as stated in the tariff.

4.0 NEXT GEN 9-1-1 ROUTING INFRASTRUCTURE

The Next Gen 9-1-1 Routing infrastructure is comprised of redundant, regionally diverse facilities that process an inbound emergency call and successfully presents the emergency call to the PSAP. The current infrastructure design is as follows: call enters the CENTURYLINK Next Gen 9-1-1 Routing network from the End Office (EO) through at least a pair of Legacy Network Gateways (LNGs) and, utilizing a set of pre-determined routing rules, is presented over a private iQ MPLS private port to the PSAP. Next Gen 9-1-1 Routing has the ability to deliver the emergency calls to the PSAP as 8 or 10 digit ANI using one of two methods, depending on the capabilities of the PSAP's Customer Premise Equipment. These methods are:

- Receipt of EO traffic over SS7, CAMA, PRI and/or IP
- Receipt and delivery of Selective Router Traffic (Call transfers and call handoffs) over SS7.
- Delivery over the private iQ MPLS private port and at the PSAP site, converting the signaling back into CAMA through the provided PSAP Gateway Managers (PGMs), using standards specified in NENA 04-001.
- Delivery over the iQ MPLS private port directly to the PSAP's CPE. The CPE must be capable of accepting emergency voice calls over IP and has been validated to be compatible with CENTURYLINK's Request for Assistance Interface (RFAI), West's ESRP Terminating Interface for A9-1-1 or Airbus specifications.
- As PSAPs migrate from CAMA deployments to SIP, the connectivity model will change. As part of SIP deployment, the PSAP's connectivity will go through additional network management and security devices (such as Session Border Controllers and Firewalls). This connectivity model change will not cause a change in the cost to CENTURYLINK and/or the PSAP.

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- ISDN PRI to the PSAP is not currently supported.

5.0 CENTURYLINK NEXT GEN 9-1-1 NETWORK DESIGN

Following the execution of the Agreement, CENTURYLINK and PSAP will finalize the detailed design of the Next Generation 9-1-1 call routing network delivering emergency calls to the PSAP.

CENTURYLINK will authenticate all other third-party service provider's data applications through CENTURYLINK infrastructure. Furthermore, the Parties will incorporate into this Technical document a mutually agreed upon Statement of Work defining (i) CENTURYLINK's suite of Next Gen 9-1-1 Service data applications, and (ii) the Parties' roles, responsibilities and obligations regarding said applications. The Statement of Work will contain interface specifications associated with authentication.
CENTURYLINK will provide to PSAP a brief description of each third-party application, a brief description of the application authentication and a notification of acceptance. If any third-party service provider's application fails to authenticate, CENTURYLINK will provide a copy of the outline sent to the third-party provider detailing the portion of the authentication that failed and any corrective actions that need to be taken in order to authenticate.

All private ports between CENTURYLINK ECMC and the PSAP will be assigned to a dedicated Closed User Group (CUG) and follow the authenticate process as mutually agreed upon.

No application will be activated without the PSAPs direct authorization. The authentication process will include an assessment and identification of the bandwidth impact.

5.1 IP TO HOST

CENTURYLINK will provide diverse IP connectivity through diverse POPs via the CENTURYLINK provided iQ MPLS private port from the ECMC to the PSAP (VIPER or VESTA) Host.

5.2 PUBLIC SAFETY IQ MPLS PRIVATE PORT REQUIREMENTS

CENTURYLINK will provide IP connectivity between Next Gen 9-1-1 Routing ECMCs and the PSAP site. All equipment to be deployed at the PSAP to support Next Gen 9-1-1 services will be supplied by CENTURYLINK.
The CENTURYLINK provided IP connectivity from the Next Gen 9-1-1 Routing solution to the PSAP will meet the following requirements:

- Redundant and diverse IQ MPLS private port connectivity to the PSAP, where facilities allow.
- A maximum 150 millisecond Round Trip Time (RTT) through network, assuming 500 bytes sustained for 1 minute without packet loss.
- The iQ MPLS private port will have the appropriate levels of security in place both at the physical and application layers to provide for 99.999% availability.
- The CENTURYLINK-provided iQ MPLS private port will support QoS IP prioritization to allow the management of the prioritization of 9-1-1 voice/data/OAM network traffic
- The CENTURYLINK provided iQ MPLS private port will meet the industry standard P.01 grade of service. P.01 will be applied from CENTURYLINK sites to the PSAP over the CENTURYLINK supplied network.
- Card level mapping will be provided when orders for circuits are placed. CenturyLink will disclose where any single points of failure may exist due to network convergence.

5.3 NETWORK PROTOCOLS

The ESInet design is based on current open industry standards and NENA i3. Network components are based on Cisco IOS software. The Cisco IOS software DiffServ is fully compliant with the Internet Engineering Task Force (IETF) standards defined in RFC 2474, RFC 2475, RFC 2597 and RFC 2598.

Quality of Service

The primary network between the data center and PSAPs will implement Quality of Service (QoS) to manage and prioritize any type of IP traffic (voice, data, and multi-media). QoS is performed primarily

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through packet marking with Differentiated Services Code Point (DSCP) for scalable management of network traffic. The audio stream (Real Time Transport Protocol - RTP) is marked with "Expedited Forwarding," the highest class of service available. This is appropriate for real-time media like voice, and is mapped to a priority queue. Signaling packets (Session Initiation Protocol or Media Gateway Control Protocol) are placed in another queue. This prioritization of packets ensures that voice packets get the highest priority in the network.

Encryption

RTP is not specifically encrypted to the user; however; transport between devices over IP access clouds is encrypted using standard IPSEC (AE256) tunneling.

Mean Opinion Score

Edge routers in the ESInet perform constant quality testing back to the core data centers by sending a stream of synthetic RTP packets across the tunnels that traverse the IP network via Cisco's IPSLA (Internet Protocol Service Level Agreement) functionality. The IPSLA configuration is managed by the PSAP edge routers towards the routers at the data centers. The core routers then change the sequence number and timestamp on each synthetic RTP packet, which is then retransmitted back to the remote site router.

This generates a four-second stream of RTP towards the mGRE interface on the data center edge router, using the same G.711 codec used for the voice application itself. One hundred packets are sent with an interval of 40 milliseconds. The test restarts after five seconds (each test is padded with an extra second to avoid overlapping tests). The Cisco IPSLA application then derives both Impairment Calculated Planning Impairment Factor (ICPIF) and MOS (Mean Opinion Score) values from these detailed test results.

If the MOS score drops to 4.00 or below, a Cisco Embedded Event Manager (EEM) script will failover the call over to the alternate IP network instance with no impact to the quality of the call. The EEM will continue to monitor the "failed" path and will require 16 consecutive four-second tests scoring above a MOS of 4.0 in order to begin using the previous MPLS path. With this configuration, the system will consistently achieve greater than 4.0 MOS.

The Center of Excellence network operations center (NOC) will actively monitor the network's quality using the industry standard MOS that automatically activates alarms on the router if the MOS score dips below a specific value. When this occurs, the router will automatically route all traffic over the redundant IP network route.

Included Protocols and Technology:

- Border Gateway Protocol (BGP)
- Cisco Express Forwarding Multilayer Switching (CEF-MLS)
- Cisco Internet Protocol Service Level Agreement (IPSLA)
- Connectivity Fault Management (CFM)
- File Transfer Protocol (FTP)
- Hypertext Transfer Protocol Secure (HTTPS)
- Internet Protocol Security (IPSEC)
- IEEE 802.1Q (Dot1Q)
- Link Aggregation Control Protocol (LACP)
- Media Gateway Control Protocol (MGCP)
- Multipoint Generic Routing Encapsulation (mGRE)
- Multiprotocol Label Switching (MPLS)
- Microsoft Message Queuing (MSMQ)
- Open Shortest Path First (OSPF)
- Real Time Transport Protocol (RTP)
- Rapid Spanning Tree Protocol (RSTP)
- Session Initiation Protocol (SIP)
- Simple Network Management Protocol (SNMP)
- Secure Shell (SSH)

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- Transmission Control Protocol / Internet Protocol (TCP/IP)
- Virtual Router Redundancy Protocol (VRRP)
- Virtual Local Area Network (VLAN)
- Virtual Routing and Forwarding (VRF

5.4 IP Address Schema

CENTURYLINK will manage the IP address scheme for Next Gen 9-1-1 Routing communications through the CENTURYLINK iQ MPLS private port for connectivity to ECMC sites, LNG sites, VIPER and VESTA Hosts, and PSAPs, including CENTURYLINK POPs.

5.5 Standard Security Procedures

The CENTURYLINK provided iQ MPLS private port will have the appropriate levels of security in place both at the physical and application layers, as determined within IPP. CENTURYLINK will secure the CENTURYLINK-provided iQ MPLS private port using industry standard security procedures against security attacks from other networks or the public Internet. The CENTURYLINK-provided iQ MPLS private port will be a virtual private network, with IP addresses not publicly accessible via the public Internet. CENTURYLINK will work with PSAP customer as needed to ensure router configurations meet PSAP customer security requirements, provided such requirements do not conflict with CENTURYLINK internal security procedures.
CENTURYLINK will employ security measures where a PSAP may have dual-homed CPE (connected to both the CENTURYLINK solution and another service provider's network)

5.6 West Data Centers and NG9-1-1 Security

Wests' cyber security policies, standards, and guidelines are compliant with industry best practices as defined by International Organization for Standardization and Control Objectives for Information and related Technology (COBIT). Wests' expertise and commitment to network security are evidenced by our active participation in the Network Reliability and Interoperability Council (NRIC) 7 focus group 2B Cyber-Security. Wests' next generation emergency services network is a secured and private IP managed network. All inbound and outbound traffic is through well defined and controlled access points. Call processing and real-time data delivery are implemented through specialized subnets.

West employs a defense-in-depth security strategy to protect sensitive information. Such controls include, but are not limited to stateful packet inspection firewalls (host and network based), IDS/IPS, ACLs, Role-based Access control, two-factor authentication, encryption, and AV (email and host). Furthermore, systems are protected with build standards, patch management, and regular vulnerability scans.

Sensitive data is housed in our data centers with logical and physical access controls. Development environments are separate from production and production data is not used in dev or SQA.
Data that transits untrusted networks (leaves West custody) through applications or communication channels with encryption to safeguard confidentiality and integrity.

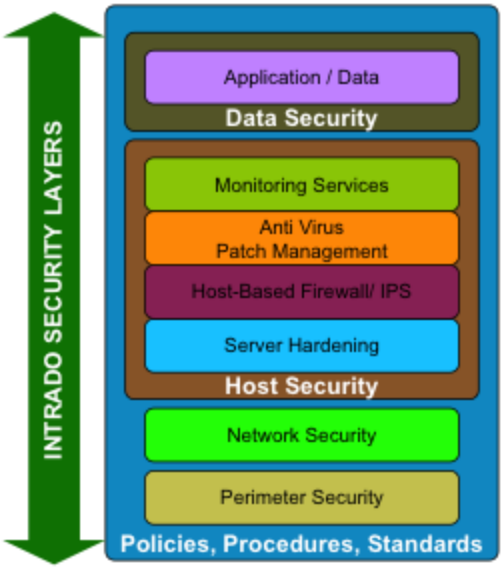
Finally, West employs an Incident Handling process modeled on FEMA's Incident Command System. Notifications are built into this process.

West infrastructure is built to withstand sophisticated attacks (including DDOS) by means of a defense in depth strategy. West employs high availability systems with redundancy at geographical, carrier, circuit, power, application, and system levels. System/Application availability is safeguarded with clustering and load balancing techniques. Furthermore, Wests' security architecture employs defenses that include, but are not limited to, Stateful packet inspection firewalls, IDS/IPS, multi-factor authentication, strong encryption, anti-virus/anti-malware, and vulnerability/patch management solutions. All inter-zone traffic is restricted to only the necessary protocols/destinations, both ingress and egress.

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The West infrastructure is built to withstand sophisticated attacks, including Distributed Denial of Service (DDOS) attacks, by means of a defense in depth strategy. Defense in Depth is designed to defend a system against any particular attack using several, varying methods. It is a layering tactic, conceived by the National Security Agency (NSA) as a comprehensive approach to information and electronic security. Defense in depth is the coordinated use of multiple security countermeasures to protect the Confidentiality, Integrity & Availability of the information assets in an enterprise. The strategy is based on the military principle that it is more difficult for an enemy to defeat a complex and multi-layered defense system than to penetrate a single barrier. Defense in depth minimizes the probability that the efforts of malicious hackers, Viruses and Malware will succeed. A well-designed strategy of this kind will help the West security personnel, network engineers, and system administrators, identify entities that attempt to compromise the Wests' computers, servers, and networks. If a malicious attempt is launched against one of the Wests' resources, defense in depth will minimize the adverse impact and give West personnel time to deploy new or updated countermeasures to prevent recurrence.

The placement of protection mechanisms, procedures and policies is intended to increase the dependability of the West systems where multiple layers of defense prevent direct attacks against the West systems. Components of defense in depth are identified below and include firewalls, intrusion prevention and detection, data / network segmentation. Any combination of these measures can and should be deployed in accordance with the business continuity determination, risk assessment, and customer requirements for a given product opportunity.



Defense in Depth Strategy

The West ESInet solution provides for all of the necessary appliances and security services including firewalls, routers, switches, intrusion detection services, and cabling for securing the NG9-1-1 applications and appliances located at the data centers.

5.7 CENTURYLINK DATA CENTERS AND NG9-1-1 SECURITY

Please see attached CENTURYLINK Data Center Brochures.
Additional Notes:

- All entry points are locked continuously or on an access control system
- All employees, guests, and contractors are required to use a single entry point
- All employees, guests, and contractors are required to badge in and out
- Data Centers are manned 7/24
- A visitor to a Savvis facility, who is not an authorized Customer, Employee, and Contractor will be considered a Visitor and must demonstrate a legitimate business purpose for visiting the site. The Visitor must be escorted by an authorized Savvis escort at all times. Authorized escorts are

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Savvis employees or customers who have been issued a permanent ID badge and are in good standing with Savvis and are permitted to escort up to five visitors at one time. Groups of six or more visitors must be processed as a Data Center Tour. Contractors and third-party vendors are not permitted to sponsor Visitors.

- Visitors are required to show ID with photograph before entering data centers
- Background criminal checks are performed on all employees with access to the data centers

5.8 APPROPRIATE LEVELS OF SECURITY

West

West Internet accessible systems, including the subscriber record management data exchange portal, database management interface tool, and metrics tool, are protected by a secure access process that requires authentication through a unique user name, unique user password, and a code randomly generated at time of access via a secure ID token. The use of this secure ID restricts users to accessing and viewing only their own data, protecting confidentiality. Passwords are force changed and monitored on regular intervals.

West network is capable of processing all traffic, but administratively denies protocols identified as a threat or that otherwise fall outside of pre-defined parameters. This is partially managed via routing tables and/or Access Control Lists (ACLs). West continually investigates and upgrades with new advances in protective technology with tools such as Intrusion Detection System (IDS).
The solution incorporates physical, network, and application security principals. Traffic between core processing sites and distributed sites (e.g., ingress call traffic, PSAPs, management capabilities) is route and protocol secure. A combination of route paths, IP address recognition, limited protocols, VPNs, session border controllers, and firewalls secure the various communication elements of the solution.

West deploys firewalls and other network security devices and software to protect against inbound network threats on the servers that make up the ESInet. West also employs a regularly scheduled patching process to protect against the effects of malware. Computing devices are subjected to thorough security scans so that there are no malware elements present. Access to processing elements is restricted to authorized personnel. Network connections from solution components are limited to those connections needed for operation and maintenance. Physical and network access to production components are restricted to those that have an operational responsibility and all activity is audited and monitored.

All development environments are fully separate from production environments. All hardware and software elements that are deployed in a production environment go through stringent release management processes that incorporate thorough testing and scans.

It should be noted that during the requirements analysis and design phases of the project, the State, 9-1-1 entities, and the West project teams investigate any connections to networks outside the scope of this Services Exhibit, for example connections to other public safety agencies or connections to the Internet, so that all safeguards, including firewalls, are in place.

West facilities and nodes are equipped with physically redundant data communications and power equipment such that any component can be maintained without overall service impact. Buildings and supporting facilities such as generators, fuel, and entrance demarcations require card access and are monitored 24 hours a day by security personnel. Additionally, biometric readers and card access portals are deployed in areas containing critical infrastructure components.

West is a member of the Government Emergency Telecommunications Service (GETS) that is used in the event our core communications cannot be used. West personnel sit on the board of the telecommunication industry and government's National Coordination Counsel, which is the coordinating group for cyber threats and terrorism. This allows us to stay abreast of national and international threats that may affect the Next Gen 9-1-1 infrastructure and mitigate changes as necessary.

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West's Information Security department operates an enterprise-wide vulnerability management program to verify that all hosts and network devices meet rigid standards of configuration and hardening. This program ensures not only deployment verification, but also ongoing oversight of system level protections throughout the lifecycle of the system.

Vulnerability management at an enterprise level provides visibility to systems added and removed from any area of West's network infrastructure, allowing an always-on view to changes which may impact the security posture of the organization.
Intrusion prevention systems complement other network related protections in place, and are another layer of information assurance. These systems are continuously monitored by networking professionals, and provide real-time intelligence regarding traffic flows and the internal or external elements involved in transmission.

Intelligence reports both from internal sources, as well as from external entities including US-CERT, the Internet Storm Center, the Homeland Security Advisory System and other open-source vulnerability research assets are reviewed for vulnerabilities, anomalies, or indications of non-optimum activity, and Information Security Officers interface with all levels of the organization, including IT, management, business units and customers to effect resolution of issues related to network, application and systems security. Information Security Officers and management review numerous open and classified sources of information on a weekly basis in order to respond as necessary to a world socio-political climate which requires constant vigilance with regard to West's commercial and public safety business.

Information Security Officers also have a Communications Security (ComSec) Custodial function, being the source of expertise and policy and technical direction regarding the use of cryptography for all electronic communications to achieve the organization's confidentiality, non-repudiation and integrity objectives. Key escrow and other capabilities are managed by Information Security Officers.

Information Security operates corporate perimeter protection capabilities, including firewalls of various types. Officers provide direction as required by senior management to engineering and other areas of the company regarding perimeter protection. Technical security policy is recommended by Information Security Officers to management, ad hoc as well as in scheduled policy reviews.

Information Security Officers also serve an advisory capacity to all levels of management regarding threats and their mitigation with regard to the company's information assets. Officers are expected to advise and maintain the highest standards of operational security. Operational security practices, as forwarded by the Information Security Department, are a vital component of the organization's security posture. These include but are not limited to employee training, recommendations regarding physical security, auditing and employee relations.

CENTURYLINK Technicians and Engineers
CENTURYLINK hiring process includes background checks on all of our employees (including 9-1-1 technicians). CENTURYLINK also provides background checks on our registered sub-contractors and product partners. Our comprehensive background checks include all of the important searches.

In addition to the CENTURYLINK background checks, our 9-1-1 centers complete fingerprinting and additional background checks on all CENTURYLINK employees and subcontractors.

6.0 SYSTEM BACKUPS & REDUNDANCY

6.1 WEST

A9-1-1 Systems are backed up with Symantec NetBackup on hardware that is sized to support the entire enterprise. Documentation for the backup processes is maintained at West facilities and may be viewed in an audit process. Audit activities taking place within West facilities would require prior vetting of any personnel to enter the facility. Collateral may be reviewed but must remain within the West facility.

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Network configuration management tools perform the following functions:

- Detect and report on configuration policy violations to ensure compliance with corporate standards.
- Utilize configuration templates and command templates, custom scripts, and configuration changes to ensure consistent implementation of network configurations across similar site types
- Simultaneously modify configurations, change community strings, update ACLs, and block MAC addresses across many devices
- Compare start-up and running configuration files to troubleshoot device configurations issues
- Automatically check all network elements for changes and perform backup for all changed network device configurations on a daily basis
- West network configuration tools provide version control and "rollback" functionality to all network elements. This allows the restoral of previous "known good" configurations, or timely restoral of stored configurations in the event of equipment failure or disaster recovery.

West's provisioning, monitoring, and backup systems are redundant between Longmont, Englewood, and Miami. West's NOC staff is located in Longmont and can be relocated to either of the other centers if there is a need.

6.2 AIRBUS

Airbus Communications' Disaster Recovery is highly effective in minimizing call taker position and server downtime. Through perfect snapshots of the monitored system, a system can be quickly restored to any saved working state while preserving current data files.

- **Snapshot Backups.** Disaster Recovery "snapshot" software consists of a client and server component; client software would be installed on all clients/servers within the scope of the specific contract between Airbus Communications and Customer addressing this issue. Clients are backed up to the appropriate Network Management Server location.
- **Disaster Recovery.** If a system fails, using the normal notification processes, Airbus Communications will roll the system back to a known good sate. This is conducted in concert with first tier maintenance for the respective site. All data will be stored on-site and local NAS devices.

Disaster Recovery

This service provides scheduled backups of all Airbus Communications provided servers and workstations to the Network Management Server (NMS). The NMS will manage the Call Center site backups.

If a system fails (virus infection or corrupted install, etc.) the following process will be remotely implemented by Managed Services in conjunction with on-site personnel.

- With assistance from the CENTURYLINK Tech, Managed Services will create a startup disk on the NMS for the specific workstation or server that requires recovery.
- The CENTURYLINK Tech will boot the computer with the startup disk and notify Managed Services that the system is up and that the recovery process can begin.
- Managed Services implements the recovery process and notifies the CENTURYLINK Tech once completed.
- The CENTURYLINK Tech tests the workstation/server – with assistance from Managed Services – and confirms the computer recovered and available for use by the site.
- Managed Services provides a device recovery confirmation e-mail to the Telco.

Reporting

Airbus Communications Disaster Recovery system maintains data to provide monthly reports as illustrated below. The goal of the report is to provide the PSAP insight as to the frequency of full and incremental backups performed during the previous month.

The goal of the Backup Recovery report is to provide the PSAP insight as to the number of backups being performed on a monthly basis. The number of backups will be consistent on a month to month basis, except if a problem occurs where a restore is required or a deployment of a new version of application software is performed.

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Disaster Recovery Management Activity	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	YTD
Total Backups	39	65	52	52	44	60	312
Total Recoveries	0	0	0	0	0	0	0

Backup/Recovery Report Example

- **Total Backups** – This section identifies the number of backups performed during the previous months
- **Total Recoveries**- This section identifies the number of restores of a backup performed during the previous months

7.0 NEXT GEN 9-1-1 ROUTING SERVICES

7.1 ROUTING RULES

Next Gen 9-1-1 Routing processes all inbound emergency calls and successfully presents the emergency calls to the PSAP in accordance with the routing rules determined with CENTURYLINK and provisioned during the implementation stage. Next Gen 9-1-1 Routing allows for specialized management of wireline, wireless, and VoIP call types so that different call types may have the ability to have separate routing policies for originating delivery, transfer, fail over, choking, etc. For example, SMS is routed differently based on a PSAPs selection of delivery method (i3, browser, TTY). Call types are determined based on the incoming call source facility (e.g. MSC, End office), as well as the information provided within call signaling.

Next Gen 9-1-1 Routing will support flexible routing instruction rules, depending on CENTURYLINK-established preferences and needs. To this end, CENTURYLINK will provision the following based upon CENTURYLINK's requirements for the PSAP:

- Each incoming End Office connection (IP or TDM) is identified for the appropriate routing treatment. The current routing treatments are identified below:
  - **Selective Routing:** Routing rules are based upon the calling party ANI. Routing is determined based upon the ANI match to an ESN (Emergency Services Number) and an Electronic Switching System Identification ("ESSID").
  - **Trunk Only Routing:** The incoming End Office trunk is assigned an ESN/ESSID which relates to a specific ingress trunk group. Trunk Only Routing is available for TDM traffic only. A comparable method is employed for ingress IP connections.
  - **PSAP Abandonment Routing:** Specific routing instructions to be applied in the event that the PSAP must evacuate its facility. This can include routing the calls to busy.
  - **Alternate Routing**: Specific routing instructions to be applied as alternate location for routing in the event that all lines to the primary PSAP are busy, or the primary PSAP is closed for a period of time. Multiple, prioritized alternate route destinations are supported. This can include routing the calls to busy.
  - **Default Routing:** Specific default routing instructions to be applied for each incoming trunk group. 9-1-1 calls are routed to the default PSAP in the event of an ANI failure, unintelligible digits received from end office (ES) or control office (EM), or other rare causes. In the event of ANI Failures, a Default ESN will be assigned based on the Ingress Trunk/Path.
  - **Destinations and Route Lists: The solution** is able to specify a unique route list for each routing rule. These route lists allow for designation of a primary target with numerous prioritized alternate destinations such as:
    - PSAP served by Next Gen 9-1-1 Routing
    - PSAP served by a non- CENTURYLINK selective routing service
    - PSTN number
    - Busy
    - Treatment message
    - Tone

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- **PSAP Trunk Group Management:** Each incoming trunk is individually designated to carry a particular call type and/or combination of call types. The solution provides the ability to manage call type designations thereby changing the mix of call types

CENTURYLINK will work with PSAPs to define and manage the PSAP routing rules during the data gathering stage of the implementation. If PSAP or CENTURYLINK determines that changes need to be made, CENTURYLINK will make these changes without disruption of service.

7.2 TRANSFER AND BRIDGING

Next Gen 9-1-1 Routing will support the following flexible transfer/bridge capabilities following NENA 03-003 Tandem to Tandem Transfer. (These transfers only occur via SS7). Specific connectivity specifications for SR to SR connectivity are spelled out within *Foreign Selective Router Interface Specification.*

- **Selective Transfer/Bridge:** The ability for the call taker to transfer an incoming 9-1-1 call to another agency by pressing a button labeled with the type of agency; e.g., "Fire," on the PSAP premises equipment. These transfers utilize pre-provisioned Star Codes (*01-*06) on a per-PSAP basis. In order to match the functionality that CENTURYLINK has deployed within its region, CENTURYLINK will need to expand the number of Selective Bridge Star Codes to **01-**06/*11-*16.
- **Fixed Transfer/Bridge:** The ability for the call taker to use a single button on the call taker's display and transfer unit to complete either a transfer or three-way conference. These transfers utilize pre-provisioned Star Codes (*20-*49) on a per-PSAP basis. In order to match the functionality that CENTURYLINK has deployed within its region, CENTURYLINK will need to expand the number of Fixed Bridge Star Codes to *99.
- **Manual Transfer/Bridge:** The ability for the call taker to complete a manual transfer, by way of 10-digit dialing and delivery via PSTN.
- **Shared 3-Digit Bridge Lists**: The ability for the call taker to use a single button on the call taker's display and transfer unit to complete either a transfer or three-way conference. These transfers utilize pre-provisioned Star Codes (*200-*999). These Star Codes will be shared among numerous PSAPs (i.e., all PSAPs in a particular State could use the same Star Codes). In order to match the functionality that CENTURYLINK has deployed within its region, CENTURYLINK will develop this capability as part of the Product Roadmap which is currently planned for late 2015 delivery and is subject to change.

7.3 VOICE AND DATA TRANSFER

The Parties recognize that the individual TSPs will be responsible for installing and maintaining connectivity from all supporting TSP End Offices/MSCs to the CENTURYLINK LNG POPs.

CENTURYLINK and the TSP will be responsible for working together to jointly install and maintain connectivity between the CENTURYLINK SRs and alternative service providers serving PSAP and at least two CENTURYLINK LNG POPs to support voice transfers of PSAP to/from PSAPs residing on the CENTURYLINK SR(s).

CENTURYLINK will work with each non-CENTURYLINK ALI host provider to establish communications with each non-CENTURYLINK ALI host provider via the CENTURYLINK provided IP connectivity.

7.4 TRANSFERS BETWEEN CENTURYLINK LSR AND ALTERNATE PROVIDERS LSR

The standard offering includes ALI only transfers with wireless or VoIP calls and not wire-line calls. Given that the State uses CENTURYLINK ALI databases today, processes could be put in place to use State ALI nodes in place of/to supplement the National ALI nodes so that wire-line ALI could be transferred. This would be additional effort and associated cost beyond the scope of the current offering.
The proposed transition configuration steps include installing a Legacy Selective Router Gateway (LSRG) between the ESInet and the legacy Tandem routers. This makes possible the following services:

- Allows PSAPs on the ESInet to receive 9-1-1 calls from the Legacy Selective routers until the TSP's have migrated their circuits over to the ESInet.

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- Allows call transfer with additional information, such as ALI, and depending on CPE, case notes and TTY, between PSAPs still on the legacy tandems and PSAP on the ESInet.
- Allows call transfer with additional information, such as ALI, and depending on CPE, case notes and TTY, between PSAPs on the ESInet and PSAPs on the legacy tandems.

West assumes connectivity to legacy PSAPs will continue to be provided from the legacy selective routers during the migration phase. The migration strategy includes establishing legacy tandem connectivity to the ESInet at the LSRGs. Legacy PSAPs will continue to receive their 9-1-1 traffic from the legacy selective routers until the PSAPs upgrade to become A9-1-1 Routing (RFAI) or i3-based PSAPs. Optionally, PSAPs could connect to the ESInet and continue to function as legacy PSAPs using Legacy PSAP Gateways (LPG). This enables legacy PSAPs A9-1-1 Routing (RFAI) and i3-based PSAPs to be homed on the ESInet and they will be able to interoperate by transferring 9-1-1 calls with ANI and ALI. Legacy PSAPs will receive 9-1-1 voice via their existing CAMA trunks and continue to bid ALI until their migration is completed.
Use of the LSRG may eliminate the requirement for Legacy PSAP Gateways (LPGs), since PSAPs migrated to the ESInet can still communicate to PSAPs not yet migrated. West realizes there may be specific cases during the migration process where LPGs may be required and will be provided. If required, specifications of the LPG are provided below:

LPG
Calls routed via the ESInet and delivered to a legacy PSAP will undergo signaling interworking to convert the incoming Session Initiation Protocol (SIP) signaling to the traditional Multi-Frequency (MF) or Enhanced Multi-Frequency (E-MF) signaling supported by the legacy PSAP. The LPGs will allow legacy PSAPs to receive calls and retrieve Automatic Location Identification (ALI) data the same way they do today.
The LPG will also support an ALI interface over which it can receive and respond to ALI queries from legacy PSAPs. Interfaces to a Location Information Server (LIS) and a Legacy Network Gateway (LNG) will also be supported by the LPG so that it can perform a de-referencing operation if the SIP signaling from the ESInet includes a location-by-reference. In addition, the LPG will support an Emergency Call Routing Function (ECRF) interface to facilitate certain emergency call transfer scenarios, as well as interfaces to the Call Information Databases (CIDBs) to provide access to additional non-location data associated with the emergency call, if a reference to such data is provided in incoming SIP signaling.

i3 PSAP LSR Transfer Limitations
Transfers to or from Legacy Selective Routers are voice transfers only. There is no mechanism for transferring the PIDF-LO or the Emergency Incident Data Document (EIDD) to exchange location data and any other supplemental data or alternatively URIs to the dereferencing systems that would provide the data or data updates to the PSAP. Legacy PSAPs with CAMA connectivity must bid the legacy ALI systems to retrieve location information as they do today regardless of whether they are connected to the ESInet.

7.5 Implementing and Maintaining Configurable PSAP Attributes
At a minimum, the following data elements will be configured by CENTURYLINK for PSAP. While initial provisioning will occur during the migration preparation period, the CENTURYLINK or PSAP authorized personnel may request modifications to the provisioning to meet its changing needs:

- PSAP Trunks:
  - NPD assignment (if appropriate)
  - Trunk assignments by call type (wireline, wireless or VoIP)
  - Add or delete trunk members
- Route Lists/Routing Rules:
  - Primary and alternate routes
  - Selective transfer list/star code destinations for first responders, Police Department, Fire, and Emergency Medical Services
  - Fixed bridge lists such as poison control or neighboring PSAPs
  - PSAP abandonment routing rules

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CENTURYLINK will work with each TSP to gather and confirm information to support data provisioning for trunks incoming from the End Office to the Next Gen 9-1-1 Routing network including the following data:

- Incoming signal type
- Call type
- Implied numbering plan administration ("NPA"), if applicable

7.6 NEXT GEN 9-1-1 SELECTIVE ROUTING DATABASE UPDATES

West's TSS Database Management system, operated under contract to CENTURYLINK as a 9-1-1 Service Provider, will provide Next Gen 9-1-1 Routing SRDB updates to the SRDB in the following manner: SRDB updates will be created by CENTURYLINK's TSS Database system for all records that have successfully passed data validation. SRDB updates will be delivered to the Next Gen 9-1-1Routing system by the next calendar day following successful data validation.

8.0 MONITORING, MAINTAINING, AND TECHNICAL SUPPORT

CENTURYLINK will be responsible for ongoing support and maintenance of the Next Gen 9-1-1 Routing network design and implementation. This includes the monitoring and maintenance of call processing so to reduce and limit effects of call congestion.

CENTURYLINK will be responsible for ongoing support and maintenance of the Next Gen 9-1-1 Routing network hardware and for the provision of necessary upgrades to support the operations of Next Gen 9-1-1 Routing as defined in this Technical document. This responsibility does not include enhancements, features or functionality beyond the scope of this Technical document.

CENTURYLINK has responsibility for 24x7x365 monitoring, maintenance, and technical support of the CENTURYLINK-provided MPLS network and components as further delineated above. This section describes the monitoring, maintenance, and technical support for the non-CENTURYLINK components of the solution that will be provided by CENTURYLINK.

CENTURYLINK will provide PSAPs with a 24x7 point of contact to report network related issues and will make a commitment to resolve network issues in the shortest amount of time feasible.

8.1 MONITORING

CENTURYLINK will monitor each Next Gen 9-1-1 Routing node on a 24 hour, 7 days per week, 365 days per year basis. CENTURYLINK performs monitoring of all communications links, including between the Next Gen 9-1-1 Routing network and CENTURYLINK's PSAP. CENTURYLINK is responsible for detecting application and network failures on CENTURYLINK's Next Gen 9-1-1 Routing nodes. CENTURYLINK will follow notification procedures as jointly agreed upon between CENTURYLINK and PSAP Customer.

8.1.1 Network Monitoring

The CENTURYLINK data communications hardware used to terminate circuits will be capable of automatically rerouting traffic in the event of a facility failure where redundant connectivity is available. In addition, CENTURYLINK will measure and report on call delivery times within the Next Gen 9-1-1 Routing solution. CENTURYLINK measures Call Delivery Times from the call's entry into CENTURYLINK network to the delivery of the call to the PSAP's Equipment (ANI/ALI Controller). The type of deployment will affect the estimated Call Setup Time.

Within an 8 or 10 digit CAMA deployments, the Call Setup Time duration shall not exceed 5 seconds from the time the call is received by CENTURYLINK LNG.
Within an IP deployment (RFAI), the Call Setup Time duration shall not exceed 3 seconds.
The Call Setup Times for the CENTURYLINK deployments are reported within the Call Setup Time reports.
CENTURYLINK will monitor and analyze the network and equipment as appropriate to meet CENTURYLINK's obligations in this Technical document.

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8.1.2 Monitoring PSAP Circuit Alarms

CENTURYLINK will be responsible for monitoring the CENTURYLINK-provided IP connectivity between the PSAP and CENTURYLINK's ALI servers and Next Gen 9-1-1 Routing system. CENTURYLINK will provide timely communications to PSAP customer regarding any facility or service conditions that will affect the operations of Services. CENTURYLINK will provide testing support on a 24 hour, 7 days per week, 365 days per year basis, when required to evaluate PSAP circuit problems.

CENTURYLINK is responsible for testing network connectivity from demarcation point at the PSAP and the Next Gen 9-1-1 Routing Service equipment installed by CENTURYLINK at the PSAP. CENTURYLINK will provide timely communications to PSAP customer and STATE regarding any facility or service conditions that will affect the operations of the Next Gen 9-1-1 system. CENTURYLINK will provide testing support when required to evaluate CPE connectivity problems.

8.1.3 Trouble Tracking / Escalation

Each Party will participate in the tracking of trouble reports and will provide escalation procedures and contacts to the other Party. CENTURYLINK's Program Manager and PSAP's Program Manager point of contact will develop the escalation procedures during the implementation phase.

8.1.4 Interface with Application Support

CENTURYLINK's primary point of contact will be the Program Manager for PSAP and PSAP personnel who need to interact with CENTURYLINK's application support personnel.

8.1.5 PSAP Problem Investigation

CENTURYLINK has primary responsibility to investigate PSAP problems related to these services. In the event that the issues are determined to not be Next Gen 9-1-1 related, CENTURYLINK will assist PSAP in solving PSAP problems.

8.2 MAINTENANCE

8.2.1 System Upgrades

CENTURYLINK will notify STATE and PSAP customer at least 10 business days in advance of planned events and be responsible for ongoing support of the Next Gen 9-1-1 Routing network and for the provision of necessary modifications and upgrades to support the operations of the Next Gen 9-1-1 Routing network as described in this Technical document. CENTURYLINK may need to apply changes to its software applications in response to emergency situations and will notify STATE and PSAP customer at the earliest possible time.

8.2.2 Premise Equipment

CENTURYLINK will be responsible for the ongoing support/maintenance for all CENTURYLINK PSAP Network Equipment provided under this Technical document.

8.3 TECHNICAL SUPPORT

8.3.1 Contact Procedures

CENTURYLINK Contact Procedure: For service disruptions CENTURYLINK provides twenty-four (24) hour, seven (7) days per week support services. CENTURYLINK provides a 9-1-1 Operation Center Number for service disruptions and connectivity issues identified by CENTURYLINK, State, or PSAP. CENTURYLINK will record issues reported by State or PSAP including problem description, service impact, and other pertinent information.

PSAP Contact Procedure: Where CENTURYLINK has identified a PSAP affecting service disruption, CENTURYLINK provides initial notification and updates to the identified State and/or PSAP contacts according to the guidelines established and agreed to between CENTURYLINK and PSAP.

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8.3.2 CENTURYLINK Responsibilities

CENTURYLINK has primary responsibility to investigate PSAP problems and determine if they are caused by CENTURYLINK or PSAP-owned network or equipment. CENTURYLINK will work cooperatively in resolving problems related to Next Gen 9-1-1 Routing. CENTURYLINK will be responsible for solving any problems caused by CENTURYLINK PSAP Network Equipment in addition to all Next Gen 9-1-1 Routing equipment hosted at CENTURYLINK facilities.

8.3.3 PSAP Caused Service Disruptions and Out of Scope Technical Support

The PSAP may report PSAP-caused service disruptions to CENTURYLINK either verbally or by written notice, or as CENTURYLINK otherwise reasonably requires. Likewise, CENTURYLINK may report PSAP-caused service disruptions detected by CENTURYLINK personnel to the PSAP. Technical support and related services for incidents or service disruptions that CENTURYLINK determines relate to systems, equipment, or network issues that are not part of the Next Gen 9-1-1 Routing network (including those on the PSAP side of the demarcation point), or are otherwise not CENTURYLINK's responsibility hereunder, will be worked jointly with the PSAP and/or PSAP.

8.3.4 Incident Management

When a PSAP-affecting issue is identified, which impacts Next Gen 9-1-1 Routing call delivery to a PSAP, it will be flagged as an incident CENTURYLINK coordinates communication, monitoring, and resolution of the issue. The team also documents appropriate items, which may include root cause analysis, CENTURYLINK/PSAP impacts, countermeasures, and resolution.

8.3.5 Technical Support

CENTURYLINK will provide additional technical and support resources as necessary to deliver on customer expectations and program goals. This would include, but not be limited to:

- Managed NG9-1-1 Program Manager
- Managed NG9-1-1 Project Manager
- Managed NG9-1-1 Account Consultant
- Managed NG9-1-1 Lead trainer
- Managed NG9-1-1 Service Manager
- Managed NG9-1-1 Lead Process Analyst
- Managed NG9-1-1 Field Technicians

Planned Events

Planned events are scheduled for changes that may be CENTURYLINK or PSAP impacting. A notification of the upcoming event will be sent by CENTURYLINK Program Manager to PSAP at least 10 business days in advance of the scheduled change.

Planned events do not include changes that are applied as part of normal business operations. The provisioning of data elements, applying PSAP requested parameter changes and the like are not included in the Planned Event process.

- CENTURYLINK will perform quarterly preventative maintenance activities at each PSAP for the term of this agreement.
- CENTURYLINK will install all software fixes after they have been "Approved for Field Use" (AFU) as they become available.

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- CENTURYLINK will provide (1) system upgrade per year as and if released by Airbus and/or West and the systems will never be more than one (1) version behind the then current software version.
- CENTURYLINK will maintain critical spares in existing crash kits

9.0 TOOLS

9.1 CLEAR VIEW REPORTS FOR NEXT GEN 9-1-1 ROUTING

CENTURYLINK will provide the West Clear View Reports business intelligence reporting tool for metrics reporting, which will supply users with Next Gen 9-1-1 Routing data and reports. The current Master Agreement ALI metrics will apply to this Technical document.

This suite of reports will be accessible through an Internet interface in a standardized HTML format. Users will be able to view summary data for a "big picture" view, and in many cases, drill down to the detail for a more "granular" view. Users can also download the report as a comma-delimited file, which can be imported into Excel or another database application.

West is in the process of evolving its metrics reporting solution. A9-1-1 Routing customers currently access IP selective router (IPSR) and data validation reports through West's web-based ClearView metrics solution. Enhanced reporting for i3 Routing customers will be delivered through a new Enterprise Business Intelligence (BI) tool, Microstrategy® from West. For the Managed Services offering, West will provide the Program and PSAP users with access to all metrics reports through a single web-based interface.

User access to metrics reporting tools is through the West portal. The West portal provides users with secure single sign-on access to multiple web-based applications, including metrics reporting, a web-based data management system, the PSAP management portal to view call detail records and configure routing policies, a ticket system, and a document library for 24x7 access to user's guides and training materials.

9.1.1 Call Data Availability

CENTURYLINK provides support services for the reporting systems on a nine-hour 8:00 A.M. to 5:00 P.M. Mountain Time – five (5) days per week (Monday through Friday) basis, excluding CENTURYLINK holidays ("Normal Business Hours").

9.1.2 Call Data Access

CENTURYLINK will store data relating to Customer performance metrics in a data warehouse. One (1) year of data will be available to Customer via the web site; requests for data older than one year will be handled on a case-by-case basis.

9.1.3 ClearView Metrics

West Clear View Reports provides on-demand access to IP selective router (IPSR) and data validation breakout reports which can be queried based on a daily, weekly, or monthly basis. Clear View Reporting gives users the ability to drill down and capture additional contextual information that can be used to more efficiently manage ongoing 9-1-1 operations. ClearView metrics allows users to Print or Export up to one year's worth of Metrics.

9.1.4 ClearView Location Data Management Reports

Clear View Reports for Location Data Management include:

- Primary Metrics Summary Reports
  - Service Order Processing
  - Daily Error By Number of Records Processed
  - Unresolved Errors at End of Month
  - ALI System Availability
- ALI Records Found
- TN Census Report

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- ALI Retrieval Report
- ANI Failure Report
- System Performance Reports
- NRF Reports
- SOI Reports
- TSS Error Reports

9.1.5 Clear View Reports for IPSR

Clear View Reports for IPSR call processing and call status include:

- Event Count Reports per Hour– provides metrics for total calls in which Customer's PSAP participated by hour for a day, week or month
- Event Count Report by Trunk Group – provides metrics for total calls in which Customer's PSAP participated and provides metrics for calls attempted, calls transferred out, calls transferred in
- Event Count by Routing Reason and Destination – Indicates counts where Customer's PSAP participated as the Primary versus Alternate, whether the call was answered or busy, for Default versus Selective routed, and for call where the destination was "Not Available" (includes abandoned, rejected, transferred and handed-off calls). Provides metrics for total calls, initial calls, calls transferred out, and calls transferred in for each category.
- Event Count by Type – Indicates counts by call type (wireless, wireline, VoIP) where Customer's PSAP is primary, and provides metrics for total calls, initial calls, calls transferred out, and calls transferred in.
- Event Count by Incoming Trunk – Indicates the number of calls sent to Customer's PSAP by each trunk, and provides metrics for total calls, initial calls, calls transferred out, and calls transferred in for each category.
- Bridge Call Summary – provides metrics for calls bridged in or out by bridge type (fixed, selective, manual). Call detail is available for each bridged call.
- Routing Database Processing – provides a breakout of initial calls where Customer's PSAP was Primary by selectively routed versus default routed with a No Record Found (NRF) breakout
- Call Delivery Time – provides statistics on the time to route and deliver calls where your PSAP is Primary, including the minimum, maximum, median and average times. For the Program, this report will include the number of calls above 3 seconds and a percent of total processed

9.2 MICROSTRATEGY® FROM WEST

For Customers with the West A9-1-1 i3 Routing solution, CENTURYLINK and West will provide an i3 compliant logging service as described above. West's i3 logging service will support retrieval of logs and events via the i3-defined web services interface as well as via a web-based interface.

West's Enterprise BI Reporting Tool, Microstrategy® from West, will provide a web-based interface to allow the PSAPs and Program to review and retrieve i3 Logging transactions and events including text conversations and data validation metrics.

West will support reports defined in NENA 08-003 v2 Detailed Functional and Interface Specification for the NENA i3 Solution, 20140326 Draft:

- RetrieveLogEvent
- ListEventsByCallId
- ListEventsByIncidentId
- ListCallsByIncidentId
- ListIncidentsByDateRange
- ListIncidentsByLocation
- ListIncidentsByDateAndLocation
- ListCallsByDateRange
- ListAgenciesByCallId
- ListAgenciesByIncidentId

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In addition to i3 defined logs and metrics reports listed above, Microstrategy from West allows users to:

- Define and run ad hoc reports
- Define metrics reports to be run on a scheduled basis
- Provides a flexible interface to query, view and extract 9-1-1 data records

All of the underlying ESInet translation logs are recorded in GMT time. The Microstrategy from West web interface supports time zone conversion for queries and reports with 'Arizona time' as an option.

9.2.1 Call Counts Metrics

Clear View will provide a number of call count breakout reports, which can be queried based on a daily, weekly, or monthly basis.

- Call counts by hour for each trunk group
- Call counts by routing type, where the PSAP queried was the primary destination
- Call counts by routing type, where the PSAP queried was an alternate destination
- Call counts for transfers/bridges where the PSAP queried was the initiator. This query shows transfer/bridge type and destination of the transfer/bridge
- Call counts for transfers/bridges where the PSAP queried was the destination/recipient. This query shows transfer/bridge type and destination of the transfer/bridge
- Call counts by type: wireless, wireline, VoIP
- Call counts for calls which routed to busy; broken down by cause
- Default routed calls by day, week, or month; further broken down by cause. Time and date can also be broken out

9.2.2 Trunk Busy Metrics

Clear View will provide a number of trunk group status reports, listed below which can be queried based on a daily, weekly, or monthly basis and indicate time and duration of each event

- Next Gen 9-1-1 Routing egress (inbound to PSAP) trunk groups busy. Report indicates time and duration of each event
- PSAPs in abandonment state; including time of events and durations. Viewable by day, week, or month
- When Ingress IP and/or IP to the PSAP are introduced, the data captured will not be grouped by trunk group, as the architecture is different. Similar data will be available, but it will not have the same data elements.

9.2.3 Call Detail Metrics

Clear View will provide Call processing and setup information statistics, which can be queried, based on a daily, weekly, or monthly basis and include:

- Call setup times. Clear View provides the minimum, maximum, median, and average call setup times broken out by TG.
- Call duration times. Clear View provides the minimum, maximum, median, and average call duration times
- Bridge/Transfer call setup time. Clear View provides the minimum, maximum, median, and average call bridge/transfer setup calls
- Bridge/Transfer call duration time. Clear View provides the minimum, maximum, median, and average call duration times for bridged/transferred calls
- Calls handed off to a Foreign SR (calls received by Next Gen 9-1-1 Routing but were destined to a foreign SR).

9.2.4 SR Database Results Metrics

Clear View provides a number SR database results reports by PSAP which can be queried based on a daily, weekly, or monthly basis.

- Number of queries made to the SR database

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- Number of queries which failed due to "No Record Found" (no entry in the SR database for the ANI/pANI transmitted from the End Office)

9.3 CLEAR VIEW REPORT DATA ACCESS AND SECURITY

Clear View Reports current security features are as follows: Users are required to log onto CENTURYLINK secure Internet server using the traditional user id and password authentication and an additional unique and dynamically changing secure access code from their Secure ID token. Each user of Clear View Reports will be issued a Secure ID token unique to that user that will generate a unique access code for use when logging onto the Clear View Reports web site. The access code dynamically changes with each new log on attempt, providing increased data access security.

9.4 METRIC REPORT DEVELOPMENT AND CUSTOMIZATION

Requests for additional or customized reports, query capabilities, and graphical data display should be made in accordance with the Out-of-Scope Request process described in Section 2.2.

9.5 PERFORMANCE METRICS

CENTURYLINK and West will provide overall performance metrics for this Managed NG9-1-1 offering. Program and PSAP users will be able to access all metrics reports through a single web-based interface.

In addition to the IP selective router (IPSR), end to end i3 transaction and event, and data validation breakout reports described above, CENTURYLINK and West will also provide the Program and each PSAP with monthly metrics reports on the following:

9.5.1 Service Performance Metrics

Service Performance Metrics – Monthly performance against all service performance parameters.

9.5.2 Call Delivery Time

Call Delivery Time – Breakout report of call delivery time through the West A9-1-1 Routing or i3 Routing systems including the LPG conversion and Policy Route determination. This report will show the number of calls above 3 seconds and a percent of total processed. The metrics report will not include network latency time.

9.5.3 Network Performance Metrics

Network Performance Metrics – Monthly performance of the CENTURYLINK MPLS network covering:

- Jitter – average
- MOS – low, high, average
- Round trip delay – average
- Packet loss – average
- Downtime – seconds per month per system

9.5.4 Operational Metrics

Operational Metrics – Metrics on trouble tickets opened by CENTURYLINK and West or reported by the Customer through the West portal accessed ticket system, specifically

- Trouble tickets – Number of tickets opened and closed each month
- Trouble tickets – Average time between ticket open and ticket close time. It should be noted that the average ticket close time may not be equivalent to the service resolution time in the case where there were delays in the customer providing additional information needed for West to triage and resolve reported system issues.

9.5.5 Call Processing and System Provisioning Metrics

Call Processing and System Provisioning Metrics – West will provide monthly reports on call processing and system provisioning as described in detail above

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9.6 GIS DATA MANAGEMENT

9.6.1 MapSAG Overview

MapSAG is a GIS data management application used by city or county GIS professionals, outside of the call taking environment, allowing a customer to create and maintain accurate 9-1-1 GIS data and to synchronize the GIS database and the 9-1-1 database. The result is a "checks and balances" approach of consistency and accuracy across databases used for addressing and 9-1-1. MapSAG is installed locally, at the customer location, and operates through a simple interface within Esri's ArcGIS Desktop product. Various toolbars are available for accessing the available tools and features. The functionality that resides in the ArcGIS Desktop framework remains available while using MapSAG, including editing, drawing, layouts and/or spatial queries. An example of the integration of MapSAG and ArcGIS Desktop is that users can perform a spatial or attribute query and use the resulting records for analysis by the MapSAG tools.

Using MapSAG, ArcGIS Desktop and a combination of both, new GIS data records (streets, structures, polygons etc) can be input into the GIS in a number of ways, including field GPS, on-screen digitizing, import, and auto-generation. The GIS data is stored in an Esri format. The MapSAG software currently operates in the latest version of ArcGIS for Desktop 10 or 10.1 and will utilize a Personal Geodatabase, File Geodatabase or an Enterprise Geodatabase through ArcGIS Server (ArcSDE).

MapSAG software requires a licensed copy of Esri's ArcGIS for Desktop, to be provided by the customer.

Other GIS data management tools are available and may be used instead of MapSAG. Any alternative product must support Esri standard geo-databases. While the solution includes MapSAG at no additional cost, if PSAP chooses to use an alternative product, all such cost for purchasing, support, and maintenance will be the responsibility of the PSAP.

9.6.2 ESRI Software Requirements

MapSAG requires Esri's ArcGIS for Desktop.

9.6.3 MapSAG Responsibility Matrix

Task	Responsibility
MapSAG™	
- Data configuration - Initial implementation - Training - Software maintenance & enhancements - Technical support	CENTURYLINK / West
- Esri software purchase and maintenance - Basic knowledge of ArcGIS for Desktop - Hardware purchase and maintenance - GIS data creation and updates - Database schema updates - Implementation of optional software patches and upgrades - IT support	End User

9.6.4 GIS Data Collection

The West experienced 9-1-1 GIS Data Analyst team will provide remote GIS data management assistance to the Customer, including collection of existing GIS data and/or paper maps, GIS data accuracy validation and reporting, and data correction and editing, where applicable. Priority will be placed on gathering GIS layers required to support i3, including Police, Fire, and EMS response

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boundaries, street centerlines, address points, and other data appropriate to support data maintenance procedures.

The solution also offers Mapping and GIS Data Development Professional Services to assist the Agency with map and 9-1-1 GIS database editing and correction in various areas.

9.6.5 MapSAG Training

CENTURYLINK and West will provide training, at customer facility, for its A9-1-1 GIS Data Management software products. Training and a training schedule will be mutually agreed upon by CENTURYLINK, West and Customer. Training will be "train-the-trainer" format, which will enable Customer to train additional employees.

As new versions of MapSAG are made available through the term of the agreement, CENTURYLINK and West will mutually agree upon an updated training schedule for the Customer. Customer is responsible for identifying the training attendees and for training additional personnel, as necessary, or contracting with West to provide additional training.

10.0 ESINET DESIGN

10.1 REFERENCE DRAWING

Please reference file ***AZ NG9-1-1 Design (Rev 190921)***

Revision 1 improves on the network design between the legacy selective router to Legacy Network Gateway (LNG) to comply with recent FCC mandated diversity and redundancy order.

10.2 INTERCONNECTING I3 NETWORKS

While technically capable, the Arizona Managed NG9-1-1 solution does not specify nor have cost allowances for interconnection with other i3 Networks. When a PSAP identifies the need for interconnection to other i3 Networks, cost and methods will be determined at that time. However, the below provides the process that would be used to complete the interconnection and how services might work.

West/CENTURYLINK assumes that the entire state of Arizona will first be moved to an IP-based Selective Routing solution. Once implemented, the IP Selective Router solution will support IP enabled (non-i3) PSAPs, legacy PSAPs and i3 PSAPs throughout the state, simultaneously. Since all TN subscriber location information is stored in a common database, which simultaneously supports LIS HELD queries, CIDB Additional Data queries, and legacy ALI queries, the capabilities of the PSAP will determine which interface will be utilized to retrieve location data. If all PSAPs involved in a bridge/transfer have transitioned to i3, they would utilize the Emergency Incident Data Document (EIDD) to exchange location data and any other supplemental data or alternatively URIs to the dereferencing systems that would provide the data or data updates to the PSAP.
The West/CENTURYLINK ESInet supports interconnectivity with both neighboring i3 and legacy networks. As a transition solution, West/CENTURYLINK will provide a Legacy Selective Router Gateway (LSRG) between the ESInet and the legacy Tandem routers. This makes possible the following services:

Allow i3 PSAPs on the ESInet to receive 9-1-1 calls from the Legacy Selective routers until TSP's have migrated their circuits over to the ESInet.

Allow call transfers with additional information, such as ALI, and depending on CPE, case notes and TTY, between PSAPs still on the legacy tandems and an i3 PSAP on the ESInet.

Allow call transfers between i3 PSAPs on the ESInet and PSAPs on the legacy tandems. Call transfers between i3 PSAPs will support additional information, such as PIDF-LO, and depending on CPE, case notes and TTY.

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West/CENTURYLINK will also support ingress and egress i3 SIP to support both i3-compliant TSP traffic and interconnectivity with other i3 networks, e.g. in-state regional networks or neighboring state networks. Calls received from i3-compliant TSPs and transferred in from neighboring i3 networks will be delivered according to the PSAP-defined routing policy. West's ESRP will also support configuration for transfers to neighboring ESInets via egress i3 SIP.

For Text-to-9-1-1 transfer services, West's TCC now supports a variety of "in-band" commands that can be sent by the PSAP to invoke certain feature-specific actions on TCC such as the transfer function to other PSAPs that are using West for Integrated, Web, or TTY. The transfer functionality also allows the PSAPs involved in a transfer to chat privately when conferencing in the PSAP that the conversation will be transferred to. Upon transfer to another PSAP the entire dialog that had previously taken place will be transferred to the accepting PSAP. Upon transfer the last location known will be forwarded in the initial message to the accepting PSAP.

Note that at the time of this response, there are no industry standardized requirements that have been developed for the transfer of text sessions between PSAPs served by different TCC providers. West has implemented their own solution in order to support transfer capabilities between PSAPs served by the West TCC until such time that standards are developed or an agreement between TCC providers has been reached to support these capabilities.

Text-to-9-1-1 interoperability between TCC providers is supported in the West text solution and has been implemented per J-STD-110.a. Please refer to figure 1, depicting how the reference architecture is extended with multiple TCCs. Figure 1 shows the reference points required to support text routing/delivery and location dereferencing in the scenarios where geography and/or interconnection arrangements require such communication. The extended reference architecture provides the flexibility to invoke those components of the TCC that are needed to support text communications between a given origination and destination point via the desired path. The functional entities within a given TCC that actually get invoked to support text message delivery will depend on where the text comes from, where it is going and what connections and agreements exist to get it from its source to its destination.

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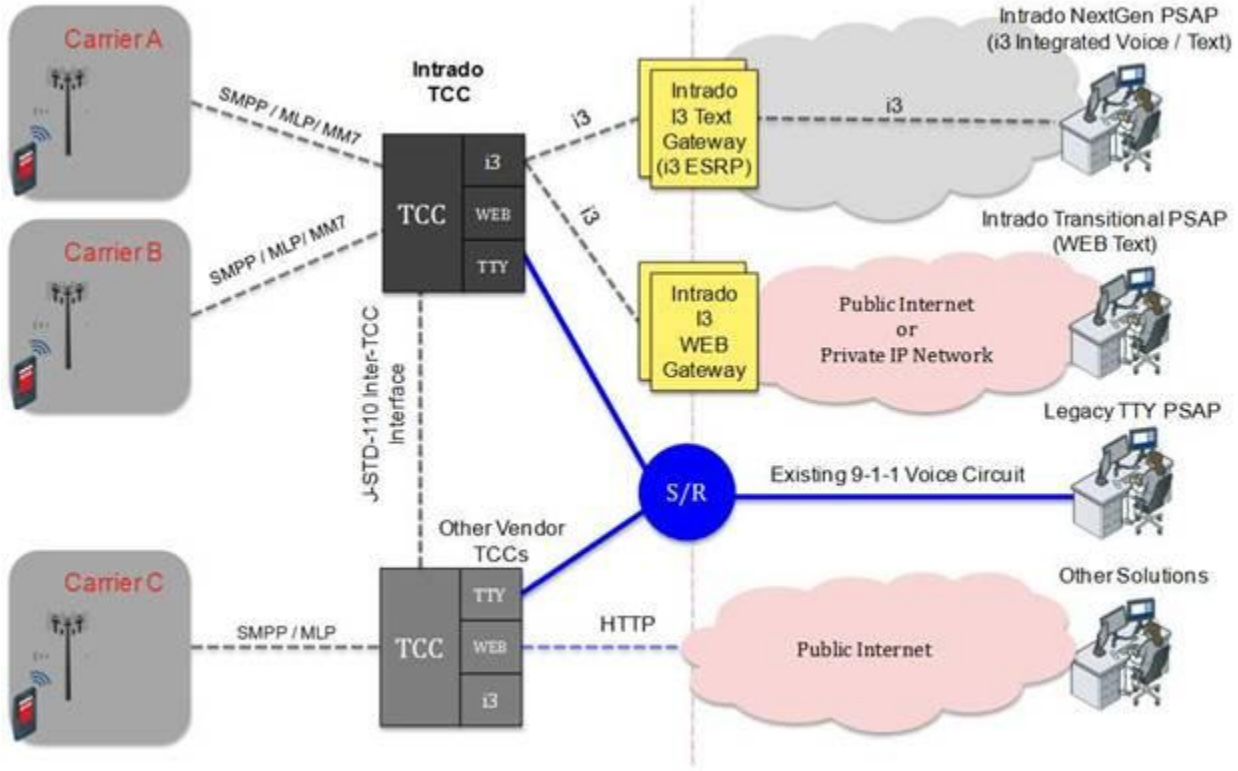


Figure 1 – Text Interoperability

The West i3 solution supports flexible transfer and bridge capabilities for each Customer PSAP as follows:

The West ESRP supports N-way (multiparty) bridging and call transfers using i3 SIP REFER and subscribe/notify messaging. i3 PSAPs can transfer calls to both i3 and non-i3 PSAPs, although N-way bridging is supported only for ESInet call participants.
West's ESRP can also support star code transfers through the Customer PSAP CPE.
West's LNG/ESRP supports the following NENA i3 protocols and interfaces:

- HELD protocol to communicate with the LIS
- Additional Data protocol for the CIDB
- LoST for ECRF communications
- i3 SIP

Physical points of interconnect for the ingress network, West will partner with CENTURYLINK to ensure all carriers connect to the West LNG.

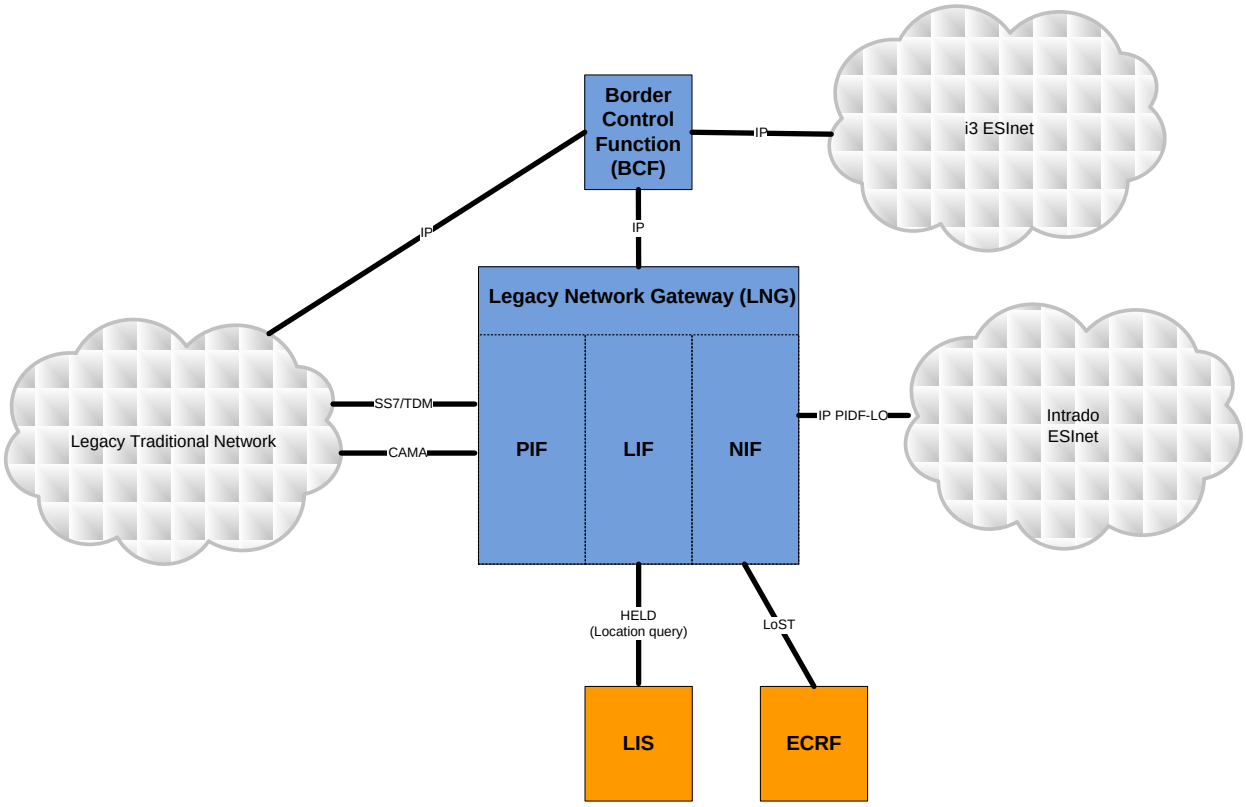
10.3 LEGACY NETWORK GATEWAY (LNG)

The Legacy Network Gateway (LNG) and Legacy Selective Router Gateway (LSRG) are signaling and media interconnection points between callers in the legacy originating networks and the i3 architecture. The LNG provides the NENA i3 specified NG9-1-1 specific Interwork Function (NIF), Protocol Interworking Function (PIF) and Location Interwork Function (LIF).

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The CENTURYLINK and West LNG function will interface the legacy 9-1-1 network to the West ESInet. The LNG will convert CAMA and TDM/SS7 calls to IP within the Protocol Interwork Function (PIF) to support any 9-1-1 call received from the legacy network that is not IP based.

The LIF utilizes a key from the incoming signaling to retrieve location information from the Location Information Server (LIS) using the HELD protocol. The LIF also retrieves Additional Data associated with the call from the Call Information Database (CIDB) using the "Additional Data" protocol as specified by NENA. The location and additional call information is provided to the NIF to be passed to the ESRP for use in determining the route and populating the SIP messaging to the PSAP. The NIF will generate the SIP PIDF-LO (Presence Information Data Format-Location Object). PIDF-LO is a SIP message that has location information embedded in an XML format within the SIP invite.

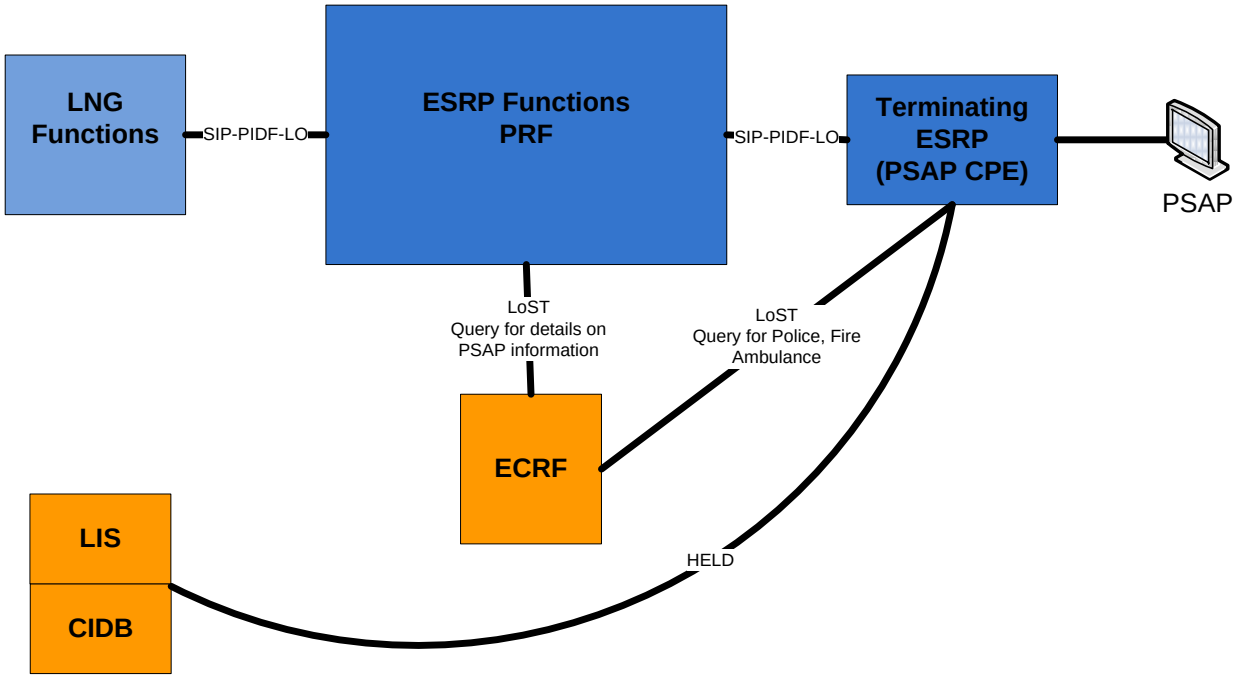


LNG Function

When the ESRP (Emergency Service Routing Proxy) receives the PIDF-LO message, the ESRP may query the appropriate ECRF to determine the next hop for the 9-1-1 call. The West ESRP contains the routing logic that routes the call to the appropriate terminating ESRP, also known as the PSAP's hosted VIPER or VESTA call handling system. The hosted call handling solution will function as the terminating ESRP and will have the ability to query the CIDB, LIS, and ECRF to accurately represent the call's information and associated jurisdictional information on the workstation. This includes the ability for the call handling system to query the ECRF to obtain specific information about which Police, Fire, and EMS

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supports the caller location, based on the GIS information received within the PIDF-LO message. These functions will be part of the hosted call handling service.



10.4 LEGACY NETWORK GATEWAY – ARIZONA SPECIFIC

As customer PSAPs migrate to an ESInet solution, there will continue to be the need for these NG9-1-1 enabled PSAPs to receive wireless and wireline calls from legacy TDM networks and from legacy PSAPs. In compliance with the NENA i3 defined solution for interconnecting legacy networks and the Emergency Services Information Network (ESInet), CENTURYLINK will deploy two Legacy Network Gateways (LNG)s in Arizona at the following data centers:

INVOLTA DATA CENTER
IO DATA CENTER

At each LNG, CENTURYLINK will install Gateways where calls originating on the legacy network will be converted to IP for transport over the ESInet to the West Emergency Call Management Center and then on to the i3 enabled, or NG PSAP.

As a PSAP is migrated to a NG PSAP, CENTURYLINK will replace the existing EM trunks from the Legacy Selective Router (LSR) to the PSAP with SR trunks from the LSR to the LNG Gateways. CENTURYLINK's recommended design will be a ratio of (1.3) ES trunks for every (1) legacy EM trunk. Additionally, trunks from the LNG to the LSR are needed to support call transfers from NG PSAPs to Legacy PSAPs or vice versa, which may also impact the required ratio. During the migration of PSAPs from the legacy network to the ESInet, CENTURYLINK will monitor the traffic volumes and may adjust the number of ES and LSR transfer trunks up or down, as needed.

CENTURYLINK ES trunks are configured in a Primary / Secondary overflow pattern (never load shared). In the solution for Arizona, half the ES trunks from the LSR are honed to one of two LNGs, while the other half is honed to the second LNG. In the event that a LNG is lost, an Arizona NG PSAP will still maintain

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full service levels similar to how all Arizona PSAPs are currently provisioned with N+1 redundancy through dual tandems.

As the PSAP is migrated to a NG PSAP, CENTURYLINK will update the routing in its LSR and based on ESN, deliver the call over the EM trunks to a legacy PSAP or over the SR ES trunks to the LNG and then over the ESInet to a NG PSAP. Call setup times are dramatically improved when processed through the LNG to the IPSR with an average call setup time of 600ms.

10.4.1 Independent CSPs

Independent CSPs legacy selective routers (LSR) can be honed to the LNG. Per customer request, the LNG design provides the interface for other service providers, such as Frontier, to enter the Arizona ESInet. The originating call can be from a legacy network or IP enabled network.

West and CENTURYLINK encourage the direct connection of CSPs to the LNGs; however, this is not in scope of this project. Timing can depend on the Carriers, and on factors not under West or CENTURYLINK's control.

CENTURYLINK acknowledges the customer's desire to allow wireless CSPs to direct connect during Phase One of the project. Allowing CSPs to direct connect during Phase One implementation brings on new project risks and will take additional planning and coordination to accomplish. This would include, but not be limited to:

- Negotiation of Interconnect agreements
- Determining costs for interconnection
- Solution Design
- Solution Implementation
- Solution Testing

CENTURYLINK and customer will evaluate any requests for direct wireless CSP connection after the first successful Phase One PSAP migration. In this evaluation, CENTURYLINK and customer will determine project risks from the extra efforts required for wireless CSP interconnection.

If both parties agree that the inclusion of direct wireless CSP interconnection to the i3 network poises low risk to a successful Phase One deployment, then such interconnection will be allowed. If, at any time after including wireless CSP interconnection, it is determined that successful deployment of Phase One is in jeopardy, CENTURYLINK may delay wireless CSP interconnection at its discretion.

If it is determined that inclusion of direct wireless CSP interconnection to the i3 network poises to high of a risk to include in Phase One deployment, CENTURYLINK and customer can complete all planning required during Phase One deployment so that implementation of direct wireless CSP interconnection to the i3 network can commence at an agreed date following Phase One deployment.

10.4.2 Proper Gateways for Service Providers

West supports ESInet ingress IP traffic via the NENA i3 and ATIS-0700015 "Standard for Implementation of 3GPP Common IMS Emergency Procedures for IMS Origination and ESInet/Legacy Selective Router Termination, August 2013". The IP Point of Interconnect (POI) supporting Session Internet Protocol (SIP) call delivery is the West Border Control Function (BCF) at each of the geographically diverse Emergency Call Management Complex (ECMC) locations. The SIP interface can be used for carriers delivering i3 compliant interface with PIDF-LO or ESInet to ESInet call hand-offs and transfers.
Additionally, the SIP Ingress protocol can be used to support a transition strategy where IP protocols are used to replace TDM protocols as a means to providing better connectivity with redundant path routing and a transition from legacy to NG9-1-1 interfaces.

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The process for migrating carrier traffic from the gateways to the SIP POIs is defined in detail and will be reviewed with the carrier when the migration process is initiated. A summary of the overall process to be led by an West Project Manager (PM) is provided below:

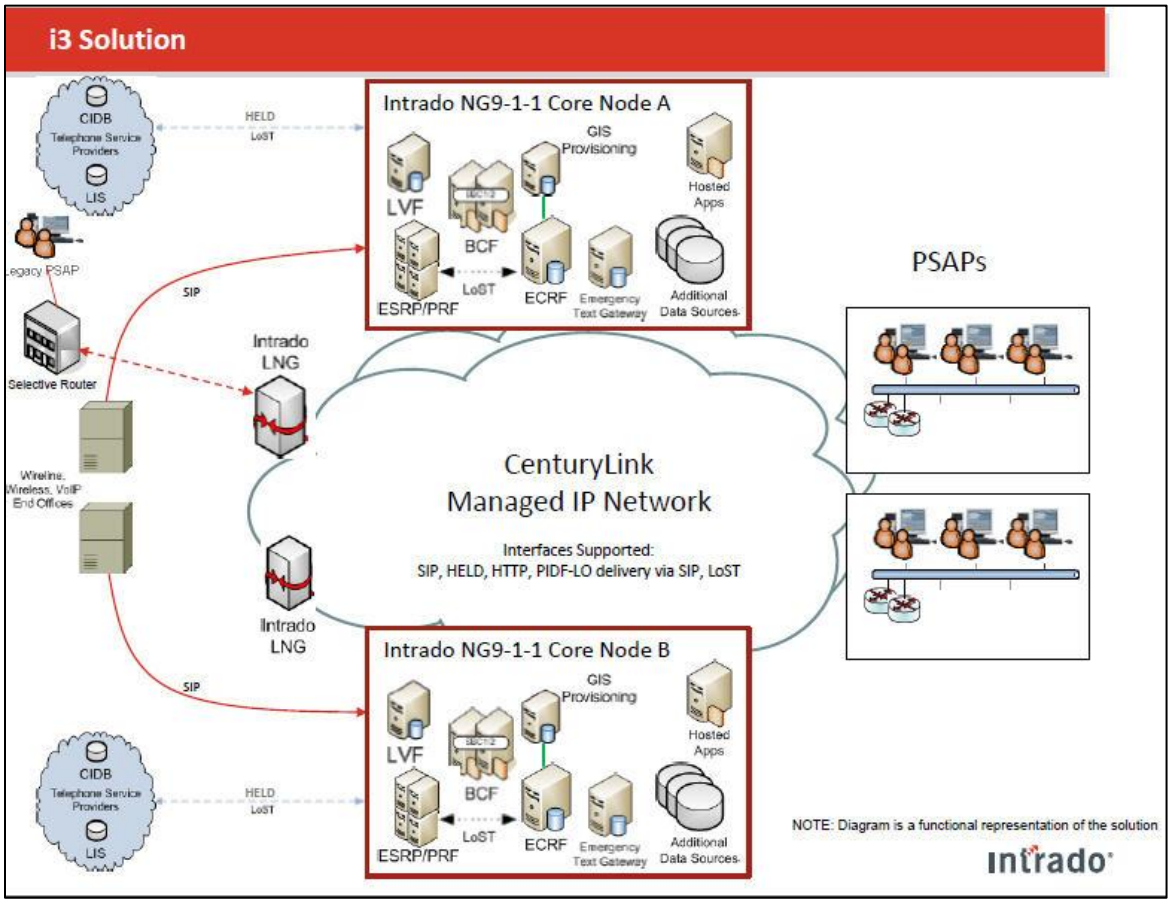
- PM communicates the timeframes, dependencies and requirements for migration
- PM provides SIP interconnection specifications, industry standards and online ordering guidelines
- PM provides plans including schedules, milestones and deliverables and works with the carrier to establish capacity requirements, interconnection steps, etc.
- Connections are ordered by the carrier and established and tested with West
- Upon successful completion of interconnection of carrier SIP virtual trunk groups from the gateway, the TDM trunk groups are disconnected

10.5 EMERGENCY COMMUNICATIONS MANAGEMENT CENTER

The West Emergency Communications Management Center (ECMC) contains the systems required to support the NG 9-1-1 network for Arizona including the IP Selective Router (IPSR) and i3 functional components, including text gateways, and hosted applications. For the Arizona solution, the ECMC will also host the geo-diverse NG9-1-1 enabled VIPER system. There are two geo diverse ECMCs in the CENTURYLINK solution with one NG9-1-1 core node in Englewood CO and a second NG9-1-1 core node in Miami FL.

10.6 I3 FUNCTIONAL COMPONENTS

The CENTURYLINK solution provides all required NENA i3 functional elements to support a GIS based routing architecture as PSAPs are ready to move to this routing architecture.



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Figure 10.1 Functional Components of i3 Solution

10.6.1 Emergency Call Routing Function (ECRF) and Location Validation Function (LVF)

The ECRF provides full i3 compliancy housing Customer provided street centerline and point data, multiple geospatial routing boundary layers and utilization of the LoST (RFC 5222 compliant) interface for retrieval of police, fire, emergency medical services and other applicable service types.

Interface with the ECRF is via an i3-based LoST protocol interface. The Emergency Services Routing Proxy (ESRP) queries the ECRF via the LoST protocol to obtain the destination Uniform Resource Identifier (URI) for the call. Using the destination URI, the ESRP interfaces with the policy store to identify applicable routing policies. For geospatial routing policies other than Standard Routing or a Priority Override policy, the ESRP re-queries the ECRF via LoST to obtain the routing destination for alternate service types – e.g. abandonment, diversion requested or special event routing.

The ECRF supports multiple Geographic Information Systems (GIS) and service type layers which are leveraged to support geospatial queries via the LoST protocol. In addition to street centerline and point data provisioned via the GIS provisioning platform and SIF systems, the ECRF supports provisioning of multiple service types including:

- **Standard Routing** – The standard i3 routing boundary for each PSAP and the corresponding URI are pre-provisioned via the SIF and retrieved by the ESRP for use in determining the applicable routing policy.
- **Abandonment, Overflow, Diversion, and Special Event Routing** – In addition to standard i3 routing, the ECRF allows geospatial boundaries to be provisioned for multiple routing service types to support abandonment, overflow, diversion, and special event routing policies. Each assigned a unique URN. Provisioning via the ECRF ensures that alternate policy routing is based on fully-validated GIS boundaries. Once provisioned, configuration changes made via the Policy Routing Function (PRF) User Interface can specify an alternate URN to be used for routing determination. Note that these capabilities are in addition to use of a Priority Override Polygon which would be provisioned directly to the PRF and for locations that fall within its boundary, would be used in place of an ECRF query to route calls.
- **Emergency and Additional Services** – The ECRF supports provisioning of separate boundary layers for first responder service types including police, fire and emergency medical services and additional find service types such as poison control, animal control, etc.

The ECRFs exist within a highly available and geographically distributed application processing environment. A single hardware component failure at one of the data centers will not interrupt processing of the ECRF. A single data center failure will not prevent further call processing from occurring. High availability is achieved through high availability software design, redundant ECRF instances, and transactions using dynamic client/server connections with multiple ECRF serving entities.
It is expected and recommended that a single statewide ECRF configuration will be implemented, with the ECRF containing coalesced data from all participating entities within the state. The ECRF can optionally be implemented in a hierarchical configuration where regional ECRFs recurse to a statewide ECRF to retrieve a response from another regional ECRF serving a different region.

Where possible, static locations provisioned to the Location Information Server (LIS) will not only contain a location validated civic element, but also the supplied or derived latitude and longitude associated with the civic address. The West geocoding platform utilizes the same GIS Customer data source as the ECRF and LVF (Location Validation Function) and is also provisioned via the SIF. The West geocoding platform supplies the geodetic element (latitude and longitude) to be provisioned to the LIS along with the validated civic element.

Where point GIS data is provided by the Customer, latitude and longitude will be directly utilized via the attributes provided. When point GIS data is not available, but street centerlines are provided, the

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latitude/longitude will be interpolated using industry standard geocoding technologies, and the resulting latitude/longitude will be associated with the LIS record. The ESRP will send the latitude and longitude as the preferred location element to the ECRF to determine the appropriate PSAP for routing. The ECRF utilizes this latitude/longitude to perform a point-in-polygon lookup to return the appropriate URI for the PSAP associated with the polygon the latitude and longitude falls within. When geodetic location elements are unavailable, routing and other services can also be determined based on the validated civic address element.

The GIS data layer(s) that are used to identify the PSAP, emergency, and additional service types are configured on a per-service basis, e.g. urn:service:sos. If a LoST query contains the geodetic location and a routing Uniform Resource Name (URN), the geodetic location will be used to directly query the PSAP boundary layer and identify the target PSAP. The GIS polygon set that is queried is based on the service URN of the query.

The ECRF supports provisioning of separate boundary layers for first responder service types for police, fire and emergency medical services, as well as optional service types, such as poison control, as long as the polygon datasets are provided with the GIS data. The i3 compliant PSAP may query the ECRF for additional service URNs associated with the location or to identify the URI of an Additional Location Data Repository (ALDR) if one is provisioned for the specific civic location. For each service URN the Customer would like to support, polygon sets must be included for SIF validation and implementation into the ECRF.

Customer GIS updates are provisioned through the West Spatial Information Function (SIF) which performs GIS validations, including those that ensure routing integrity. The West SIF's unique field mapping capabilities allow data to be presented by different Customers using unique schemas, provided all mandatory data elements are included. Validated GIS updates are normalized and applied to the ECRF production instances in a manner that preserves availability and coordinates with other ESInet scheduled updates and activities. The SIF can accept data from GIS data sources as often as the Customer's data update workflow requires. Once the data is received by the SIF, the ECRF will be updated within three (3) hours. A change control model is implemented to track changes between the GIS provisioning platform and the production ECRF instances. Extensive QA/QC validations are performed within the SIF process to eliminate the provisioning of erroneous data to the ECRF. If it is necessary to revert to a previous version of the data, West's SIF can re-provision the ECRF with a previous version of the customer provided data at the customer's request. West stores the past copies of the GIS data for 6 months in the production system. The re-provisioning time frame would depend on the amount/size of the data, and would be on the order of the time frame for the original update to occur. Typically 3 hours as indicated above.

The Quality Assurance/Quality Control (QA/QC) processes provided during validation steps in the SIF will prevent any unwanted gaps or overlaps being provisioned in the ECRF. As an added value and per NENA i3 guidelines for ECRF gap and overlap handling, if any boundary gaps exist, the ECRF handles them by selecting the nearest boundary, as long as the boundary is within a configurable threshold distance from the location. For boundary overlaps, the ECRF assumes both are valid and, since only one URI can be returned per the NENA guidelines, picks a single URI to include in the response. NENA specified Gap/Overlap event notifications for Gaps/Overlaps exceeding a configurable threshold are provided at configurable intervals to the GIS data providers.

West's 9-1-1 Enterprise Geospatial Database Management System (EGDMS) services are optionally available, at no additional fee, to assist multiple agencies to collaborate and resolve boundary conflicts when GIS data from these multiple sources are coalesced.

The CENTURYLINK solution includes an Emergency Call Routing Function (ECRF) and a Location Validation Function. As the PSAPs transitions from a Tabular MSAG and ESN based routing to GIS based routing, the required ECRF and LVF elements will be available.

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10.6.2 Location Validation Function

The Location Validation Function (LVF) provided will be physically separate from the Emergency Call Routing Function (ECRF). The LVF and ECRF are populated from the same GIS (Geographic Information System) sources and no unique GIS data requirements exist for either function.

Location to Service Translation (LoST) servers, specifically dedicated for LVF functions, will be implemented independently of the ECRF for authorized carrier access to the validation functions. This architecture ensures that potentially high-volume validation functions never interfere with the ECRF functions of emergency call routing and determination of first responders for a given location.

As with the ECRF, the LVF will utilize the Customer's GIS data provisioned via the SIF and will determine whether or not the civic address provided in the LoST request is valid. The LVF responds per the NENA i3 standard (NENA 08-003) and the specified Internet Engineering Task Force (IETF) standards (RFC5222).
To complement the LoST protocol interface into the LVF, a map-based graphical user interface (GUI) will be available to authorized users. This interface, accessible via a secure web interface, is designed to facilitate the finding of LVF-valid civic addresses for CSPs otherwise unable to validate a location via the LVF using the LoST protocol interface.

The LVF is deployed in a fully-redundant, highly available (99.9%) environment to ensure immediate responses to the LVF LoST queries. It is critical to note: the solution component services, which are utilized during live 9-1-1 call processing and which could include an "LVF LoST Query" during call time will be designed for 99.999% availability. Our LVF component (LVF with Locology, which is the provisioning interface) is designed to meet/exceed 99.9% availability. This is in concert with the direction from NENA i3 standard and the ongoing working group. The attached NENA document discusses the differentiation in Section 3.4 on Page 23 and provides guidelines for availability. Generally Five 9s for runtime systems and network components and two to three 9s to other functional elements. Clients must access the LVF via secure protocols; Secure Sockets Layer (SSL) versions 2 and 3 and Transport Layer Security (TLS) versions 1, 1.1, and 1.2 are all supported.

Mutual authentication will also be employed, so it is expected that both the client and LVF will be configured with valid digital certificates issued by their designated PSAP Credentialing Agency (PCA). At the time of West's response, a PCA does not exist. Without a PCA, credentials will be issued by a trusted credentialing entity.

The LVF is in a secure network using an Intelligent DNS infrastructure to provide a high level of performance, availability and security. Behind the Intelligent DNS infrastructure, additional state-of-the-art network elements provide high security against even the most aggressive malicious network attacks. All fixed location (wireline) telephone number (TN) records must be validated against the Customer's GIS data prior to being loaded into the Location Information Server (LIS) and Automatic Location Identification (ALI) systems. The database management system used to process and validate Service Order Input (SOI) from communications service providers (CSPs) maintains a copy of the validated record and the data used for SOI validation is sourced from the Customer's GIS data. Anytime the underlying GIS data is updated, the database management system searches for any TN records that may be impacted by the change. For those affected, it then immediately revalidates the record and either updates the LIS and ALI or flags it as an error for the Data Integrity Unit (DIU) analyst, who will work with the carrier and/or the Customer's designated coordinator(s) to resolve. During the transitional phase toward a full i3 model, this process bypasses the need for periodic (e.g., every 30 days) LIS record revalidations and ensures the LIS/ALI records are kept as current as possible.

For authorized CSPs who have chosen to provide their own LIS, the LVF is also available to validate their subscriber's location information prior to provisioning, as well as for periodic revalidation as needed. Please note that this LoST server instance will always be separate from the ESInet ECRF instance involved in 9-1-1 call routing.

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Depending on the capabilities of the PSAP CPE to utilize locally available GIS data (i.e. data provisioned for the ALI mapping display), when a 9-1-1 call involves a reporting party that is not located at the site of the emergency, the LVF LoST server and complimentary map-based GUI will be available to the call taker to determine the valid address provided by the caller.

10.6.3 Border Control Function

The CENTURYLINK solution will include Border Control Function with Firewalls (FW) and Session Border Controllers (SBC). The FW and SBC provide the required Border Control functions (BCF) for security and provide the means for prevention, detection, and reaction to security events to ensure reliable 9-1-1 call delivery. The BCF sites between external networks and the ESInet and all traffic transiting between these networks must flow through the BCF.

The solution provides all the required NENA specifications for an ESInet BCF including:

- Application layer scanning and protection
- Network layer scanning and protection
- Denial of Service (DoS) detection and protection
- Malware detection and protection
- Identification of emergency call sessions and priority handling of IP traffic
- Facilitate forwarding of emergency calls
- Protection against Distributed Denial of Service Attacks (DDoS)
- SIP Protocol Normalization
- Network Address Translation (NAT)
- Quality of Service (QoS) markings

10.6.4 Emergency Service Routing Proxy (ESRP) and Policy Routing Function (PRF)

The Emergency Service Routing Proxy (ESRP) delivers NENA i3 defined routing functionality, including full integration with geographically determined routing policies, carrier-grade voice quality, and demonstrated reliability. The ESRP interfaces with the Location Information Service (LIS), the Emergency Call Routing Function (ECRF) and the Policy Routing Function (PRF) to identify and route the voice call to an available PSAP (Terminating ESRP). West's i3 Routing solution supports queue management and provides PSAPs with control over managing their routing policies from a flexible array of options.

10.6.5 ESRP Overview and Interface Compliance

The ESRP processes ingress calls received using Session Initiation Protocol (SIP) signaling with location embedded in the Presence Information Data Format – Location Object (PIDF-LO) from i3-compliant carrier networks, from legacy carriers or from selective routers via the Legacy Selective Router Gateway (LSRG) and routes calls to the call processing system (CPS) and then on to the PSAP location, according to the caller's location and the PSAP-configured routing policy.
When the ESRP receives an ingress call, it evaluates the SIP INVITE geolocation header within the PIDF-LO. If the geolocation header contains location by reference, the ESRP queries the Location Information Server (LIS) via the HELD interface to dereference the location and obtain a routable geodetic or civic location value. The ESRP then queries the Emergency Call Routing Function (ECRF) via the Lost to Service Translation (LoST) protocol with the caller's geodetic or civic address location to identify the call's destination Uniform Resource Identifier (URI).

Using the location-determined URI retrieved from the ECRF via the LoST protocol, the ESRP interacts with the Policy Routing Function (PRF) to determine call routing. Policy route determination includes evaluation of the PSAP-configured routing policy, the time-of-day, the caller's location (for geospatially-determined alternate routing policies), the PSAP's operational state, and the ring-no-answer timer configuration. Emergency override policies supersede pre-provisioned policies when the call falls within the PSAP-defined routing polygon. This solution enables PSAPs to quickly implement emergency routing policies during emergent events that require calls to be sent to supporting agencies.

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West provides and maintains the following i3 interfacing specifications for providers and vendors of interfacing components. Each specification details the RFCs supported and interface implementation details:

- CIDB-Additional Data Interface for A9-1-1
- LIS-HELD Interface for A9-1-1
- ECRF-LoST Interface for A9-1-1
- ESRP Terminating Interface for A9-1-1

West has been actively testing i3 interoperability with all leading i3 CPE (Terminating ESRP) providers and discussed implementation on interface details to develop or to identify as roadmap items until the standards have stabilized. The NENA i3 interface standard is continuously evolving as NENA works to gain consensus on Version 2 of the standard. West is actively engaged in NENA and IETF standards committees to provide recommendations and feedback on standards evolution.

10.6.6 Policy Routing Function (PRF)

West's Policy Routing Function (PRF) supports queue management and provides PSAPs with extensive flexibility to define and update standard and alternate routing policies. PSAPs can dynamically modify routing policies, submit routing polygons, set priorities, and modify their queue (operational) state. Routing policies can be defined as recurring or one-time, and priority override polygons can be submitted on-the-fly for emergency re-routing.

West's i3 rules-based routing proxy includes the following elements:

- **Policy Store:** Acts as a repository of PSAP-defined routing policies and policies based on ingress call path or call type.
- **Browser Interface:** Provides a feature-rich management portal that allows PSAPs to customize Emergency Services Routing Proxy (ESRP) configurations, define and edit their routing policies, and modify their status (normal, abandoned, diverted). All routing policy changes are automatically verified for syntactical and logical accuracy prior to activation in production. Secure user access is provided via the provided web management portal.
- **ESRP Retrieval and Routing:** Performed based on PSAP-defined routing policies.

The policy store supports the following types of routing policies:

- **Abandonment Routing:** The abandonment policy is engaged whenever the PSAP operational state is defined as "Disabled."
- **Overflow Routing:** The overflow routing policy is applied during overflow scenarios when a PSAP is receiving more calls than its occupied work stations can accommodate. Upon reaching the designated call capacity for the call type, cumulative calls, or if the target is unreachable, the ESRP engages the primary PSAP's overflow routing policy. The alternate routing policy will be invoked if the terminating ESRP's call processing system does not accept the SIP INVITE or for a ring-no-answer timeout.
- **Diversion Routing:** The diversion routing policy is applied whenever the PSAP engages alternate diversion routing rules, or it can be configured to apply during a recurring time window. The PSAP operational state may be modified to engage the diversion routing policy by contacting the CENTURYLINK 9-1-1 NOC, or modified via the provided web management portal.
- **Special Event Routing:** Special event routing is a diversion routing policy that is applied during a scheduled time window. If a PSAP jurisdiction contains venues that host events (e.g., concerts, sporting events, etc.) that may warrant dedicated call handling (alternate locations or dedicated resources at the PSAP), special event polygons can be pre-provisioned via the ESInet Spatial Information Function (SIF), submitted via the provided web management portal.
- **Priority Override:** During an emergency scenario when call routing needs to be redrawn on-the-fly without the rigor of full Geographic Information System (GIS) validations, the ESInet allows PSAPs to enter and/or import routing polygons via the i3 policy editor. Priority override polygons can be defined as point and radius or as defined polygon boundaries.

West provides a feature-rich policy editor, accessible via the provided web management portal, for PSAPs to customize and maintain their policies, whether textual or geospatial. Geospatial policies can

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reference shapes pre-provisioned in the Emergency Call Routing Function (ECRF) or can reference a shape attached to the policy. A shape attached to the policy can either be a shape file or a description of a shape (points and, optionally, distances). An example would be a latitude, longitude and a radius to describe a circle or multiple latitude and longitude points to describe a polygon. Policies also have other attributes like active/inactive; one-time or recurring time window; priority; Uniform Resource Identifier (URI) or a set of URIs of the destination(s) to send the call to; and call distribution method, to name a few. These policies can be pre-provisioned or can be constructed in real time based on the incident.

The ESInet supports a SIF interface for provisioning of geospatial routing policies into the ECRF. Geospatial routing policies are applied to the ECRF after all GIS and routing validations have been completed.

Abandonment, Overflow, and Diversion Routing policies can be configured to use any of the following policies:

- **Geographical:** The system can be configured to send abandonment calls to different alternate PSAPs based on the geographic location of the calling party within the primary PSAP's jurisdiction. Geographic abandonment or alternate routing polygons can be pre-provisioned via the SIF or submitted dynamically.
- **Hierarchical:** The system can be configured to cascade a call to up to nine consecutive alternate PSAPs.
- **Load-balanced:** The system can be configured to distribute calls between up to nine alternate PSAPs.

10.6.7 Event Logging Service

For Customers with the West A9-1-1 i3 Routing solution, West will provide an i3 compliant logging service which aggregates logs from West ESInet, i3 compliant Terminating ESRPs (CPE) components to support end to end transaction logging and retrieval.
The West i3 logging service includes a web service that supports logging and event retrievals. All significant steps in processing a call are logged and submitted to the ESInet logging service, and each log contains a transaction ID to support log aggregation. The i3 logging service is compliant with the i3 specification for recording transaction metadata for all payloads to provide end-to-end reports.

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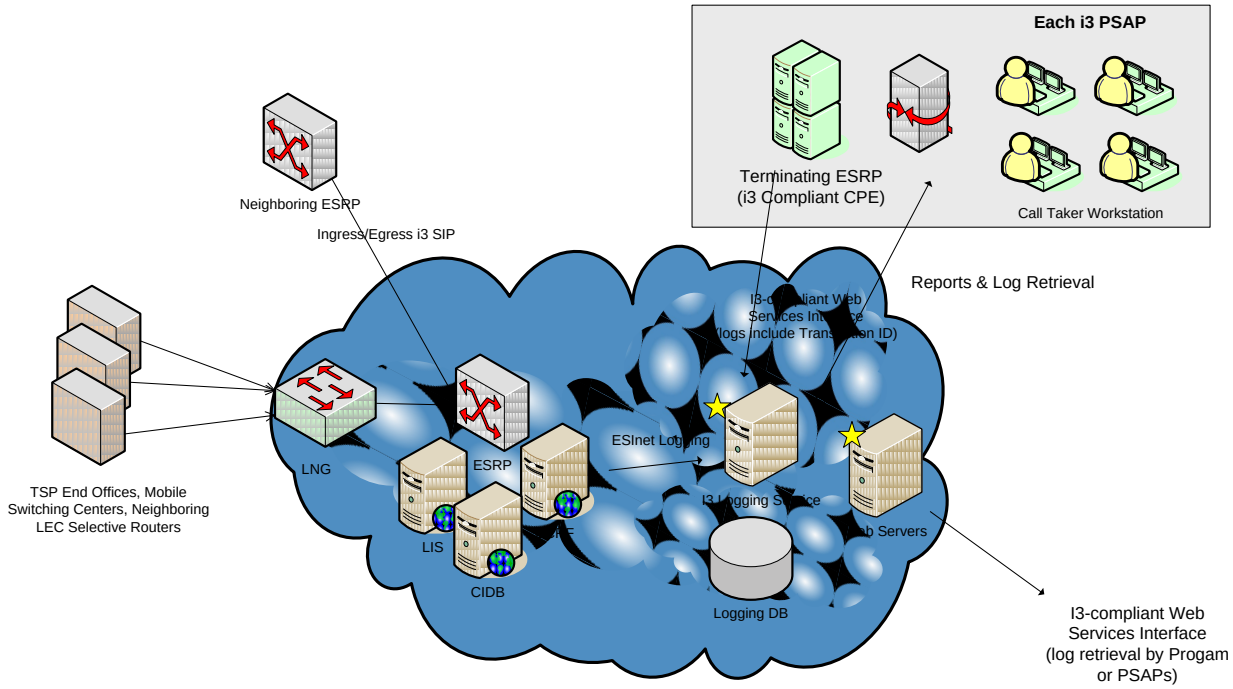


Figure 2 – West i3 Logging Service

West's Enterprise BI Reporting Tool, Microstrategy® from West, will provide a web-based interface to allow the PSAPs and Program to review and retrieve i3 Logging transactions and events including text conversations and data validation metrics. West will support retrieval of logs and events via the web interface and the web services interface including the following retrieval options defined in NENA 08-003 v2 Detailed Functional and Interface Specification for the NENA i3 Solution, 20140326 Draft:

- RetrieveLogEvent
- ListEventsByCallId
- ListEventsByIncidentId
- ListCallsByIncidentId
- ListIncidentsByDateRange
- ListIncidentsByLocation
- ListIncidentsByDateAndLocation
- ListCallsByDateRange
- ListAgenciesByCallId
- ListAgenciesByIncidentId

As the NENA XML Schema Definitions for logging are in the process of being finalized at the time of this response, the i3 logging service, web interface, web services interface and associated reports are currently under development with an anticipated release date of Q2- 2015.

10.6.8 Forest Guide

Please note that NENA has provided clarifications that state what in the past has been referred to by some as a "statewide Forest Guide," should be referred to as a "statewide ECRF." The NENA vision is for these statewide ECRFs to utilize an iterative request to a national Forest Guide to determine the correct statewide (or otherwise) ECRF that is authoritative for the location element(s) provided in the original LoST request.

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The RFC 5222 compliant West ECRF has the capability of serving a regional ESInet as well as providing ECRF functions in support of an entire state, provisioned with GIS data for all i3 capable regions within the state. It is also capable of working in a hierarchical fashion as either the state level or regional ECRF. In this configuration, the parent (state) ECRF knows the coverage areas of all child ECRFs within the state, with the capability of performing recursive queries to child ECRFs and returning the LoST responses to the requesting child ECRF, assuming data exists for the region in question. While no National Forest Guide is in existence for the United States, the West ECRF has the capability of serving that capacity, given access to coverage areas and URIs for other existing ECRFs within the country.

The ECRF provides full i3 compliancy housing street centerline and point data, multiple geospatial routing boundary layers and utilization of the LoST (RFC 5222) interface for retrieval of policy, fire, emergency medical services and other applicable service types.

11.0 I3 MIGRATION PROCESS

West/CENTURYLINK will design the network connectivity to support the A9-1-1 Routing, A9-1-1 Location Data Management and TXT29-1-1 data solutions for the Customer. The design will conform to industry best practices and West security policies. West/CENTURYLINK requires geographic diversity, redundancy, and diverse connections to the PSAPs it services for ALI, and A9-1-1 Routing services. Likewise, West/CENTURYLINK requires geographically diverse and fully redundant and diverse connections from telephone service providers to at least two West demarcation points into the ESInet.

West prepares the 9-1-1 database management system by loading in the MSAG as provided by the customer. Simultaneously, West works with the telephone service providers to assist them in the preparation for the ALI transition. This involves the facilitation of Telephone Number (TN) simulations and resulting error corrections with the TSPs to ensure that the TN error rates meet/exceed the desired threshold (as agreed by the PSAP) before final load and ALI flash-cut.

Once ALI transition has completed, the transition of end offices to the 9-1-1 Routing solution begins. As each telephone services provider's end offices are connected to the West network, West will work with the TSP to conduct pre-cut test calls to ensure accuracy of translations before cutting the live traffic from the end office to the 9-1-1 Routing solution.

11.1 DEVELOPMENT LIFECYCLE

West's approach to plan, configure, network engineer, implement, test, document, train, and support West Service follows West's solution lifecycle methodology. The lifecycle begins with solution definition and architecture activities. During these initial phases, the joint West team and Customer team members verify system application and implementation requirements, refine the solution architecture, and finalize the plan for solution migration and deployment. Following definition and architecture phases, the team orders, installs, configures, tests, and trains users on customer-facing solution components as part of solution integration and deployment effort. Following successful deployment, the maintenance phase begins. The primary goal of the lifecycle methodology is that the project aligns with overall customer expectations, and is tailored to fit the needs of the Customer. The Project Plan phases are described below.

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Figure 12 Project Plan Phases

11.2 SOLUTION DEFINITION

The first phase in the solution lifecycle is the Solution Definition phase, which begins with the kickoff and alignment process and is critical to the overall success of the 9-1-1 initiative within the state. During this process, key members of the joint project team unite to identify roles, responsibilities, critical success factors, project challenges, elaborate on specific strategies and project options, confirm Next Gen 9-1-1 project scope, and finalize plans to expedite solution delivery plans and resources. The solution is reviewed in order to align each primary stakeholder with a common vision and strategy for unified team design and planning.

The West team conducts current systems, processes, and site studies to more clearly understand the current system and user environment, allowing the team to plan the most effective migration path to the new system.

11.3 SOLUTION ARCHITECTURE

During the Solution Architecture phase, the detailed solution design is finalized based on confirmed requirements. During this phase, the team analyzes the current systems, operations, and operational procedures, identifies the human factors needs, considers implementation options, and with the Customer, commits the detailed solution design and implementation schedule.

Stakeholder participation to identify processes and standard operating impact is critical in this process to support a successful integration of the new system. It is vital that current procedures, connectivity, and routing policies are examined so that the appropriate practices are carried forward to the new system environment. Examples of important areas considered include load balancing, alternate, backup, and default routing rules.

Initial planning for connectivity from the existing legacy selective router and telephone service providers to the Legacy Network Gateways (LNGs) also begins in the architecture phase. The recommended migration strategy uses the legacy selective router during the migration period to aggregate and handoff traffic by ESN to support flash cuts by PSAP and then rehome end offices and MSCs post PSAP conversion. Key solution architecture planning activities include:

- Detailed solution design and schematics (onsite, site to site, site to West, firewalls, routers, etc.)
- IP specifications
- Telephone service provider connectivity specifications
- Physical requirements (e.g., equipment room design, floor loading)
- Call transfer requirements
- Training plan and schedule

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- Refined project plan and timeline

11.4 SOLUTION INTEGRATION

During the Solution Integration phase, the components of the solution, including processes, applications, network components, and data flow, are engineered and readied for deployment. All network, regional, and premise components are delivered, and the equipment rooms and other facilities are readied. Coordination with wireline, wireless, and VoIP telephone service providers is an essential part of this stage to plan for the 9-1-1 services management transition. Telephone service providers receive all necessary information and detail to obtain connectivity to the West systems and the service provider's connectivity to the LNGs is engineered and ordered.

Working closely with the Customer and stakeholder groups, the project team designs customized provisioning plans (including incoming trunk route plans, bridge lists, and dialing plans). Additionally, the documentation and training developers customize the user and process documents and various training courseware, if needed, to meet the needs of the Customer.

11.5 SOLUTION DEPLOYMENT

During the Solution Deployment phase, all network components and equipment connectivity is confirmed. Validation and acceptance tests are performed, metrics tracking, reporting is initiated, and training is provided. After complete non-live call testing, the system begins supporting live 9-1-1 traffic.

In preparation for deployment and in partnership with the Customer's project team, the West Program Manager (SPOC) finalizes the cutover plan, including procedures for notification concerning schedule specifics. In most cases, ALI services are converted prior to re-homing any telephone service provider end offices. As end office 9-1-1 traffic is cut over, existing 9-1-1 Service Provider legacy CAMA trunks are replaced by A9-1-1 Routing traffic.

Prior to the commencement of cutover, the project team members will hold a cutover meeting with the Customer and the telephone service providers. The purpose of this meeting is to discuss the progress of activities, the cutover readiness.

PSAP training is provided in accordance with the detailed training rollout plans. The system will then undergo a system acceptance test and quality walkthrough. Once complete, and in agreement with the Customer, a go/no go determination will be made and live-traffic cutover will then commence. Once live traffic has moved to the system, the maintenance period begins.

11.6 SOLUTION MAINTENANCE

The Solution Maintenance phase begins once live traffic is transferred onto any part of the system. During this phase, West provides ongoing tiered support services to monitor service level performance, manage help desk requests and trouble tickets, escalate support procedures, and support the Customer to reach the highest level of operational excellence. The solution support team is in place to receive, analyze, and rectify problems and information requests.

The West Project Management methodology is highly influenced by the Project Management Body of Knowledge published by the Project Management Institute. All of the above sections are part of the overall plan or part of the project charter used in projects of this scope.

11.7 MIGRATION PREPARATION

West will work with the Customer to gather and confirm information to support the final network design and data provisioning efforts. A9-1-1 Routing provisioning will include the following data elements:

- PSAP Trunks
- Numbering Plan Digit ("NPD") assignment (if appropriate)
- Trunk assignments by call type (wireline, wireless, VoIP, or any combination)
- Route Lists/Routing Rules:
  - Primary and alternate routes

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- Star code destinations for first responders, PD, Fire, and EMS
- Fixed bridge lists and star code assignments
- PSAP Abandonment routing rules

- West will work cooperatively with each TSP to gather and confirm information necessary to support data provisioning and trunking from the end office to the West system, including the following data:
- Incoming signal type
- Call type
- Implied NPA, if applicable

As TSP migrations complete, West will notify each TSP that their connectivity between their end office and the legacy SR is no longer required.

West will manage a coordinated and secure staged implementation approach that minimizes risk because each stage is planned, implemented, and tested sequentially and independently for functional and operational efficiencies. The implementation project will be managed by an West Project Manager via a formal Implementation Project Plan.

Once the implementation process is complete, calls route through the West A9-1-1 Routing complex, eliminating the need for the existing selective routers, other than any potential services the S/Rs provide with agencies outside the State.

11.8 TESTING OF THE A9-1-1 ROUTING SOLUTION

West will provide the PSAP a list of standard acceptance tests to demonstrate feature functionality of A9-1-1 Routing Services including:

- Correct routing of various call types
- Call hand-offs, transfers and bridging functions
- Operation of the system core and the provisioning elements
- Operation of the West PSAP routers
- Configuration of network elements
- Selective routing
- Trunk only routing
- PSAP abandonment routing
- Alternate routing
- Default routing
- PSAP trunk group management by call type

West will work collaboratively with PSAP personnel to modify this test plan to meet the needs of the PSAP. This may include the addition or removal of test cases as needed or desired. Once the test plan is completed and agreed upon, West will work with the Customer to determine the test protocol specifics such as order of calls. West will work with the Customer to schedule the testing, as appropriate.

West manages the testing process and coordinates all test calls documented in the test plan. This testing is scheduled in accordance with the PSAP's availability. The PSAP is required to provide a resource to answer the test calls and provide documentation, such as screen prints and recordings, for certain calls.

Call tests are generally performed three times, proving the network connectivity is established and voice is delivered and received. Call completion as expected is the acceptance criteria unless otherwise negotiated.

Live traffic cut-over to West A9-1-1 Routing services will be accomplished on an end office by end office basis. As connectivity is established and tested between the end office and the LNGs, West will work with the TSP to conduct pre-migration tests prior to cutover to the LNGs. Once non-live testing has been completed for all EOs, the actual rehome of all EOs will be conducted. West recommends that the live traffic rehomes be scheduled over a period of 24 to 48 hours (depending on the number of EOs to be

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rehomed) and will work with TSPs and the State to facilitate the rehome in a manner which limits impact to the PSAP and TSPs.

Normal test and cut-over times will be during Customer's off-peak daytime "business hours." Test and cutover times outside of the normal business hours will be mutually agreed upon by the Customer and West.

Upon receipt of the Letter of Agency, West will be the primary point of contact for working with the TSPs to develop a migration plan for each end office. In the event that a TSP is uncooperative, West will escalate to the Customer for assistance.

11.9 A9-1-1 ROUTING

A9-1-1 Routing features the following:

- A9-1-1 Routing is a specialized managed network for processing 9-1-1 calls from both traditional and non-traditional voice networks.
- A9-1-1 Routing provides selective routing functionality via an IP-enabled network and SIP interface.
- A9-1-1 Routing delivers 9-1-1 calls from end offices, central offices, mobile switching centers, and VoIP systems to a designated PSAP over redundant, private, IP, highly available MPLS T1 circuits.
- The A9-1-1 Routing service also supports PSAP queuing, PSAP overflow, call transfer, PSAP call origination, and virtual trunk group segregation for different call types.
- A9-1-1 Routing is a robust and highly available routing service that will provide the Customer the ability to configure call routing to dynamically meet its needs. Routing can be managed in real time to meet normal, overflow, and disaster situations.
- A9-1-1 Routing provides the familiar call routing configurations of selective routing, alternate routing, trunk-based routing, default routing, and PSAP abandonment routing.

11.10 A9-1-1 LOCATION DATA MANAGEMENT

A9-1-1 Location Data Management is a complete set of services that provides for comprehensive location validation and error correction, telephone service provider coordination, Service Order Input (SOI) management, and delivery of accurate data for 9-1-1 call support. The services include full standards-based support of all call types including wireline, wireless, and VoIP calls. West will work with the Customer and PSAPs to transition from the PSAP's legacy ALI system to full i3 implementation with GIS-based location validation and other i3 functions and protocols for routing and delivery. The services include:

- Database setup, data preparation, and loading of subscriber records and location validation data
- Service order processing and error resolution
- Management of the existing subscriber database and migration to LIS, CIDB management
- Management of the location validation data and functions
- Customer data management tools
- Subscriber database systems residing at geographically diverse West locations
- Next Gen 9-1-1 system monitoring
- Highly secure system access
- Wireline, wireless, and VoIP call support

11.11 A9-1-1 GIS DATA MANAGEMENT

A9-1-1 GIS Data Management offers a comprehensive and methodical approach to GIS data management that includes flexible procedures individualized to each authority. The overall goal is to create and maintain the authoritative GIS database for 9-1-1 purposes.

GIS data, as provided by the State/PSAPs, is critical within the NENA i3 reference architecture. This data will be used to provision the LVF, ECRF, and PSAP map displays.
The GIS data management offer includes an agreed upon mechanism for data sharing, reporting, and other GIS project management tasks: The State may choose to:

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- Maintain their own GIS data through their existing tools and submits to West for validation and provisioning
- Utilize the West A9-1-1 GIS Data Management package in order for them to maintain their own GIS data, which includes:
    - MapSAG 9-1-1 GIS Data Management System software
    - Training of Agency personnel
    - GIS data collection

11.12 A9-1-1 TXT29-1-1®

One of the first i3 services to be implemented will be the West TXT29-1-1 service which uses the three-digit short code "9-1-1" to enable citizens to text for assistance to a PSAP using regular SMS messaging. The text message is routed to the PSAP based on the location of the receiving wireless provider antenna face, unless an x-y coordinate is sent by the wireless provider, then location is based on the x-y coordinates. The service is managed through the Text Control Gateway, a highly available and high throughput platform that:

- Undertakes PSAP routing of text messages
- Establishes connections to multiple concurrent PSAPs and the ECRC for overflow routing
- Establishes a SIP dialogue with the CPE equipment for the duration of the dialogue until the agent terminates the connection. The SIP dialogue will evolve to an i3 compliant interface once ratified by NENA.
- Converts SMS messages incoming from the wireless carrier/SMS aggregator to the SIP dialogue
- Collects and makes available a transcript of all caller/PSAP interactions

11.13 A9-1-1 CAD INTEGRATION

West will manage coordination with the PSAP's CAD vendor to enable delivery of A9-1-1 Enhanced Data services via the CAD system. The CAD Integration program includes:

- Delivery of the ESMI Partner Guide
- A9-1-1 Data ESMI Network Simulator
- A9-1-1 Data Service Pack/Service that will include the Service Specification and Service Simulator
- Time in the West ESMI Certification lab to validate services end-to-end

West will provide engineering support services throughout the development and testing processes.

11.14 PSAP ABANDONMENT DEVICE

The West Abandonment Module (Acronym "PAD") is a device that is installed by CenturyLink at the PSAP premise. The PAD is a device that allows a 9-1-1 call re-route communication message to be sent to the West Advanced 9-1-1 (A9-1-1) network in the event a PSAP is abandoned or is considered out of service. CenturyLink will provide the (1) PAD for each PSAP as part of this proposal. An West data sheet is included as attachment for review.

12.0 NEXT GEN 9-1-1 IP NETWORK DESIGN

12.1 REFERENCE DRAWING

Please reference file ***AZ NG9-1-1 Design***

12.2 LNG LOCATIONS

CENTURYLINK and West will place two LNGs in Arizona at the following data centers:

- Tucson – Involta Data Center
- Phoenix – IOData Data Center

12.3 ECMC LOCATIONS

West's ECMCs are located at the following two locations:

- Englewood, CO

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- Miami, FL

12.4 VIPER HOST LOCATIONS

CENTURYLINK will install VIPER Hosts in the following two data centers:

- IO Data Center –Phoenix, AZ
- CENTURYLINK Data Center - Highlands Ranch, CO

12.5 VESTA HOST LOCATIONS

CENTURYLINK will install VESTA Hosts in the following two data centers:

- IO Data Center –Phoenix, AZ
- CENTURYLINK Data Center - Highlands Ranch, CO

12.6 LNG TO ECMC IP NETWORK DESIGN

CENTURYLINK will provide dual 1Gig diverse IP connectivity via the CENTURYLINK provided IQ MPLS Private Port from the LNG to the ECMC. Each 1Gig loop over fiber will hone to a diverse CENTURYLINK POPs.

Based on bandwidth requirement of 75mb these links will have less than 10% utilization and leaves significant capacity for growth.

12.6.1 Bandwidth Requirements

LNG to ECMC bandwidth is determined by the following formula:

(Number of 9-1-1 SR Trunks) x (144kb)

Based on the 9-1-1 trunk count for Arizona, the required bandwidth from the ECMC to the LNG is

- Airbus = 255 or (255 x 144kb = **36,720kb**)
- West = 262 or (262 x 144kb = **37,728kb**)

Total required bandwidth is 36,720kb + 37,728kb = 74,448kb or **75mb**

12.6.2 Network Protocols

CENTURYLINK will run layer 2 and layer 3 protocols that will provide fast convergence in event a link should fail. This will include layer 2 SLA and layer 3 BGP on the outward facing interfaces at the LNG and ECMC and layer 3 VRRP or HSRP on the inward facing interfaces.

12.6.3 Edge Devices

Each 1Gig loop will terminate on diverse edge routers/switches at both the LNG and ECMC.

12.7 ECMC TO HOST CPE SYSTEMS

12.7.1 West VIPER

Geo Diverse VIPER Hosts will be installed at the ECMCs. As such, the network connecting the ECMC to VIPER Hosts will be local and will not require an IQ MPLS Private Port. Connectivity between the two VIPER Nodes is over the existing West cloud connecting the two ECMCs.

12.7.2 Airbus VESTA

For ECMC to VESTA Hosts, CENTURYLINK will be providing dual 1Gig diverse IP connectivity via a CENTURYLINK provided IQ MPLS Private Port. Each 1Gig loop over fiber will hone to diverse CENTURYLINK POPs. As calculated below ECMC to VESTA Hosts require 37mb bandwidth. Each 1Gig loop will have less than 5% utilization and provides significant capacity for growth as required.

12.7.3 Bandwidth Requirements

ECMC to Host Sites is determined by the following formula:

(Number of 9-1-1 SR Trunks) x (144kb)

Based on the 9-1-1trunk count for Arizona, the required bandwidth from ECMC to VESTA Hosts is

- Airbus = (255 x 144kb = **36,720kb)**
- West = (262 x 144kb = **37,728kb).** As this traffic will stay local within the ECMC or traverse the West cloud, CENTURYLINK IQ Private Ports are not required for this connectivity.

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12.7.4 Network Protocols

CENTURYLINK will run layer 2 and layer 3 protocols that will provide fast convergence in event a link should fail. This may include layer 2 SLA and layer 3 BGP on the outward facing interfaces at the ECMC and Hosts and layer 3 VRRP or HSRP on the inward facing interfaces.

12.7.5 Edge Devices

Each 1Gig loop will terminate on diverse edge routers/switches at both the ECMC and VESTA Hosts. VIPER hosts will terminate on diverse routers and switches within the ECMC.

12.8 HOST CPE TO REMOTE PSAP CPE

12.8.1 West VIPER Host Sites to Remote Sites

CENTURYLINK will provide dual 1Gig diverse IP connectivity via the CENTURYLINK provided IQ MPLS Private Port from the VIPER Hosts at the ECMC to the CENTURYLINK MPLS cloud. Each 1Gig loop over fiber will hone to a diverse CENTURYLINK POPs. Based on calculated required bandwidth below of 80mb, each 1Gig link will have less the 10% utilization.

CENTURYLINK will provide dual IQ MPLS Private Port loops to each VIPER remote PSAP. Each loop will hone to diverse CENTURYLINK POPs. Bandwidth will vary depending on position count of each PSAP. Most loops to the IQ MPLS network will be over DS1 or bounded DS1s (NxDS1). For sites requiring greater than 10.5mb of bandwidth, the local loop may be Ethernet over copper or Ethernet over fiber.

Approximately 50% of VIPER 9-1-1 positions will be primarily homed to Node A and 50% to Node B. If one of the VIPER nodes fails, then 100% of the VIPER system's traffic will be served by the alternate surviving node.

12.8.2 Bandwidth Requirements

Bandwidth requirements to each remote PSAP are estimated by the following formula:

Per PSAP Bandwidth = 1000kb + ((Position Count) x (100kb)

Bandwidth requirements for each VIPER host are estimated by the following formula:

Host Bandwidth = Sum of PSAP Bandwidth Required

Based on the total PSAP Count and VIPER Position Count for Arizona, the required bandwidth is

PSAPs = 42

Positions = 375

(1000kb x 42) + (375 x 100) = 79,500kb or **80mb**

CENTURYLINK and West will determine the exact required bandwidth for each PSAP after site survey and call flow meeting has been conducted. Remote PSAP bandwidth above is only for estimating Host bandwidth requirements. CENTURYLINK's Managed Services Solution will provide the required bandwidth to each PSAP to deliver 9-1-1 calls, GIS updates, access to MIS databases, remote monitoring / response, and remote access.

12.9 AIRBUS VESTA HOST SITES TO REMOTE SITES

CENTURYLINK will provide dual 1Gig diverse IP connectivity via the CENTURYLINK provided IQ MPLS Private Port from VESTA Host sites to the CENTURYLINK MPLS cloud. Each 1Gig loop over fiber will hone to a diverse CENTURYLINK POPs. Based on calculated required bandwidth below of 70mb, each 1Gig link will have less the 10% utilization.

VESTA Hosts with Split Core as will be deployed for Arizona, require a layer 2 connection between each core. This bandwidth must be equal to the sum of required bandwidth of the host system or 140mb. CENTURYLINK will provide a 1Gig layer 2 fiber connection between the two VESTA cores. CENTURYLINK will provide dual IQ MPLS Private Port loops to each VESTA remote PSAP. Each loop will hone to diverse CENTURYLINK POPs. Bandwidth will vary depending on position count of each PSAP. Most loops to the IQ MPLS network will be over DS1 or bounded DS1s (NxDS1). For sites requiring greater than 10.5mb of bandwidth, the local loop may be Ethernet over copper or Ethernet over fiber.

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VESTA Core A is the Active Core while Core B runs in standby mode. A layer 2 network provides network connectivity between the two cores. If a failure occurs at Core A, then 100% of the VESTA system's traffic will be managed by Core B.

12.9.1 Bandwidth Requirements

Bandwidth Requirements to each remote PSAP are estimated
Per PSAP Bandwidth = 1000kb + ((Position Count) x (100kb)
Bandwidth requirements for each VESTA host are estimated by the following formula:

Host Bandwidth = Sum of PSAP Bandwidth Required

Based on the total PSAP Count and VESTA Position Count for Arizona, the required bandwidth is

PSAPs = 37
Positions = 241
(1000kb x 37) + (241 x 100) = 61,100kb or **70mb**

CENTURYLINK and Airbus will determine the exact required bandwidth for each PSAP after site survey and call flow meeting has been conducted. Remote PSAP bandwidth above is only for estimating Host bandwidth requirements. . CENTURYLINK's Managed Services Solution will provide the required bandwidth to each PSAP to deliver 9-1-1 calls, GIS updates, access to MIS databases, remote monitoring / response, and remote access.

12.9.2 Network Protocols

CENTURYLINK will run layer 2 and layer 3 protocols that will provide fast convergence in event a link should fail. This may include layer 2 SLA and layer 3 BGP on the outward facing interfaces at the Host and remote sites and layer 3 VRRP or HSRP on the inward facing interfaces.

12.9.3 Edge Devices

Each 1Gig loop will terminate on diverse edge routers/switches at both the Host sites and Remote sites.

12.10 SR 9-1-1 TRUNKS FROM LSR TO LNG

- There will be two LNGs for Arizona, Phoenix and Tucson
- LNG will be located in data centers
- As PSAP is migrated to NG9-1-1, EM trunks between LSR and PSAP are migrated to SR trunks between LSR and LNG
- CENTURYLINK's design is a ratio of 1.3 SR trunks for every EM trunks. May be adjusted as monitoring dictates to ensure a P.01 grade of service

12.10.1 P.01 Grade of Service

P.01 Grade of Service is the responsibility of each telephone carrier. CENTURYLINK is only responsible for ensuring that it meets a P.01 service level for 9-1-1 traffic over its 9-1-1 trunks. To ensure a P.01 service level, CENTURYLINK will:

- Run a report within 30 days after migrating a PSAP over to the NG9-1-1 network
- Run a report every quarter on all PSAPs that have migrated over to the NG9-1-1 network
- Provide copies of these reports to the PSAPs
- Provide these reports at no additional charge to the customer.

12.11 ECMC CONNECTIVITY – REFER TO ATTACHED DRAWING "AZ NG9-1-1 DESIGN"

- Two ECMC located in Miami FL and Englewood CO
- Each LNG honed to both ECMCs (VPN A and VPN B) through diverse POPs
- Estimated required bandwidth for VPN A and VPN B is 75mb
- Calls routed through LNG to ECMC (VPN A & B) and then from ECMC to Host (VPN C & D)
- All network edge devices are monitored
- 1Gig Connectivity from ECMC to LNG and ECMC to Hosts

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12.12 HOST VIPER TO ECMC AND HOST VIPER TO REMOTE PSAP VIPER CONNECTIVITY – REFER TO

attached drawing "***AZ NG9-1-1 Design"***

- VIPER Hosts are located in the West ECMC in Miami FL and Englewood CO
- VPN C & D are local – IPSR to VIPER Host
- VPN G & H are for Host / Remote connectivity
- Each VIPER remote is honed to both VIPER Host
- Each VIPER Host is honed to diverse POPs
- Required bandwidth for each VIPER remote varies by position count. Most remote sites will use a bonded DS1 (NxDS1) local loop
- VIPER Host bandwidth is estimated at 80Mb
- Bandwidth from VIPER host to MPLS cloud will be 1Gig

12.13 HOST VESTA TO ECMC AND HOST VESTA TO REMOTE VESTA PSAP - REFER TO ATTACHED DRAWING "*AZ NG9-1-1 Design"*

- VPN C & D is connectivity between IPSR and Host VESTA
- VPN C & D required bandwidth is 37mb. Actual connectivity will be 1Gig
- VESTA Hosts are honed to each ECMC through diverse POPs
- VESTA Hosts will be installed in two data centers with one in Phoenix AZ and the other in Highlands Ranch CO
- Highlands Ranch data center is same building and location as the CENTURYLINK POP
- VPN E & F is connectivity between VESTA Host and VESTA Remotes
- VPN E & F required bandwidth is 70mb. Actual bandwidth is 1G
- VESTA Remotes bandwidth will vary depending on position count
- VESTA Remotes connectivity will mostly be by bounded DS1 (NxDS1)
- Redundant 1Gig Layer 2 connectivity between VESTA Core A and VESTA Core B
- All network edge devices are monitored

13.0 CPE MANAGED SERVICE

13.1 SOLUTION SUMMARY

CENTURYLINK's managed service solution is a Host / Remote architecture. Current deployments are using NG9-1-1 systems from West (VIPER) and Airbus (VESTA 4.x). The solution includes the following applications:

- NG9-1-1 Call Taking Systems
  - Airbus VESTA 4.x
  - West VIPER
- MIS Applications
  - West Power MIS
  - Airbus Aurora MIS
- GIS Mapping Applications
  - West Map Flex
  - Airbus Vela
- GIS Updating Applications
  - West Map Flex
  - Airbus Data Sync
- Services
  - Remote Monitoring and Response
  - Anti-Virus
  - Patch Management
  - Software Upgrades
  - Proactive Hardware Maintenance

CENTURYLINK will deploy its Managed NG9-1-1 CPE solution in a single Geo Diverse Host / Remote configuration for each 9-1-1 CPE Manufacturer. Each host location will be served by redundant and diverse MPLS circuits. Each remote site will be served by a pair of redundant MPLS circuits

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NG9-1-1 calls will be delivered over the Arizona ESInet to host locations, where the specific 9-1-1 call handling equipment will route to the appropriate PSAP over a separate private IQ MPLS Private Port VLAN. Each manufacturer's NG9-1-1 host system will have a redundant pair of call processing servers and ALI controllers, or cores. These secure cores (Core A & Core B) will be deployed in a geo diverse configuration.

-

13.2 EXAMPLES OF HOST REMOTE SYSTEMS

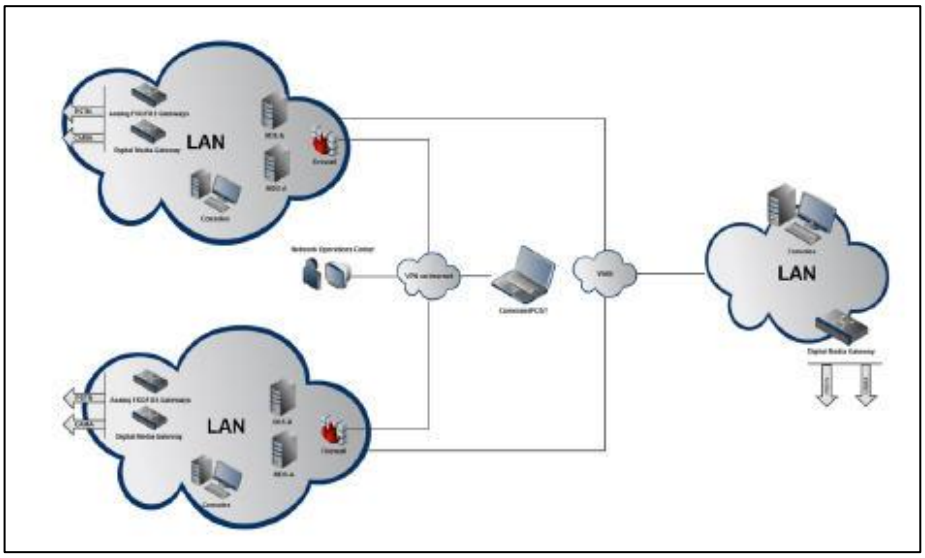


Figure 13.1 – VESTA in a Distributed GEO Diverse Configuration

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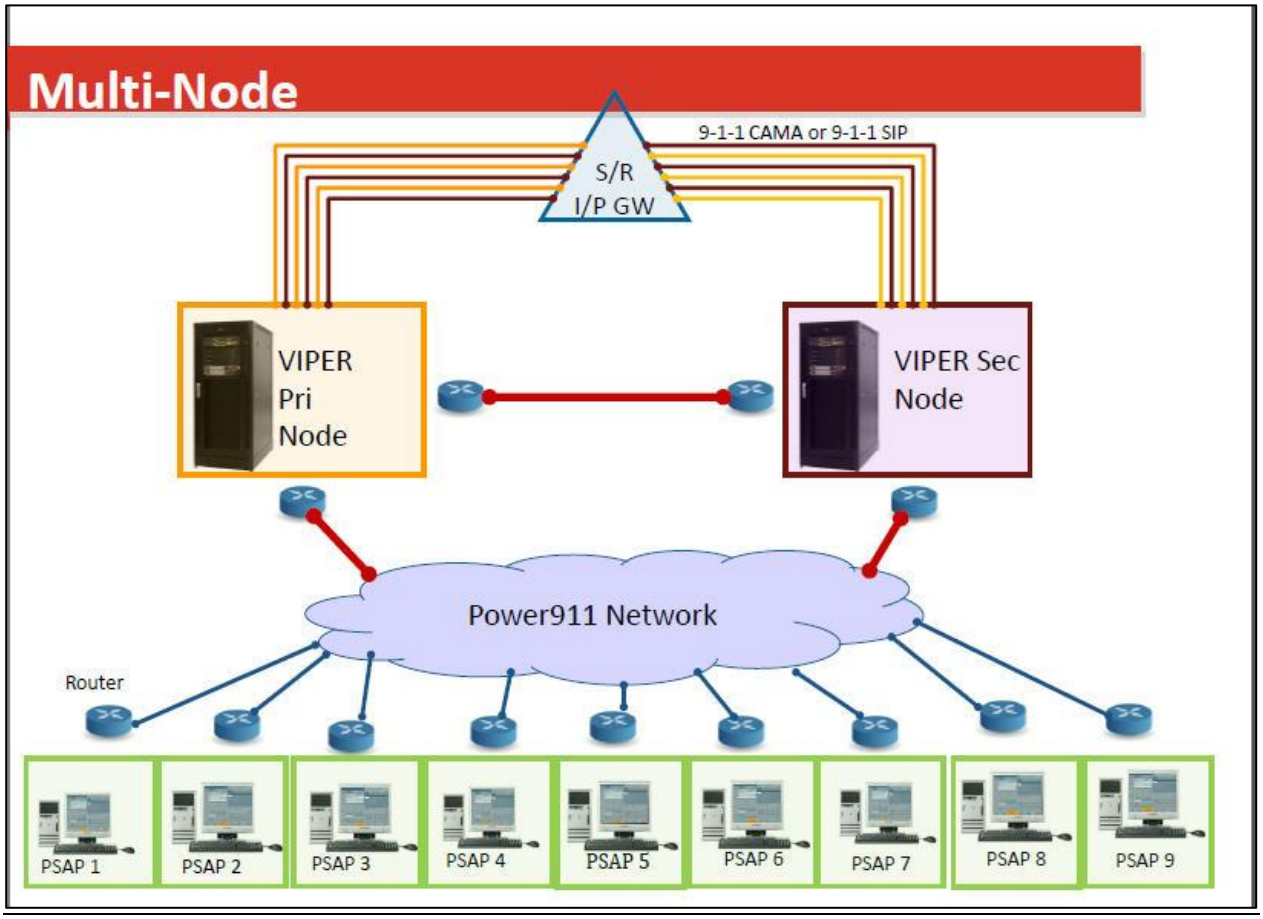


Figure 13.2 – VIPER GEO Diverse Multi-Node Host Remote

13.3 SYSTEM HOSTS

CENTURYLINK's solution includes the required space and facilities to support the host systems. For each CPE system manufacturer, CenturyLink shall provide:

- Co-Location Space for host system components
- All racks and power requirements
- NG9-1-1 Core Components - Call Processing Servers, ALI Controllers, and system configuration databases at each host location
- MIS Servers – Single Deployment
  - Single Power MIS server at one of the two host sites
  - Single Aurora MIS server at one of the two host sites
- GIS Host Servers – Single Deployment
  - Single GIS Central Server at one of the two host sites
  - Single DataSync server at one of the two host sites
- Network Management Server
- Master Time Clock – Each host system
- Peripherals – KVM and monitors
- Backup Devices
- LAN switches
- Routers
- Patch Panels
- All cabling

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13.4 REMOTE PSAPS

CENTURYLINK will provide the following as ordered by individual PSAP:

- NG9-1-1 Call Taking equipment, including Gateways (FXO, FXS, and T1)
- GIS Mapping applications
- MIS Applications
- Remote Monitoring and Response
- Anti-Virus
- Firewall

13.5 PSAP EQUIPMENT

A sample of equipment to be installed is provided as a representative list only. The actual equipment requirement will vary PSAP to PSAP.

13.5.1 Backroom Equipment

- Racks
- UPS
- Gateways – FXS, FXO, and Digital ISDN T1
- LAN switches
- Serial Ports for serial hand offs (Example: CAD and DLR)
- Patch Panels
- Patch Cables
- Application servers (Example: GIS server for map updates)
- Monitors
- KVM
- CDR outputs to customer CAD and Recorders

13.5.2 Front Room Equipment

- NG9-1-1 Call taking Workstation, includes:
    - Keyboard & Mouse
    - Monitor for call taking GUI (19” or 22” LCD)
    - Monitor for mapping GUI (19” or 22” LCD)
    - Audio Control Box
    - 2 Headset Jacks
    - 2 Port KVM (Arbitrator)
    - Genovation Keypad
    - Extension cables
- Network Printer (1)
- Position UPS and Power Strips

13.6 CABLING

If, during site survey CenturyLink determines PSAP cabling is required, CENTURYLINK will install four (4) CAT6 drops to each 9-1-1 call taking position to 9-1-1 CPE equipment in back room. These four drops will be for exclusive use by CENTURYLINK for the 9-1-1 CPE equipment being provided to the PSAP by CENTURYLINK. The following will be included;

- (4) CAT 6 drops
    - (2) for 9-1-1 position CPU
    - (1) for audio to customer provided recording equipment
    - (1) spare
- (1) CAT 6 drop for network printer
- Cables from 9-1-1 CPE equipment to IQ MPLS Private Port Equipment
- CAT 3, 5, or 6 cables from 9-1-1 CPE equipment in backroom to IDF backboard in backroom
- Cabling will include all required jacks, patch panels, and patch cables

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13.7 ADMIN LINES

CENTURYLINK will provide PSAPs with Analog or Digital gateways for connecting analog administrative or ringdown lines, PSTN ISDN PRI lines, and tie lines to PSAPs PBX. PBX must support PRI ISDN / QSIG signaling.

13.8 CDR OUTPUTS

CENTURYLINK will provide CDR outputs to customers' CAD and Recording equipment. These outputs will terminate on or within 20 feet of CENTURYLINK's backroom equipment at PSAP

13.9 HEADSET INTEGRATION

CENTURYLINK will provide optional headset integration depending on PSAP requirement. CENTURYLINK D-mark is at the Audio Control Box. CENTURYLINK will work with PSAP radio maintenance provider for connectivity and testing.

13.10 LOGGING RECORDER

CENTURYLINK will provide an analog voice handoff to PSAPs logging recorder from the workstation audio control box. This handoff is from an 8 PIN plug, 7 feet long, off of the audio control box.

CENTURYLINK will work with PSAP's logging recorder vendor assuring audio is being sent to recorder. VOX or Contact Closure can be configured depending on each PSAPs requirement.

ANI can be sent for CDR to logging recorder if required by PSAP. CENTURYLINK will hand this CDR output off to PSAP in the 9-1-1 CPE equipment rack. PSAP would be responsible for extending to their recording equipment.

13.11 TEXT MESSAGING AND TEXT MESSAGING SERVICES

While the CENTURYLINK NG9-1-1 solution will support Text Messaging Services, the service offering is not part of the solution scope. Optional pricing will be provided to the PSAPs if they wish to implement the text messaging services.

13.12 TEXT MESSAGING CPE INTERFACES

Both proposed CPE products, West's VIPER and Airbus's VESTA provide an integrated text messaging interface. This interface is included in the CENTURYLINK solution.

13.13 EXAMPLES OF EQUIPMENT NOT INCLUDED AT REMOTE PSAP SITES

- Master Time Clock – Only required at host sites.
- Electrical Power
- Additional administrative workstations (Example: For MIS reporting)
- Reader boards
- Firewalls – Connectivity between PSAP LAN and local agency LAN
- Headsets
- Additional printers

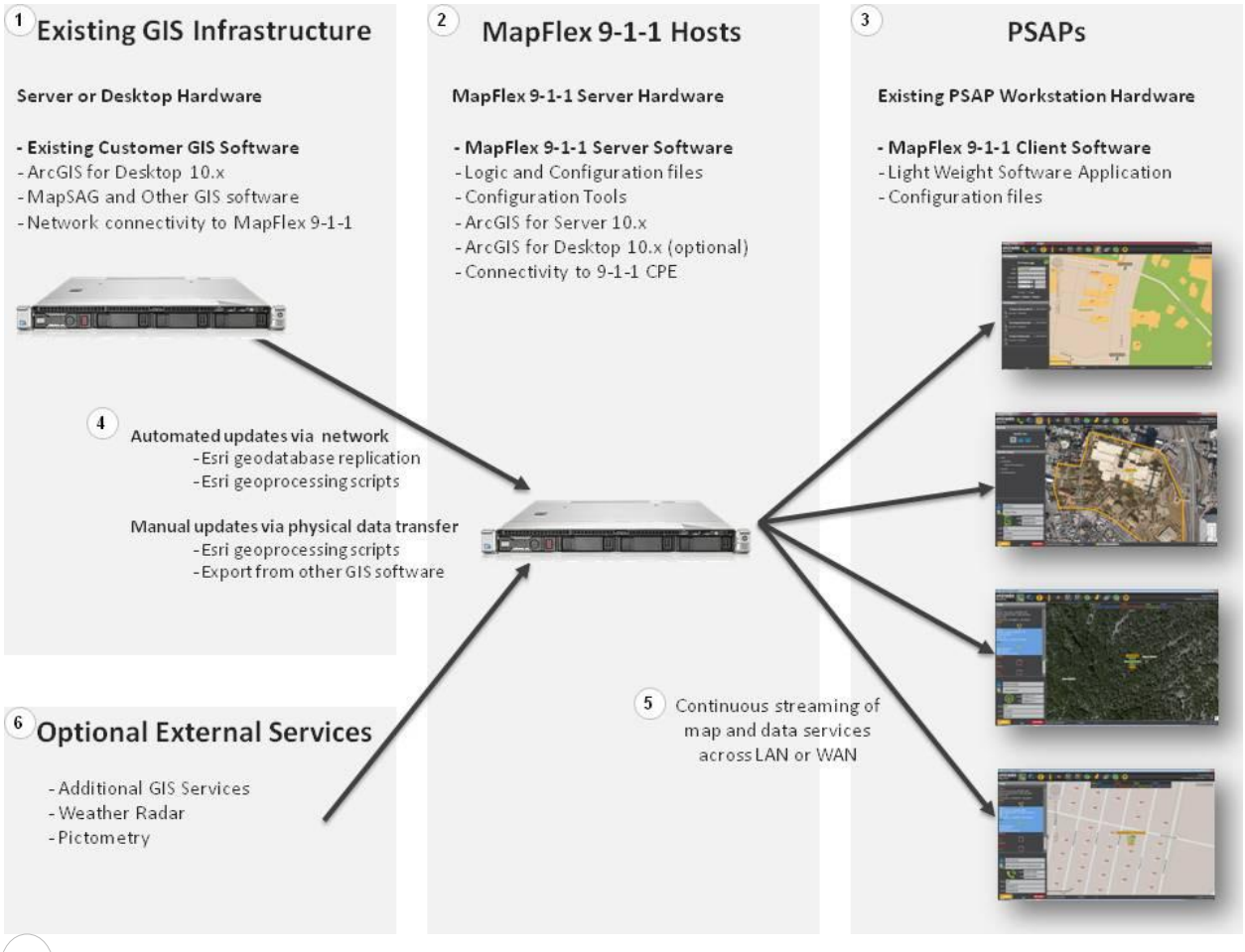
14.0 LOCAL GIS DATA MANAGEMENT

GIS Data Management will be a responsibility of the PSAP customer. A Centralized solution will be provided for updating Maps over the specific NG9-1-1 CPE vendors host / remote network. Below are vendor specific responses.

14.1 WEST

The MapFlex 9-1-1 architecture and data update process is described in the diagram and numbered, associated text below.

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1

Existing GIS Infrastructure

- MapFlex 9-1-1 utilizes your agency's existing GIS infrastructure to enable the use of your accurate and complete local GIS data.
- MapFlex 9-1-1 can seamlessly consume data from Esri ArcGIS 10.x or from other GIS software that is capable of exporting data in an Esri compatible format.
- Network connectivity to the MapFlex 9-1-1 Host Server enables automated, near real time GIS data updates.

2

MapFlex 9-1-1 Hosts

- A dedicated MapFlex 9-1-1 Server(s) is the core of the MapFlex 9-1-1 solution.
- MapFlex 9-1-1 Server(s) Software is based on ArcGIS for Server 10.x.
- All map and data configuration files are stored on this centralized server to enable fast and easy updates.
- Connects to your existing 9-1-1 system to geocode 9-1-1 calls and events.

3

PSAPs

- Lightweight MapFlex 9-1-1 Client Software is installed on existing PSAP workstation hardware to consume the MapFlex 9-1-1 application and data from the MapFlex 9-1-1 Server.

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4 *Data Updates*

- Automated updates can be enabled via network connectivity between GIS server/desktop and MapFlex 9-1-1 server(s)
- Manual updates are also available via data extract and physical data transfer if no network connectivity exists.

5 *Data Streaming*

- When the MapFlex 9-1-1 Server(s) is updated with new GIS data the PSAP telecommunicators instantly see the new updates without having to restart their systems.

6 *Optional External Services*

- MapFlex 9-1-1 can optionally consume data services such as weather radar using existing internet connectivity.

For PSAPs that are not utilizing MapFlex 9-1-1, West will provide services to update other mapping products' local servers. These services will utilize a similar workflow as the SIF. West will work with each mapping provider to understand the data requirements for each application. Finally, West will export data to each mapping provider's designated location at each PSAP in the required Esri data format and database schema. This data update process can be performed using a mix of Geodatabase replication, custom scripting or manual update processes over the network, where connectivity to the CENTURYLINK network exists, or manual updates via data extract and physical data transfer if no network connectivity exists, as required with each provider. West performs a similar service today with several providers for the entire State of New Mexico.

West's 9-1-1 SIF System is a managed service that encompasses an interface with multiple agencies to obtain locally maintained GIS data, perform error detection, normalize the data, transforming it into a common data schema, performing basic validations, reporting on gaps/overlaps that exceed a configurable threshold and provisioning to Next Generation 9-1-1 (NextGen 9-1-1) systems including Emergency Call Routing Function (ECRF), Location Validation Function (LVF) and MapFlex.

14.1.1 Data Requirements

The West SIF is designed to work with most customer provided GIS data. The GIS data accepted includes Esri formats personal Geodatabase, file Geodatabase, or shapefile. 9-1-1EGDMS utilizes a NENA NG9-1-1 GIS Data Model V1 compliant design, and the 9-1-1EGDMS system will help customer data comply with these standards and guide them to meet the minimum data requirements. There may be cases where minor alterations of the customer data are required. West GIS Analysts will review the GIS data format and recommend any necessary changes.
The feature classes supported by West's SIF include:

- Street Centerlines - Street centerline data for the agency's jurisdiction with optional street name alias tables.
- Fire Response Boundary - Fire response boundary polygons for the agency's jurisdiction.
- Address/Structure Location - Address/structure points for the agency's jurisdiction.
- Law Response Boundary - Law response boundary polygons for the agency's jurisdiction.
- PSAP Area Boundary - Public Safety Answering Point boundary polygons for the agency's jurisdiction.
- EMS Response Boundary - EMS/medical response boundary polygons for the agency's jurisdiction.
- Emergency Service Zone - Service response boundary (ESN boundary) polygons that include Fire, Law, and EMS response agencies in the jurisdiction.
- Municipal Boundary - Municipal boundary polygon(s) for the agency's jurisdiction.
- Authoritative Boundary - Authoritative boundary polygon that covers the geographic region in which the agency has jurisdiction.

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14.1.2 User Interface

The West customer portal is a fully web-based solution that serves as West's front end user interface for the National Emergency Number Association (NENA) Spatial Information Function (SIF) requirement. The portal provides secure GIS file transfer to West and customers are able to maintain their local database schema and configure database changes on the fly. The portal provides:

- Secure File transfer via West Unified Portal (IUP) with secure 2 factor authentication
- Popular file format support for File Geodatabase, Personal Geodatabase and Shapefile
- Automated schema change detection and error notification
- Attribute field mapping configuration driven by the customer
- Automated Email notifications for upload and processing status
- GIS Data Validation Report Retrieval

The web application allows customers to upload their GIS data, to capture and manage the metadata related to the contents of GIS uploads, to convey processing status of the uploaded data, and to access reports generated during processing and validation of those uploads. 9-1-1 GIS data is managed by our customers in different forms and by different entities at different levels of government. The county or other governmental agencies which are responsible for providing the spatial addressing information may have other data management responsibilities beyond 9-1-1, and as a result we expect most customer schemas to be unique and dynamic.

The key functionality of the portal is the schema configuration user interface (UI) and GIS data interrogator. The field mapping tools allows customer to configure their database field mappings and update them when necessary. Upon successful data transmission, an automated process extracts the data from its compressed (.zip) format and reads the contents of the database or shapefiles. The data interrogator automatically checks that the data contents are valid, in the correct format, with the required attribute fields as mapped and stored within the system's schema field mapping configuration template. Any discrepancy or schema change triggers automatic notification to the data provider, alerting them that action is required. In the event that the schema was changed and saved fields are missing or their properties have changed, the customer can make the necessary changes immediately. This allows each customer to maintain individual database schemas and make changes as necessary within the portal UI.

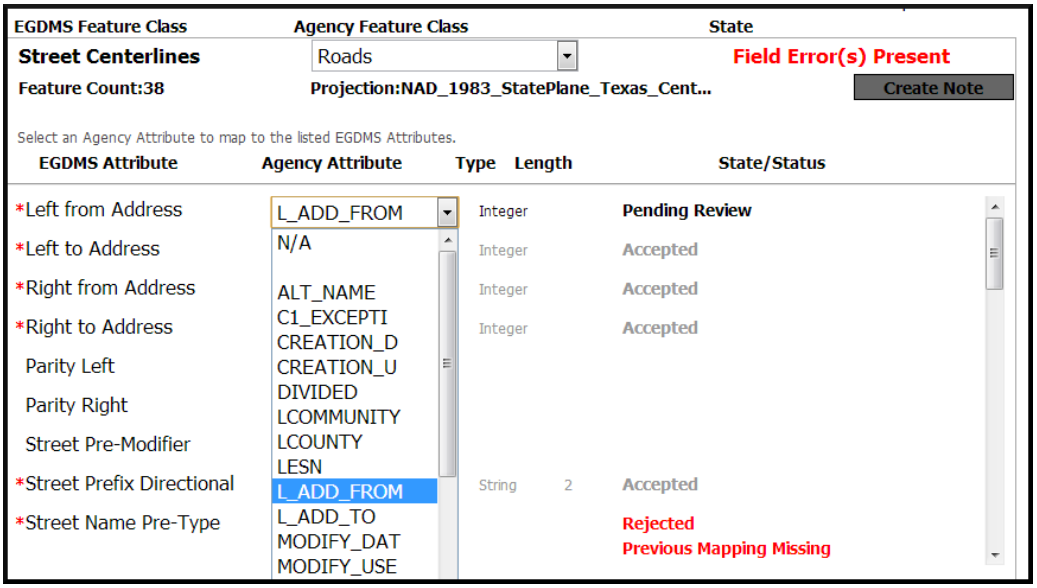
14.1.3 System Architecture

The West web portal is the centerpiece of interaction between the various users of the system, and the server-side systems will store, process and distribute the incoming customer GIS data. Application web services will provide enhanced and automated processing capabilities on the customer GIS data, allowing for fast and large scale throughput. Enterprise GIS datastores will support QA/QC activities, and also serve as the SIF. The SIF will also interact with application web services to provision GIS data to i3 datastores including ECRF/LVF, MapFlex, and DataSync.
The architecture for the solution is based on leveraging a suite of commercial software tools which will provide the core system capabilities to store and manage GIS data, manage the processing workflows, and perform various geospatial extract, transform, load (ETL) roles. Automated processing tools include Esri ArcGIS for Server to provide enterprise GIS data storage and management, FME from Safe Software to provide geospatial ETL capabilities, and Workflow Manager from Esri, to manage the overall processing workflows, automation and processing job state management and reporting capabilities.

The West solution involves proprietary delta detection tools that allow customers to submit full GIS databases as opposed to only added/changed/deleted features. As many GIS agencies do not possess the licensing requirements for Esri replication, and many do not maintain Unique IDs, the ability for all customers to isolate and submit only changed features is not reliable or easily achieved. Not only does this solution support any customer data (shapefile, Personal Geodatabase or File Geodatabase formats) it does not require additional licensing and does not require that the agency maintain UIDs. With incoming customer data separated into changed and unchanged sets, and the changes flagged as being geometry based, or attribute based, the West solution will run both validation and coalescing operations on only the changed data alone, which will expedite the overall processing time and streamline the provisioning update processes.

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The upload details screen allows user to configure the upload, and view an activity log for the selected upload.



The user can configure their schema field mappings, and correct any errors using the Field Mapping Tools. Schema validation includes automated data type and field length warnings/errors

14.2 AIRBUS ORION VELA

The Arizona 9-1-1 Program office, Local 9-1-1 System Administrator, or PSAP will maintain the ORION Vela map displays (Templates) for all PSAPs on their map administration workstation. They will publish these Templates and map data updates to the DataSync Center server. The DataSync Center server will synchronize Template and map data updates on a scheduled and/or instantaneous basis. PSAPs with more than six positions will require a DataSync Edge server to be located at the PSAP. DataSync clients on PSAP workstations will periodically check (default is 5 min) for available updates on their respective DataSync server. When an update is available, DataSync client will pull the update package down from its respective Edge or Center server in the background without interfering with active applications. When the update is downloaded and processed a notification appears to the call taker stating that an update is available. They may then restart the ORION Vela application at their leisure.

Map data updates may be passed to the Arizona 9-1-1 Program office, Local 9-1-1 System Administrator, or PSAP via mapped network drives to the DataSync Center server. Current regional map administrators may continue to maintain their map displays and would pass their Template updates with their map data updates.

Orion Vela can use the data from the SIF. This is done using the field names and file names of specific map data layers. Ultimately, the data must be provided in shapefile format.

15.0 IP RECORDING OF 9-1-1 CALLS

There are several options available for recording of the solution. The methodology chosen will depend on the PSAP's needs, CPE vendor capabilities and Logging Recorder capabilities.

The most common option in an ESInet environment is position based recording. The West A9-1-1 VIPER proposal provides an analog output of position audio at the headset/handset jack level to include radio traffic if radio audio is provided to that jack by the PSAPs radio vendor. The West solution is capable of headset arbitration of the telephone/radio traffic with the arbitration managed by the West telephone, or managed by the radio provider. CenturyLink will work with the PSAPs to determine the operational

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architecture that works best for the PSAP, and the PSAP will need to engage their radio vendor for the appropriate radio connections.

Airbus VESTA provides an analog output of position audio at the headset/handset jack level and is capable of headset arbitration of the telephone/radio traffic with the arbitration managed by the Airbus sound device or managed by the radio provider. CenturyLink will work with the PSAPs to determine the operational architecture that works best for the PSAP, and the PSAP will need to engage their radio vendor for the appropriate radio connections.

NENA is in process of developing an i3 specification for Logging Recorders. West will meet the NENA i3 build-to standard for a new IP logging recorder interface, as published at the time of deployment of said interface in Arizona PSAPs. West participated in NENA ICE 8 to demonstrate this capability.

As an option, West offers a cloud based logging recorder service for NG9-1-1 voice traffic in the West cloud core call taking solution. This would capture voice traffic at each redundant West data center, and provide for a browser based access through separate secure paths to recording management. Options are also available to provide for alternate IP networking for migration of the recording files to local storage devices for local, or consolidated access. The specific architecture and technology would depend on the Logging Recorder vendor selected.

15.1 WEST VIPER

From the CPE perspective, West has available a 3rd Party IP Recorder Interface Kit providing for the following:

15.1.1 Physical IP packet-capture solution

This is the mechanism by which the VIPER SIP and RTP packets are securely shared with the 3rd party recorder at the VIPER switch level.

15.1.2 VIPER 3rd party recording license

This is the VIPER-side license that enables a 3rd party recorder to have a one way IP connection to VIPER.

15.1.2.1 Span port method

Two Small form-factor pluggable transceiver (SFP) modules are inserted into each VIPER LAN switch pair. There will be one SFP per switch. Each SFP module enables a gigabit SPAN IP output flow, which will feed either a primary or a secondary 3rd party recorder.

15.1.2.2 Passive Tap method

Passive taps are placed in the voice path between the VIPER VOIP servers and the VIPER LAN switches. The taps all feed an aggregator module which provides two output flows. These will feed both a primary and a secondary 3rd party recorder. One Tap Port Set (P10010) is needed per VIPER node from where tapping is to take place.

Please see the attached Product Bulletin for greater detail on the Third Party IP-Recording Kit

15.2 AIRBUS VESTA

For Airbus System, IP recording can is done using the Span port method as described in section 15.1.2.1above.

15.3 CENTURYLINK IP CLOUD RECORDING SERVICE

As of January 2016, CENTURYLINK is engaged in developing a cloud recording solution for the hosted Airbus VESTA.

15.4 IP RECORDING COSTS

IP Recording is not included with the current service offering. If IP recording is required at the PSAP or Host System level, additional charges would apply for equipment and labor.

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16.0 CUSTOMER TRAINING

CENTURYLINK will provide the following training options to PSAPs. It is assumed all training will take place at customer location and customer will provide a facility appropriate for conducting training.

16.1 AIRBUS ADMIN TRAINING

CENTURYLINK will provide administrative training for Airbus Systems for each PSAP as follows. Each class size is limited to 8 students.

- (1) VESTA Administrative class
  - Course Duration: 1 Day
- (1) Activity View Administration class
  - Course Duration: 4 Hours
- (1) DataSync Administration class
  - Course Duration: 1 Day

16.2 AIRBUS TRAIN-THE-TRAINER AGENT TRAINING

CENTURYLINK will provide (1) Agent Train the Trainer class to each new PSAP. Train-The-Trainer classes will cover all agent topics as well as tips to train the call takers specific to the PSAP. Class size is limited to 8 students and course duration is 1 day.

16.3 AIRBUS CUT-OVER COACHING

CENTURYLINK will provide a trainer on site on day of cut over to answer any questions and or assist call takers as they transition to the new system.

16.4 AIRBUS WEBINARS

Airbus's training department will develop a value added free quarterly webinar based service to review what's new, answer questions, etc. Topics are TBD, but might include:

- Major System Changes
- New Features
- Important need to know information
- Etc

16.5 WEST ADMIN TRAINING

CENTURYLINK will provide one (1) on-site training session for End User administrators. This training is expected to last for two (2) full days (6 training hours per day). The End User may have up to eight employees attending the West on-site training as long as the End User provides an adequate training facility and workstations/computers for number of attendees. In addition, one additional day of Administrator training is provided to support the cutover.

16.6 WEST AGENT TRAINING

West will provide either end-user training or train the trainer training for the End User, as follows:

- Training the Trainer - one (1) on-site training session for up to eight End User Power 9-1-1 call takers/dispatchers with a maximum of 2 people per workstation. This training is expected to last for two (2) full days (6 training hours per day). Training will be provided in train-the-trainer format.
- End User Training - in lieu of Training the Trainer West can provide all End User Training. Training is provided to a maximum of eight End User call takers/dispatchers, per training session, with a maximum of two training sessions per day. One workstation for each two students is required. West includes sufficient days to have up to 8 trainees per session, for all call takers at a VIPER Power 9-1-1 site upon deployment, i.e. Number of sessions = Number of call takers divided by 8 Additional Optional Training days for a maximum of eight End User call takers/dispatchers per session may be purchased to accommodate all call taker/dispatchers.

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16.7 AD HOC TRAINING

CENTURYLINK will provide onsite technician support on ad-hoc basis, at no additional charge to PSAP, to demonstrate features for call taker supervisors. This is not in lieu of formal training.

17.0 CENTURLINK LEVEL OF SUPPORT

17.1 REPAIR AND RESPONSE TIMES

CENTURYLINK Response Times includes the following with our Next Gen 9-1-1 Managed Services Agreement. Response Time shall be defined as the amount of time expired between the time in which the issue is detected by the CENTURYLINK NOC to the time that a qualified technician is on-site and actively troubleshooting the issue.

- CENTURYLINK shall provide designated PSAP personnel with notification of an outage within thirty (30) minutes after discovering a service affecting issue. Notification shall be made via a mutually agreed upon means, e.g., phone, email, text, or a combination thereof. Updates on the service affecting issue shall be provided no later than two hours after initial notification with updates being provided as mutually agreed upon between designated PSAP personnel and CENTURYLINK.
- Response Time Coverage - Seven (7) days per week, 24 hours per day, 365 Days of the year with a two (2) hour (maximum) response time to have a CENTURYLINK technician on site for all 9-1-1 related hardware, software, network repair/maintenance issues or events. This includes all Holidays.
- Response Times for PSAPS in Maricopa Region and Pima County will be provided in a 90 minute (maximum) on-site response time.
- One (1) 800 Number is provided to all PSAP's for both 9-1-1 Network and Equipment repair issues. This also improves response times whereas the PSAP's do not need to call two different numbers to open a repair 9-1-1 call.
- If the issue that was called in cannot be resolved through our CENTURYLINK remote diagnostics and repair Network Operations Center (NOC), then a technician shall be on-site within the above stated response times.
- The CENTURYLINK 9-1-1 NOC has a call-answering objective of answering 90% of all 9-1-1 calls within 20 seconds.
- In the event that a system has failed completely, the 9-1-1 System Administrator shall be updated hourly by the Arizona 9-1-1 CENTURYLINK Service Manager, Account Team and or Network Operations Center.
- If the system is anticipated to be down longer than 24 hours, the State 9-1-1 Administrator and State 9-1-1 office shall be notified immediately.
- CENTURYLINK provides new and updated escalation list(s) to the PSAPs in our monthly and quarterly PSAP and State 9-1-1 meetings. The PSAP can escalate at any time to the local dedicated 9-1-1 CENTURYLINK account team and Area Operations personnel.
- To assure that quicker response times are met, CENTURYLINK maintains manufacturer-recommended maintenance components at twelve (12) local Arizona CENTURYLINK installation and maintenance facilities. Some maintenance spare parts are also housed at the 9-1-1 PSAP facility depending on the location and size of the PSAP.
- Remote VPN (Virtual Private Network) access is being implemented as part of our Managed Services that also improve(s) response times.

17.2 TROUBLESHOOTING:

Trouble Ticket Resolution and Coordination with Solution Partners/ Manufacturers:

- CENTURYLINK 9-1-1 NOC uses Solution Partners/Manufacturers Web-based portals to track all manufacturer related 9-1-1 equipment issues. These portals provide CENTURYLINK with a fast, easy way to communicate directly with the 9-1-1 equipment manufacturer's in real time. CENTURYLINK can prioritize the severity of the repair problem with each vendor.

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- The portals also allow CENTURYLINK to review and identify other 9-1-1 locations within the CENTURYLINK territories that are having some of the same or identical manufacturer repair issues.
- These online tracking site(s) will allow CENTURYLINK to get hourly, daily, or weekly Service Ticket Alerts via e-mail for additional tracking purposes. The Web-based service and support command center provides CENTURYLINK with a direct escalation process for open manufacturer issues.
- These sites also are used by CENTURYLINK to complete Return Material Access (RMA) and track on repair equipment if a part needs to be returned. Using CENTURYLINK to complete all of the problem tracking and follow up procedures eliminates the need for the 9-1-1 PSAP personnel to complete this task.
- The following steps are taken for escalation and coordination with our 9-1-1 Partners as outlined below:
  - Step 1 CENTURYLINK NOC Tier 2 support interfaces directly with our approved 9-1-1 equipment partners. A case ticket is opened through the online CENTURYLINK manufacturer portal. CENTURYLINK prioritizes the ticket as an escalation on the Web site and this is instantly marked high priority.
  - Step 2 - All of the high priority repairs are reviewed with the 9-1-1 equipment manufacturers hourly, daily, and discussed on weekly conference calls if required.
  - Step 3 - The PSAP is provided progress reports via e-mail updates, through conference calls and service meetings.
  - CENTURYLINK also is notified through Partners Product Bulletins and Notices of trouble solutions and resolutions from each Manufacturer that also will assist in getting the trouble ticket closed.
    - CENTURYLINK also provides Business Solutions Alerts of any Arizona 9-1-1 outages that may be caused from Cable cuts, Fiber cuts or equipment failures. The State 9-1-1 Administrator and State 9-1-1 office are notified along with the PSAP(s) affected of such outages via our Arizona 9-1-1 service manager.

  - Step 4 – If it is determined that a patch or firmware upgrade is required from the Manufacturer, CENTURYLINK will keep the trouble tickets opened until final resolution of the ticket from the manufacturer.
  - Step 5 – Repair is resolved. If a Patch or Firmware is needed it will be installed remotely.
  - Step 6 – PSAP is notified of repair resolution and ticket is not closed with Partner until PSAP provides CENTURYLINK NOC or technician with authorization to close the ticket.
- Included in our Managed Services offering is monitoring and response from our 9-1-1 Managed Services Partners. If CENTURYLINK partners recognize a repair issue at the PSAP site through the remote monitoring process, the partner will open up a ticket with CENTURYLINK NOC. Same steps are followed for escalation and closure of ticket.
- CENTURYLINK 9-1-1 account teams can also view and track resolution during the repair process on the partner portal.

Feet-on-the-street support

- CENTURYLINK has been installing, maintaining, and servicing 9-1-1 CPE and Network for over 25 years in the State of Arizona. Over the past eighteen years, CENTURYLINK has planned, installed, and maintains over 70 PSAPs in Arizona for 9-1-1 equipment and network. Currently in Arizona, CENTURYLINK has dedicated certified 9-1-1 technicians strategically located in Northern and Southern Arizona. CENTURYLINK technicians are certified annually on any new product(s) by our 9-1-1 manufacturers. In addition to our dedicated 9-1-1 technicians, we also provide 9-1-1 network support on the current WAN/LAN IP and Digital networks.
- CENTURYLINK 9-1-1 technicians provide installation and maintenance support Seven (7) days per week, 24 hours per day, 365 Days per year to our 9-1-1 PSAP Centers.

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- Feet on the street support will be provided by CENTURYLINK 9-1-1 Technicians, Data Technicians, Network Technicians and CENTURYLINK Contractors. We also will provide System Design engineering if needed.
- CENTURYLINK provides local System Design and engineering support for 9-1-1 Network, Equipment and integration as part of our Managed Services offering as needed.

18.0 DOCUMENT REFERENCES

1 AZ NG9-1-1 Design (Rev 150921)
2 2014 Compliance Management Tearsheet
3 Savvis – 2013 Type 2 – SOC 1 Report
4 CIDB-AdditionalData Interface for A9-1-1_Version 1.1
5 ECRF-LoST Interface for A9-1-1_Version 1.1
6 ESRP Terminating Interface for A9-1-1_Version 1.0
7 LIS-HELD Interface for A9-1-1_Version 1.1
8 PBN-2013-Third Party IP-Recording Kit
9 Vesta SMS_PB 06-2014
10 PAD Datasheet

19.0 "AZ NG9-1-1 DESIGN" DOCUMENT – DRAWING TABS

Tab	Description
ESInet	Drawing showing the MPLS network that comprises the ESInet and includes: LSR to LNG LNG to ECMC ECMC to CPE Hosts – VIPER and VESTA
LNG	Drawing includes the major equipment and network design within the LNG Data Centers, showing route diversity and equipment diversity
VIPER MPLS	Drawing of the VIPER Host/Remote MPLS Network.
VIPER ECMC	Drawing of major components in West's ECMCs including VIPER host and the West cloud
VIPER Remote	Drawing showing typical network connectivity to remote site with diverse PSAP and Central Office equipment. Local loop will be redundant and not diverse, meaning, all in one sheath or trench. Includes typical VIPER equipment to be installed in each PSAP backroom.
VIPER Workstation	Drawing of VIPER workstation equipment with handoffs to recorder and radio (for headset integration)
VESTA MPLS	Drawing of the VESTA Host/Remote MPLS network
VESTA Host	Drawing of VESTA Host sites, showing the major equipment and network design within the VESTA Host Data Centers, showing route diversity and equipment diversity
VESTA Remote	Drawing showing typical network connectivity to remote site with diverse PSAP and Central Office equipment. Local loop will be redundant and not diverse, meaning, all in one sheath or trench. Includes typical VESTA equipment to be installed in each PSAP backroom
VESTA Workstation	Drawing of VESTA workstation equipment with handoffs to recorder and radio (for headset integration)

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Consent 7.

Regular Board of Supervisors Meeting **County Sheriff**

Meeting Date: 09/12/2017

DUI Enforcement Overtime

Submitted By: Sean Gijanto, County Sheriff

Department: County Sheriff

Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	2
NAME of PRESENTER:	Sean Gijanto	**TITLE of PRESENTER:**	Lieutenant
Mandated Function?:	Not Mandated	**Source of Mandate or Basis for Support?:**	

You will use this Agenda Item template if your item involves a Grant (whether a new or renewal grant). You also must attach the Grant Approval Form to the item before Finance will approve it. Select the SPECIAL LINKS on your left-hand menu and Click on "Grant Approval Form". Then complete the form, save it and attach it to your item (on the Attachments tab).

Information

Agenda Item Text:

Approve contract 2018-II-001 between Cochise County and the Governor's Office of Highway Safety for $25,000 in overtime funds for the Driving Under the Influence (DUI) Enforcement Program effective October 1, 2017 to September 30, 2018.

Background:

These are recurring funds that are awarded by the Governor's Office of Highway Safety to allow law enforcement officers to participate in enforcement of impaired/distracted driving laws as well as community and educational events throughout the year. This contract has been approved as to form by the County Attorney's Office.

Department's Next Steps (if approved):

Continue to conduct enforcement and educational and community activities to combat impaired and distracted driving throughout the community.

Impact of NOT Approving/Alternatives:

Funding to conduct these types of enforcement and educational activities will not be available.

To BOS Staff: Document Disposition/Follow-Up:

Please return both signed originals so they can be sent to the Governor's Office of Highway Safety for final approval by the director.

Budget Information

Information about available funds

Budgeted: ☐ **Funds Available:** ☐ **Amount Available:**

Unbudgeted: ☐ **Funds NOT Available:** ☐ **Amendment:** ☐

Account Code(s) for Available Funds

1:

Fund Transfers

Attachments

Award Letter

DOUGLAS A. DUCEY
GOVERNOR

ALBERTO GUTIER
DIRECTOR
GOVERNOR'S HIGHWAY SAFETY REPRESENTATIVE

August 14, 2017

Sheriff Mark Dannels
Cochise County Sheriff's Office
205 North Judd Drive
Bisbee, AZ 85603

Re: **FFY 2018 GOHS Grant Application**

Contract No.:	Contract Description:	Award Amount:
2018-PTS-015	STEP Overtime	$10,000.00
2018-II-001	DUI Overtime	$25,000.00

Dear Sheriff Dannels:

The Governor's Office of Highway Safety (GOHS) has completed the review of the proposals submitted for funding for Federal Fiscal Year (FFY) 2018 commencing on October 1, 2017. All of the proposals were carefully considered by an evaluation team at GOHS that reviewed agency performance, program priority area, problem identification, supporting fiscal/data documentation, consistency of reporting, and available funding levels.

As a result of this evaluation process, we are able to include your agency's submitted proposal(s) listed above in **Arizona's FFY 2018 Highway Safety Plan**. However, please be aware that your agency's awarded highway safety project(s) may not have been funded at the amount requested and may be subject to change. Equipment requests placed "on hold" are under further review and *may not* be funded due to funding constraints, as we strive to make the best use of federal taxpayers' dollars.

All FFY 2018 grants will begin ***on*** October 1, 2017. If approval from a Town/City Council or Board of Supervisors is required, your agency should begin the process of scheduling the grant award for approval.

The assigned GOHS project coordinator will be contacting you regarding your project(s) and your agency should have the contract(s) soon. **During the interim, do not make any public announcement concerning the grant and do not incur any costs or proceed with any portion of the project until GOHS has written a contract with your agency and it has been signed and executed by both parties.**

We appreciate the time and effort put forth by your agency in submitting its proposal(s). Should any questions and/or concerns arise, please feel free to contact your grant project coordinator at 602-255-3216.

Sincerely,

Alberto Gutier
Director, Governor's Office of Highway Safety

Consent 8.

Regular Board of Supervisors Meeting **County Sheriff**

Meeting Date:	09/12/2017		
Selective Traffic Enforcement Program (STEP)			
Submitted By:	Sean Gijanto, County Sheriff		
Department:	County Sheriff		
Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	2
NAME of PRESENTER:	Sean Gijanto	**TITLE of PRESENTER:**	Lieutenant
Mandated Function?:	Not Mandated	**Source of Mandate or Basis for Support?:**	

You will use this Agenda Item template if your item involves a Grant (whether a new or renewal grant). You also must attach the Grant Approval Form to the item before Finance will approve it. Select the SPECIAL LINKS on your left-hand menu and Click on "Grant Approval Form". Then complete the form, save it and attach it to your item (on the Attachments tab).

Information

Agenda Item Text:

Approve contract 2018-PTS-015 between Cochise County and the Governor's Office of Highway Safety in the amount of $10,000 for overtime and employee related expense funds for Selective Traffic Enforcement Program (STEP) effective October 1, 2017 to September 30, 2018.

Background:

The Governor's Office of Highway Safety has provided funds over many years to assist with traffic related enforcement and alcohol related issues. These include targeted areas for DUI enforcement, aggressive driver enforcement, educational and prevention activities and community events designed to educate on impaired and distracted driving. These are recurring funds. This contract has been approved as to form by the County Attorney's Office.

Department's Next Steps (if approved):

Continue to conduct educational and enforcement activities related to impaired/distracted driving, aggressive driving, sales of alcohol to minors and educational and community activities.

Impact of NOT Approving/Alternatives:

Overtime funding will not be available due to lack of general fund overtime to conduct these details.

To BOS Staff: Document Disposition/Follow-Up:

Please return both signed originals so they can be sent to the Governor's Office of Highway Safety for final approval by the director.

Budget Information

Information about available funds

Budgeted: ☐ **Funds Available:** ☐ **Amount Available:**

Unbudgeted: ☐ **Funds NOT Available:** ☐ **Amendment:** ☐

Account Code(s) for Available Funds

1:

Fund Transfers

Attachments

Award Letter

DOUGLAS A. DUCEY
GOVERNOR

ALBERTO GUTIER
DIRECTOR
GOVERNOR'S HIGHWAY SAFETY REPRESENTATIVE

August 14, 2017

Sheriff Mark Dannels
Cochise County Sheriff's Office
205 North Judd Drive
Bisbee, AZ 85603

Re: **FFY 2018 GOHS Grant Application**

Contract No.:	Contract Description:	Award Amount:
2018-PTS-015	STEP Overtime	$10,000.00
2018-II-001	DUI Overtime	$25,000.00

Dear Sheriff Dannels:

The Governor's Office of Highway Safety (GOHS) has completed the review of the proposals submitted for funding for Federal Fiscal Year (FFY) 2018 commencing on October 1, 2017. All of the proposals were carefully considered by an evaluation team at GOHS that reviewed agency performance, program priority area, problem identification, supporting fiscal/data documentation, consistency of reporting, and available funding levels.

As a result of this evaluation process, we are able to include your agency's submitted proposal(s) listed above in **Arizona's FFY 2018 Highway Safety Plan**. However, please be aware that your agency's awarded highway safety project(s) may not have been funded at the amount requested and may be subject to change. Equipment requests placed "on hold" are under further review and *may not* be funded due to funding constraints, as we strive to make the best use of federal taxpayers' dollars.

All FFY 2018 grants will begin ***on*** October 1, 2017. If approval from a Town/City Council or Board of Supervisors is required, your agency should begin the process of scheduling the grant award for approval.

The assigned GOHS project coordinator will be contacting you regarding your project(s) and your agency should have the contract(s) soon. **During the interim, do not make any public announcement concerning the grant and do not incur any costs or proceed with any portion of the project until GOHS has written a contract with your agency and it has been signed and executed by both parties.**

We appreciate the time and effort put forth by your agency in submitting its proposal(s). Should any questions and/or concerns arise, please feel free to contact your grant project coordinator at 602-255-3216.

Sincerely,

Alberto Gutier
Director, Governor's Office of Highway Safety

Consent 9.

Regular Board of Supervisors Meeting **Emergency Services**

Meeting Date:	09/12/2017		
Adoption of the 2017 Cochise County Multi-Jurisdictional Hazard Mitigation Plan			
Submitted By:	Norm Sturm, Emergency Services		
Department:	Emergency Services		
Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	2
NAME of PRESENTER:	Norm Sturm	**TITLE of PRESENTER:**	ES Coordinator
Docket Number (If applicable):			
Mandated Function?:	Not Mandated	**Source of Mandate or Basis for Support?:**	

Information

Agenda Item Text:

Adopt Resolution 17-19 to approve the Cochise County Multi-Jurisdictional Hazard Mitigation Plan 2017 as required by the Disaster Mitigation Act of 2000.

Background:

The federal Emergency Management Agency has since 2000, promoted the development of hazard mitigation plans (HMP) for local and county jurisdictions. An HMP identifies the major natural and human-caused hazards facing a jurisdiction and lays out strategies to lessen the impact of those hazards. Cochise County has maintained a multi-jurisdictional hazard mitigation plan that not only addresses county hazard mitigation strategies, but also includes hazard mitigation strategies for the seven municipalities within Cochise County. This plan is reviewed annually by a committee of representatives from each jurisdiction and FEMA requires that the plan is updated every five years. This 2017 plan is the update of the current 2012 plan. The 2017 plan has been developed by a committee of representatives from the County and all municipalities within the Cochise County. The planning process has taken approximately 14 months to complete and has been reviewed and approved for adoption by FEMA.

Department's Next Steps (if approved):

If approved, a copy of the signed adoption resolution will be submitted to FEMA and the plan formally accepted at the County's HMP for the next five years.

Impact of NOT Approving/Alternatives:

If not approved, the FEMA approval will expire within 12 months and the plan will be voided.

To BOS Staff: Document Disposition/Follow-Up:

Return an original signed copy to Norm Sturm for submission to FEMA.

Attachments

2017 HMP

Resolution

Cochise County Multi-Jurisdictional Hazard Mitigation Plan

AUGUST 2017



Cochise County Emergency Services Department

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EXECUTIVE SUMMARY

Across the United States, natural and human-caused disasters have led to increasing levels of death, injury, property damage, and interruption of business and government services. The toll on families and individuals can be immense and damaged businesses cannot contribute to the economy. The time, money and effort to respond to and recover from these emergencies or disasters divert public resources and attention from other important programs and problems. With 30 federal or state declarations having occurred in Cochise County, the Planning Team members who participated in this planning effort recognize the consequences of disasters and the need to reduce the impacts of natural and human-caused hazards. The county and jurisdictions also know that with careful selection, mitigation actions in the form of projects and programs can become long-term, cost effective means for reducing the impact of natural and human-caused hazards.

Hazard Mitigation Plans are required to be updated every five years, to ensure communities remain eligible for potential future post-disaster grant funding opportunities. This 2017 Plan update marks the third time Cochise County and its jurisdictions have gone through the Hazard Mitigation planning process. Over the past year, Cochise County reconvened a multi-jurisdictional Planning Team comprised of multiple veteran and first-time representatives from each participating jurisdiction, various county and local departments and organizations, and State and Federal agencies. The result of that process is this 2017 Cochise County Multi-Jurisdictional Hazard Mitigation Plan (Plan) which will continue to guide the county and participating jurisdictions toward greater disaster resistance in full harmony with the character and needs of the community and region.

The Plan has been prepared in compliance with Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act or the Act), 42 U.S. C. 5165, enacted under Sec. 104 the Disaster Mitigation Act of 2000, (DMA 2000) Public Law 106-390 of October 30, 2000, as implemented at CFR 201.6 and 201.7 dated October, 2007. The Plan identifies hazard mitigation measures intended to eliminate or reduce the effects of future disasters throughout the county, and was developed in a joint and cooperative venture by members of the Cochise County Planning Team.



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SECTION 1: JURISDICTIONAL ADOPTION AND FEMA APPROVAL

Requirement §201.6(c)(5): *[The local hazard mitigation plan shall include…] Documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council). For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted.*

Requirement §201.6(d)(3): *A local jurisdiction must review and revise its plan to reflect changes in development ,progress in local mitigation efforts, and changes in priorities, and resubmit it for approval within five (5) years in order to continue to be eligible for mitigation project grant funding.*

1.1 DMA 2000 Requirements

1.1.1 General Requirements

The Cochise County Multi-Jurisdictional Hazard Mitigation Plan (the Plan) has been prepared in compliance with Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (Stafford Act), 42 U.S.C. 5165, as amended by Section 104 of the Disaster Mitigation Act of 2000 (DMA 2000) Public Law 106-390 enacted October 30, 2000. The regulations governing the mitigation planning requirements for local mitigation plans are published under the Code of Federal Regulations (CFR) Title 44, Section 201.6 (44 CFR §201.6). Additionally, a DMA 2000 compliant plan that addresses flooding will also meet the minimum planning requirements for the Flood Mitigation Assistance program as provided for under 44 CFR §78.

DMA 2000 provides requirements for States, Tribes, and local governments to undertake a risk-based approach to reducing risks to natural hazards through mitigation planning[1]. The local mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. Local plans will also serve as the basis for the State to provide technical assistance and to prioritize project funding.

Under 44 CFR §201.6, local governments must have a Federal Emergency Management Agency (FEMA)-approved local mitigation plan in order to apply for and/or receive project grants under the following hazard mitigation assistance programs:

- Hazard Mitigation Grant Program (HMGP)
- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)

1.1.2 Update Requirements

DMA 2000 requires that local plans be updated every five years, with each plan cycle requiring a complete review, revision, and approval of the plan at both the state and FEMA levels. Cochise County and the incorporated communities of Benson, Bisbee, Douglas, Sierra Vista, Tombstone, and Willcox all currently have FEMA approved hazard mitigation plans. The Town of Huachuca City did not officially Adopt the 2012 Plan, but their intent is to be a formal Adoptee in 2017. This Plan is the result of a multi-jurisdictional update process performed by Cochise County and the incorporated communities of Benson, Bisbee, Douglas, Huachuca City, Sierra Vista, Tombstone, and Willcox. The result of the planning process is a single, multi-jurisdictional plan that updates the countywide Plan of 2012.

[1] FEMA, 2008, *Local Multi-Hazard Mitigation Planning Guidance*

1.2 Official Record of Adoption

Adoption of the Plan is accomplished by the governing body for each participating jurisdiction in accordance with the authority and powers granted to those jurisdictions by the State of Arizona. The officially participating jurisdictions in the Plan include:

County	Cities	Towns
• Cochise County	• City of Benson • City of Bisbee • City of Douglas • City of Sierra Vista • City of Tombstone • City of Willcox	• Town of Huachuca City

A digital copy of each official resolution of adoption are located in Appendix A of the Plan.

1.3 FEMA Approval Letter

The Plan was submitted to the Arizona Department of Emergency & Military Affairs (DEMA), the authorized state agency, and FEMA for review and approval. FEMA's approval letter is provided on the following page.

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

August 18, 2017

Norman Sturm
Emergency Services Coordinator
Cochise County Office of Emergency Services
1415 Melody Lane, Building A
Bisbee, AZ 85603

Dear Mr. Sturm:

We have completed our review of the *Cochise County Multi-Jurisdictional Hazard Mitigation Plan,* and have determined that this plan is eligible for final approval pending its adoption by Cochise County and all participating jurisdictions. Please see the enclosed list of approvable pending adoption jurisdictions.

Formal adoption documentation must be submitted to the FEMA Region IX office by the lead jurisdiction within one calendar year of the date of this letter, or the entire plan must be updated and resubmitted for review. We will approve the plan upon receipt of the documentation of formal adoption.

If you have any questions regarding the planning or review processes, please contact Alison Kearns, Lead Community Planner, at (510) 627-7125 or by email at alison.kearns@fema.dhs.gov.

Sincerely,

Jeffrey D. Lusk
Division Director
Mitigation Division
FEMA Region IX

Enclosure

cc: Lucrecia Hernandez, State Hazard Mitigation Officer, Arizona Department of Emergency and Military Affairs
Susan Austin, Planning Branch Manager, Arizona Department of Emergency and Military Affairs

www.fema.gov

Status of Participating Jurisdictions as of August 18, 2017

Jurisdictions – Adopted and Approved

#	Jurisdiction	Date of Adoption

Jurisdictions – Approvable Pending Adoption

#	Jurisdiction
1	Cochise County
2	Benson, City of
3	Bisbee, City of
4	Douglas, City of
5	Huachuca City, Town of
6	Sierra Vista, City of
7	Tombstone, City of
8	Willcox, City of

www.fema.gov

SECTION 2: INTRODUCTION

2.1 Plan History

The last update to the Cochise County Multi-Hazard Mitigation Plan occurred in 2012. Beginning in the summer of 2016 through early 2017, Cochise County and the incorporated communities of Benson, Bisbee, Douglas, Huachuca City, Sierra Vista, Tombstone, and Willcox participated in a mitigation planning process that resulted in the development of an updated county-wide plan covering each participating jurisdiction. There have been other past hazard mitigation planning efforts over the years, both at the county and jurisdictional level. The history of those plans is captured below:

- *Cochise County Multi-Jurisdictional Multi-Hazard Mitigation Plan (2012)*
- *Cochise County Multi-Hazard Mitigation Plan (January 25, 2007)*
- *City of Benson Multi-Hazard Mitigation Plan (December 5, 2006)*
- *City of Bisbee Multi-Hazard Mitigation Plan (November 17, 2008)*
- *City of Douglas Multi-Hazard Mitigation Plan (January 24, 2007)*
- *City of Sierra Vista Multi-Hazard Mitigation Plan (January 25, 2007)*
- *City of Tombstone Multi-Hazard Mitigation Plan (August 27, 2010)*
- *City of Willcox Multi-Hazard Mitigation Plan (Final Draft – No Promulgation / FEMA Approval)*
- *Town of Huachuca City Multi-Hazard Mitigation Plan (January 25, 2007)*

2.2 Plan Purpose and Authority

The purpose of the Plan is to identify natural hazards and certain human-caused hazards that impact the various jurisdictions located within Cochise County, assess the vulnerability and risk posed by those hazards to community-wide human and structural assets, develop strategies for mitigation of those identified hazards, present future maintenance procedures for the plan, and document the planning process. The Plan is prepared in compliance with DMA 2000 requirements and represents a multi-jurisdictional update of the 2012 county-wide Plan.

Cochise County and all of the Cities and Towns are political subdivisions of the State of Arizona and are organized under Title 9 (cities/towns) and Title 11 (counties) of the Arizona Revised Statutes (ARS). As such, each of these entities is empowered to formally plan and adopt the Plan on behalf of their respective jurisdictions.

Funding for the development of the Plan was provided through a PDM planning grant obtained by the State of Arizona from FEMA. Michael Baker International was retained by Cochise County to provide consulting services in guiding the planning process and Plan development.

2.3 General Plan Description

The Plan is generally arranged and formatted to be consistent with the 2013 State of Arizona Hazard Mitigation Plan (State Plan) and is comprised of the following major sections:

Community Description – this section provides an overall description of the participating jurisdictions and the County as a whole.

Planning Process – this section summarizes the planning process used to update the Plan, describes the assembly of the planning team and meetings conducted, and summarizes the public involvement efforts.

Risk Assessment – this section summarizes the identification and profiling of natural and human-caused hazards that impact the County and the vulnerability assessment for each hazard that considers exposure/loss estimations and development trend analyses.

Mitigation Strategy – this section presents a capability assessment for each participating jurisdiction and summarizes the Plan mitigation goals, objectives, actions/projects, and strategy for implementation of those actions/projects.

Plan Maintenance Strategy – this section outlines the proposed strategy for evaluating and monitoring the Plan, updating the Plan in the next 5 years, incorporating plan elements into existing planning mechanisms, and continued public involvement.

Plan Tools – this section includes a list Plan acronyms and a glossary of definitions.

2.4 Overall Plan Update Process

The Plan is the result of a thorough update process that included a section by section review and evaluation of the 2012 Plan by the planning participants. Table 2.1 summarizes the review and analysis of each section of the 2012 Plans and generally describes what changes were or were not made and why. Additional details of that process are also discussed in the Plan sections as well.

Table 2-1: Summary of 2012 Plan review and 2017 Plan correlation

2012 Plan Section	2017 Plan Section	Review and Changes Description (2012 Plan to the 2017 Plan)
1	1	• No major changes occurred in this section, besides inclusion of an updated FEMA Approval Letter.
2	2	• No major changes occurred in this section, besides applicable updates to this table.
3	4	• Sections 3 & 4 were swapped, to place the community descriptions earlier in the plan document. • All other planning process details were updated, as applicable to this updated planning process.
4	3	• Sections 3 & 4 were swapped, to place the community descriptions earlier in the plan document. • Community descriptions updated as updated data allowed.
5	5	• Removed the Hazardous Materials profile and added in Earthquake. • Updated risk and vulnerability assessments, as improved data allowed. • Produced first time Hazus standard analysis for the hazards of flood and earthquake.
6	6	• Updated all parts of this section, as applicable to this updated planning process and past efforts over the last five years.
7	7	• Plan maintenance updated, as applicable to this updated planning process and past efforts over the last five years.
8	8	• Updated as necessary.
Appendixes	Appendixes	• Documentation updated, as applicable to this updated planning process. • Historical mitigation actions from 2007 and prior were migrated from Section 6 to Appendix D.

SECTION 3: COMMUNITY DESCRIPTIONS

3.1 General

The purpose of this section is to provide updated basic background information on Cochise County as a whole and includes information on geography, climate, population and economy. Abbreviated details and descriptions are also provided for each participating jurisdiction.

3.2 County Overview

3.2.1 Geography

Cochise County is located in the extreme southeastern corner of Arizona, sharing boundaries with the State of New Mexico on the east and Mexico on the south. According to the Cochise County Comprehensive Plan [2], the County was created by an Act of the 11th Territorial Assembly in 1881, and was named after the Chiricahua Apache Chief "Cochise". Much of the County was the homeland of the Chiricahua Apache until they were relocated to Florida and then eventually to Oklahoma and New Mexico. Cochise County is now one of only three counties in Arizona without an Indian Reservation. The County is currently comprised of 6,215 square miles, with the City of Bisbee serving as the County seat since 1929. The location of Cochise County, relative to other counties within the State of Arizona is depicted in Figure 3-1.

The County limits generally extend from longitude 109.05 to 110.47 degrees west and latitude 31.34 to 32.43 degrees north. Major roadway transportation routes through the County include Interstate 10, U.S. Highway 191, and State Routes 80, 82, 90, 92, 181 and 186. The Union Pacific Railroad (UPRR) has several lines servicing most of the County. Figure 3-2 shows all the major roadway and railway transportation routes and the airports within Cochise County.

The San Pedro River is the largest watercourse flowing through the County. Other regional watercourses include Babocomari River, San Simon River, and Whitewater Draw. The remaining watercourses are primarily ephemeral, with most being tributary to one or more of the regional rivers.

The geographical characteristics of Cochise County have been mapped into two terrestrial ecoregions[3], which are depicted in Figure 3-3 and described below:

- Chihuahuan Desert – this ecoregion is typical of the high altitude deserts and foothills and is found in much of the southeastern portion of Arizona. Elevations in this zone vary between 3,000 to 4,500 feet. The average temperatures for the Chihuahuan Desert tend to be cooler than the Sonoran Desert (see below) due to the elevation differences. However, like its lower elevation cousin, the summers are hot and dry with mild to cool winters.
- Sierra Madre Occidental Pine-Oak Forest – this ecoregion is predominant to mountainous regions in southeast Arizona with elevations generally above 5,000 feet. The average temperatures tend to be cool during the summer and cold in winter.

[2] Cochise County, 2003, *2003 Cochise County Comprehensive Plan*, adopted March 4, 2003.

[3] URS, 2004, *State of Arizona All Hazard Mitigation Plan* .



Figure 3-1
Vicinity Map

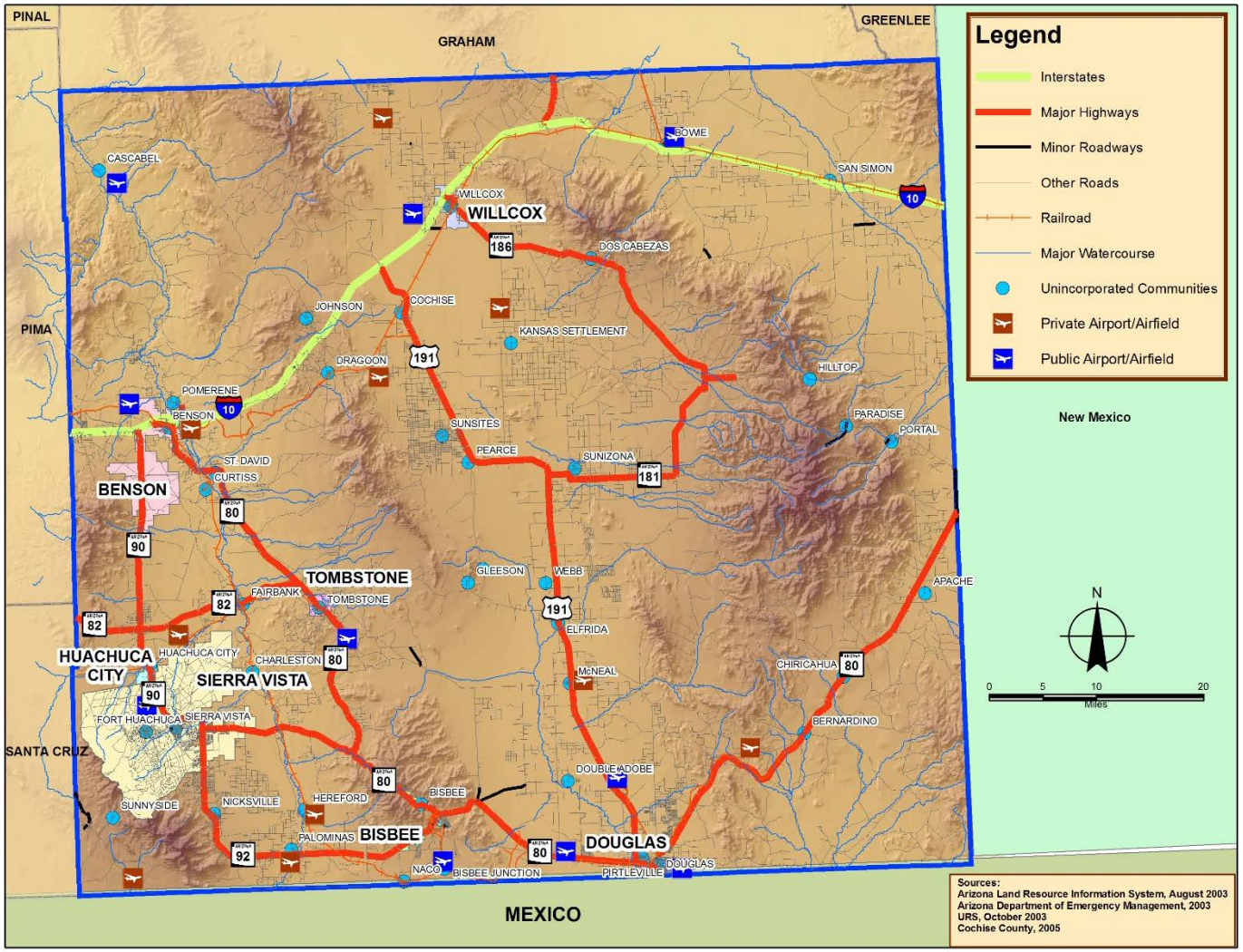


Figure 3-2
Transportation Routes Map

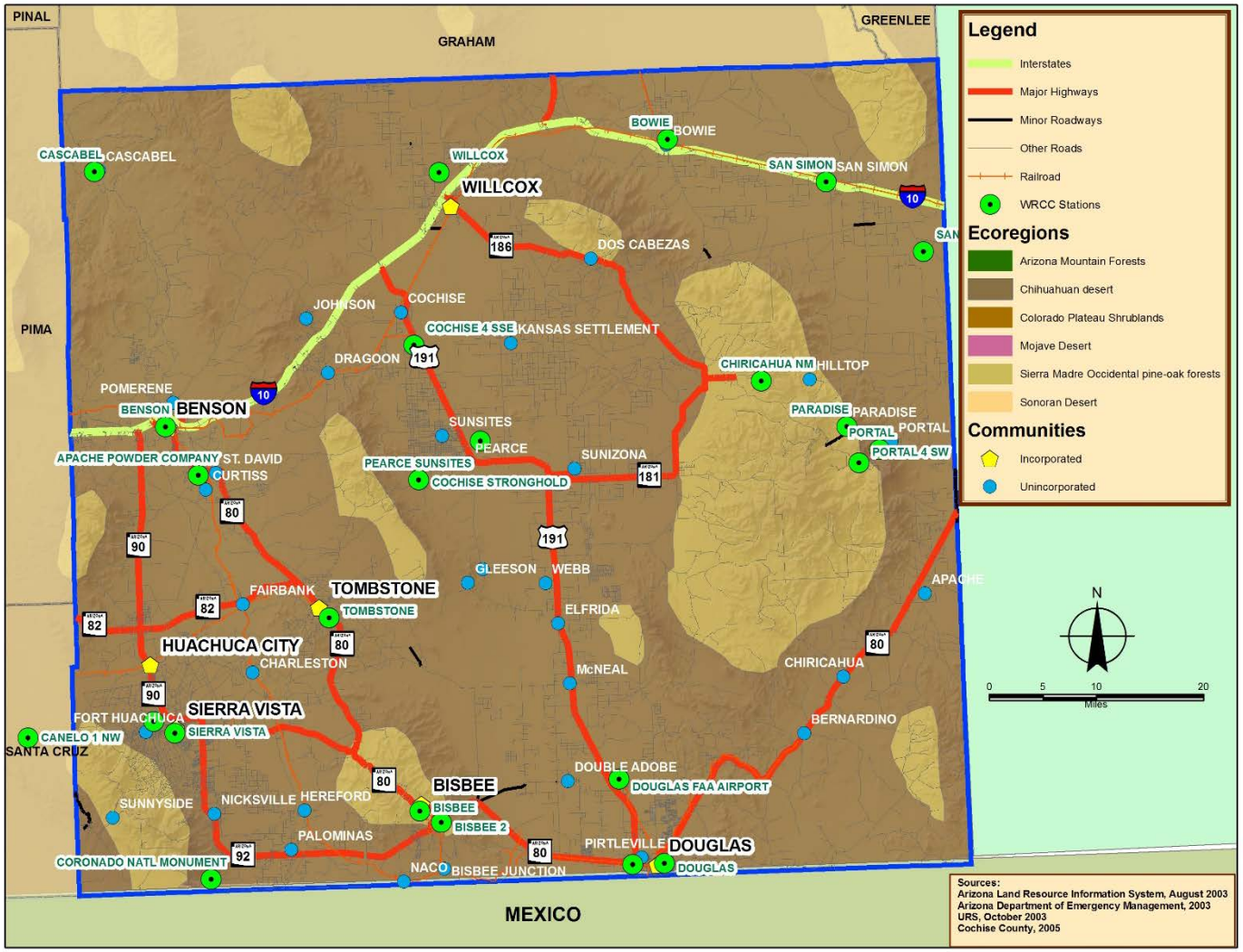


Figure 3-3
Terrestrial Ecoregions Map

3.2.2 History

Cochise County was carved out of Pima County by an act of the 11th Territorial Assembly on January 3, 1881. Tombstone, which was then touted to be the most cultured city in the entire West or Southwest, was the first town to incorporate and served as the county seat until 1929. Table 3-1 lists the incorporated communities within the county, and their founding and incorporation dates.

Table 3-1: Founding and incorporation dates for incorporated communities in Cochise County

Jurisdiction	Founding Date	Incorporation Date
Benson	1880	1924
Bisbee	1880	1902
Douglas	1901	1905
Huachuca City	1954	1958
Sierra Vista	1927	1956
Tombstone	1870's	1881
Willcox	1880	1915

Historic development of the County has primarily been precipitated by either mining or agriculture. In 1880, the then Southern Pacific Railroad opened in Benson and later in Willcox. Both communities became bustling railroad towns and destinations for acquisition of supplies and for shipping goods.

3.2.3 Climate

Climatic statistics for weather stations within Cochise County are produced by the Western Region Climate Center[4] and span records dating back to the early 1900's. Locations of reporting stations within or near Cochise County are shown on Figure 3-3.

Average temperatures within Cochise County range from below freezing during the winter months to over 100 degrees Fahrenheit during the hot summer months. The severity of temperatures in either extreme is highly dependent upon the location, and more importantly the altitude, within the County. Below are figures taken from three climate stations found in geographically different areas of Cochise County. Figures 3-4, 3-5, and 3-6 present graphical depictions of temperature variability and extremes throughout the year for the Douglas, Willcox, and Portal 4 SW Stations, respectively. The Portal 4 SW Station would be representative of typical Sierra Madre Occidental Pine-Oak Forest ecoregions. The Willcox and Douglas Stations would represent northern and southern extremes of the Chihuahuan Desert. In general, there is an approximate ten degree reduction in temperature between the lower Chihuahuan Desert and upper Sierra Madre Occidental Pine-Oak Forest elevation stations.

Precipitation throughout Cochise County is governed to a great extent by elevation and season of the year. From November through March, storm systems from the Pacific Ocean cross the state as broad winter storms producing mild precipitation events and snowstorms at the higher elevations. Summer rainfall begins early in July and usually lasts until mid-September. Moisture-bearing winds move into Arizona at the surface from the southwest (Gulf of California) and aloft from the southeast (Gulf of Mexico). The shift in wind direction, termed the North American Monsoon, produces summer rains in the form of thunderstorms that result largely from excessive heating of the land surface and the subsequent lifting of moisture-laden air, especially along the primary mountain ranges. Thus,

[4] Most of the data provided and summarized in this plan are taken from the WRCC website beginning at the following URL: http://www.wrcc.dri.edu/CLIMATEDATA.html.

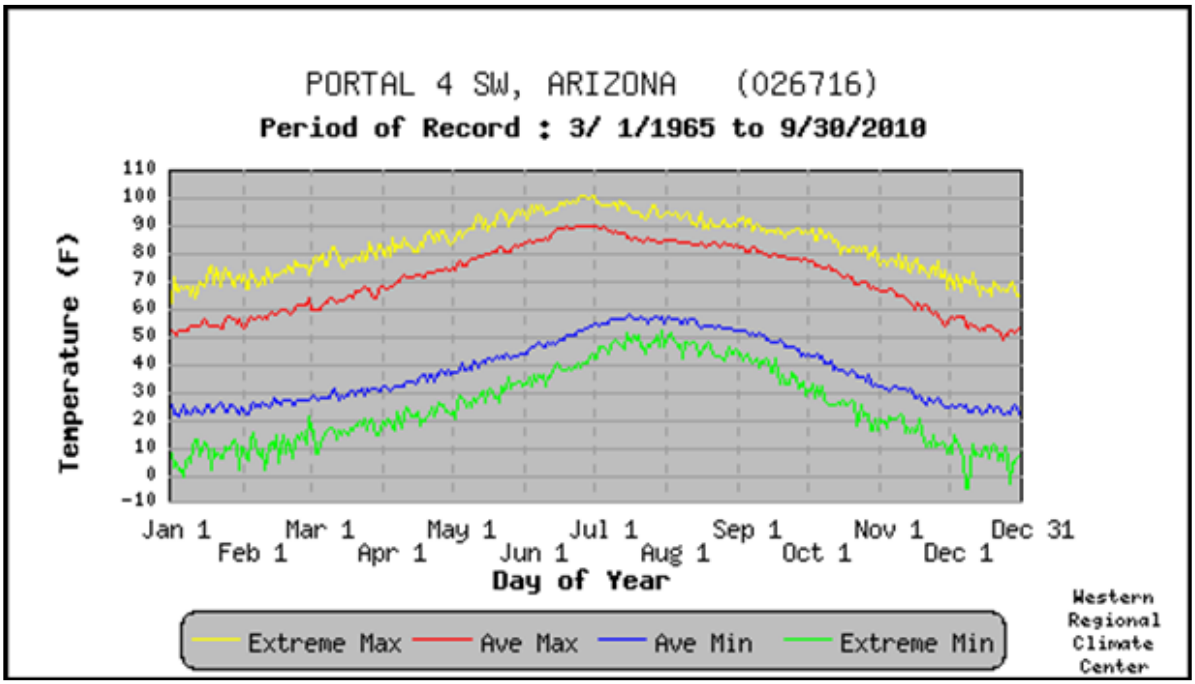


Figure 3-4
Daily Temperatures and Extremes for Portal 4 SW Station, Arizona

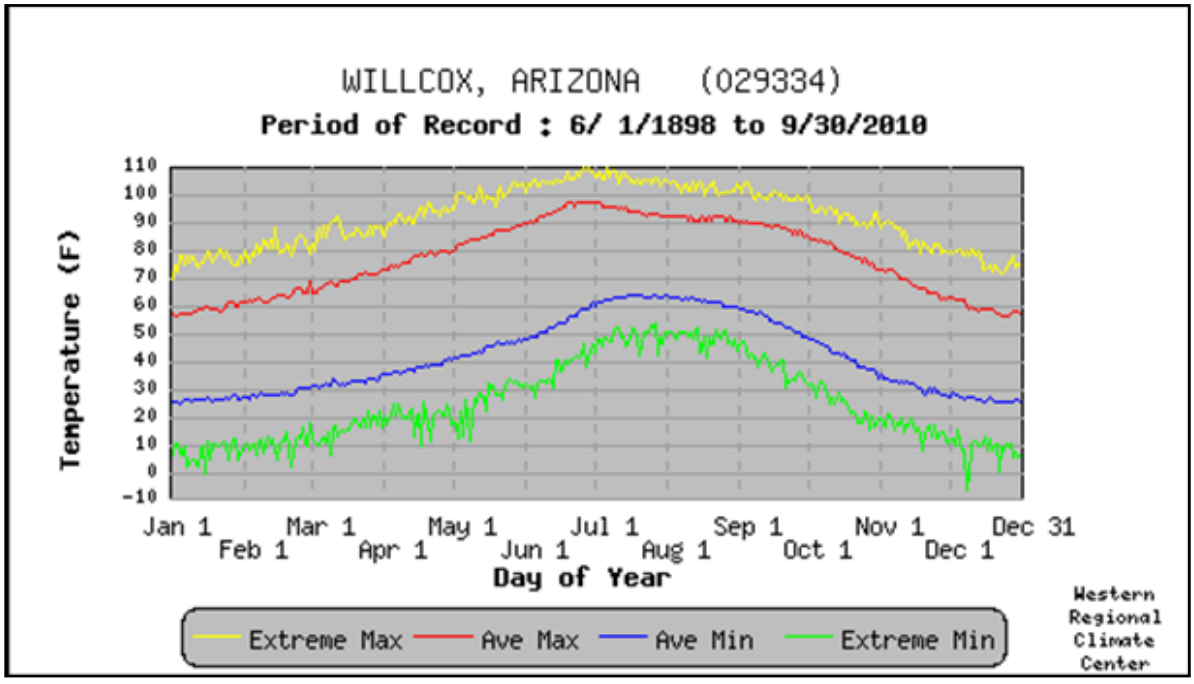


Figure 3-5
Daily Temperatures and Extremes for Willcox Station, Arizona

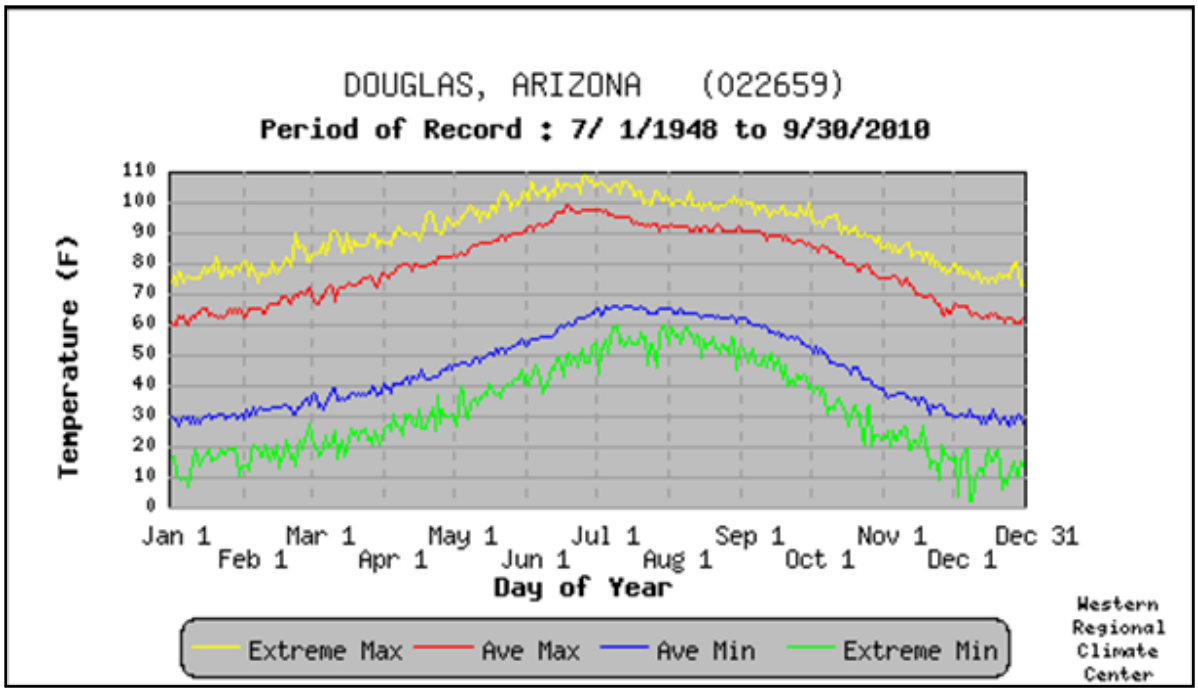


Figure 3-6
Daily Temperatures and Extremes for Douglas Station, Arizona

the strongest thunderstorms are usually found in the mountainous regions of the central southeastern portions of Arizona. These thunderstorms are often accompanied by strong winds, blowing dust, and infrequent hail storms[5].

Figures 3-7, 3-8, and 3-9 show tabular temperature and precipitation statistics for the Douglas, Willcox, and Portal 4 SW Stations. Statistics for other stations shown on Figure 3-3 may be viewed by accessing the WRCC website.

[5] Office of the State Climatologist for Arizona, 2004. Partially taken from the following weblink: http://geography.asu.edu/azclimate/narrative.htm

PORTAL 4 SW, ARIZONA (026716)

Period of Record Monthly Climate Summary

Period of Record : 3/ 1/1965 to 3/31/2013

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	54.0	58.3	64.2	71.6	79.5	87.8	86.5	83.6	79.8	72.3	61.7	53.5	71.0
Average Min. Temperature (F)	23.4	25.5	29.3	34.3	40.9	48.8	55.9	54.6	48.5	38.2	28.9	23.7	37.6
Average Total Precipitation (in.)	1.39	1.21	0.92	0.50	0.46	0.96	4.31	3.76	2.30	1.54	1.26	1.97	20.57
Average Total SnowFall (in.)	2.0	0.8	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.8	6.1
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 99.9% Min. Temp.: 99.8% Precipitation: 99.8% Snowfall: 98.8% Snow Depth: 96.5%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

Figure 3-7
Monthly Climate Summary for Portal 4 SW Station, Arizona

WILLCOX, ARIZONA (029334)

Period of Record Monthly Climate Summary

Period of Record : 06/01/1898 to 06/10/2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	58.7	63.2	69.3	77.3	85.5	94.4	94.5	91.6	88.7	79.5	67.9	59.0	77.5
Average Min. Temperature (F)	25.9	28.2	32.3	37.7	44.6	53.6	63.0	61.6	54.5	41.8	31.2	26.1	41.7
Average Total Precipitation (in.)	0.93	0.86	0.65	0.26	0.26	0.39	2.52	2.60	1.15	0.82	0.69	1.08	12.18
Average Total SnowFall (in.)	1.0	0.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	3.4
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 90.4% Min. Temp.: 90.3% Precipitation: 95.4% Snowfall: 95.2% Snow Depth: 94.6%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

Figure 3-8

Monthly Climate Summary for Willcox Station, Arizona

DOUGLAS, ARIZONA (022659)

Period of Record Monthly Climate Summary

Period of Record : 07/01/1948 to 06/09/2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	62.9	67.0	72.4	79.5	86.9	95.6	94.4	91.6	88.9	81.1	70.6	63.2	79.5
Average Min. Temperature (F)	29.6	32.6	36.8	42.3	50.1	58.8	64.9	63.2	57.6	46.0	35.0	29.4	45.5
Average Total Precipitation (in.)	0.75	0.64	0.48	0.24	0.28	0.46	3.63	3.02	1.48	0.92	0.56	0.98	13.44
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 63.7% Min. Temp.: 63.7% Precipitation: 71% Snowfall: 64.3% Snow Depth: 64.3%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

Figure 3-9
Monthly Climate Summary for Douglas Station, Arizona

3.2.4 Population

As of July 2016, the total population for Cochise County is projected at 128,343 residents [6], which is 2.3% less than the 2010 Census of 131,346. A majority of the citizens still live in the incorporated communities of Cochise County. The largest incorporated community is Sierra Vista. Most of the six incorporated cities and one town are located on the western side of the County. The City of Douglas is considered a border city with a major port of entry to Mexico. The other non-incorporated communities and places located throughout the county are usually situated along a major highway and are mostly comprised of only one structure or landmark. Table 3-2 summarizes jurisdictional population statistics for the participating jurisdictions and un-incorporated Cochise County.

Table 3-2: Jurisdictional population and estimates for Cochise County

Jurisdiction	1990	2000	2010	2025	2040
Cochise County (Unincorporated)	97,624	117,755	131,346	137,033	148,998
Cities and Towns					
Benson	3,824	4,711	5,105	5,648	6,629
Bisbee	6,288	6,090	5,575	5,324	5,213
Douglas	12,822	14,312	17,378	17,370	18,138
Huachuca City	1,782	1,751	1,853	1,740	1,671
Sierra Vista	32,983	37,775	43,888	47,017	50,649

[6] Source: www.population.az.gov

Tombstone	1,220	1,504	1,380	1,333	1,333
Willcox	3,122	3,733	3,757	3,668	3,753

- *Figures for 1990, 2000, and 2010 from US Census Bureau*
- *Figures projected for 2020 to 2030: Source: Arizona Department of Economic Security, Research Administration, Population Statistics Unit, 12/01/06. SEAGO / DES Population Statistics approved June 6, 2007. City of Benson, 2012.*

3.2.5 Economy

Cochise County is attractive to a variety of businesses because of some of these features:

- Six (6) general aviation airports with available land.
- Robust fiber-optic infrastructure.
- Access to major east-west freeway (Interstate 10) from all communities.
- Multiple electric cooperatives with reliable and cost effective power and natural gas providers.
- Fertile agricultural land with year-round growing season.
- Proximity to the Mexican border with two international ports of entry.
- Rail access.
- Four (4) hospitals providing comprehensive healthcare.
- Higher education with campuses for Cochise College and the University of Arizona placed strategically throughout the County.
- Home of the U.S. Army Intelligence Center and the Army Network Enterprise Technology Command.

The largest employer in Cochise County has been and remains Fort Huachuca. The military, support staff and the contractors who support the Army Military Intelligence post consistently employ the largest percentage of the workforce in Cochise County.

Agriculture continues to be an important segment of the Cochise County economy. Once known as the cattle capitol of the nation, livestock continues to be important to the county economy. Primary irrigated crops are cotton, wheat, corn, grain, sorghum, and alfalfa hay. More recent diversification of agriculture in Cochise County has resulted in changes from the primary crops to apples, peaches, cherries, grapes, pistachios, pecans, lettuce, chili, and other vegetables. The area has a multitude of U-pick vegetable farms and orchards, including several organic farms. Greenhouse tomato and cucumber operations have been completed in the past few years with good success. The largest areas for these operations are the Sulphur Springs and San Simon Valleys.

Cochise County's business climate is enhanced by a year-round climate with an average temperature of 75 degrees Fahrenheit. The wide-open plains and mountain reaches provide a cool respite from searing summer heat in other parts of the state. The elevations of the towns offer mild summers and temperate winters and the landscape responds to the climate with beauty and abundance. Cochise County attracts over 300,000 visitors per year who come to experience the region's rich cultural history and myriad outdoor recreation opportunities.

Cochise County’s moderate Arizona climate offers a multitude of opportunities year-round for individuals and families to explore and enjoy. Outdoor activities include a number of both state and federally managed park areas, to include the Chiricahua National Monument and Coronado National Memorial, as well Kartchner Caverns State Park. The high elevation of the County makes these areas available and enjoyable to visit at any time. The natural wonders of Cochise County appeal to just about

everyone with birding areas that offer a glimpse of some of the most fascinating species in the world, hiking and camping areas with breathtaking vistas of the rugged High-Sonoran beauty, along with the history and careful preservation that make these areas a treasure.

The many historic sites and museums in Cochise County offer a history lesson opportunity to visitors and residents alike. The 11,000 year old Clovis and the Lehner-Mammoth Kill Site, where archeologists found mammoth bones, is probably the oldest representation of the county's past. Popular Native American history museums include the Amerind Foundation Museum or the Apache Warrior Cochise Mountain hideout, or "Cochise Stronghold". Cochise County is also rich in military history and there are numerous sites throughout the County that pay homage and tell a story about some of the extensive military history from the area, including the U.S. Army Military Intelligence Museum on Fort Huachuca. Finally, old west mining towns and ghost towns in Cochise County offer anyone a glimpse into a time period in U.S. history marked by legends and mysteries.

The County has identified seven planning areas for the unincorporated portion of the County. The following are summaries of each area taken from the various Area Plans published by the County[7].

Babocomari Area – the Babocomari Area is currently defined by the boundaries of the entire San Ignacio del Babocomari Land Grant east of Highway 90. The San Ignacio del Babocomari Land Grant (Babocomari or Land Grant) has been, largely and historically, a ranch that extends from the County's boundary with Santa Cruz County in the Huachuca Mountains along the Babocomari River, east for approximately 47 miles through Whetstone to the Presidential Estates, a residential community located east of the junction of SR 82 and SR 90.

J-Six/Mescal/Skyline Area – the plan area encompasses the land area of three discrete and neighboring communities: (1) the Mescal community located east of the Pima/Cochise County Line and north of State Route I-10 (the freeway); (2) the J-Six community located east of the County Line and south of the freeway; and (3) the Skyline community located west of State Route 90 and north and south of the I-10 freeway at around the Skyline Road exit.

Mid-Sulphur Springs Valley Area – this plan area includes the Pearce Townsite, Sunsites Townsite and surrounding rural areas. Exact boundaries are depicted on the *Mid-Sulphur Springs Valley Community Development Map* formally adopted by the Cochise County Board of Supervisors on November 15,1999.

Naco Area – the plan area boundaries encompass an area extending from one mile north of Purdy Lane, south to the Mexican Border, two miles east of Naco Highway and two miles west of Naco Highway. The area includes the Naco Townsite, the golf course, Country Club estates, some rural development along Purdy Lane, vacant land, State land, a scattering of businesses and land owned by Phelps Dodge. Boundaries are depicted on the *Naco Community Development Map* which was formally adopted by the Cochise County Board of Supervisors.

Southern San Pedro Valley – the plan area boundaries are coincident with the Palominas Fire District boundaries and are depicted on the *Southern San Pedro Valley Area Plan*.

St. David Area – the St. David Area Plan would affect properties included within the following Township, Range and Sections of the St. David area:

- Township 17, Range 20, Sections 13, 24, 25, 34, 35, 36
- Township 17, Range 21, Sections 13 through 36
- Township 18, Range 20, Sections 1, 2, 11, 12, 13, 14, 23, 24, 25, 26, 35, 36

[7] See the Appendix A for a bibliography of the seven area plans.

- Township 18, Range 21, Sections 1 through 36, except those portions of Sections 26, 27, 34 and 35 that lie within the Curtis Ranch Master Development Plan (MDP).

Tres Alamos Area – the plan area boundaries are specifically shown on the *Tres Alamos Area Plan Map*, adopted by the board. In general, the plan boundaries follow the San Pedro River north of I-10 to Cascabel and encompass a three to five mile wide swath.

3.3 Jurisdictional Overviews

The following are brief overviews for each of the participating jurisdictions in the Plan.

3.3.1 Benson

Benson is located within the San Pedro Valley of Cochise County, Arizona at an elevation of 3,585 feet. Cochise County is located at the extreme southeastern corner of the state, and shares boundaries with the State of New Mexico on the east and Mexico on the south. According to the City's website[8], Benson serves as the western gateway to the scenic and historic attractions of Cochise County and has copyrighted the name "Home of Kartchner Caverns State Park." The Benson city limits currently occupy approximately 40.3 square miles. The location of Benson, relative to the State of Arizona, is depicted in Figure 3-2.

The heart of Benson is generally located at 110.30 degrees west and latitude 31.96 degrees north. Major roadway transportation routes through or near the City include Interstate 10 and State Routes 80 and 90. State Route 80, which is locally known as Fourth Street, serves as Benson's "Main" Street and connects Benson to Tombstone (19 miles to the southeast) and passes through St. David. State Route 90, which originates on the west end of Benson at Interstate 10 Exit 302, connects Benson to Sierra Vista and Fort Huachuca, 35 miles to the south. Kartchner Caverns State Park also lies south along State Route 90. The Union Pacific Railroad (UPRR) passes through the City, with the east-west line generally following the I-10 alignment, and a line extending south. Benson is serviced by both a public (Benson Municipal Airport) and private airport. Figure 3-10 shows all the major roadway and railway transportation routes, and airports within the vicinity of Benson.

The San Pedro River is the largest watercourse flowing through the City. Other significant watercourses flowing through or near Benson include: Cadillac, California, Middle Canyon, and Pacheco Washes.

Prominent land-holders within Benson are divided between Private Holdings and State Land. Figure 4-11 provides a visual depiction of the land ownership in Benson.

The 2002 General Development Plan [9] (General Plan) Technical Appendices also provide a wealth of information summarizing the economic and demographic characteristics of Benson.

According to the General Plan, Benson was founded in 1880 as a transportation hub for both rail and overland travelers. The city was incorporated in 1924 and has continued to moderately grow. A complete discussion of the history of Benson is provided in General Plan Technical Appendices. The following bullets summarize the highlights:

- 1880 – the original townsite was founded and named after Judge William A. Benson, who was friend to Charles Crocker, the president of the Southern Pacific Railroad.
- 1913 – the Southern Pacific Railroad moved their hub to Tucson which depressed the Benson economy. Ranching and agriculture picked up during this period.
- 1924 – Incorporation brought municipal water system, city-franchised electric power and a jail facility.
- 1926 – A new elementary school was constructed.
- 1929 – A new high school was constructed.

[8] City of Benson website as available at the following URL: http://www.cityofbenson.com/.

[9] WLB Group, 2002, *City of Benson General Development Plan and Technical Appendices*, adopted October 2002 by Resolution 2002-24.

- 1930 – Construction of the Sunset Trail through Bowie, Willcox and Benson, which spawned new vehicular traffic and the businesses to serve that need.
- 1950's – Construction of Interstate 10 and connection to State Routes 80 and 90 re-establish Benson as a major "hub" of transportation.

Benson has identified several key growth areas in the General Plan. Those areas are briefly summarized in the following paragraphs.

Master Planned Developments – The Whetstone Ranch and Sands Ranch are two residential communities proposed for the southern portion of Benson along State Route 90. Jointly, the full development of these areas could potentially add 18,500 dwelling units to the City's residential stock over a 20-year period. Both of these major growth areas are being designed to include a mix of land uses, commercial employment, institutional and recreational facilities that will allow the planned neighborhoods to become largely self-sufficient for day-to-day activities.

Western Gateway – This area just south of I-10 and west of SR 90, consists of approximately nine square miles of uncommitted lands that could be developed by extensions of the City's infrastructure already in place at the north end of SR 90.

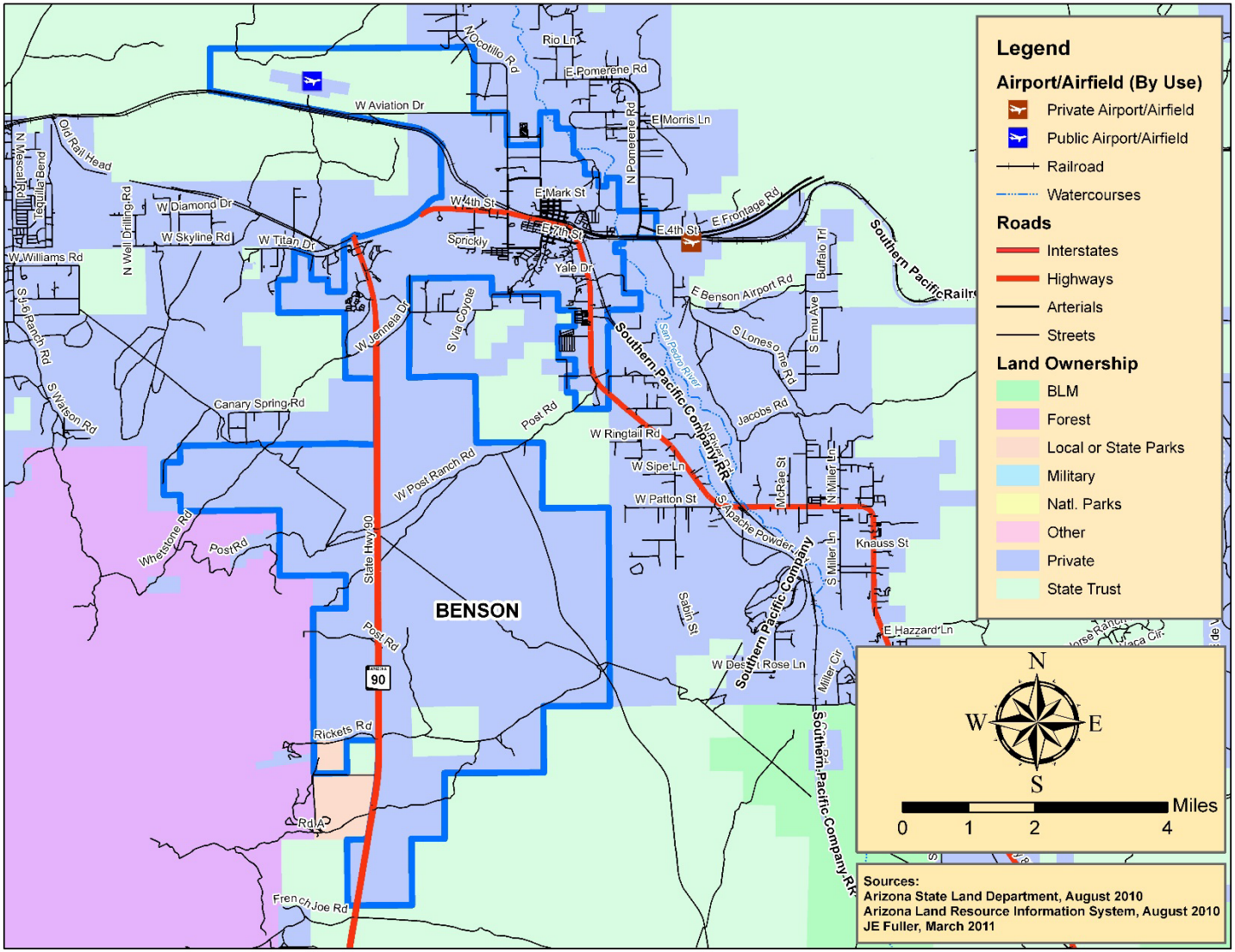


Figure 3-10
Land Ownership and Community Location Map for Benson

3.3.2 Bisbee

Bisbee is located in southern Cochise County, Arizona, approximately four miles north of the international border. The City, which serves as the county seat, is nestled into the foothills of the Mule Mountains at an elevation of 5,300 feet. Cochise County is located at the extreme southeastern corner of the state, and shares boundaries with the State of New Mexico on the east and Mexico on the south. According to the City's website[10], Bisbee serves as a well-known artist's community, with the local architectural and historic heritage well preserved. The Bisbee city limits are generally divided into three developed areas (Old Bisbee, Warren, and San Jose) that are somewhat isolated from each other, and jointly occupy approximately 5.0 square miles. The location of Bisbee, relative to the State of Arizona, is depicted in Figure 3-2.

The heart of Bisbee is generally located at longitude 109.89 degrees west and latitude 31.42 degrees north. Major roadway transportation routes through or near the City include State Routes 80 and 92. A spur of the Union Pacific Railroad (UPRR), now abandoned and decommissioned, once extended north from the main line tracks into the Warren and San Jose areas of the City. Bisbee is also serviced by the Bisbee Municipal Airport, which is located south of the City limits along Arizona Street. Figure 3-11 shows all the land ownership, major roadway transportation routes, and the airports within the vicinity of Bisbee.

The city is primarily drained by small to medium sized ephemeral washes that vary in character and geometry with each area of the city. In Old Bisbee, Mule Gulch and Brewery Gulch are the two primary watercourses. In the late 1890's and early 1900's, rapid growth into the canyons formed by these two watercourses situated much of the town directly in the floodplain. Culverts and other underground drainage structures were constructed to address the flooding, and are still functioning today. In other areas, the washes have substantially remained in a natural condition. There are no regional watercourses in the vicinity of Bisbee.

The 2003 General Plan Update[11] (General Plan) provides a wealth of information summarizing the economic and demographic characteristics of Bisbee.

The following history of development for Bisbee is published on the City website[12], and is reproduced without change.

> "In 1877 a reconnaissance detail of army scouts and cavalrymen was sent to the Mule Mountains to search the area for renegade Apaches. What civilian tracker Jack Dunn found instead were signs of mineralization indicating the presence of lead, copper and possibly silver. The first mining claim was staked in what would later become the City of Bisbee. The filing of this claim, and a multitude of others filed by George Warren, sent prospectors and speculators scurrying to the Mule Mountains in hopes of striking it rich. Numerous rich ore bodies were located and Bisbee soon became known as the "Queen of the Copper Camps"."
>
> "Bisbee continued to grow and prosper. With prosperity came an increased population and the need for sanitation, clean water, medical care, building codes and fire protection. On January 9, 1902 a city charter was approved and the City of Bisbee was incorporated. A temporary city council was formed and went to work on these sorely needed civic improvements. In 1910 the city was considered the largest in the territory, with over 25,000 people. The Cochise County seat was relocated from Tombstone to Bisbee in 1929."
>
> "During almost a century of mining, 8 billion pounds of copper, 102 million ounces of silver and 2.8 million ounces of gold along with millions of pounds of zinc, lead and manganese were produced. By 1974 ore reserves had been depleted and December brought the announcement of the impending closure of mining operations

[10] City of Bisbee website as available at the following URL: http://www.cityofbisbee.com/bisb_history.html/.

[11] The Planning Center, 2004, *City of Bisbee General Plan 2003*, Volume I – Data and Analysis.

[12] The City of Bisbee website as posted at the following URL: http://www.cityofbisbee.com/bisb_history.html.

in Bisbee. Phelps Dodge curtailed open pit operations that year and ceased underground operations in 1975. It appeared as though the queen was about to be laid to rest."

"With the departure of its industrial base, the real estate market in Bisbee collapsed as hundreds of homes went up for sale. The availability of cheap real estate drew retirees, "hippies" and eventually a new group of speculators. These new residents purchased property and slowly began to contribute to the renovation of the city."

"The Bisbee of today is a well-known artist's community whose architectural and historic heritage has been preserved. Located at the center of the natural and historic beauty of Cochise County, the city has transformed itself into the ideal spot for tourism. These benefits combined with "the most perfect year round climate" make it an attractive place to visit and a great place to call home."

Bisbee has identified two primary growth areas in the General Plan. Those areas are briefly summarized in the following paragraphs.

San Jose Growth Area – Most of the new growth in the City of Bisbee is currently taking place within this area. The San Jose area caters to a bi-national economy serving as the closest U.S. gateway to Naco, Mexico. Due to infrastructure availability, it is anticipated that the San Jose area will become the residential, commercial, and employment hub of Bisbee, offering commerce-oriented services and tourist opportunities to visitors from Mexico and the U.S.

Airport Growth Area – The Bisbee Municipal Airport is currently located in Cochise County and encompasses the area surrounding the Bisbee Municipal Airport. The City is considering the preparation of an area plan in order to identify:

- Airport compatible uses that will help sustain the airport,
- Infrastructure needs such as the upgrade of either Purdy Lane or Bisbee Junction Road,
- Impact to adjacent rural areas,
- Future expansion needs of the airport, and,
- Noise contours.

Currently, the Airport Growth Area constitutes primarily a development reserve area.

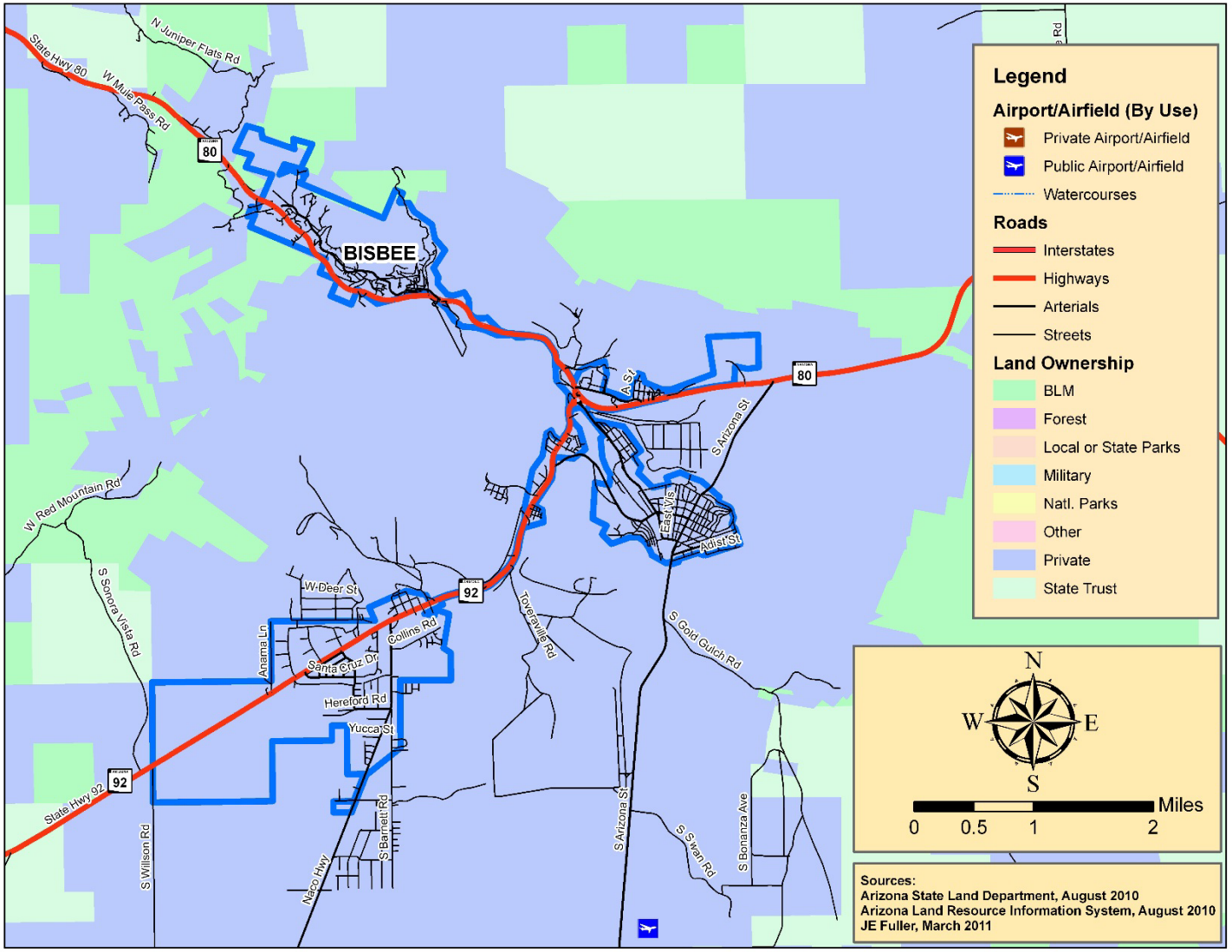


Figure 3-11
Land Ownership and Community Location Map for Bisbee

3.3.3 Douglas

Douglas is located in Cochise County and is primarily situated on the international border, across from Agua Prieta, Sonora, Mexico. A small, isolated portion of Douglas (approximately 0.4 square miles) is located north of the main city near the Bisbee-Douglas International Airport. The main part of the city, at an elevation of 3,990 feet, lies within the Sulphur Springs Valley. Douglas is also strategically located at the beginning of the Janos Highway, which provides the shortest paved route from the Western U.S. to Mexico City and Guadalajara. Cochise County is located at the extreme southeastern corner of the State of Arizona, and shares boundaries with the State of New Mexico on the east and Mexico on the south. The current city limits occupy approximately 8.8 square miles. The location of Douglas, relative to the State of Arizona, is depicted in Figure 3-2

The heart of Douglas is generally located at 109.54 degrees west and latitude 31.35 degrees north. Major roadway transportation routes through or near the City include U.S. Highway 191 and State Route 80. Douglas is also serviced by the Douglas Municipal Airport located on the east side of the City, and the Bisbee-Douglas International Airport located north of Douglas off of U.S. Highway 191. Figure 3-12 shows land ownership and all the major roadway and railway transportation routes and the airports within the vicinity of Douglas.

The City is primarily drained by small to medium sized ephemeral washes that drain the Sulphur Springs Valley. All washes ultimately discharge to Whitewater Draw, which is the largest watercourse in the area and is located just west of the city limits.

The City of Douglas General Plan 2002[13] (General Plan) also provides a wealth of information summarizing the economic and demographic characteristics of Douglas.

The following is a historic account of the development history for Douglas taken from a website for Tombstone, Arizona[14]:

> "The town was originally named Black Water. In the beginning, the water was so bad that many wouldn't look at it when taking a drink. In those days, water wasn't easy to come by and the town's people got used to it. Although, the city on the other side of the border from Douglas still holds the original name, Agua Prieta meaning black water."
>
> "In the 1880's and 1900's the land around Douglas was perfect for cattle. The open grassy valley became the spot for roundups. Ranchers would gather their cattle to brand and haul them out."
>
> "In the early 1900's, the Phelps Dodge Company discovered the Bisbee smelter was too small. It was also inconveniently located. The company began looking for a new spot to locate its smelter. Douglas was founded in 1901 as a mining site for a copper smelter. The town was then renamed after Dr. James Douglas, the president of Copper Queen Consolidated. It was Douglas, who developed some mining techniques that improved the process. Dr. Douglas also built his own railroad, after the Santa Fe Railroad raised their rates. His El Paso and Southwestern railroad line traveled from Bisbee to El Paso, along with the line from Bisbee and Nacozari, both of which came right through Douglas."
>
> "As the town grew, a hospital and homes were built for the many employees at the smelter. During the town's peak more than 375,000 tons of ore a day were brought to the smelter to be processed."
>
> "During the early beginning of Douglas, the town became known for its lawlessness. In the same year that the town was founded, in 1901, the Arizona Rangers were sent to Douglas to establish

[13] The Planning Center, 2002, *City of Douglas General Plan 2002.*

[14] Tombstone-Arizona website as found at the following URL: http://www.tombstone-arizona.us/Douglas/DouglasHistory.htm.

their headquarters. The rows of saloons in town were a problem and so were the cattle thieves. It took some time to get the town under control."

"From 1911 to 1935 the airport in Douglas served as an army airfield by helping smooth over border troubles with Mexico. In 1928, the first international airport in the United States opened in Douglas. The runway was part in the United States and part in Mexico. Famous pilots flew into the airport, such as Amelia Earhart. Commercial flights discontinued several years ago, although private flights are welcome."

"The smokestacks stopped in 1987, but Douglas continues to grow with the help of the sister city across the border, Agua Prieta. Both of the towns have turned to manufacturing and tourism and continue to prosper."

Douglas has identified four growth areas for the city, which are defined as:

- City Core (Central Business District)
- Mid-City
- Evolving Edge
- Future City

Detailed descriptions of each growth area can be found on pages 7-14 of the General Plan.

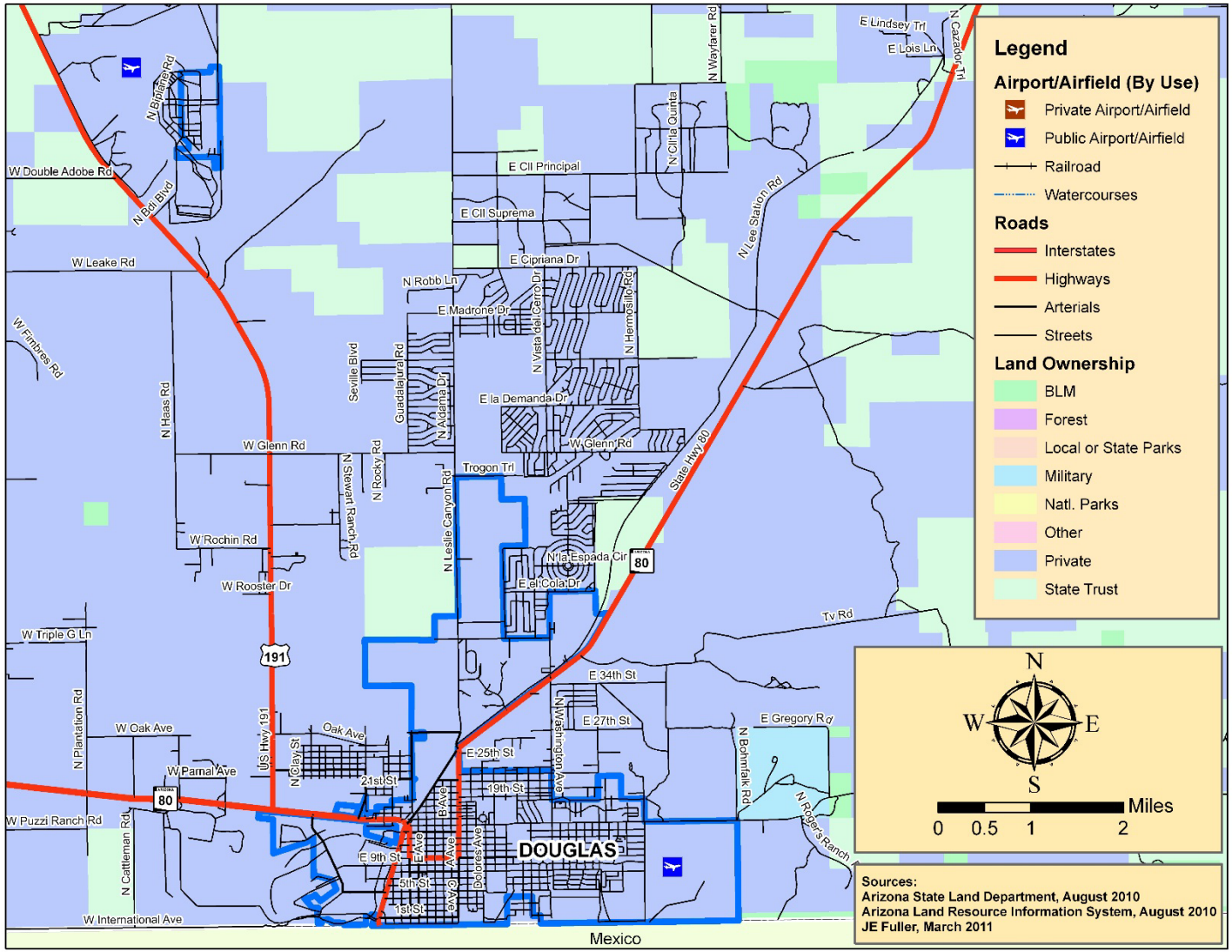


Figure 3-12
Land Ownership and Community Location Map for Douglas

3.3.4 Huachuca City

Huachuca City, which is also known as the Sunset City, is located in central-western Cochise County and is approximately a 65 mile drive southeast of Tucson, Arizona. Cochise County is located at the extreme southeastern corner of the State of Arizona, and shares boundaries with the State of New Mexico on the east and Mexico on the south. The town is situated at an average elevation of 4,320 feet, and shares a southern and eastern border with the Fort Huachuca Military Reservation and Sierra Vista city limits. The San Ignacio del Babocomari Land Grant borders the Town on the north. The Huachuca and Whetstone Mountains can be viewed south and northwest of the town. The current town limits occupy approximately 2.7 square miles. The location of Huachuca City, relative to the State of Arizona, is depicted in Figure 3-2.

The heart of Huachuca City is generally located at 110.33 degrees west and latitude 31.63 degrees north. State Route 90 is the only major roadway transportation route through the Town, with State Route 82 located approximately four miles north. An abandoned line of the Union Pacific Railroad (UPRR) passes just north of the town running east-west along the Babocomari River. Huachuca City is also serviced by the Sierra Vista Municipal Airport / Libby Army Airfield located within Fort Huachuca south of the town. Figure 3-13 shows land ownership and all the major roadway and railway transportation routes and the airports within the vicinity of Huachuca City.

The town is primarily drained by small to medium sized ephemeral washes that ultimately discharge to the Babocamari River on the north side of the Town. Huachuca Canyon and Slaughterhouse Wash are the largest ephemeral washes.

The Town of Huachuca City General Development Plan[15] (General Plan) also provides a wealth of information summarizing the economic and demographic characteristics of Huachuca City.

Huachuca City began to develop with the reopening of Fort Huachuca in 1954 and was originally established as stop on the now abandoned Southern Pacific Railroad. The town was then known as Huachuca Vista. The town incorporated in 1958 under the name of Huachuca City and has experienced small to moderate growth since that time.

Future growth of Huachuca City is limited on the north, east, and south, by either Fort Huachuca/Sierra Vista or the San Ignacio del Babocomari Land Grant. The most likely future growth areas will be the portion of Town situated west of State Route 90 and infill of currently developed areas of Town. Further descriptions of future land planning for the Town are provided in the Town's General Plan.

[15] ibid

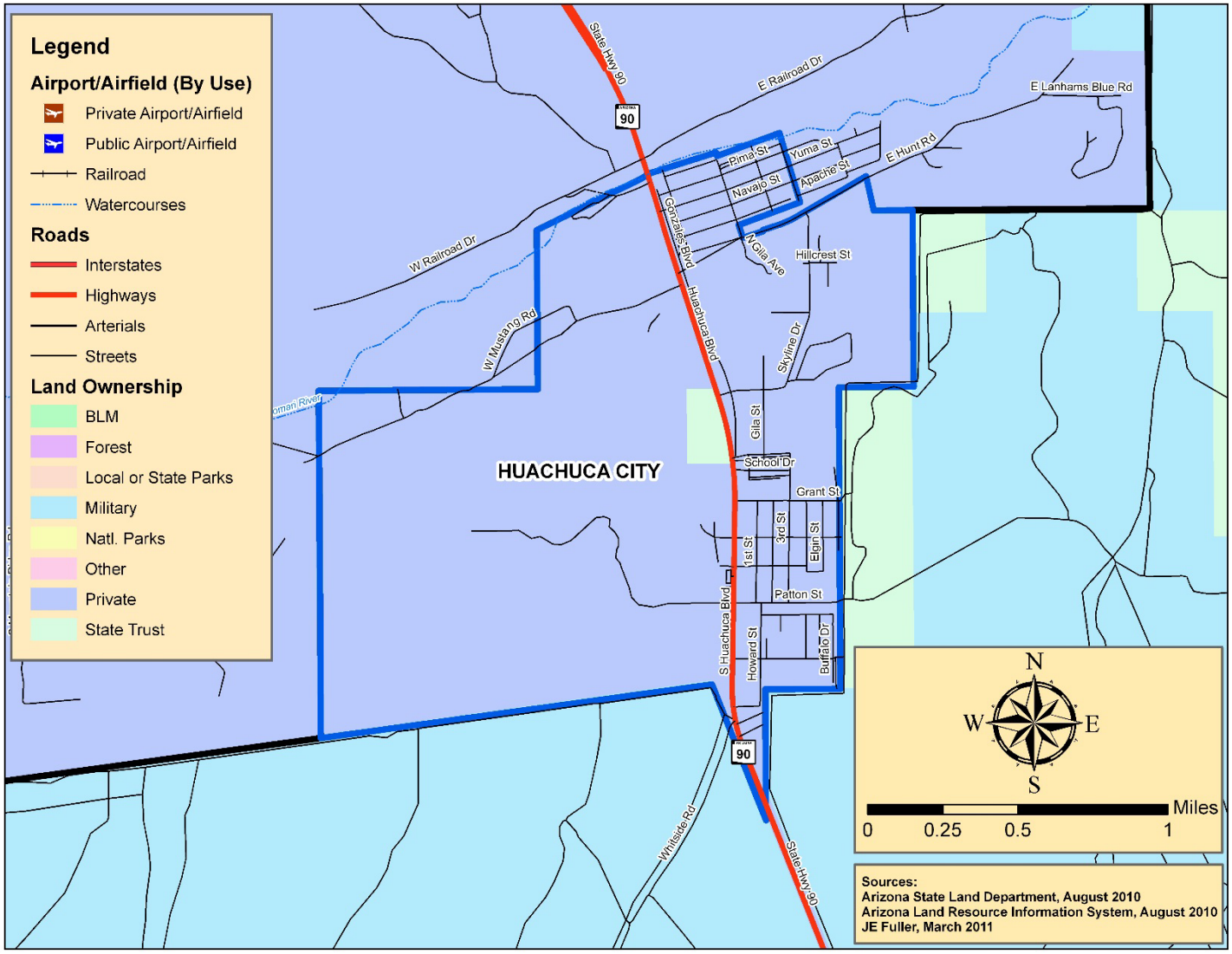


Figure 3-13
Land Ownership and Community Location Map for Huachuca City

3.3.5 Sierra Vista

Sierra Vista is located in central-western Cochise County and is the major population center of Southeastern Arizona. The city is located approximately 70 driving miles southeast of Tucson, Arizona. Cochise County is located at the extreme southeastern corner of the State of Arizona, and shares boundaries with the State of New Mexico on the east and Mexico on the south. The City is situated at an average elevation of 4,620 feet, and shares a northern border with Huachuca City. The Fort Huachuca Military Reservation is part of the incorporated limits of Sierra Vista. The city's name is Spanish for "Mountain View," which accurately describes the picturesque views offered by the nearby Huachuca and Whetstone Mountains located south and northwest of the city. The current city limits occupy approximately 151.3 square miles, of which 124 square miles is Fort Huachuca. The location of Sierra Vista, relative to the State of Arizona, is depicted in Figure 3-2.

The heart of the civilian portion of Sierra Vista is generally located at 110.30 degrees west and latitude 31.56 degrees north. Major roadway transportation routes through or near the City include State Routes 90 and 92. An abandoned Union Pacific Railroad (UPRR) line runs east-west, approximately five miles north of the city. Sierra Vista is also serviced by the Sierra Vista Municipal Airport/ Libby Army Airfield, which is located within Fort Huachuca. Figure 3-14 shows all the major roadway and railway transportation routes and the airports within the vicinity of Sierra Vista.

The city is primarily drained by small to medium sized ephemeral washes that vary in character and geometry with each area of the city. All of the washes convey runoff from the Huachuca Mountain piedmont areas to the San Pedro River located approximately two miles to the east of the city.

The majority of land within the City is Fort Huachuca Military Reservation. The remaining area is divided between private ownership and Arizona State Land. Figure 3-14 provides a visual depiction of the land ownership in and around Sierra Vista.

The Vista 2020 General Plan [16] (General Plan) also provides a wealth of information summarizing the economic and demographic characteristics of Sierra Vista.

According the General Plan:

> *"The history of Sierra Vista began with the establishment of Camp Huachuca in 1877. Over the years the military outpost became a Fort and served as the home of the famed Buffalo Soldiers of the 9th and 10th Cavalry. During World War II the mission of the Fort changed to an infantry training base. After the war, the Fort closed for a number of years and then reopened in 1954. Shortly thereafter, the community, which had been developing to the east of the Fort, incorporated as Sierra Vista. Several major commands, including the US Army's Network Enterprise Technology Command, Intelligence Center and School, and Electronic Proving Grounds currently operate on Fort Huachuca."*

[16] City of Sierra Vista, 2004, *City of Sierra Vista VISTA 2020 General Plan*.

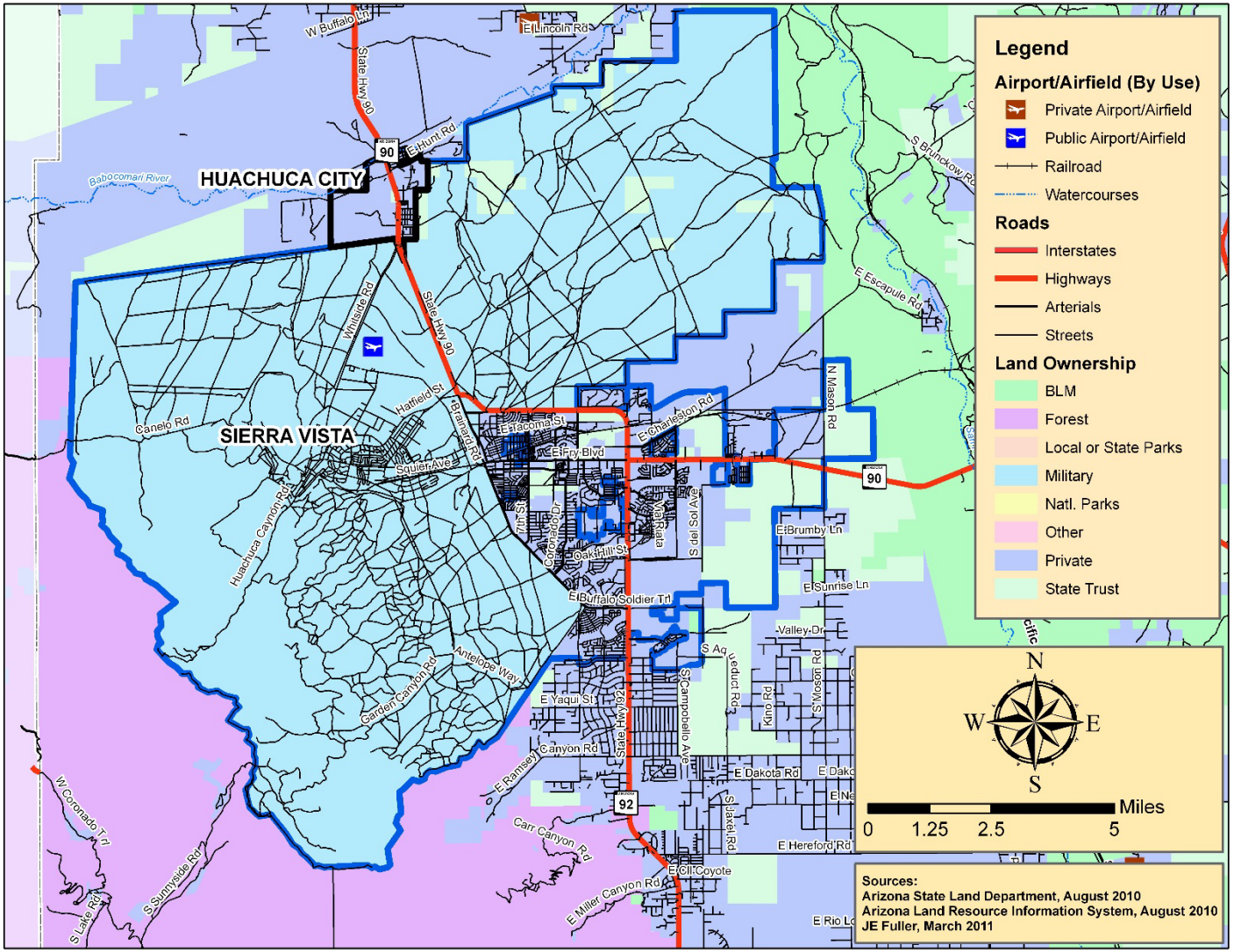


Figure 3-14
Land Ownership and Community Location Map for Sierra Vista

Sierra Vista has identified four primary growth areas in the General Plan as follows:

- State Trust Land, Section 2
- State Trust Land, Section 36
- Land currently owned by Castle and Cooke Arizona, Inc.
- Land currently owned by Bella Vista Ranches.

Section 2 includes 240 acres of undeveloped State Trust Land. The City has already invested in infrastructure in this section including Wilcox and Coronado Drives and a main sewer line. Additionally the City's new transit center will be located in this section. The current plan shows a mix of land use and multiple zoning designations. Section 36 includes 320 acres of mostly undeveloped State Trust Land. Again, the City has already invested in infrastructure within this section. The current plan shows a mix of land use and multiple zoning designations. Sections 2 and 36 are both prime locations for future development. Because of the location of the sections, development in these areas could help reduce sprawl. Additionally, because infrastructure is already in place, there will be reduced public improvement costs.

There are two large, privately owned land holdings in the City. The landowners, Castle & Cooke Arizona, Inc., and Bella Vista Ranches, have adopted land use plans that designate a mixture of residential, open space, commercial, and industrial uses.

3.3.6 Tombstone

Tombstone is located within the San Pedro Valley of Cochise County, Arizona at an elevation of 4,540 feet. Cochise County is located at the extreme southeastern corner of the state, and shares boundaries with the State of New Mexico on the east and Mexico on the south. The City of Tombstone, also known as "The Town too Tough to Die", is reknowned as Arizona's oldest mining camp and probably the most famous mining town in America. Once a mining boomtown, it traces its beginnings to 1877 when Ed Schieffelin, a prospector, left Ft. Huachuca to seek his fortune inspite of the fierce Apaches that roamed the area. Ed Schieffelin found his first claim and named it "Tombstone" and later named his second claim "Graveyard". Tombstone's city limits currently occupy approximately 4.21 square miles. The business district is located to the north and east of the historical district. The mining district occupies over nine square miles both within and outside the city limits. During the mining of 1879 through 1934, the production value of minerals in this area included 81% silver and 14% gold. The location of Tombstone, relative to the State of Arizona, is depicted in Figure 3-2.[17]

The heart of Tombstone is located at 110.06 degrees west and latitude 31.71 degrees north. Major roadway transportation routes through or near Tombstone include Interstate 10 and State Routes 80 and 82. State Route 80, which is locally known as Freemont Street, serves as Tombstone's "Main Street" and connects Tombstone to Benson (19 miles to the northwest) and passes through St. David. Tombstone is serviced by Tombstone Municipal Airport. Figure 3-15 shows all the major roadway, transportation routes, and airports within the vicinity of Tombstone.

Walnut Gulch is the only significant watercourse flowing through the undeveloped northeastern portion within the Tombstone's boundaries.

During the winter season, the population can increase to 2,000 people seeking a moderate climate relief from other parts of the country. Throughout the year, Tombstone experiences 2.5 million visitors that come to take part in the Town's history of the old west, celebrations and events.

Prominent land-holders within Tombstone are divided between private land holdings, State Land, and Bureau of Land Management. Figure 3-15 provides a visual depiction of the land ownership in Tombstone.

Tombstone's location along trade routes Interstate 10 and State Routes 80, and its historical significance as being a Registered Historical Landmark, supports a strong tourism industry and retirement community that is known to employ approximately 51% of the workforce. Some of Tombstone's historic buildings include: the Courthouse built in 1882 and is currently a state park; the Rose Tree Museum, three churches, Bird Cage Theatre, Crystal Palace Saloon, and Big Nose Kate's Saloon. Daily re-enactments of the towns past include: stagecoach tours, shoot-outs and the Helldorado Celebration held during October. are some of Tombstones' western heritage/events also include a re-enactment of the OK Corral, Helldorado and Six Gun City. Tombstone also serves as a bedroom community for Tucson and Sierra Vista.

According to the Chamber of Commerce, Tombstone began in 1877 by a mining prospector named Ed Schieffelin, whom discovered silver in this wild frontier. As news of the rich strike spread, people came from all over to seek their fortune. Huge fortunes were being made by both legitimate businesses and unlawful individuals, including thieves, gamblers, cattle rustlers, gunmen, and saloons and bordellos. The city was incorporated in 1881 and continued to grow rapidly until 1911, when the boomtown came to an end. After surviving the Great Depression and the removal of the County Seat to Bisbee in the 1930's, Tombstone became known as the "Town Too Tough To Die." The summary highlights of Tombstone's historic past include:

[17] Master Plan of City of Tombstone

- 1877 – Ed Schieffelin, a prospector, fearlessly risked of violent Apache attacks, and searched for and found a silver strike outside the current city limits.
- 1880 – Ed and his brother Al received $6,000,000 for their claims.
- 1883 – 7,000 people came to the mining district.
- Mid 1880s – 110 saloons were constructed along with the Crystal Palace, several newspapers; four churches; a public library; and a swimming pool.
- 1903 – Railroad line arrived connecting Tombstone to the rest of the United States and smelter in El Paso, Texas.
- 1911 – No longer economically feasible, mining operations ceased due flooding and water levels too high to obtain rich ores.
- 1910 through 1930s – Tombstone rapidly became known as a tourist stop, especially with help of Hollywood movies putting Tombstone back on the map.

The City of Tombstone development has been limited, with the latest annexation on record occurring with Tombstone Territorial Estates in the late 1970s. Based on surveys from Tombstone's citizens, as stated in the Master Plan, the overall theme desired by the community at large is to improve existing City services and provide basic goods and services such as a grocery store, medical clinic, fast food restaurants and encourage light industry.

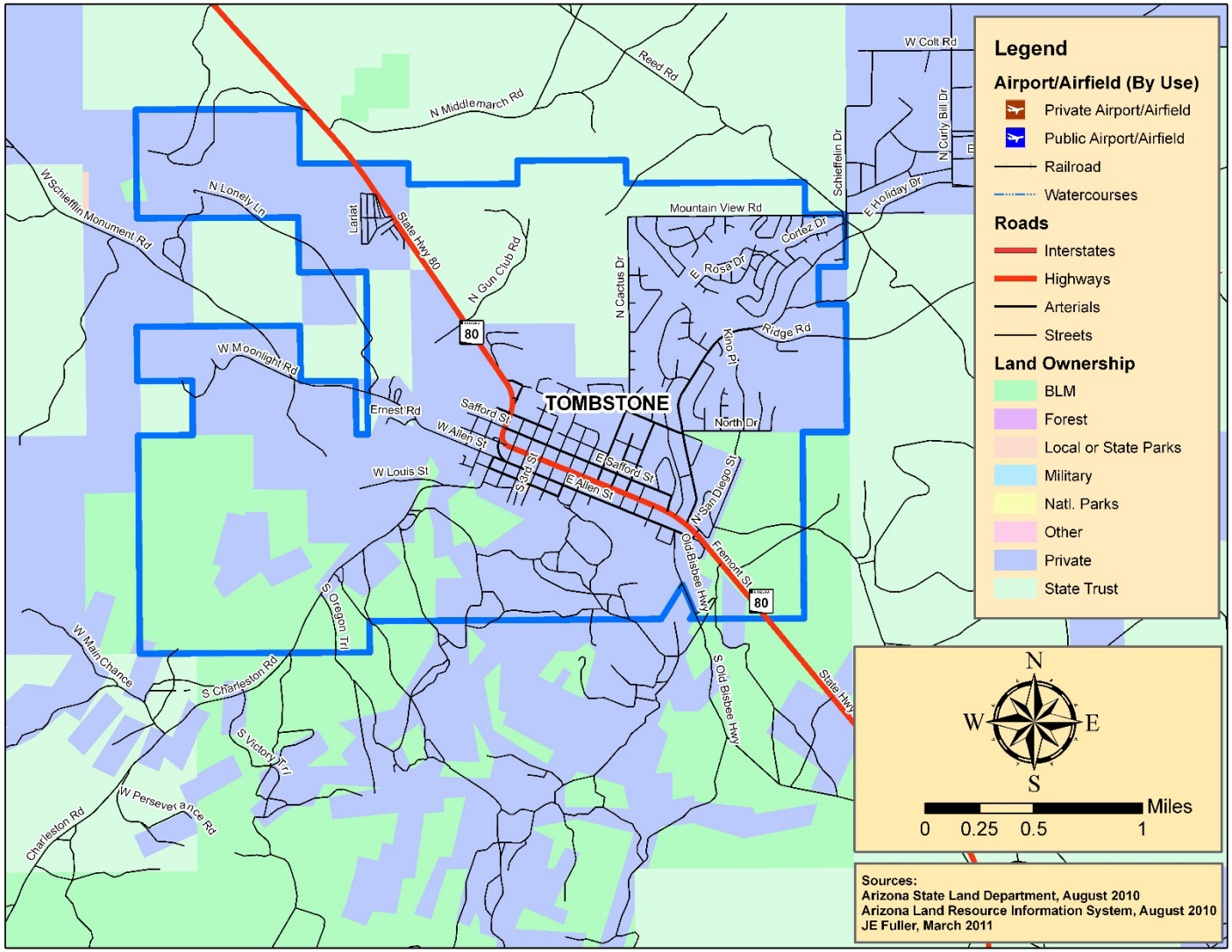


Figure 3-15
Land Ownership and Community Location Map for Tombstone

3.3.7 Willcox

Willcox is located in north-central Cochise County, Arizona. At an elevation of 4,167 feet, the city is nestled at the northern end of the Sulphur Springs Valley near the Dos Cabezas and Chiricahua Mountains. Cochise County is located at the extreme southeastern corner of the state, and shares boundaries with the State of New Mexico on the east and Mexico on the south. Willcox is known for extraordinary migratory bird viewing opportunities with the presence of the riparian lake system in the southern extent of the city. Willcox is situated about halfway between Phoenix, Arizona and El Paso, Texas on Interstate 10, and is about 80 miles east of Tucson. The Willcox city limits currently occupy approximately 6.0 square miles. The location of Willcox, relative to the State of Arizona, is depicted in Figure 3-2.

The heart of Willcox is generally located at 109.83 degrees west and latitude 32.26 degrees north. Major roadway transportation routes through or near the City include Interstate 10, U.S. Highway 191 and State Route 186. The Union Pacific Railroad (UPRR) passes through the City, with the east-west line generally paralleling the I-10 alignment, and a line extending south. Willcox is serviced by both a public (Cochise County Airport) and two private airstrips. Figure 3-16 shows all the major roadway and railway transportation routes, and airports within the vicinity of Willcox.

Willcox is located on the north edge of a regional closed basin lakebed in the Sulphur Springs Valley known as the Willcox Playa. Due to the relatively flat terrain, there are no major natural riverine watercourses within the City. Instead, drainage through the area is characterized by broad and shallow sheet flooding, ponding, and small, local, manmade drainage ditches and channels.

Land within Willcox is primarily owned by private entities with approximately 200 acres in State Trust Land. Figure 4-17 provides a visual depiction of the land ownership in Willcox.

The City of Willcox General Plan [18] (General Plan) Technical Appendices also provide a wealth of information summarizing the economic and demographic characteristics of Willcox.

Established in 1880 and incorporated in 1915, Willcox is the trade center for the northern portion of Cochise County. According to a website sponsored by a local real estate company[19]:

> *"Willcox was in the middle of the hustle and bustle of the old west. With the railroad going through the center of town it was an ideal location for the shipment of not only cattle but any type of goods produced in the area that were shipped throughout the United States. Incoming trains brought goods that were needed in the northern part of the county. Fort Bowie and the local mining community of Dos Cabezas had many of their supplies come in via the railroad."*

In the last ten years, Willcox has experienced minor but steady growth, with more of the same anticipated for the future. The General Plan has identified several key growth areas, which are briefly summarized in the following paragraphs.

Master Planned Developments – Master planned developments include the 5M site north of Ft. Grant Road where 250 homes, retail, offices and light industry are proposed. Phased construction of mixed uses allow the City and developer to work together, providing sequential additions to housing and businesses, local government revenues and investor profits, as the master plan proceeds toward build-out. Other planned developments, such as Ironwood Manor and future mixed-use projects on County lands near the City may also be designated as Growth Areas.

[18] Community Sciences Corporation, 2002, *City of Willcox General Plan*, adopted January 29, 2002.

[19] Website sponsored by Willcox Real Estate Company with a URL at: http://www.willcoxaz.net/willcoxarizona.html.

Downtown – Revitalization of downtown areas that can build upon the historic, tourist-attracting resources through the construction of infill housing, and developing a shuttle service and pedestrian pathways to enable visitors to enjoy the flavor of the Old West with shopping, museums, food/fun establishments and civic events. With municipal services in place, downtown Willcox is convenient to schools, churches, recreation and jobs, all within walking distance.

340 Interchange – Modernization of this interchange will facilitate commercial expansion by creating smoother traffic movements (especially for interstate trucks), reduce congestion and open prime frontages to vehicular access. Existing convenience and local shopping needs are likely to grow concentrically with internal circulation driveways and proper floodwater diversion. These improvements will also accommodate the development of hotels, restaurants, trucker services, etc., and the direct access to Interstate 10 may also inspire apartment development for commuters who use the Interstate.

Cochise Lake Neighborhood – The original master plan for this area could be revived and/or redesigned to develop a variety of housing types and prices that would appeal to broader range prospective homeowners. The neighborhood enjoys many outdoor living amenities such as golfing on the existing nine-hole municipal course, bicycling and walking trails, bird-watching, picnicking and parks.

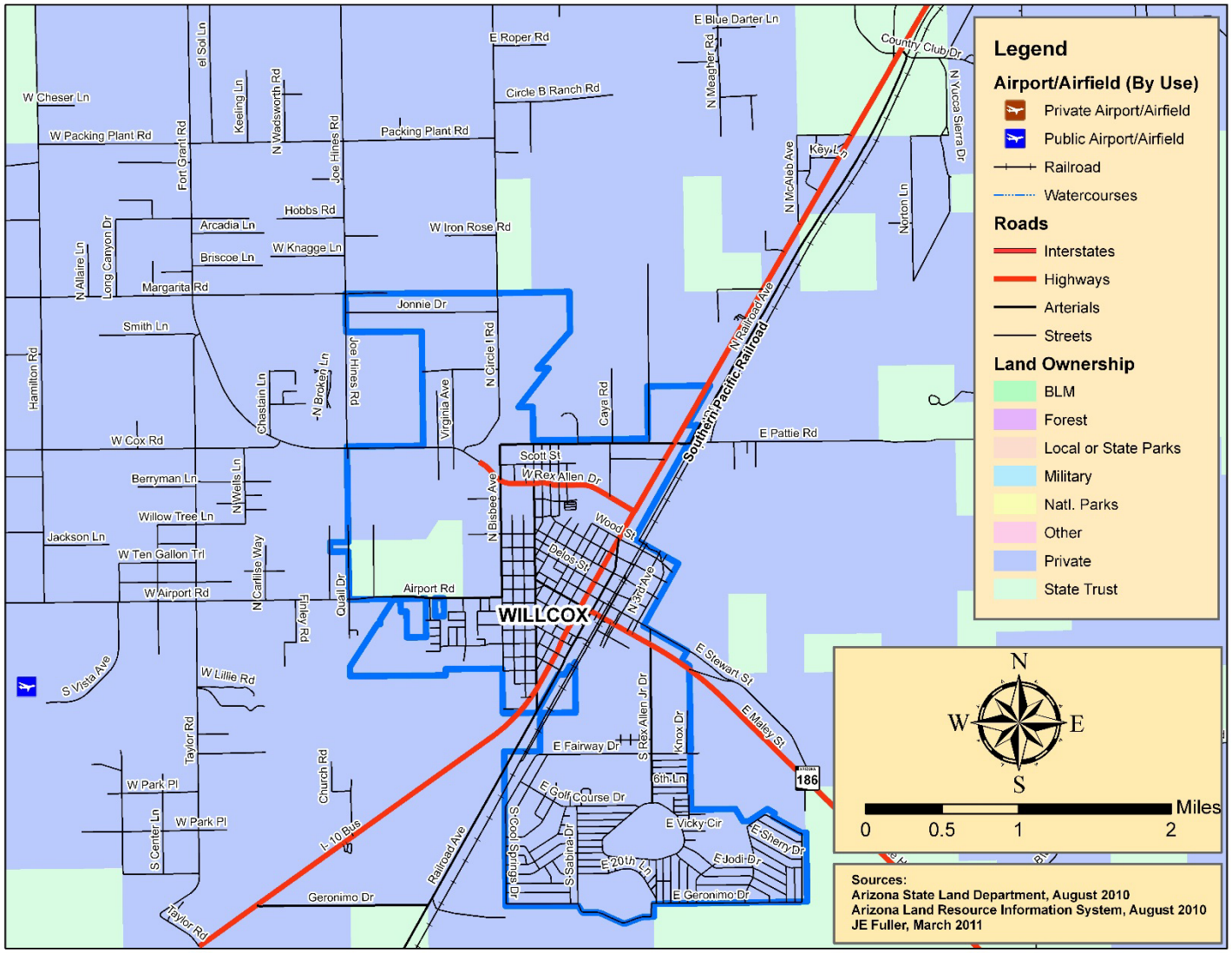


Figure 3-16
Land Ownership and Community Location Map for Willcox

SECTION 4: PLANNING PROCESS

> ***§201.6 (b):*** *Planning process. An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:*
> *(1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;*
> *(2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and*
> *(3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.*
>
> ***§201.6(c)(1)****: [The plan shall include…] (1) Documentation of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.*

This section includes the delineation of various DMA 2000 regulatory requirements, as well as the identification of key stakeholders and planning team members within Cochise County. In addition, the necessary public involvement meetings and actions that were applied to this process are also detailed.

4.1 Planning Process Description

Cochise County applied for and received a PDM planning grant through DEMA to fund a multi-jurisdictional effort to review and update the 2012 Plan. Once the grant was received, the county then selected Michael Baker International (Michael Baker) to work with the participating jurisdictions and guide the planning process. An initial project kick-off webinar between Michael Baker and the county was convened in May 2016 to begin the planning process, outline the plan objectives, outline the anticipating meeting agendas for the planning efforts, and to discuss additional project needs/challenges, and other administrative tasks.

A total of four Planning Team meetings/webinars were conducted over the period of June through December 2016, beginning with the first meeting on June 1st, 2016. Throughout that period and for several months afterward, all the work required to collect, process, and document updated data, make changes to the Plan, and prepare the draft of the Plan was performed. Details regarding key contact information and promulgation authorities, the planning team selection, participation, and activities, and public involvement are discussed in the following sections.

4.2 Previous Planning Process Assessment

The first task of preparation for this Plan, was to evaluate the process used to develop the 2012 Plan. This was initially discussed by the county and Michael Baker prior to the county planning team kickoff meeting. The previous planning approach utilized in 2012 formed a single planning team comprised of representatives from all participating jurisdictions (including other agencies and organizations). This process worked well and it was agreed upon to follow a similar approach.

4.3 Primary Point of Contact

Table 4-1 summarizes the points of contacts identified for each participating jurisdiction that participated in the planning process.

Table 4-1: List of adopting jurisdictional points of contact		
Jurisdiction	Primary Contact	Additional Jurisdictional Representatives
Cochise County	Norm Sturm / Brad Simmons	Karen Riggs, Keith Collins, Kim Mulhern, Mike Izzo, Paul Esparza
City of Benson	Brad Hamilton	Keith Spangler
City of Bisbee	Andy Haratyk	Lorena Valdez
City of Douglas	Lynn Kartchner	Mario Navo
Town of Huachuca City	Tammy Mitchell	Jim Theis, Kelly Norris
City of Sierra Vista	Alan Humphtey / Jing Luo	Sharon Flissar
City of Tombstone	David Bruster	Pat Kelly
City of Willcox	Estaban Vasquez	Gale Robinson, Galo Galovale

4.4 Planning Team

The role of the Planning Team was to work with the county and planning consultant to perform the coordination, research, and planning element activities required to update the 2012 Plans. Attendance by each participating jurisdiction was strongly encouraged for every Planning Team meeting and webinars as the meetings were structured to progress through the planning process. Steps and procedures for updating the 2012 Plans were presented and discussed at each Planning Team meeting, and assignments were normally given. Each meeting built on information discussed and assignments given at the previous meeting.

It was stressed during the planning process that these primary jurisdictional points of contact needed to help serve the role as a liaison between the Planning Team and the local jurisdictional leadership/staff. The Planning Team understood this role would include:

- Conveying information and assignments received at the Planning Team meetings to their jurisdictions.
- Engaging local leadership and staff to ensure a collective community voice as assignments/information were requested.
- Soliciting jurisdictional-wide input as decisions were made and draft documents were prepared for review.
- Ensuring that all requested assignments were completed fully and returned on a timely basis.
- Arranging for review and official adoption of the Plan.

4.4.1 Planning Team Assembly

At the beginning of the planning process, Cochise County organized and identified members for the Planning Team by initiating contact with, and extending invitations to, all incorporated communities within the county limits, as well as other agencies, organizations, DEMA, and Michael Baker. The county and local jurisdictions then helped to expand this list throughout their jurisdictions as the planning process proceeded. The participating members of the Planning Team that contributed during the planning process are summarized in the following Table. Other entities participating are discussed in Section 4.4.3.

Table 4-2: Planning Team	
Name	Jurisdiction / Organization
Alan Humphrey	Sierra Vista
Alex Gradillas	Tombstone
Allen Etheridge	Nat. Park Serv
Andrew Atkinson	BLM
Andy Haratyk	Bisbee

Table 4-2: Planning Team

Name	Jurisdiction / Organization
Brad Hamilton	Benson
Brad Simmons	Cochise County
Carlos DeLetorre	Douglas
Carrie Dennet	AZ Forestry
Daisy Kinsey	Forest Service
David Bruster	Tombstone
Doug Ruppel	Forest Service
Estaban Vasquez	Willcox
Eugene Beaudoin	AZ Forestry
Gale Robison	Willcox
Galo Galovale	Willcox
Jim Theis	Huachuca City
Jing Luo	Sierra Vista
Karen Riggs	Cochise County
Karl Sommerhouser	Nat. Park Service
Keith Collins	Cochise County
Keith Spangler	Benson
Kelly Norris	Huachuca City
Kevin Kugler	MBI
Kim Mulhern	Cochise County
Kraig Fullen	Douglas
Lorena Valdez	Bisbee
Lynn Kartchner	Douglas
Mario Navo	Douglas
Mike Garner	MBI
Mike Izzo	Cochise County
Norm Sturm	Cochise County
Pat Kelly	Tombstone
Paul Esparza	Cochise County
Sandra Espinoza	AZDEMA
Sharon Flissar	Sierra Vista
Stephen McCann	Ft. Huachuca
Susan Austin	AZDEMA
Tammy Mitchell	Huachuca City
Tom (Duke) Jones	AZDEMA
Vi Hillman	BLM

4.4.2 Planning Team Activities

The Planning Team activities are documented below. Agendas and sign-in sheets for these meetings are included in Appendix B. Following each Planning Team meeting, the Point of Contacts for each jurisdiction were encouraged to convene meetings with their local jurisdictional leadership and staff, as needed, to work through the assignments.

Planning Team Kick-Off Meeting: 6/1/2016: The newly re-formed Planning Team met in person for 2 hours in Bisbee to initiate the 2017 hazard mitigation planning process. The meeting focused on a number of topics and discussions, including: project/process overview, purpose and benefits, proposed project approach and schedule, jurisdictional participation requirements, hazard discussions, a five-year plan review, requests for data/studies/information, and public outreach efforts. Planning Team members left with assignments to be completed and information to be disseminated across their respective jurisdictions.

Planning Team Webinar - 9/19/2016: The Planning Team met for a webinar to ask questions and to be provided with updates on the planning process and on the in-progress risk and vulnerability assessment. Main topics of discussion related to continual jurisdictional and public outreach efforts relating to this Plan update. This included the on-going risk perceptions public survey that was being conducted as part of this planning process. A discussion and review of Critical Infrastructure and Key Resources (CIKR) was also held, where jurisdictions were instructed on the CIKR update process to use in the on-going assessment work that was underway.

Planning Team Webinar - 11/7/2016: The Planning Team met for another webinar to update everyone on the current project status and to answer any questions. The main intent of the meeting was to roll out the draft Risk Assessment section of the plan for the Planning Team's review and comment. In addition, the consultants walked participants through a numbers of plan sections that required their direct input and review, included but not limited to: jurisdictional capabilities, methods for Plan incorporation into existing planning mechanisms, and past and future plans for continued jurisdictional public involvement. The final discussion related to the final Planning Team workshop, which would be focused on drafting and finalizing those mitigation actions / projects that would be included in this 2017 Plan update. Planning Team members were encouraged to utilize the now drafted risk assessment materials, in coordination with each participant's own experiences, to begin internal discussions relating to the identification of mitigation actions / projects for their jurisdiction. A number of potential resources were shared with participants relating to ideas for mitigation actions / projects. Final discussions related to continued jurisdictional and public involvement and pending public comment opportunities.

Planning Team Hazard Survey – December 2016: The Planning Team participated in an online survey following the drafting of the Risk Assessment section of the Plan. This survey allowed jurisdictions to evaluate the results of the risk and vulnerability assessment and to rank their respective hazards as they specifically affect their specific jurisdiction. It also provided the Planning Team with an opportunity to provide comments on the draft Plan section.



Planning Team Mitigation Strategy Workshop - 12/12/2016: The Planning Team met for their fourth and final time to focus on the updated Plan's Mitigation Strategy and related actions / projects. This 2 hour, in-person workshop in Bisbee focused mainly on the updated Mitigation Strategy, but numerous topics were covered to ensure all jurisdictions had provided all requested information requested throughout the planning process. The Planning Team individually and collectively discussed potential mitigation projects to incorporate into this updated Plan and also completed reporting on past actions / projects identified in the 2012 Plan document. Final topics that were discussed included future Plan monitoring processes and conversations relating to education and communication of this Plan both across internal jurisdictions as well as with the public at large

4.4.3 Agency/Organizational Participation

The planning process used to develop the 2017 Plan included participation from several agencies and organizations which operate within or have jurisdiction over small and large areas of Cochise County. These agencies/organizations included:

- Arizona Department of Forestry and Fire Management
- Arizona Division of Emergency Management
- Fort Huachuca U.S Army Garrison
- National Park Service
- U.S. Bureau of Land Management
- U.S. Forest Service

Opportunities for participation in the planning process by organizations such as schools, non-profits, and businesses was also extended using general public notices across county and local community websites and social media accounts. Examples are included in Appendix C.

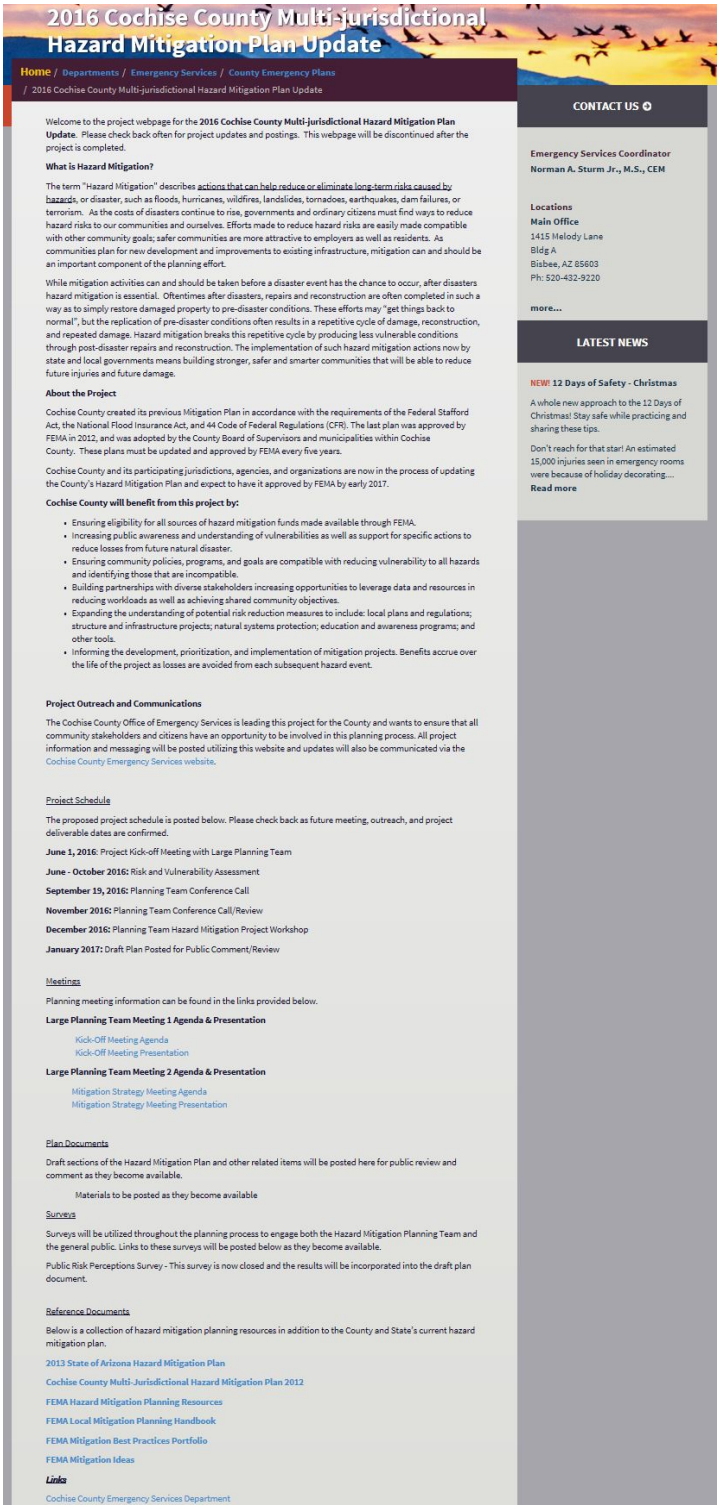
An integral part of the planning process included coordination with agencies and organizations outside of the participating jurisdiction's governance to obtain information and data for inclusion into the Plan or to provide more public exposure to the planning process. Much of the information and data that is used in the risk assessment is developed by agencies or organizations other than the participating jurisdictions. In some cases, the jurisdictions may be members of a larger organization that has jointly conducted a study or planning effort like the development of a community wildfire protection plan or participation in an area association of governments. Examples of those data sets include the FEMA floodplain mapping, community wildfire protection plans, severe weather statistics, hazard incident reports, and Arizona Emergency Response Commission. The resources obtained, reviewed and compiled into the risk assessment are summarized at the end of this Plan Section and at the end of each subsection of Section 5.3 of this Plan. Jurisdictions needing these data sets obtained them by either requesting them directly from the host agency or organization, downloading information posted to website locations, or engaging consultants.

4.5 Public Involvement

An important component to the success of the mitigation planning process involved ongoing public, jurisdiction, and stakeholder participation. Public outreach provided the planning team with a clearer perspective of local

concerns and ensured a higher degree of mitigation success by developing community feedback from those directly affected by policy decisions.

A broad range of public and private stakeholders were invited to participate in the development of the 2017 Cochise Hazard Mitigation Plan Update. The public was primarily directed to planning and reference materials that were available on the project website (developed on the Cochise County emergency services website, with local jurisdictions providing a link to the project website from their own websites). This occurred through individual jurisdictional communications as well as the previously mentioned social media tools and website postings. The most valuable information obtained from the public came from four surveys, which were distributed at regular intervals throughout the planning process. These surveys solicited feedback about a number of topics relating to hazard risk perception, disaster preparedness, mitigation strategies, and the final draft version of the Plan document itself.



2016 Cochise County Multi-jurisdictional Hazard Mitigation Plan Update

Home / Departments / Emergency Services / County Emergency Plans / 2016 Cochise County Multi-jurisdictional Hazard Mitigation Plan Update

Welcome to the project webpage for the **2016 Cochise County Multi-jurisdictional Hazard Mitigation Plan Update**. Please check back often for project updates and postings. This webpage will be discontinued after the project is completed.

What is Hazard Mitigation?

The term "Hazard Mitigation" describes actions that can help reduce or eliminate long-term risks caused by hazards, or disaster, such as floods, hurricanes, wildfires, landslides, tornadoes, earthquakes, dam failures, or terrorism. As the costs of disasters continue to rise, governments and ordinary citizens must find ways to reduce hazard risks to our communities and ourselves. Efforts made to reduce hazard risks are easily made compatible with other community goals; safer communities are more attractive to employers as well as residents. As communities plan for new development and improvements to existing infrastructure, mitigation can and should be an important component of the planning effort.

While mitigation activities can and should be taken before a disaster event has the chance to occur, after disasters hazard mitigation is essential. Oftentimes after disasters, repairs and reconstruction are often completed in such a way as to simply restore damaged property to pre-disaster conditions. These efforts may "get things back to normal", but the replication of pre-disaster conditions often results in a repetitive cycle of damage, reconstruction, and repeated damage. Hazard mitigation breaks this repetitive cycle by producing less vulnerable conditions through post-disaster repairs and reconstruction. The implementation of such hazard mitigation actions now by state and local governments means building stronger, safer and smarter communities that will be able to reduce future injuries and future damage.

About the Project

Cochise County created its previous Mitigation Plan in accordance with the requirements of the Federal Stafford Act, the National Flood Insurance Act, and 44 Code of Federal Regulations (CFR). The last plan was approved by FEMA in 2012, and was adopted by the County Board of Supervisors and municipalities within Cochise County. These plans must be updated and approved by FEMA every five years.

Cochise County and its participating jurisdictions, agencies, and organizations are now in the process of updating the County's Hazard Mitigation Plan and expect to have it approved by FEMA by early 2017.

Cochise County will benefit from this project by:

- Ensuring eligibility for all sources of hazard mitigation funds made available through FEMA.
- Increasing public awareness and understanding of vulnerabilities as well as support for specific actions to reduce losses from future natural disaster.
- Ensuring community policies, programs, and goals are compatible with reducing vulnerability to all hazards and identifying those that are incompatible.
- Building partnerships with diverse stakeholders increasing opportunities to leverage data and resources in reducing workloads as well as achieving shared community objectives.
- Expanding the understanding of potential risk reduction measures to include: local plans and regulations; structure and infrastructure projects; natural systems protection; education and awareness programs; and other tools.
- Informing the development, prioritization, and implementation of mitigation projects. Benefits accrue over the life of the project as losses are avoided from each subsequent hazard event.

Project Outreach and Communications

The Cochise County Office of Emergency Services is leading this project for the County and wants to ensure that all community stakeholders and citizens have an opportunity to be involved in this planning process. All project information and messaging will be posted utilizing this website and updates will also be communicated via the Cochise County Emergency Services website.

Project Schedule

The proposed project schedule is posted below. Please check back as future meeting, outreach, and project deliverable dates are confirmed.

June 1, 2016: Project Kick-off Meeting with Large Planning Team

June - October 2016: Risk and Vulnerability Assessment

September 19, 2016: Planning Team Conference Call

November 2016: Planning Team Conference Call/Review

December 2016: Planning Team Hazard Mitigation Project Workshop

January 2017: Draft Plan Posted for Public Comment/Review

Meetings

Planning meeting information can be found in the links provided below.

Large Planning Team Meeting 1 Agenda & Presentation

Kick-Off Meeting Agenda
Kick-Off Meeting Presentation

Large Planning Team Meeting 2 Agenda & Presentation

Mitigation Strategy Meeting Agenda
Mitigation Strategy Meeting Presentation

Plan Documents

Draft sections of the Hazard Mitigation Plan and other related items will be posted here for public review and comment as they become available.

Materials to be posted as they become available

Surveys

Surveys will be utilized throughout the planning process to engage both the Hazard Mitigation Planning Team and the general public. Links to these surveys will be posted below as they become available.

Public Risk Perceptions Survey - This survey is now closed and the results will be incorporated into the draft plan document.

Reference Documents

Below is a collection of hazard mitigation planning resources in addition to the County and State's current hazard mitigation plan.

2013 State of Arizona Hazard Mitigation Plan
Cochise County Multi-Jurisdictional Hazard Mitigation Plan 2012
FEMA Hazard Mitigation Planning Resources
FEMA Local Mitigation Planning Handbook
FEMA Mitigation Best Practices Portfolio
FEMA Mitigation Ideas
Links
Cochise County Emergency Services Department

CONTACT US

Emergency Services Coordinator
Norman A. Sturm Jr., M.S., CEM

Locations
Main Office
1415 Melody Lane
Bldg A
Bisbee, AZ 85603
Ph: 520-432-9220

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Creating and analyzing surveys plays an integral role in better understanding a community's asset, needs and goals moving forward with hazard resiliency. In order to gain a better picture of regional risk, the State of Arizona's CPRI Evaluation was shared with community representatives. Over 175 responses were analyzed to evaluate the impacts of each specific hazard on participating communities. The results of the CPRI are shown in the hazard risk profiles in Section 5.3. Further explanation of the CPRI Evaluation process and procedure is included in Section 5.2.2 of this plan.

Another public survey distributed was used to assess the community's risk perception. A total of 258 responses were collected from June through October of 2016. The results showed that the publics' greatest perceived risks are Flood / Flash Flood and Wildfire and the two lowest perceived risks are Building Collapse / Mine Subsidence and Earthquake. The survey also indicated that the most concerning scenario impacting the community would be not having access to clean water during a disaster. A little more than half of respondents stated they did not have a preparedness kit and about half stated that they felt they had taken actions to make their home or neighborhood more resilient to hazards. A large number of survey participants stated that they were not sure if they were

located in a FEMA designated floodplain and a large majority selected internet or social media is the most effective way to receive hazard mitigation information. A copy of this risk perception survey, which includes analysis of all responses, can be found in Appendix C of this Plan.

A third survey was distributed to the public in order to solicit feedback about hazard mitigation strategies. A total of 210 responses were collected between January and February 2017. Results showed that survey respondents felt that the top two categories for hazard mitigation tools were as follows;

- Education & Awareness Programs (Incentivizing drought tolerant landscaping, hosting informational workshops / events, and educating the public about risks)
- Local Planning and Regulations (Building codes, local zoning and land use codes, identification / mapping of hazards area, stormwater management planning)

This survey also gave respondents the opportunity to come up with any mitigation projects or actions they would like to see implemented. There were over 75 responses to this question and ideas ranged from acquiring flooding prone structures to implementing a regional emergency evacuation plan. The planning team has gained invaluable public input due to these surveys, and their thoughts and ideas are weighed heavily in the mitigation strategy section of this plan. Appendix C includes a copy of this mitigation strategy survey along with a summary of all responses.

The final survey was utilized to solicit public comments on the draft HMP document. This survey and the draft HMP document were posted to the project website. The Planning Team then leveraged their own jurisdictional website and social media accounts to inform the public of this 30-day review and comment period. Documentation of many of these efforts can be found in Appendix C. A total of 2 comments were received and reviewed by the Planning Team for incorporation into the final draft HMP. Interested citizens were also encouraged to participate in the local community adoption process which, depending upon the jurisdiction, may have included a public meeting and a formal public hearing.

Additional public involvement tools successfully utilized as part of this planning process are documented below:

- Throughout the planning process jurisdictions were asked to help inform their communities about this planning process when opportunities presented themselves. Forms were provided to the planning team to help document these interactions, which are included in Appendix B, when available.
- The County Public Information Officer (PIO) leveraged all available tools to message the public at key project milestones, utilizing Facebook, Twitter, Facebook groups, the previously mentioned website, and emails to existing contact lists which included: elected officials, appointed officials, local news reporters, and community leaders.
- The County Emergency Manager utilized his regular 'Daily Brief' email to inform listserve participants of major milestones throughout the planning process.
- The Sierra Vista Herald included an article about the project and planning process.

4.6 Reference Documents and Technical Resources

Over the course of the update planning process, numerous other plans, studies, reports, and technical information were obtained and reviewed for incorporation or reference purposes. The majority of sources referenced and researched pertain to the risk assessment and the capabilities assessment. To a lesser extent, the community descriptions and mitigation strategy also included some document or technical information research. The following Table provides a reference listing of the primary documents and technical resources reviewed and used in the Plan. Detailed bibliographic references for the risk assessment are provided at the end of each hazard risk profile in Section 5.3. Other bibliographic references are provided as footnotes.

Table 4-5: List of resource documents and references reviewed and incorporated in the plan update process

Referenced Document or Technical Source	Resource Type	Description of Reference and Its Use
Arizona Daily Star	Article	Source for building collapse hazard and tunnels located in Douglas.
Arizona Department of Commerce	Website Data and Community Profiles	Reference for demographic and economic data for the county. Used for community descriptions
Arizona Department of Emergency Management	Data and Planning Resource	Resource for state and federal disaster declaration information for Arizona. Also a resource for hazard mitigation planning guidance and documents.
Arizona Department of Water Resources	Technical Resource	Arizona State Drought Preparedness Plan (2015) and Arizona Drought Monitor Report (July 2016). Resource for data on drought conditions and statewide drought management (AzGDTF), and dam safety data. Used in risk assessment.
Arizona Geological Survey	Technical Resource	Resource for earthquake, fissure, landslide/mudslide, subsidence, and other geological hazards. Used in the risk assessment.
Arizona Land Subsidence Group	Technical Resource	Resource for fissure and subsidence data. Used in the risk assessment.
Arizona Model Local Hazard Mitigation Plan	Hazard Mitigation Plan	Guidance document for preparing and formatting hazard mitigation plans for Arizona.
Arizona State Land Department	Data Source	Source for statewide GIS coverages (ALRIS) and statewide wildfire hazard profile information (Division of Forestry). Used in the risk assessment.
Arizona Wildland Urban Interface Assessment (2004)	Report	Source of wildfire hazard profile data and urban interface at risk communities. Used in the risk assessment.
Arizona Workforce Informer	Website	Source for employment statistics in Arizona.
Bureau Net (2011)	Website Database	Source for NFIP statistics for Arizona.
Cochise County Multi-Jurisdictional Hazard Mitigation Plan (2012)	Hazard Mitigation Plan and GIS Data	FEMA county-wide approved hazard mitigation plan
Cochise County Community Wildfire Protection Plan (2014)	CWPP	Prepared by the Bureau of Land Management (BLM) Gila District Office; the Coronado National Forest (CNF) Douglas and Sierra Vista Ranger Districts; the US Fish and Wildlife Service; and the National Park Service (NPS) Chiricahua National Monument, Fort Bowie National Historic Site, and Coronado National Memorial
Cochise County Multi-Hazard Mitigation Plan	Hazard Mitigation Plan	FEMA approved hazard mitigation plan that together with the other Cochise County jurisdiction's mitigation plans, formed the starting point for the update process. See Section 2.4 for further discussion
Cochise County GIS	GIS Data	Source for county-wide GIS data and supplemental flood hazard data sets. Used for maps and risk assessment.
City of Benson Multi-Hazard Mitigation Plan (2006)	Hazard Mitigation Plan	FEMA approved hazard mitigation plan that together with the other Cochise County jurisdiction's mitigation plans, formed the starting point for the update process. See Section 2.4 for further discussion
City of Bisbee 2004 General Plan Update	General Plan	Source for history, demographic and development trend data for the city.
City of Bisbee Multi-Hazard Mitigation Plan (2008)	Hazard Mitigation Plan	FEMA approved hazard mitigation plan that together with the other Cochise County jurisdiction's mitigation plans, formed the starting point for the update process. See Section 2.4 for further discussion
City of Douglas Multi-Hazard Mitigation Plan (2007)	Hazard Mitigation Plan	FEMA approved hazard mitigation plan that together with the other Cochise County jurisdiction's mitigation plans, formed the starting point for the update process. See Section 2.4 for further discussion
City of Sierra Vista Multi-Hazard Mitigation Plan	Hazard Mitigation Plan	FEMA approved hazard mitigation plan that together with the other Cochise County jurisdiction's mitigation plans, formed the starting point for the update process. See Section 2.4 for further discussion
City of Tombstone Multi-Hazard Mitigation Plan (2010)	Hazard Mitigation Plan	FEMA approved hazard mitigation plan that together with the other Cochise County jurisdiction's mitigation plans, formed the starting point for the update process. See Section 2.4 for further discussion
City of Willcox Multi-Hazard Mitigation Plan (Final Draft)	Hazard Mitigation Plan	FEMA approved hazard mitigation plan that together with the other Cochise County jurisdiction's mitigation plans, formed the starting point for the update process. See Section 2.4 for further discussion
Douglas Dispatch, August 2011	Article	Source for building collapse information and criminal tunneling.

Table 4-5: List of resource documents and references reviewed and incorporated in the plan update process

Referenced Document or Technical Source	Resource Type	Description of Reference and Its Use
Earth Fissure Risk Zone Investigation Report (AMEC, 2006)	Hazard Data	Source of fissure risk data and historic fissure and subsidence events. Used in the risk assessment. Used in the risk assessment.
InciWeb - Incident Information System (2011)	Wildfire Data	Source wildfire incident information for historical hazard and profile information, specifically for Horseshoe 2 and Monument Fire..
Environmental Working Group's Farm Subsidy Database (2009)	Website Database	Source of disaster related agricultural subsidies. Used in the risk assessment.
Federal Emergency Management Agency	Technical and Planning Resource	Resource for HMP guidance (How-To series), floodplain and flooding related NFIP data (mapping, repetitive loss, NFIP statistics), and historic hazard incidents. Used in the risk assessment and mitigation strategy.
HAZUS-MH	Technical Resource	Based data sets within the program were used in the vulnerability analysis.
National Center for Environmental Information	Technical Resource	Online resource for weather related data and historic hazard event data. Used in the risk assessment.
National Integrated Drought Information System (2007)	Technical Resource	Source for drought related projections and conditions. Used in the risk assessment.
National Response Center	Technical Resource	Source of traffic related HAZMAT incidents and rail accidents. Used in the risk assessment.
National Weather Service	Technical Resource	Source for hazard information, data sets, and historic event records. Used in the risk assessment.
National Wildfire Coordination Group (2010)	Technical Resource	Source for historic wildfire hazard information. Used in the risk assessment.
Office of the State Climatologist for Arizona	Website Reference	Reference for weather characteristics for the county. Used for community description.
Standard on Disaster/Emergency Management and Business Continuity Programs (2000)	Standards Document	Used to establish the classification and definitions for the asset inventory. Used in the risk assessment.
State of Arizona MHMP (2013)	Hazard Mitigation Plan	The state plan was used a source of hazard information and the state identified hazards were used as a starting point in the development of the risk assessment.
U.S. Census Bureau	Technical Data	TIGER/Line shapefile for 2010 Cochise County census block data was used to obtain block boundaries, population, and housing units
Town of Huachuca Multi-Hazard Mitigation Plan (2007)	Hazard Mitigation Plan	FEMA approved hazard mitigation plan that together with the other Cochise County jurisdiction's mitigation plans, formed the starting point for the update process. See Section 2.4 for further discussion
USACE Flood Damage Report (1978)	Technical Data	Source of historic flood damages for 1978 flood. Used in the risk assessment.
USACE Flood Damage Report (1994)	Technical Data	Source of historic flood damages for 1993 flood. Used in the risk assessment.
U.S. Forest Service	Technical Data	Source for local wildfire data. Used in the risk assessment.
U.S. Geological Survey	Technical Data	Source for geological hazard data and incident data. Used in the risk assessment.
Western Regional Climate Center	Website Data	Online resource for climate data used in climate discussion of Section 4
World Wildlife Fund (2010)	GIS Data	Terrestrial ecoregions database used in the general county description.
Zillow Real Estate Values	Website Reference	Obtained home value indexes for incorporated and unincorporated areas of Cochise County to use for residential values in vulnerability assessment.

SECTION 5: RISK ASSESSMENT

> ***§201.6(c)(2):*** *[The plan shall include…] (2) A **risk assessment** that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards. The risk assessment shall include:*
> *(i) A description of the type, location, and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.*
> *(ii) A description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of:*
> *(A) The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas;*
> *(B) An estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate;*
> *(C) Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.*
> *(iii) For multi-jurisdictional plans, the risk assessment section must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.*

One of the key elements to the hazard mitigation planning process is the risk assessment. In performing a risk assessment, a community determines "what" can occur, "when" (how often) it is likely to occur, and "how bad" the effects could be[20]. According to DMA 2000, the primary components of a risk assessment that answer these questions are generally categorized into the following measures:

Hazard Identification and Screening

Hazard Profiling

Assessing Vulnerability to Hazards

The risk assessment for Cochise County and participating jurisdictions was performed using a county-wide, multi-jurisdictional perspective, with much of the information gathering and development being accomplished by the Planning Team. This integrated approach was employed because many hazard events are likely to affect numerous jurisdictions within the County, and are not often relegated to a single jurisdictional boundary. The vulnerability analysis was performed in a way such that the results reflect vulnerability at an individual jurisdictional level, and at a countywide level.

5.1 Hazard Identification and Screening

Hazard identification is the process of answering the question; *"What hazards can and do occur in my community or jurisdiction?"* For this Plan, the list of hazards identified in the 2012 Plan were reviewed by the Planning Team with the goal of refining the list to reflect the hazards that pose the greatest risk to the jurisdictions represented by this Plan. The Planning Team also compared and contrasted the 2012 Plan list to the comprehensive hazard list summarized in the 2013 State Plan[21] to ensure compatibility with the State Plan. The following table summarizes the hazards profiled in the 2012 Plan, the 2013 State Plan, and this updated 2017 Plan.

[20] National Fire Protection Association, 2000, *Standard on Disaster/Emergency Management and Business Continuity Programs*, NFPA 1600.

[21] ADEM, 2013, *State of Arizona Hazard Mitigation Plan*

Table 5.1. Summary of Initial Hazard Identification Lists

2012 Cochise County Plan Hazard List	2013 State Plan Hazard List	2017 Cochise County Plan Hazard List
• Building Collapse/Mine Subsidence • Drought • Fissure • Flood/Flash Flood • Hazardous Materials Incidents • Severe Wind • Wildfire	• Dam Failure • Disease • Drought • Earthquake • Extreme Heat • Fissures • Flooding/Flash Flooding • Hazardous Materials Incidents • Landslides/Mudslides • Levee Failure • Severe Winds • Subsidence • Terrorism • Wildfires • Winter Storms	• Building Collapse/Mine Subsidence • Drought • Earthquake • Fissure • Flood/Flash Flood • Severe Wind • Wildfire

The review included an initial screening process to evaluate each of the listed hazards based on the following considerations:

- Experiential knowledge on behalf of the Planning Team with regard to the relative risk associated with the hazard
- Documented historic context for damages and losses associated with past events (especially events that have occurred during the last plan cycle)
- The ability/desire of Planning Team to develop effective mitigation for the hazard under current DMA 2000 criteria
- Compatibility with the state hazard mitigation plan hazards
- Duplication of effects attributed to each hazard

The following table summarizes the federal and state disaster declarations that included Cochise County with data provided from FEMA, USDA, NCEI, and ADEM- Recovery Section.

Table 5.2. State and Federally Declared Natural Hazard Events that Included Cochise County

2017 State Plan Hazard Categories	Arizona Declared Events That Included Cochise County January 1966 to February 2017					
		Total Expenditures		Recorded Losses		
	No. of Declarations	State	Federal	Fatalities	Injuries	Damage Costs ($)
Drought	4	$ 217,452	$ -	0	0	$300,000,000
Flooding / Flash Flooding	9	$ 36,127,314	$ 303,670,820	23	112	$906,150,000
Severe Wind	1	$ 3,002,390	$ 89,017	0	2	$30,365,000
Wildfire	16	$ 5,685,834	$ -	0	0	$0

- Expenditures are reported as is and no attempt has been made to adjust costs to current dollar values.
- Only a portion of the reported expenditures were spent in Cochise County.
- Damage Costs are reported as is and no attempt has been made to adjust costs to current dollar values.
- There have been no additional declarations since the 2012 plan update

Source: FEMA, USDA, NCEI, DEMA, February 2017

The culmination of the review and screening process by the Planning Team resulted in a revised list of hazards that will be carried forward with this Plan. The Planning Team chose to eliminate Hazmat, which was included in the 2012 Plan. This is because only natural hazards are required to be addressed in this Plan and a separate county hazardous materials plan exists and is updated annually. The Planning Team also agreed to include a hazard section for Earthquake.

The Planning Team has selected the following list of hazards for profiling and updating based on the above explanations and screening process. Revised and updated definitions for each hazard are provided in Section 5.3 and in Section 8.2:

- Building Collapse / Mine Subsidence
- Drought
- Earthquake
- Fissure
- Flooding/Flash Flooding
- Severe Wind
- Wildfire

5.2 Vulnerability Analysis Methodology

5.2.1 General

The following sections summarize the methodologies used to perform the vulnerability analysis portion of the risk assessment. For this Plan, the vulnerability analysis was revised or updated to reflect the new and updated hazard categories, the availability of new data, or differing loss estimation methodology. Specific changes are noted below and/or in Section 5.3.

For the purposes of this vulnerability analysis, hazard profile maps were developed for Mine Subsidence/Building Collapse, Earthquake, Fissure, Flooding/Flash Flooding, and Wildfire to map the geographic variability of the probability and magnitude risk of the hazards as estimated by the Planning Team. Hazard profile categories of HIGH, MEDIUM, and/or LOW were used and were subjectively assigned based on the factors discussed in the Probability and Magnitude sections below. Within the context of the county limits, the other hazards do not exhibit significant geographic variability and will not be categorized as such.

Unless otherwise specified in this Plan, the general cutoff date for new hazard profile data and jurisdictional corporate limits is the end of December 2016.

5.2.2 Calculated Priority Risk Index (CPRI) Evaluation

One aspect to the vulnerability analysis (VA) is to assess the perceived overall risk for each of the Plan hazards using a tool developed by the State of Arizona called the Calculated Priority Risk Index[22] (CPRI). The CPRI value is obtained by assigning varying degrees of risk to four (4) categories for each hazard, and then calculating an index value based on a weighting scheme. The following table summarizes the CPRI risk categories and provides guidance regarding the assignment of values and weighting factors for each category.

[22] ADEM, 2003, *Arizona Model Local Hazard Mitigation Plan*, prepared by JE Fuller/ Hydrology & Geomorphology, Inc.

Table 5.3. Calculated Priority Risk Index (CPRI) Categories and Risk Levels

CPRI Category	Degree of Risk			Assigned Weighting Factor
	Level ID	Description	Index Value	
Probability	Unlikely	▪ Extremely rare with no documented history of occurrences or events. ▪ Annual probability of less than 0.001.	1	45%
	Possible	▪ Rare occurrences with at least one documented or anecdotal historic event. ▪ Annual probability that is between 0.01 and 0.001.	2	
	Likely	▪ Occasional occurrences with at least two or more documented historic events. ▪ Annual probability that is between 0.1 and 0.01.	3	
	Highly Likely	▪ Frequent events with a well-documented history of occurrence. ▪ Annual probability that is greater than 0.1.	4	
Magnitude/ Severity	Negligible	▪ Negligible property damages (less than 5% of critical and non-critical facilities and infrastructure). ▪ Injuries or illnesses are treatable with first aid and there are no deaths. ▪ Negligible quality of life lost. ▪ Shut down of critical facilities for less than 24 hours.	1	30%
	Limited	▪ Slight property damages (greater than 5% and less than 25% of critical and non-critical facilities and infrastructure). ▪ Injuries or illnesses do not result in permanent disability and there are no deaths. ▪ Moderate quality of life lost. ▪ Shut down of critical facilities for more than 1 day and less than 1 week.	2	
	Critical	▪ Moderate property damages (greater than 25% and less than 50% of critical and non-critical facilities and infrastructure). ▪ Injuries or illnesses result in permanent disability and at least one death. ▪ Shut down of critical facilities for more than 1 week and less than 1 month.	3	
	Catastrophic	▪ Severe property damages (greater than 50% of critical and non-critical facilities and infrastructure). ▪ Injuries or illnesses result in permanent disability and multiple deaths. ▪ Shut down of critical facilities for more than 1 month.	4	
Warning Time	Less than 6 hours	Self explanatory.	4	15%
	6 to 12 hours	Self explanatory.	3	
	12 to 24 hours	Self explanatory.	2	
	More than 24 hours	Self explanatory.	1	
Duration	Less than 6 hours	Self explanatory.	1	10%
	Less than 24 hours	Self explanatory.	2	
	Less than one week	Self explanatory.	3	
	More than one week	Self explanatory.	4	

As an example, assume that survey participants are assessing the hazard of flooding, and have decided that the following assignments best describe the flooding hazard for their community:

- Probability = Likely
- Magnitude/Severity = Critical
- Warning Time = 12 to 24 hours
- Duration = Less than 6 hours

That individual's CPRI for the flooding hazard would then be:

CPRI = [(3*0.45) + (3*0.30) + (2*0.15) + (1*0.10)]

CPRI = 2.65 (with 4.0 being the highest possible rating)

For the 2017 Plan Update, the CPRI assessment was conducted utilizing an online survey, which was distributed to community representatives in order to solicit feedback. This resulted in 175 completed responses from across all participating jurisdictions. CPRI Tables are included in each hazards' section with scores averaged based on the responses from all participating community representatives. It should be noted that these Index Values are presented as an average of the collective responses received from each jurisdiction and should provide a more holistic opinion from each jurisdiction, as compared to past Plan updates.

It is noted that this process differed from that following during past plan updates. Previously, the CPRI values were agreed upon by one or two jurisdictional representatives. For this plan update, both jurisdictional representatives and community members were asked to complete this evaluation. The results of which were then averaged. This average risk perception value varies (in some instances greatly) for many hazards as compared to the 2012 values. In some cases, it may seemingly contradict what the historical, vulnerability, and/or loss estimation information presents. The Planning Team found value in this exercise as it helps to identify misconceptions regarding some of the hazard risks facing these communities, which can help identify opportunities for public outreach and education.

5.2.3 Asset Inventory

A detailed critical asset inventory was performed for the 2012 Plan to establish a fairly accurate baseline data-set for assessing the vulnerability of each jurisdiction's assets to the hazards previously identified. The asset inventory from the 2012 Plan was reviewed and updated by all participating jurisdictions as part of the 2017 Plan update process.

Critical facilities and infrastructure are systems, structures and infrastructure within a community whose incapacity or destruction would:

- Have a debilitating impact on the defense or economic security of that community.
- Significantly hinder a community's ability to recover following a disaster.

Following the criteria set forth by the Critical Infrastructure Assurance Office (CIAO), the State of Arizona has adopted eight general categories[23] that define critical facilities and infrastructure:

1. Communications Infrastructure: Telephone, cell phone, data services, radio towers, and internet communications, which have become essential to continuity of business, industry, government, and military operations.
2. Electrical Power Systems: Generation stations and transmission and distribution networks that create and supply electricity to end-users.

[23] Instituted via Executive Order 13010, which was signed by President Clinton in 1996.

3. **Gas and Oil Facilities:** Production and holding facilities for natural gas, crude and refined petroleum, and petroleum-derived fuels, as well as the refining and processing facilities for these fuels.
4. **Banking and Finance Institutions:** Banks, financial service companies, payment systems, investment companies, and securities/commodities exchanges.
5. **Transportation Networks:** Highways, railroads, ports and inland waterways, pipelines, and airports and airways that facilitate the efficient movement of goods and people.
6. **Water Supply Systems:** Sources of water; reservoirs and holding facilities; aqueducts and other transport systems; filtration, cleaning, and treatment systems; pipelines; cooling systems; and other delivery mechanisms that provide for domestic and industrial applications, including systems for dealing with water runoff, wastewater, and firefighting.
7. **Government Services:** Capabilities at the federal, state, and local levels of government required to meet the needs for essential services to the public.
8. **Emergency Services:** Medical, police, fire, and rescue systems.

Other assets such as public libraries, schools, businesses, museums, parks, recreational facilities, historic buildings or sites, churches, residential and/or commercial subdivisions, apartment complexes, businesses, and so forth, are typically not classified as critical facilities and infrastructure unless they serve a secondary function to the community during a disaster emergency (e.g. - emergency housing or evacuation centers). As a part of the update process, each community was tasked with identifying other assets that should be considered as being critical. Each community was also tasked with making any needed changes to the geographic position, revision of asset names, updating replacement costs, etc. to bring the dataset into a current condition. The updated asset inventory is attributed with a descriptive name, physical address, geospatial position, and an estimated building/structure and contents replacement cost for each entry to the greatest extent possible and entered into a GIS geodatabase.

The following table summarizes the facility counts provided by each of the participating jurisdictions in this Plan.

Table 5.4. Asset Inventory Structure Counts by Category and Jurisdictions

	Communications Infrastructure	Electrical Power Systems	Gas and Oil Facilities	Banking and Finance Institutions	Transportation Networks	Water Supply Systems	Government Services	Emergency Services	Educational [a]	Cultural [a]	Business [a]	Flood Control [a]	Residential [a]	Recreational [a]
County-Wide Totals	**150**	**41**	**36**	**20**	**14**	**44**	**72**	**64**	**48**	**14**	**11**	**0**	**22**	**0**
Benson	3	6	10	0	3	12	6	4	6	2	5	0	0	0
Bisbee	3	2	5	4	1	5	11	0	0	0	0	0	0	0
Douglas	4	0	2	7	0	0	8	7	0	0	0	0	0	0
Huachuca City	1	0	1	0	0	1	4	1	1	1	0	0	0	0
Sierra Vista	25	9	2	0	1	4	12	12	0	0	0	0	0	0
Tombstone	2	0	0	1	0	8	7	3	4	9	104	0	22	0
Willcox	7	3	7	4	1	6	6	6	4	1	3	0	0	0

	Communications Infrastructure	Electrical Power Systems	Gas and Oil Facilities	Banking and Finance Institutions	Transportation Networks	Water Supply Systems	Government Services	Emergency Services	Educational [a]	Cultural [a]	Business [a]	Flood Control [a]	Residential [a]	Recreational [a]
Unincorporated Cochise County	105	21	9	4	8	8	22	31	33	1	3	0	0	0

NOTES: a – Assets listed under these categories have been determined to be critical per the definition of this Plan by the corresponding jurisdiction.

5.2.4 Loss Estimations

Loss estimates for this Plan reflect best available data utilizing: current hazard map layers, an updated asset database, Hazus 3.2, and/or the use of Census 2010 block level data for estimating exposures and losses when possible.

Several of the hazards profiled in this Plan will not include quantitative exposure and loss estimates. The vulnerability of people and assets associated with some hazards are nearly impossible to evaluate given the uncertainty associated with where these hazards will occur as well as the relatively limited focus and extent of damage. Instead, a qualitative review of vulnerability will be discussed to provide insight to the nature of losses that are associated with the hazard. For subsequent updates of this Plan, the data needed to evaluate these unpredictable hazards may become refined such that comprehensive vulnerability statements and thorough loss estimates can be made

5.2.5 Development Trend Analysis

This 2017 Plan assessed the most recent County GIS data sets relating to development and growth areas when conducting the risk and vulnerability assessment. The updated analysis focused on the potential risk associated with projected growth patterns and their intersection with the Plan identified hazards.

5.3 Hazard Risk Profiles

The following sections summarize the risk profiles for each of the Plan hazards identified in Section 5.1. For each hazard, the following elements are addressed to present the overall risk profile:

- Description
- History
- Probability and Magnitude
- Vulnerability
- Sources
- Profile Maps (if applicable)

Much of the 2012 Plan data has been updated, incorporated and/or revised to reflect current conditions and Planning Team changes. County-wide and jurisdiction specific profile maps are provided at the end of the section (if applicable).

5.3.1 Building Collapse / Mine Subsidence

Description

Building collapse can occur as the result of many different hazards, whether natural or man-made, such as earthquake, liquefaction, explosives, structural design, etc. Within the scope of this Plan, building collapse has great potential due to subterranean activities that have taken place in the past and present. "Building Collapse" as a hazard will incorporate buildings, roadways, infrastructures that may be exposed or vulnerable to failure due to the collapse or implosion of subterranean cavities. The following are some of the causes that have the potential of causing building collapse in Cochise County:

- Mine Subsidence - occurs when the ground surface moves as result of collapse or failures of underground mine workings. Underground mining is used when minerals are deep beneath the surface and/or when ore grade or quality is sufficient to justify more targeted mining. In order to get to the ore bodies, a vertical shaft, horizontal access shaft, or inclined passage way must be drilled and/or excavated to remove ore and waste, and supply ventilation. Once the ore body is exposed, several levels of horizontal tunnels called drifts and crosscuts are created to provide access to mining areas called stopes. The area actually being mined at any given time is called the face. Broken rock is hauled from the face by trains, loaders, or trucks that go directly to the surface, or to the shaft where it is hoisted to the surface and sent to a processing facility.
- Underground Infrastructure Erosion - occurs in stormwater channels built underground during the turn of the century which are inadequate to carry necessary amount or volume of water without causing major deterioration and erosion of channel walls and supports.
- Criminal Tunneling - occurs when organized crime along the US/Mexico border desires to transport humans and contraband across the border in subterranean tunnels to evade capture. The tunnels are typically structurally crude and dangerous due to the lack of proper structural support, and especially when unsuspecting surface construction or vehicular traffic causes additional static and dynamic loading to the prism above the tunnels. In some instances, these tunnels may inadvertently intercept storm runoff and divert the flows to areas not designed to carry flood waters.

The secondary effects which results from the three definitions mentioned above are:

- 1) *Sinkhole subsidence* occurs in areas overlying underground voids or openings that are relatively close to the ground surface. This type of subsidence is fairly localized and usually recognized by an abrupt depression evident at the ground surface as overburden materials collapse into the void. Sinkhole subsidence is probably the most common type of subsidence that occurs and has been responsible for extensive damage to many structures throughout the years.
- 2) *Subsidence troughs* over abandoned tunnels/mines usually occur when the overburden sags downward due to the failure of remnant mine pillars, or by punching of the pillars into a soft mine roof or floor. The surface effect is a large, shallow, yet broad, depression in the ground that is usually elliptical or circular in shape. Subsidence is normally greatest at the center of the trough and it continually decreases until the limit of the surface area is reached. Structures near the center of the trough can experience damage caused by the compression of the ground surface, and structures near the edges can be damaged by tension or stretching of the surface. Ground movement within a subsidence trough can result in damage to buildings, roadways, bridges, railroads, underground pipelines and utilities, and practically any other structure or feature that may be present.[24]

[24] Energy and Environmental Profile of the U.S. Mining Industry, 2000: http://www1.eere.energy.gov/industry/mining/pdfs/overview.pdf

History

Tombstone - Historic, underground mining activities have occurred throughout Cochise County leaving many abandoned mine shafts and tunnels. Many of these mines are located in remote hillside areas. The City of Tombstone, however, is an exception. Within the city limits much stope mining has occurred and many of the city's treasured historic structures have been constructed directly over the top of these abandoned mine workings. The six-block historical district of Tombstone sits on top of numerous subterranean mines/shafts in and around the city as represented in Map 1. Numerous foundations of buildings are placed directly on top of voids of tunnels and open mineshafts. To compound this hazard, the construction of most of Tombstone's historic buildings do not conform with current local building codes. There is an added concern that a minor earthquake may trigger a catastrophic mine subsidence event, although it is recognized by the Planning Team that the frequency of earthquakes are rare. The following are recorded subsidence events for that have occurred within the City of Tombstone:

- In July 1997, the City suffered a subsidence event on East Toughnut Street, between South 4th Street and South 5th Street developing inch wide cracks in a depression approximately 55 feet in diameter and one foot deep causing a street closure and threatening the City's main sewer line, which run down the center of East Toughnut Street. The eventual sag broke open exposing a hole at least 25 feet deep, also taking an adobe wall and breaking a secondary sewer line. The portion of the street suffering the subsidence was closed to vehicular traffic, which appeared to cure the problem. (Tombstone Multi-Hazard Mitigation Plan, 2009)

- On January 2, 1998, another collapse occurred and within a few days widened to six to eight feet in diameter with a secondary sewer line broken and discharging raw effluent in the Old Goodenough Mine and by default into the City's ground water. A state of emergency was declared by then Mayor Delmas (Gene) Harper and $10,000 was allocated shortly thereafter to repair the sewer line and rectify the matter (McCracken, 1998).

Bisbee - According to the City of Bisbee General Plan, Old Bisbee experienced multiple flooding events around the turn of the century due to the rapid growth and development of the natural floodplains along the canyons formed by the Mule and Brewery Gulches. Multiple attempts at flood control facilities failed to adequately control the frequent summer monsoon events that threatened the city. Finally in December 1908, a contract was awarded to El Paso and Southwestern Railroad Company to construct a new, underground concrete channel that would convey the flood waters more effectively. A portion of this channel would run behind the buildings on the south and parallel to Main Street, and connect to an inlet located on the street surface that collects water flows from Brewery Gulch, and continue in the underground channel along Naco Road. This 100 year-old channel, Mule Gulch Channel, continues to function today to divert water to protect the downtown area of Old Bisbee. A more recent U.S. Army Corps of Engineer study that was completed after the 1986 flood, revealed that the channel was undersized and severely deteriorated which posed a high probability of failure. Subsequent studies by the Corps and the City of Bisbee revealed that the channel was undersized, severely deteriorated and poses a high probability of failure. In 1999, the City of Bisbee solicited emergency funding from the state and federal government after monsoon rains caused flooding and damaged the channel. With $1.4 million in funding obtained, the City began construction of the initial phase of channel rehabilitation in April 2001. On January 18, 2001, a portion of a parking lot in the historic district collapsed into the underground channel. A rotted support beam of the covered channel shattered, dropping a section of the Busy Bee parking lot into the Mule Gulch drainage channel. Fortunately, no one was hurt in the recent collapse. The Mule Gulch Drainage Channel restoration project along Tombstone Canyon-Main Street was completed in 2002 (The Planning Center, 2003).

Douglas – Along the U.S and Mexico border, over 37 smuggling tunnels have been found during the period of October 1, 2008 through June 30, 2011 in the Tucson Sector which includes Nogales, Douglas and Naco. During the period of October 1, 2009 to September 30, 2010, one tunnel was located in

Douglas. Many of the tunnels were discovered by roads collapsing (Douglas Dispatch, 2011). Other smuggling tunnel events for Douglas are listed below:

- In 1990, a 270-foot elaborate tunnel with lighting and a hydraulic system that authorities valued at more than $1 million was discovered running between the town of Agua Prieta (in the Mexican state of Sonora) and Douglas, Arizona. An investigation revealed that more than a metric ton (2,250 pounds) of cocaine had been smuggled through that tunnel from Mexico into the United States.
- In August 2011, a tunnel collapsed in Douglas, Arizona leading from a rental house 25 feet south of the house. An entry on the Mexico side of the border could not be located. The rental house is just a few feet from the international border and east of the Douglas Port of Entry on C Avenue and International Street. The discovery was made by a nearby resident who entered the house and found a 14 inch diameter hole in the floor.(Arizona Star, August 26, 2011)

Probability and Magnitude

The probability and magnitude of building collapse will vary greatly depending on ground surface stability and development activities. The state of the mines in Tombstone will continue to degrade over time. Earthquakes may also serve as a trigger or cause of a mine collapse that could cause major damage to the structures, but significant seismic activity is deemed unlikely due the long re-occurrence interval reported by the USGS and AZGS.

A Main Street portion of the Mule Gulch drainage channel has been rehabilitated, but there are several reaches of the Tombstone Canyon structure that remain in need of repair and threaten nearby homes and businesses.

The tunneling efforts for human and drug trafficking will likely continue along the border, however, the greatest majority of tunneling activity occurs in Nogales.

One way to estimate the risk of building collapse is to map the limits of the underground voids or hazard areas, estimate their corresponding limits of influence due to a collapse, and determine the structure and population exposure. At the time of this writing, the Planning Team chose to map the underground mine workings currently threatening the City of Tombstone's historical district. Data for the other hazard areas was unavailable for this Plan, but could potentially be included with the next update. The following two classes of hazard risk were assigned by the Planning Team:

HIGH Hazard = Areas of potential mine collapse risk based on the known and mapped existence of underground mine works.

LOW Hazard = All other areas outside the delineated limits

As was demonstrated in the 2012 Plan, Map 5.1 displays a city-wide map of the City of Tombstone, which shows the location and hazard classifications for each mine delineated location.

Vulnerability – CPRI Results

Building collapse CPRI results for each jurisdiction are summarized in the following table.

Table 5.5. CPRI Results by Jurisdiction for Building Collapse/Mine Subsidence

Participating Jurisdiction	Probability	Magnitude/ Severity	Warning Time	Duration	CPRI Score
Benson	1.95 (Possible/Unlikely)	2.0 (Limited)	3.58 (< 6 hours/12-24 hours)	2.37 (< 24 hours/< 1 week)	2.25

Participating Jurisdiction	Probability	Magnitude/ Severity	Warning Time	Duration	CPRI Score
Bisbee	2.02 (Possible/Likely)	2.29 (Limited/Critical)	3.51 (6-12 hours/< 6 hours)	2.27 (< 24 hours/< 1 week)	2.35
Douglas	1.6 (Unlikely/Possible)	1.5 (Negligible/Limited)	3.2 (6-12 hours/< 6 hours)	1.5 (<6 hours/< 24 hours)	1.80
Huachuca City	1.42 (Unlikely/Possible)	1.71 (Negligible/Limited)	3.65 (6-12 hours/<6 hours)	1.71 (<6 hours/<24 hours)	1.87
Sierra Vista	2.04 (Possible/Likely)	2.04 (Limited/Critical)	3.61 (6-12 hours/< 6 hours)	1.83 (<6 hours/< 24 hours)	2.25
Tombstone	1.83 (Unlikely/Possible)	1.67 (Negligible/Limited)	3.67 (6-12 hours/< 6 hours)	1.67 (< 6 hours/<24 hours)	2.04
Willcox	1.31 (Unlikely/Possible)	1.38 (Negligible/Limited)	3.69 (6-12 hours/<6 hours)	1.69 (< 6 hours/<24 hours)	1.14
Unincorporated Cochise County	2.07 (Possible/Likely)	2.07 (Limited/Critical)	3.9 (6-12 hours/< 6 hours)	2.17 (< 24 hours/< 1 week)	2.35
				County-wide average CPRI =	**2.00**

Based on the CPRI Evaluation, the City of Bisbee and those living and working in Unincorporated Cochise County believe that they are most at risk from a Building Collapse / Mine Subsidence event. As demonstrated in the table above, the probability of this event occurring in these two jurisdictions is more likely and the magnitude of event impacts would be more significant.

Vulnerability – Loss Estimations

The estimation of potential losses due to building collapse was conducted during the 2012 Plan update by intersecting the human and facility assets with the building collapse/mine subsidence hazard limits depicted on Map 1. As stated previously, building collapse data was only readily available for the City of Tombstone. Therefore, the results of this analysis are expected to underestimate the exposure of people and infrastructure within Cochise County.

Since no common methodology is available for obtaining losses from the exposure values, estimates of dollar losses attributable to this hazard are not made. Exposure estimates to all facilities located within the high hazard area are based on the proximity of mine subsidence areas located directly beneath historical buildings. Most of the assets located within high hazard mine subsidence areas such as the Nellie Cashman Restaurant, Old Firehouse, Big Nose Cave Saloon, Crystal Palace and the Library are subject to unstable foundations due to the subterranean voids below the ground surface within the City of Tombstone. Other impacts to both buried and above ground utilities are likely in the event of a mine subsidence event.

The City of Bisbee may suffer underground infrastructure erosion from building collapse during a significant rainstorm causing the drainage channel to fill with large volumes of rushing water. The City of Douglas could be impacted from criminal tunneling anywhere along the border, and not fixed to any particular locations. This area will continue to be vulnerable to a moving hazard as the criminal element will determine the location of the next underground tunnel. It should be noted that the Planning Team recognizes that the probability of a building collapse occurring at multiple (or all) locations at the same time is essentially zero. Accordingly, the loss estimates presented below are intended to serve as a collective evaluation of the potential exposure to building collapse events.

In summary, $20.0 million in City of Tombstone critical facilities (nearly 10% of all the critical facilities in Tombstone) are estimated to be exposed to a high building collapse/mine subsidence hazard. An

additional $5.1 million in 2010 Census City of Tombstone residential housing units (over 3% of all the residential housing units in Tombstone) are estimated to be exposed to a high building collapse/mine subsidence hazard. Regarding human vulnerability, a total City of Tombstone population of 31 people, or 2.22% of the total Tombstone population, are potentially exposed to a high building collapse/mine subsidence hazard event. Multiple deaths and injuries are plausible and a portion of the exposed population is subject to displacement depending on the event magnitude. Based off of the CPRI Evaluation, it seems that the general public underestimates the risk presented by this hazard and additional outreach and education may be warranted.

Vulnerability – Development Trend Analysis

Since the 2010 Census, there has been a population decline in both the County and Tombstone. Development of the high hazard areas indicated on the map at the end of this section has been very limited, particularly since the 1997 and 1998 events. Future development of those areas will require extensive geotechnical investigations to ensure the stability and longevity of any structures.

High risk areas within Bisbee are generally not subject to future development except for simple repairs and renovations. Any future development of significance will require a structural evaluation of the current drainage channel to determine the adverse impacts of structural loading on the nearly 100 year old system. A failure modes evaluation and analysis may be warranted with a larger re-development of the area.

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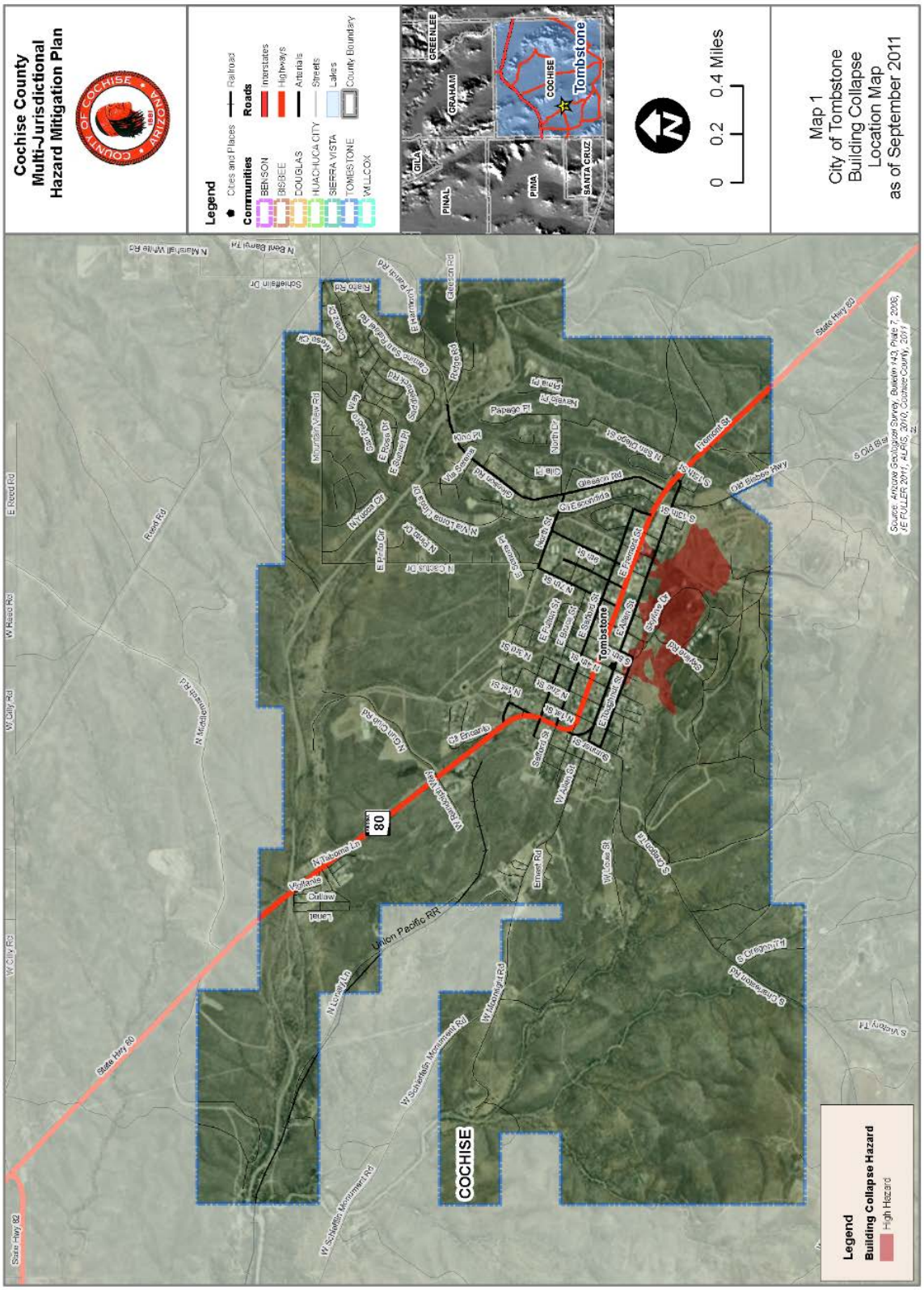
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Profile Maps

Map 5.1 – Potential Building Collapse Hazard Map - City of Tombstone (2012 HMP Plan)

Map 5.1. City of Tombstone Building Collapse



5.3.2 Drought

Description

Drought is a normal part of virtually every climate on the planet, including areas of high and low rainfall. It is different from normal aridity, which is a permanent characteristic of the climate in areas of low rainfall. Drought is the result of a natural decline in the expected precipitation over an extended period of time, typically one or more seasons in length. The severity of drought can be aggravated by other climatic factors, such as prolonged high winds and low relative humidity (FEMA, 1997).

Drought is a complex natural hazard which is reflected in the following four definitions commonly used to describe it:

- Meteorological – drought is defined solely on the degree of dryness, expressed as a departure of actual precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales.
- Hydrological – drought is related to the effects of precipitation shortfalls on streamflows and reservoir, lake, and groundwater levels.
- Agricultural – drought is defined principally in terms of naturally occurring soil moisture deficiencies relative to water demands of plant life, usually arid crops.
- Socioeconomic – drought associates the supply and demand of economic goods or services with elements of meteorological, hydrologic, and agricultural drought. Socioeconomic drought occurs when the demand for water exceeds the supply as a result of weather-related supply shortfall. It may also be called a water management drought.

A drought's severity depends on numerous factors, including duration, intensity, and geographic extent as well as regional water supply demands by humans and vegetation. Due to its multi-dimensional nature, drought is difficult to define in exact terms and also poses difficulties in terms of comprehensive risk assessments.

Drought differs from other natural hazards in three ways. First, the onset and end of a drought are difficult to determine due to the slow accumulation and lingering effects of an event after its apparent end. Second, the lack of an exact and universally accepted definition adds to the confusion of its existence and severity. Third, in contrast with other natural hazards, the impact of drought is less obvious and may be spread over a larger geographic area. These characteristics have hindered the preparation of drought contingency or mitigation plans by many governments.

Droughts may cause a shortage of water for human and industrial consumption, hydroelectric power, recreation, and navigation. Water quality may also decline and the number and severity of wildfires may increase. Severe droughts may result in the loss of agricultural crops and forest products, undernourished wildlife and livestock, lower land values, and higher unemployment.

History

According to the 2015 Arizona State Drought Preparedness Plan, Arizona has been in a state of long-term drought for approximately 21 years and most major reservoirs are only 50% full. A drought emergency declaration has been in effect since 1999. In the year 2015 alone, 10 disaster designations were issued by the U.S. Department of Agriculture. The following figures depict recent precipitation data from NCEI regarding average statewide precipitation variances from normal. Between 1849 and 1905, the most prolonged period of drought conditions in 300 years occurred in Arizona (Jacobs, 2003). Another prolonged drought occurred during the period of 1941 to 1965. The period from 1979-1983 appears to have been anomalously wet, while the rest of the historical records shows that dry conditions are most likely the normal condition for Arizona. Between 1998 and 2007, there have been more months with below normal precipitation than months with above normal precipitation. The following

figure shows the decreasing trend of precipitation, as compared to the baseline (using data from 1901 – 2000).

In August 2011, the USDA declared Cochise County and 4 other Arizona counties as primary natural disaster areas due to damage and losses caused by ongoing drought and related disasters that began January 1st and continue.

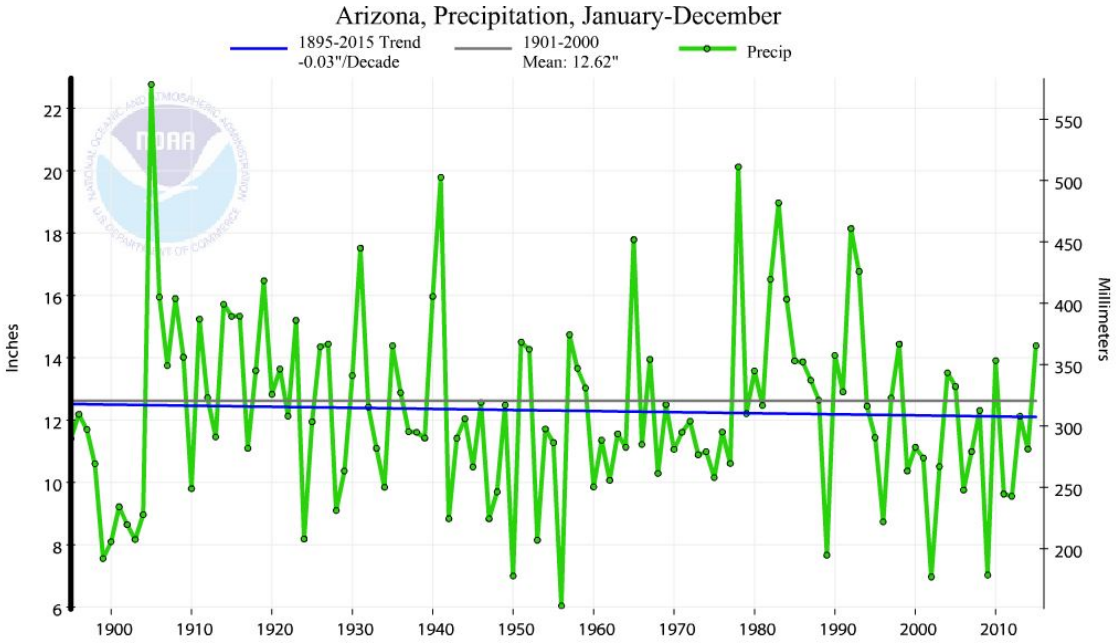


Figure 5.1. Average Statewide Precipitation Variances from a Normal Based on 1895-2015 Period

Probability and Magnitude

There is no commonly accepted return period or non-exceedance probability for defining the risk from drought (such as the 100-year or 1% annual chance of flood). The magnitude of drought is usually measured in time and the severity of the hydrologic deficit. There are several resources available to evaluate drought status and even project expected conditions for the very near future.

The National Integrated Drought Information System (NIDIS) Act of 2006 (Public Law 109-430) prescribes an interagency approach for drought monitoring, forecasting, and early warning (NIDIS, 2007). The NIDIS maintains the U.S. Drought Portal[25] which is a centralized, web-based access point to several drought related resources including the U.S. Drought Monitor (USDM) and the U.S. Seasonal Drought Outlook (USSDO). The USDM, shown in the following figure, is a weekly map depicting the current status of drought and is developed and maintained by the National Drought Mitigation Center. The USSDO, shown in Figure 4, is a six month projection of potential drought conditions developed by the National Weather Service's Climate Prediction Center. The primary indicators for these maps for the Western U.S. are the Palmer Hydrologic Drought Index and the 60-month Palmer Z-index. The Palmer Drought Severity Index (PSDI) is a commonly used index that measures the severity of drought for agriculture and water resource management. It is calculated from observed temperature and precipitation values and estimates soil moisture. However, the Palmer Index is not considered to be consistent enough to characterize the risk of drought on a nationwide basis (FEMA, 1997) and neither of the Palmer indices are well suited to the dry, mountainous western United States.

[25] NIDIS U.S. Drought Portal website is located at: http://www.drought.gov/portal/server.pt/community/drought.gov/202

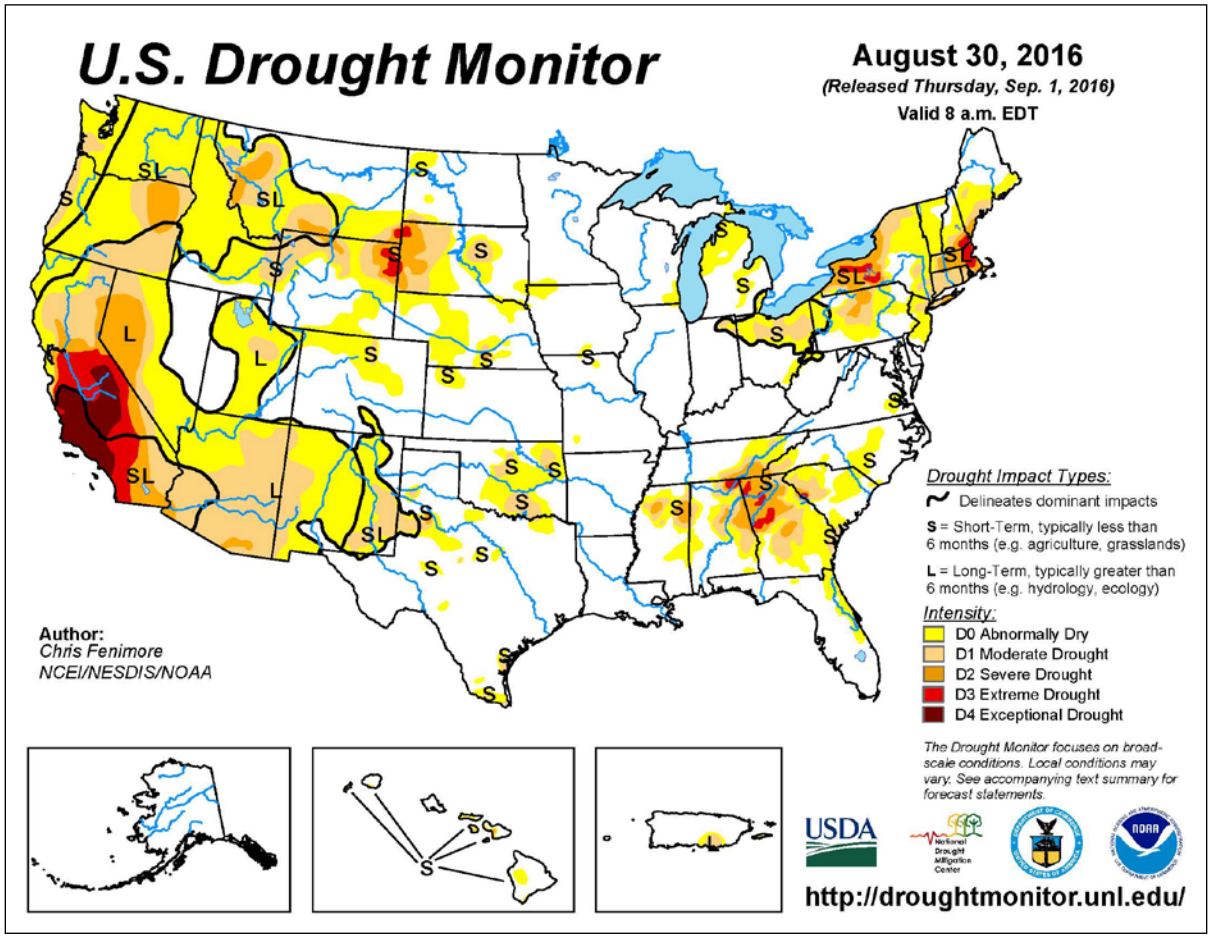


Figure 5.2. U.S. Drought Monitor Map for August 30, 2016

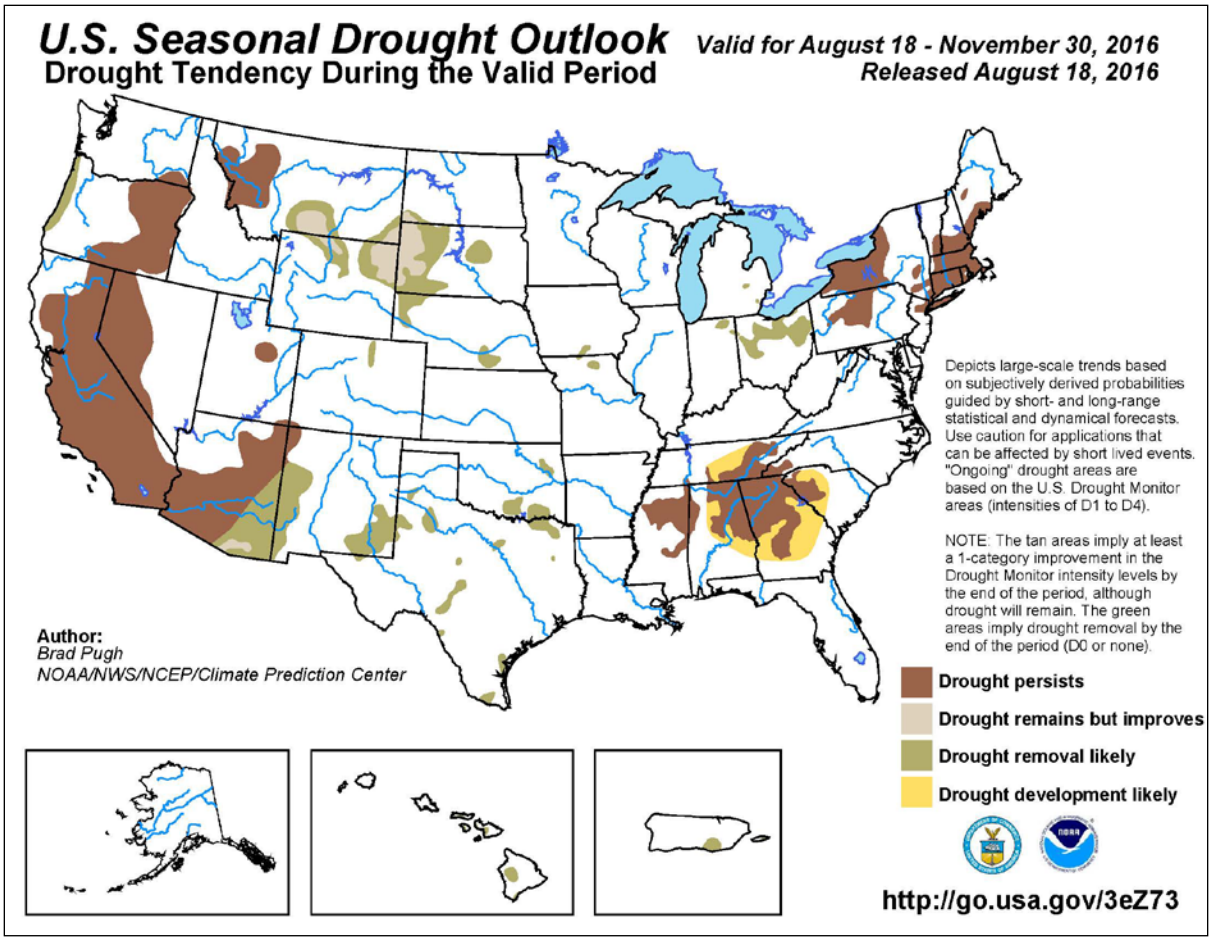


Figure 5.3.U.S. Seasonal Drought Outlook

Source: http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.pdf

In 2003, Governor Janet Napolitano created the Arizona Drought Task Force (ADTF), led by ADWR, which developed a statewide drought plan. The plan includes criteria for determining both short and long-term drought status for each of the 15 major watersheds in the state using assessments that are based on precipitation and stream flow. The plan also provides the framework for an interagency group which reports to the governor on drought status, in addition to local drought impact groups in each county and the State Drought Monitoring Technical Committee. Twice a year this interagency group reports to the governor on the drought status and the potential need for drought declarations. The counties use the monthly drought status reports to implement drought actions within their drought plans. The State Drought Monitoring Technical Committee uses the Standardized Precipitation Index (SPI) for the short-term drought status and a combination of the SPI and streamflow for the long-term drought status. The following two figures present the most current short and long term maps available as of the writing of this plan.

The current drought maps are in general agreement that Cochise County is in a moderate drought condition (with a portion of the western county still considered severe) and that long term conditions are expected to remain abnormally dry.

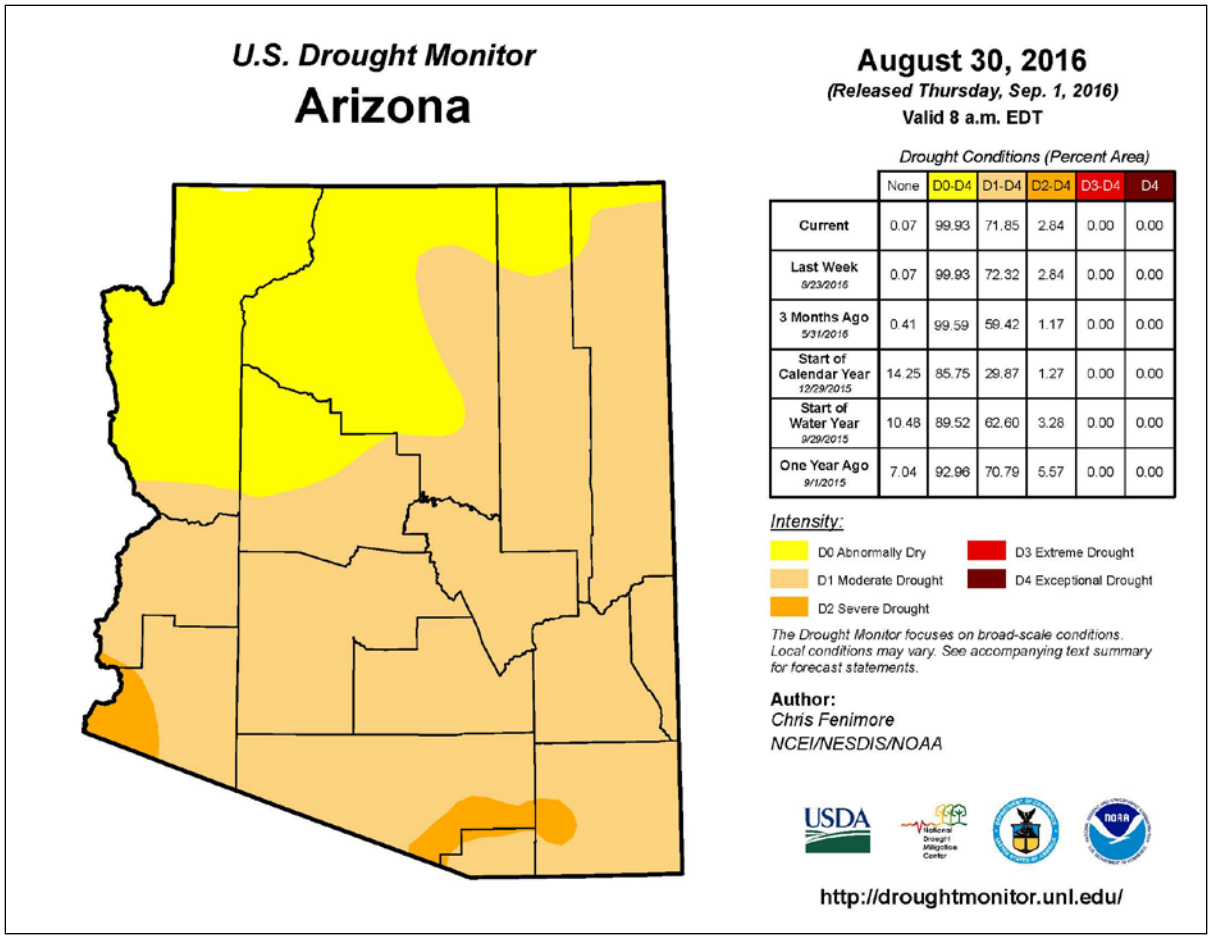


Figure 5.4. Arizona Short Term Drought Status Map

Source: Arizona Drought Monitor Report - August 2016:
http://droughtmonitor.unl.edu/data/pdfs/20160830/20160830_AZ_trd.pd

The majority of domestic water for Cochise County is supplied by wells that tap into various groundwater sources. The primary sources of water for some private wells are small, shallow microbasins that are heavily dependent on rainfall and runoff. During times of drought, these microbasins can be rapidly over-drafted, leaving some wells dry or significantly impaired. Deeper aquifers are impacted by drought through reduction of surface waters flowing in the perennial streams and cienegas, and a general lowering of the groundwater table. Conditions are compounded when more demand is placed on these aquifers once the shallower microbasins begin to dry up.

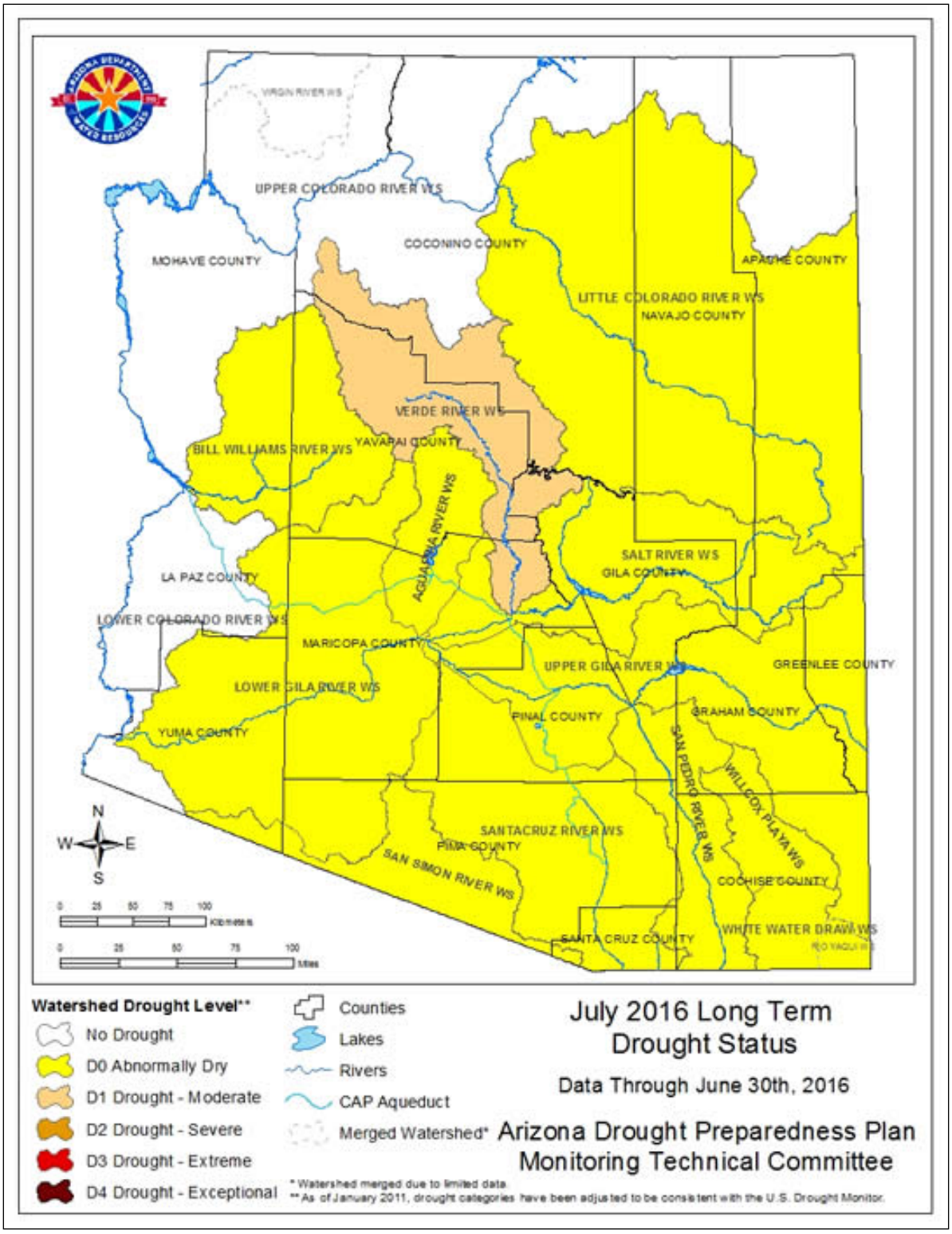


Figure 5.5. Arizona Long Term Drought Status Map

Source: ADWR, 2011, Arizona Drought Monitor Report - July 2016

In areas such as the San Pedro River Valley, lowering of the groundwater due to drought and increased domestic demands also impacts the ecology of the riparian corridor. The following are examples of the impacts reported (Garfin, 2005):

- "A water resources consultant reports that a highly unusual die off of cottonwood trees has occurred. He reports that 50% of cottonwood trees, with up to 8 ft. girths, in a riparian area in Texas Canyon, between Willcox and Benson, AZ, died during the past year. Cottonwoods love to have their roots in the water. These big ones (probably 100+ years old) definitely survived previous droughts."
- "The range-and-agricultural area, near McNeal, AZ looks like a lunar landscape. The rangelands in the area are absolutely devastated. Leafless mesquite trees throughout the landscape. Mesquite are usually quite flush with leaves this time of year. It takes a lot of drought to kill mesquite. Caveat: because I do not visit this area regularly, I cannot determine when various impacts occurred. The southern part of the basin (known as Whitewater Draw) has had chronic water table declines, due in part to drought."

Another major impact that is believed to be strongly influenced by drought is the formation of giant desiccation cracks (GDC) within the County. Giant desiccation cracks usually occur in clay-rich soils and are similar to mud cracks or large soil cracks, but on a much larger scale. It is widely believed that earth fissures in the County are the result of subsidence due to groundwater pumping, but GDC are different than fissures. In general, earth fissures from groundwater pumping are longer, straighter, and deeper than GDCs. According to the Arizona Geological Survey (AZGS), the increase in GDC formation is strongly believed to be linked to climatic conditions (i.e. – drought) as well as subsidence, with a marked increase in reports of giant desiccation cracking since 1998 (Harris, 2004). This also happens to coincide with the current drought cycle.

Vulnerability – CPRI Results

Drought CPRI results for each community are summarized in the following table.

Table 5.6. CPRI Results by Jurisdiction for Drought

Participating Jurisdiction	Probability	Magnitude/ Severity	Warning Time	Duration	CPRI Score
Benson	3.32 (Likely/Highly Likely)	2.21 (Limited/Critical)	1.21 (< 24 hours/12-24 hours)	3.68 (< 1 week/> 1 week)	2.71
Bisbee	2.61 (Possible/ Likely)	2.2 (Limited/Critical)	1.54 (> 24 hours/12-24 hours)	3.59 (< 1 week/> 1 week)	2.42
Douglas	2.3 (Possible/Likely)	2.2 (Limited/Critical)	2.0 (12-24 hours)	3.2 (> 1 week/< 1 week)	2.32
Huachuca City	2.74 (Possible/Likely)	2.26 (Limited/Critical)	2.39 (12-24 hours/6-12 hours)	2.97 (< 24 hours/< 1 week)	2.57
Sierra Vista	3.17 (Likely/Highly Likely)	2.26 (Limited/Critical)	1.39 (> 24 hours/12-24 hours)	3.43 (<1 week/> 1 week)	2.66
Tombstone	2.33 (Possible/Likely)	2.17 (Limited/Critical)	1.83 (12-24 hours/> 24 hours)	3.5 (> 1 week/< 1 week)	2.32
Willcox	2.56 (Possible/Likely)	2.06 (Limited/Critical)	1.81 (> 24 hours/12-24 hours)	3.31 (> 1 week/< 1 week)	1.22
Unincorporated Cochise County	3.03 (Likely/Highly Likely)	2.31 (Limited/Critical)	1.21 (> 24 hours/12-24 hours)	3.97 (> 1 week/< 1 week)	2.64
				County-wide average CPRI =	2.36

Based on the CPRI Evaluation, the City of Benson, Sierra Vista and those living or working Unincorporated Cochise County are perceived to be the most at risk from a Drought. Although, as described earlier, drought has cross-regional impacts and all communities within Cochise County could ultimately suffer consequences of drought impacts if their neighboring communities are affected.

Vulnerability – Loss Estimations

No standardized methodology exists for estimating losses due to drought and drought does not generally have a direct impact on critical and non-critical facilities and building stock. A direct correlation to loss of human life due to drought is improbable for Cochise County. Instead, drought vulnerability is primarily measured by its potential impact to certain sectors of the County economy and natural resources including:

- Crop and livestock agriculture
- Municipal and industrial water supply
- Recreation/tourism
- Wildlife and wildlife habitat

Sustained drought conditions will also have secondary impacts to other hazards such as fissures, flooding, subsidence and wildfire. Extended drought may weaken and dry the grasses, shrubs, and trees of wildfire areas, making them more susceptible to ignition. Drought also tends to reduce the vegetative cover in watersheds, and hence decrease the interception of rainfall and increase the flooding hazard. Subsidence and fissure conditions are aggravated when lean surface water supplies force the pumping of more groundwater to supply the demand without the benefit of recharge from normal rainfall.

From 1995 to 2014, Cochise County farmers and ranchers received $15.3 million in disaster related assistance funding from the U.S Department of Agriculture (USDA) for crop and livestock damages (EWG, 2016). $2.3 million was paid in 2014, which is a funding magnitude not seen since 2005. This warrants additional tracking as newer data is made available. Over $10 million of those funds were received during the time period of 1999 to 2005, which corresponds to the most severe period of the current drought cycle for Cochise County. According to the University of Arizona Cooperative Extension, most cattle ranchers in 2002/2003 found themselves forced to give up grazing lands early in the summer due to lack of forage. When faced with the choice of buying feed for the cattle or selling the animals at a loss, most went to auction. On a statewide basis, it is estimated that the 2002 losses associated with the discounted sell-off of cattle herds cost Arizona ranchers approximately $400 million (Kattnig, n.d.). According to the USDA, Cochise County ranchers accounted for approximately 3.5% of the total cash receipts for the state in 2002 (USDA, 2004). Assuming that the losses experienced by Cochise County ranchers correlates to the percentage of cash receipts respective to state-wide losses, then it is feasible to estimate that $14 million of those losses are directly attributable to Cochise County ranchers.

Estimates of economic losses incurred by public and private entities having to adjust or compensate for drought related domestic water supply shortages are difficult to estimate. The University of Arizona has performed an urban water sensitivity analysis for various areas in Arizona through the Climate Assessment Project for the Southwest (CLIMAS). According to one of the CLIMAS documents, domestic and agricultural water use during periods of drought will force an increased reliance upon non-renewable groundwater by 30 to 50% (U of A, 2000). The implications of a sustained aquifer overdraft at these rates would be significant, resulting in increased pumping costs and negative impacts to the San Pedro River riparian ecosystem.

Other direct costs such as increased pumping costs due to lowering of groundwater levels and costs to expand water infrastructure to compensate for reduced yields or to develop alternative water sources, are a significant factor but very difficult to estimate due to a lack of documentation. There are also the intangible costs associated with lost tourism revenues, and impacts to wildlife habitat and animals.

Typically, these impacts are translated into the general economy in the form of higher food and agricultural goods prices and increased utility costs.

Vulnerability – Development Trends

Population projections show a decline across most all of Cochise County and its jurisdictions. Any future population growth will require additional surface and ground water to meet the demands of potable, landscape, and industrial uses. It is unlikely that significant growth will occur in the ranching and farming sectors given the continued constraints on water rights, grazing rights, and available range land.

Drought planning should be a critical component of any domestic water system expansions or land development planning. The ADTF is also working cooperatively with water providers within the State to develop System Water Plans that are comprised of three components:

- *Water Supply Plan* – describes the service area, transmission facilities, monthly system production data, historic demand for the past five years, and projected demands for the next five, 10 and 20 years.
- *Drought Preparedness Plan* – includes drought and emergency response strategies, a plan of action to respond to water shortage conditions, and provisions to educate and inform the public.
- *Water Conservation Plan* – addresses measures to control lost and unaccounted for water, considers water rate structures that encourage efficient use of water, and plans for public information and education programs on water conservation.

The combination of these requirements will work to ensure that future development in Cochise County will recognize drought as a potential constraint.

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Profile Maps - No profile maps are included/applicable.

5.3.3 Earthquake

Description

An earthquake is the motion or trembling of the ground produced by sudden displacement of rock usually within the upper 10 – 20 miles of the Earth's crust. Earthquakes can affect hundreds of thousands of square miles, cause damage to property measured in the tens of billions of dollars, result in loss of life and injury to hundreds of thousands of people, and disrupt the social and economic functioning of the affected area. Most property damage and earthquake-related deaths are caused by the failure and collapse of structures due to ground shaking which is dependent upon amplitude and duration of the earthquake (FEMA, 1997).

Earthquake Mechanics

Regardless of the source of the earthquake, the associated energy travels in waves radiating outward from the point of release. When these waves travel along the surface, the ground shakes and rolls, fractures form, and water waves may be generated. Earthquakes generally last a matter of seconds but the waves may travel for long distances and cause damage well after the initial shaking at the point of origin has subsided.

Breaks in the crust associated with seismic activity are known as "faults" and are classified as either active or inactive. Faults may be expressed on the surface by sharp cliffs or scarps or may be buried below surface deposits.

"Foreshocks," minor releases of pressure or slippage, may occur months or minutes before the actual onset of the earthquake. "Aftershocks," which range from minor to major, may occur for months after the main earthquake. In some cases, strong aftershocks may cause significant additional damage, especially if the initial earthquake impacted emergency management and response functions or weakened structures.

Factors Contributing to Damage

The damage associated with each earthquake is subject to four primary variables:

- The nature of the seismic activity
- The composition of the underlying geology and soils
- The level and quality of development of the area struck by the earthquake
- The time of day

Seismic Activity: The properties of earthquakes vary greatly from event to event. Some seismic activity is localized (a small point of energy release), while other activity is widespread (e.g., a major fault shifting or slipping all at once). Earthquakes can be very brief (only a few seconds) or last for a minute or more. The depth of release and type of seismic waves generated also play roles in the nature and location of damage; shallow quakes will hit the area close to the epicenter harder, but tend to be felt across a smaller region than deep earthquakes.

Geology and Soils: The surface geology and soils of an area influence the propagation (conduction) of seismic waves and how strongly the energy is felt. Generally, stable areas (e.g., solid bedrock) experience less destructive shaking than unstable areas (e.g., fill soils). The siting of a community or even individual buildings plays a strong role in the nature and extent of damage from an event.

Development: An earthquake in a densely populated area which results in many deaths and considerable damage may have the same magnitude as a shock in a remote area that has no direct impacts. Large magnitude earthquakes that occur beneath the oceans may not even be felt by humans.

Time of Day: The time of day of an event controls the distribution of the population of an affected area. On work days, the majority of the community will transition between work or school, home, and the commute between the two. The relative seismic vulnerability of each location can strongly influence the loss of life and injury resulting from an event.

Types of Damage

Often, the most dramatic evidence of an earthquake results from the vertical and/or horizontal displacement of the ground along a fault line. This displacement can sever transportation, energy, utility, and communications infrastructure potentially impacting numerous systems and persons. These ground displacements can also result in severe and complete damages to structures situated on top of the ground fault. However, most damage from earthquake events is the result of shaking. Shaking also produces a number of phenomena that can generate additional damage

- Additional ground displacement
- Landslides and avalanches
- Liquefaction and subsidence
- Seismic Seiches

Shaking: During minor earthquake events, objects often fall from shelves and dishes rattle. In major events, large structures may be torn apart by the forces of the seismic waves. Structural damage is generally limited to older structures that are poorly maintained, poorly constructed, or improperly (or not) designed for seismic events. Un-reinforced masonry buildings and wood frame homes not anchored to their foundations are typical victims of earthquake damage.

Loose or poorly secured objects also pose a significant hazard when they are loosened or dropped by shaking. These "non-structural falling hazard" objects include bookcases, heavy wall hangings, and building facades. Home water heaters pose a special risk due to their tendency to start fires when they topple over and rupture gas lines. Crumbling chimneys may also be responsible for injuries and property damage.

Dam and bridge failures are significant risks during stronger earthquake events, and due to the consequences of such failures, may result in considerable property damage and loss of life. In areas of severe seismic shaking hazard, shaking Intensity levels of VII or higher (see following Table 8) can be experienced even on solid bedrock. In these areas, older buildings especially are at significant risk.

Ground Displacement: Ground displacement can also occur due to shaking, resulting in similar damages as mentioned previously.

Landslides and Avalanches: Even small earthquake events can cause landslides. Rock falls are common as unstable material on steep slopes is shaken loose, but significant landslides or even debris flows can be generated if conditions are ripe. Roads may be blocked by landslide activity, hampering response and recovery operations. Avalanches are possible when the snowpack is sufficient.

Liquefaction and Subsidence: Soils may liquefy and/or subside when impacted by the seismic waves. Fill and previously saturated soils are especially at risk. The failure of the soils has the potential to cause widespread structural damage. The oscillation and failure of the soils may result in increased water flow and/or failure of wells as the subsurface flows are disrupted and sometimes permanently altered. Increased flows may be dramatic, resulting in geyser-like water spouts and/or flash floods. Similarly, septic systems may be damaged creating both inconvenience and health concerns.

Seiches: Seismic waves may rock an enclosed body of water (e.g., lake or reservoir), creating an oscillating wave referred to as a "seiche." Although not a common cause of damage in past Arizona earthquakes, there is a potential for large, forceful waves similar to a tsunami ("tidal waves") to be generated on the large reservoirs. Such a wave would be a hazard to shoreline development and pose a significant risk on dam-created reservoirs. A seiche could either overtop or damage a dam leading to downstream flash flooding.

Environmental impacts of earthquakes can be numerous, widespread, and devastating, particularly if indirect impacts are considered. Some examples of impacts are listed below:

- Induced flooding and landslides
- Poor water quality
- Damage to vegetation
- Breakage in sewage or toxic material containments

History

Arizona experiences more earthquakes than most states in the nation. Being in such close proximity to California and Mexico, which both experience a significant amount of earthquakes, increases Arizona's risk and vulnerability to earthquake hazards. Many times earthquakes that are felt in Cochise County when the epicenter is located in nearby Mexico.

According to the United State Geological Survey (USGS), from 1830 to 2016 a total of 15 earthquake epicenters have occurred in Cochise County with a maximum magnitude of 6.9. The following table shows details of earthquake events that have taken place within the county:

Table 5.7. Earthquake Events in Cochise County (1830-2016)

Year (City)	Number of Events	Max Magnitude
1830 (San Pedro)	1	6.9
1887	1	4.9
1888	1	5
1893	1	4.9
1899	2	4.9
1934 (Pearce)	1	4.9
1938(San Simon)	1	4.9
1958(Paul Spur)	1	4.9
1961	1	2.6
1962	2	2.9
1989 (San Bernardino)	3	3.1

The largest recorded earthquakes in Arizona have occurred in San Pedro, San Bernardino, and just north of Flagstaff. The San Pedro event had an epicenter about 25 miles west of Tucson and caused massive

damage to build structures. The southeastern and southwestern corners of the state are where the greatest intensity of earthquakes have occurred. Active faults in Arizona, California, and Mexico have generated large earthquakes that have damaged structures within Arizona's borders. The Sonoran earthquake in 1887 had a magnitude of 7.2 and occurred along the Pitaycachi fault in Mexico. The epicenter for this event was located approximately 40 miles south of Douglas, Arizona.

The town of Duncan (Greenlee County), which is located near Cochise County, has experienced two significant earthquake events in 1939 and in 2014. The 1939 event was estimated to be a magnitude 5.0 and is used as the model in this report for analyzing future impacts countywide. Hazus analysis used the same epicenter as the Duncan earthquake, along with an estimated worst-case scenario magnitude, to identify loss estimations. This process is further explained in a following section.

The following figure, provided by the Arizona Earthquake Information Center, shows earthquake epicenters and faults that have occurred in Cochise between 1830 and 2016.

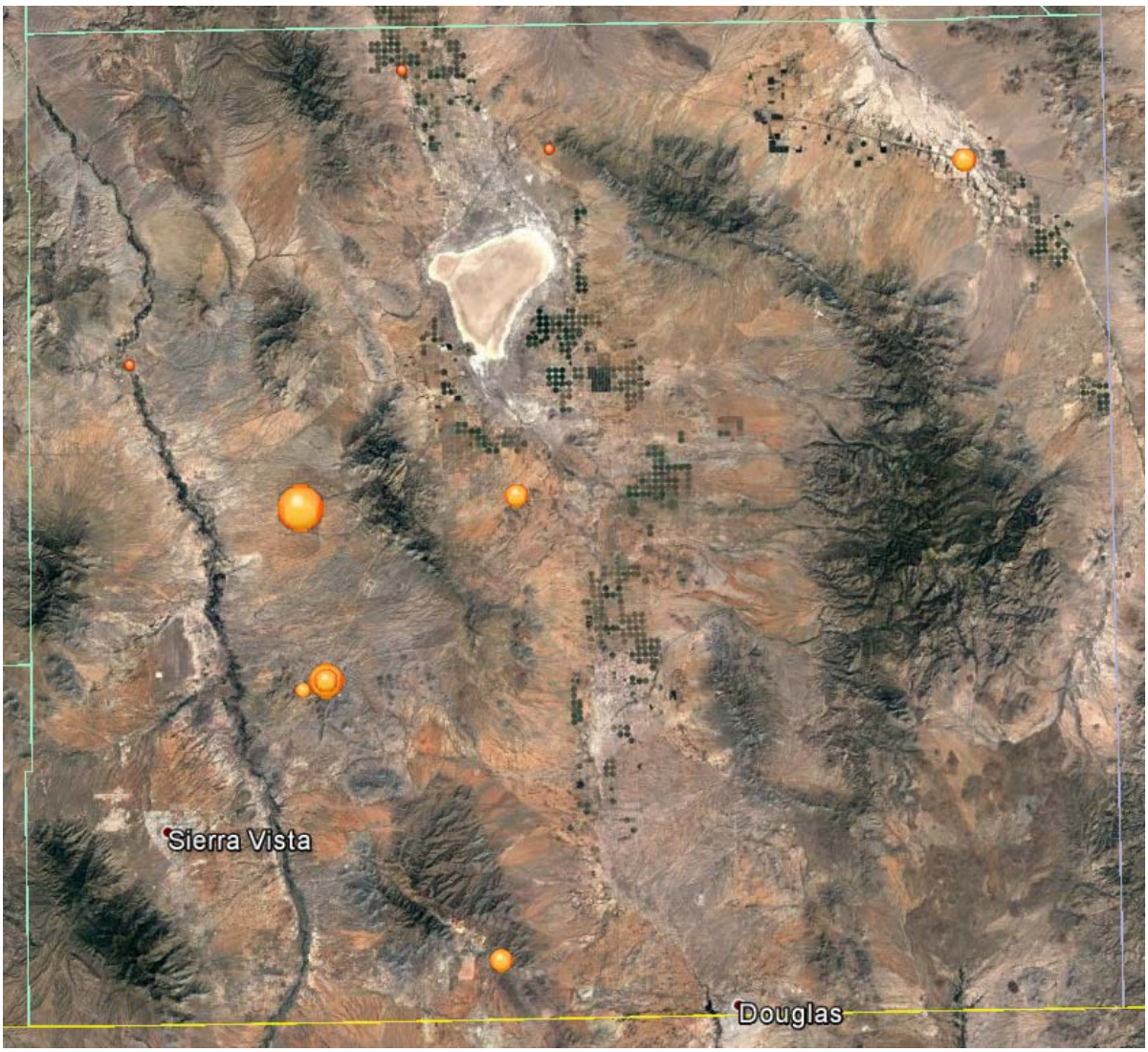


Figure 5.6.Earthquake Epicenters in Cochise County

Probability and Magnitude

The impact an earthquake event has on an area is typically measured in terms of earthquake intensity. Intensity is most commonly measured using the Modified Mercalli Intensity (MMI) Scale based on direct and indirect measurements of seismic effects.

Another way to express an earthquake's severity is to compare its acceleration to the normal acceleration due to gravity. Peak ground acceleration (PGA) measures the strength of ground movements in this manner. PGA represents the rate in change of motion of the earth's surface during an earthquake as a percent of the established rate of acceleration due to gravity. PGA can be partly determined by what soils and bedrock characteristics exist in the region. Unlike the Richter scale, PGA is not a measure of the total energy released by an earthquake, but rather of how hard the earth shakes at a given geographic area (the intensity). PGA is measured by using instruments including accelerographs and correlates well with the Mercalli scale.

When the peak ground acceleration nears 0.04 – 0.092g, an earthquake can be felt by people walking outside. As PGA nears 0.19 – 0.34g the intensity is considered to be very strong. At this level, plaster can break off and fall away from structures and cracks in walls often occur. PGA magnitudes of 1.24g are considered to be very disastrous. This magnitude of ground acceleration represents an earthquake of roughly 6.9 to 8.1 on the Richter Scale.

The Richter Scale is the most commonly used scale for measuring earthquake magnitudes and potential impacts. Because the public and policy makers are most familiar with the Richter Scale, this plan will use the Richter Scale coupled with PGA for the hazard risk assessment.

A detailed description of the Modified Mercalli Intensity Scale as it relates to PGA, the Richter Scale, and damage effects is shown in the following table.

Table 5.8. Modified Mercalli intensity scale

SCALE	INTENSITY	DESCRIPTION OF EFFECTS	PGA (g)	RICHTER SCALE MAGNITUDE
I	Instrumental	Detected only on seismographs	< 0.0017	< 4.2
II	Feeble	Some people feel it	0.0018 – 0.014	
III	Slight	Felt by people resting; like a truck rumbling by		
IV	Moderate	Felt by people walking	0.015 – 0.039	
V	Slightly Strong	Sleepers awake; church bells ring	0.040 – 0.092	< 4.8
VI	Strong	Trees sway; suspended objects swing; objects fall off shelves	0.093 – 0.18	< 5.4
VII	Very Strong	Mild alarm, walls crack, plaster falls	0.19 – 0.34	< 6.1

SCALE	INTENSITY	DESCRIPTION OF EFFECTS	PGA (g)	RICHTER SCALE MAGNITUDE
VIII	Destructive	Moving cars uncontrollable, masonry fractures, poorly constructed buildings damaged	0.34 – 0.65	< 6.9
IX	Ruinous	Some houses collapse, ground cracks, pipes break open	0.65 – 1.24	
X	Disastrous	Ground cracks profusely, many buildings destroyed, liquefaction and landslides widespread	> 1.24	< 7.3
XI	Very Disastrous	Most buildings and bridges collapse, roads, railways, pipes and cables destroyed, general triggering of other hazards	> 1.24	< 8.1
XII	Catastrophic	Total destruction, trees fall, ground rises and falls in waves	> 1.24	> 8.1

Earthquakes are extremely difficult to predict and their occurrence rate is determined in one of two ways. If geologists can find evidence of distinct, datable earthquakes in the past, the number of these ruptures is used to define an occurrence rate. If evidence of ruptures is not available, geologists estimate fault slip rates from accumulated scarp heights and estimated date for the oldest movement on the scarp. Because a certain magnitude earthquake is likely to produce a displacement (slip) of a certain size, we can estimate the rate of occurrence of earthquakes of that magnitude.

Recurrence rates are different for different assumed magnitudes thought to be "characteristic" of that fault type. Generally, a smaller magnitude quake will produce a faster recurrence rate, and for moderate levels of ground motion, a higher hazard risk. Future earthquakes are assumed to be likely to occur where earthquakes have produced faults in the geologically recent past. Quaternary faults are faults that have slipped in the last 1.8 million years and it is widely accepted that they are the most likely source of future large earthquakes. For this reason, quaternary faults are used to make fault sources for future earthquake models.

Vulnerability – CPRI Results

Earthquake CPRI results for each community are summarized in the following table:

Table 5.9. CPRI Results by Jurisdiction for Earthquake

Participating Jurisdiction	Probability	Magnitude/ Severity	Warning Time	Duration	CPRI Score
Benson	2.05 (Possible/Likely)	2.05 (Limited/Critical)	3.63 (6-12 hours/< 6 hours)	2.37 (< 24 hours/< 1 week)	2.32
Bisbee	2 (Possible)	2.51 (Limited/Critical)	3.57 (6-12 hours/< 6 hours)	2.24 (< 24 hours/< 1 week)	2.41

Participating Jurisdiction	Probability	Magnitude/ Severity	Warning Time	Duration	CPRI Score
Douglas	1.6 (Unlikely/Possible)	1.7 (Negligible/Limited)	3.6 (6-12 hours/< 6 hours)	2 (< 24 hours)	1.97
Huachuca City	1.48 (Unlikely/Possible)	1.81 (Negligible/Limited)	3.61 (6-12 hours/< 6 hours)	1.81 (< 6 hours/< 24 hours)	1.93
Sierra Vista	1.87 (Unlikely/Possible)	2.26 (Limited/Critical)	3.61 (6-12 hours/< 6 hours)	1.69 (< 6 hours/< 24 hours)	2.23
Tombstone	1.5 (Unlikely/Possible)	1.5 (Negligible/Limited)	3.33 (6-12 hours/< 6 hours)	1.67 (< 6 hours/< 24 hours)	1.79
Willcox	1.94 (Unlikely/Possible)	1.88 (Negligible/Limited)	3.5 (6-12 hours/< 6 hours)	1.81 (< 6 hours/< 24 hours)	1.27
Unincorporated Cochise County	2.1 (Possible/Likely)	2.34 (Limited/Critical)	3.9 (6-12 hours/< 6 hours)	1.97 (< 6 hours/< 24 hours)	2.43
				County-wide average CPRI =	2.04

Based on the CPRI Evaluation, the City of Bisbee and those living or working in Unincorporated Cochise County have the most perceived risk from an Earthquake event. As shown in the table above, the assumed probability of this event occurring in these two jurisdictions is more likely and the magnitude of earthquake impacts are thought to be more significant.

Vulnerability – Loss Estimations

The earthquake analysis was conducted using Hazus 3.1. Standard analysis was utilized as no improved datasets were available to help further refine the loss estimation results. In order to estimate earthquake loss in and near Cochise County, major historical events were researched. Previous records indicate that the Duncan area, which is near Cochise County, has experienced large earthquake events in 1939 and 2014. Duncan is located approximately 40 miles northeast of City of Wilcox. For the Hazus earthquake analysis, the scenario modeled utilized that 1939 historical event as the event epicenter with a magnitude of 6.9 (equaling the largest historical event that has occurred within Cochise County, in 1830 near San Pedro). This scenario was used as it could represent a "worst case scenario": a large earthquake event with an epicenter very near the county. The losses were then estimated in Hazus at the census tract level.

The Hazus model estimates that about 156 buildings will be at least moderately damaged and that none will be damaged beyond repair. Most expected damage will be to single family residential structures. Casualty and injury estimates predict that Cochise County could suffer what Hazus deems 'Severity Level 1' for Single Family and Other-Residential residential structures. Severity Level 1 means that injuries will require medical attention but hospitalization is not needed. It is estimated that no persons will seek temporary shelter after this earthquake event.

Total building-related losses are expected to be $3.48 million; 72% of which would be sustained by residential structures. The total economic loss for this scenario is estimated to be $3.74 million based on the region's current inventory. No major damages are expected for critical facilities, transportation, or utility lifelines. The maps at the end of this section present some of the data produced as part of the Hazus analysis (shown at the Census tract level): Modeled PGA, Total Estimated Losses, and Estimated Displaced Households.

The modeled scenario shows the greatest estimated losses to occur in the northeastern portion of the County, which put Wilcox and unincorporated areas at the highest risk. This data contrasts greatly from what the risk perception results from the CPRI Evaluation suggest, pointing out a potential opportunity for public outreach and educational efforts relating to the risk that earthquakes pose.

Vulnerability – Development Trends

It is reasonable to expect that future earthquakes as large as 7.2 will occur in or nearby Cochise County. Earthquakes strike with little to no warning and they are capable of having multiple impacts on an area. After-effects from an earthquake can include impacted roadways, downed power and communication lines, fires, and damages to structures (especially poorly built, or those already in disrepair). Earthquakes are not a seasonal hazard, and thus can be experienced year round. This fact presents its own set of planning and preparedness concerns.

Standard building codes have the opportunity to provide the planning area with reasonable guidance for development throughout unincorporated and incorporated areas. Contractors and builders should be aware of applicable codes and regulations designed to reduce losses sustained by new and existing construction due to seismic hazards. As development grows in the planning area, it will be important for citizens to consult with local building codes as modern building codes generally require seismic design elements for new construction.

It should be assumed that all development increases the risk to the planning area from the threat of earthquakes. As population and development continue to expand in the planning area, continued enforcement of the unified construction code has great potential to mitigate increasing vulnerability and development pressure.

The following figure shows that Cochise County has some of the highest chances for experiencing the most severe ground shaking across the State. Jurisdictions that could be most impacted include: Bisbee, Huachuca City, and Sierra Vista, in addition to unincorporated areas shown as being covered by the darker red in the following figure.

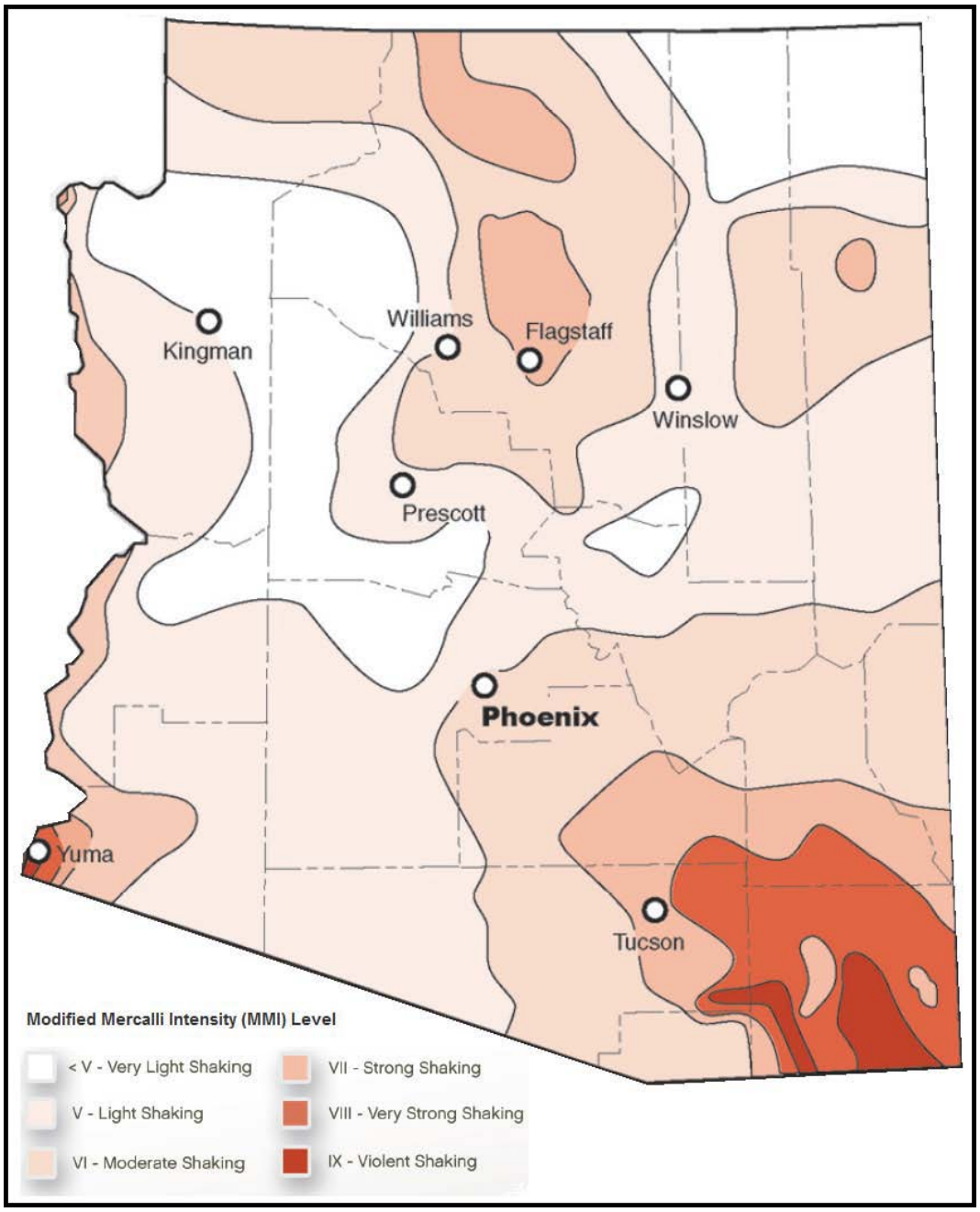


Figure 5.7. Areas of Increased Earthquake Risk

Sources

USGS, Earthquake Hazards Program, 2016, website located at: https://earthquake.usgs.gov/

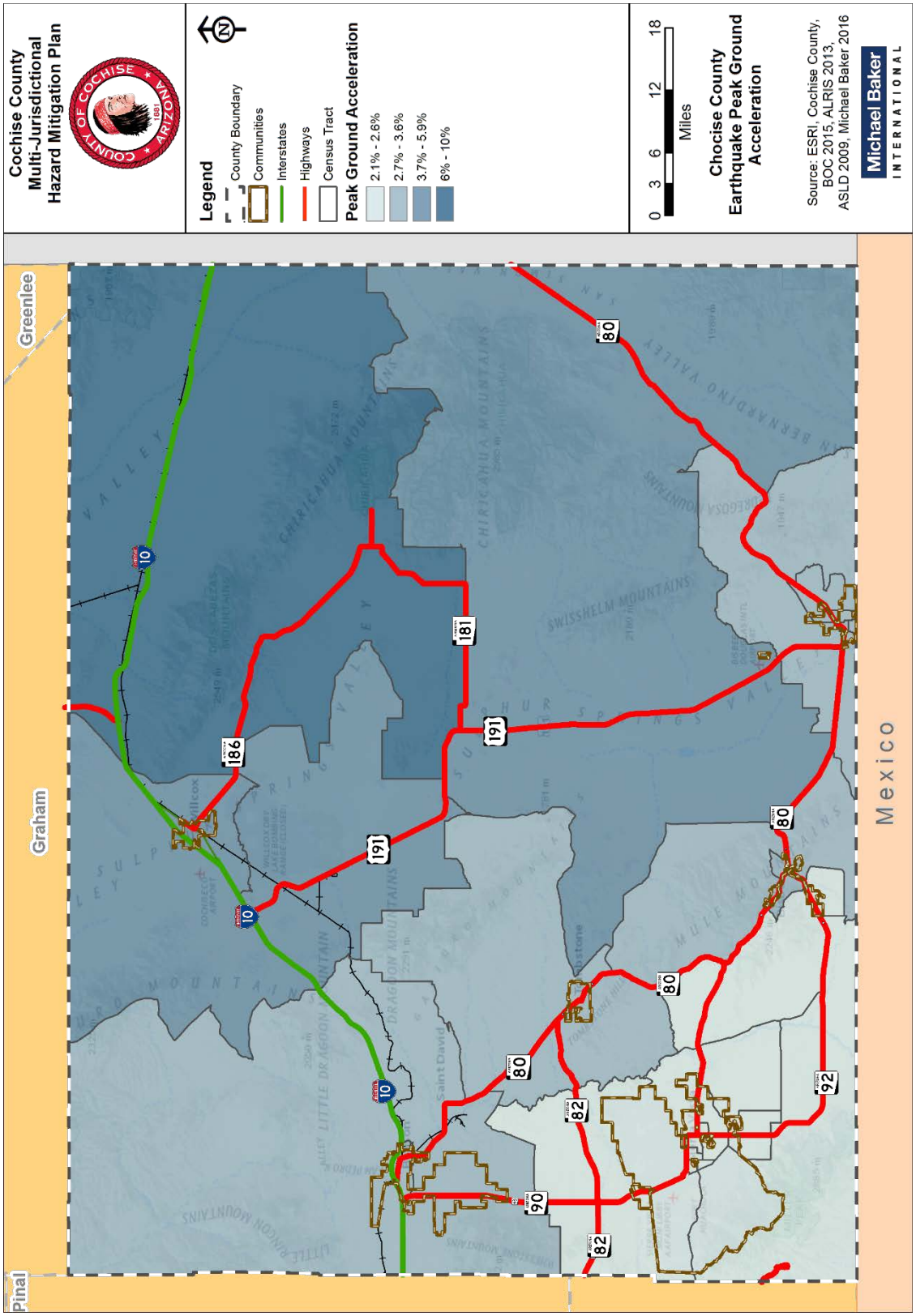
Profile Maps

Map 5.2 – Earthquake Peak Ground Acceleration

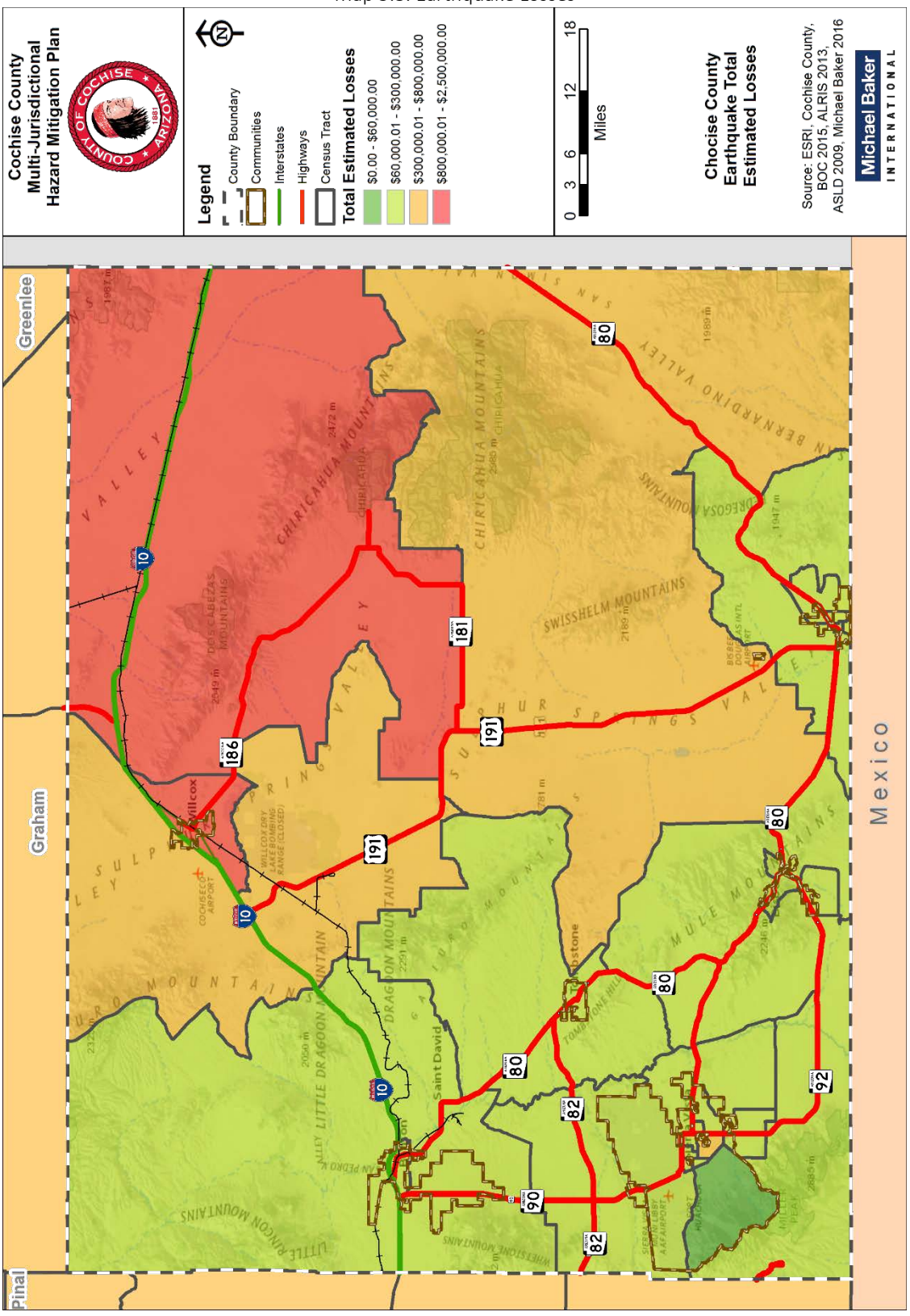
Map 5.3 – Earthquake Total Estimated Losses

Map 5.4 – Displaced Households

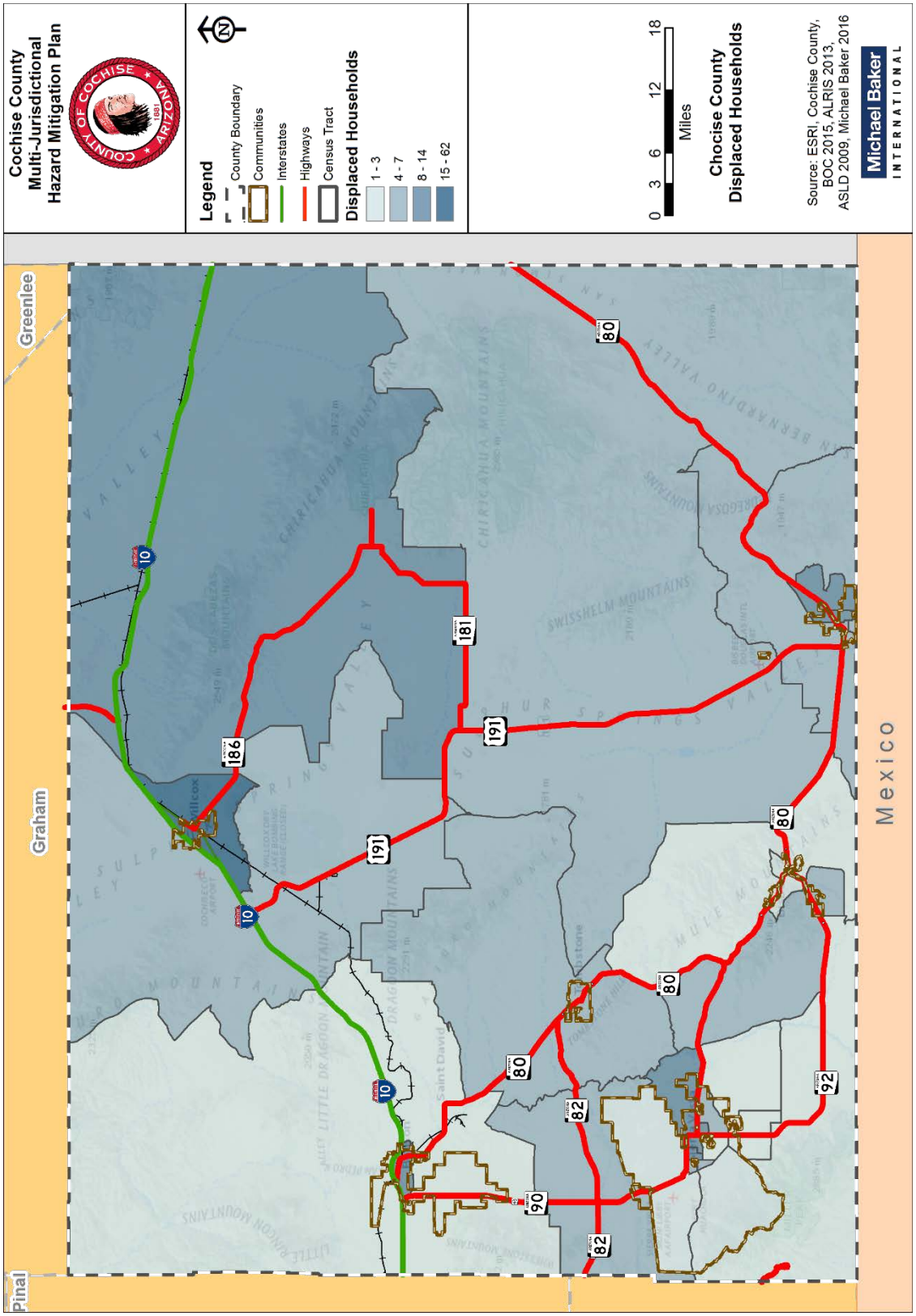
Map 5.2. Earthquake Peak Ground Acceleration



Map 5.3. Earthquake Losses



Map 5.4. Displaced Households



5.3.4 Fissure

Description

Earth fissures are linear cracks, seams, or separations in the ground surface that extend from the groundwater table or bedrock, and are caused by tensional forces related to differential land subsidence as described in the following figure. In many cases, fissures form as a direct result of subsidence caused by groundwater depletion. The surface expression of fissures ranges from less than a yard to several miles long and from less than an inch to tens of feet wide. Earth fissures occur at the edges of geologic basins, usually parallel to mountain fronts, or above local bedrock highs in the subsurface, and typically cut across natural drainage patterns.

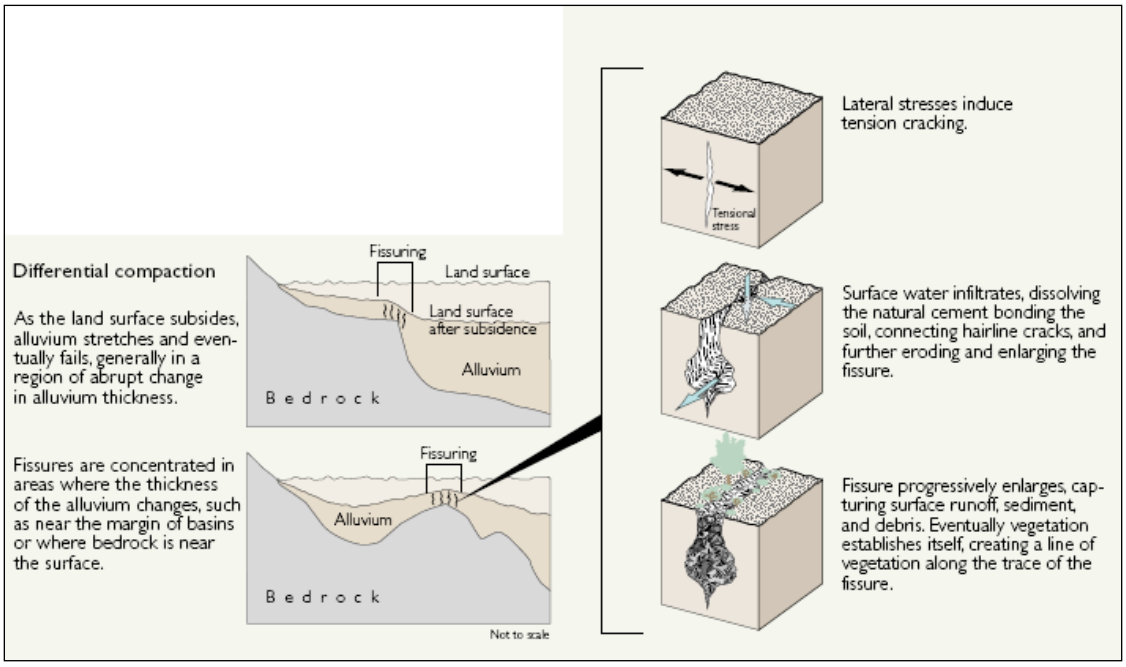


Figure 5.8. Fissure Development

(Source: AZGS, 2010)

Fissures can alter flood patterns, break buried pipes and lines, cause infrastructure to collapse, provide a direct conduit to the groundwater table for contaminants, and even pose a life safety hazard for both humans and animals.

History

In Arizona, fissures were first noted near Picacho in 1927. The number of fissures has increased dramatically since the 1950s due to the accelerated depletion of groundwater. Initially the heaviest use of groundwater was for agricultural irrigation. More recently, however, exponential population growth has dramatically increased domestic demands. The risk posed by fissures is also increasing as the population expands into the outlying basin edges and mountain fronts where fissures are more likely to manifest.

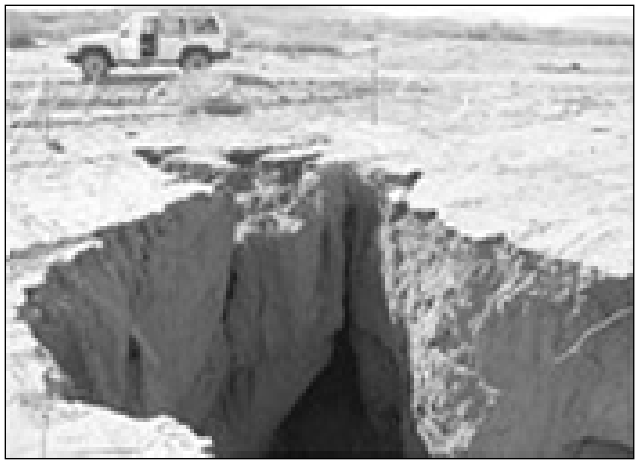


Figure 5.9. Earth Fissure in Cochise County

(Source: Todd Shipman, AZGS)

Several fissure case histories documented by the Arizona Geological Survey (AZGS) for the Cochise County area are summarized below.

- Area south of Kansas Settlement to Birch Road
  - Over 720 fissure segments
    - 323 continuous earth fissures totaling 47,683 feet.
    - 394 discontinuous earth fissures totaling 50,797 feet
    - 3 reported, unconfirmed earth fissures totaling 1,537 feet
- Area south of the unincorporated community of Cochise to Dragoon Road
  - At least 221 fissure segments totaling 30,832 feet.
    - 119 continuous earth fissures totaling 13,499 feet.
    - 93 discontinuous earth fissures totaling 7,323 feet.
    - 9 reported, unconfirmed earth fissures totaling 10,010 feet.

Most recently, an earth fissure in an area west of 191 has grown considerably in August 2011. Between August 5 through August 19th, the east segment extended another 239 feet causing great alarm to local residents that travel this area regularly (see photo to right). The earth fissure west of Highway 191 has been growing larger due to recent monsoon rains. Cracks are reported to range from six to eight feet deep and in some areas six to eight feet wide. It is also reported to be at least one-quarter mile long and a minimum three feet wide. Cracks began opening in July and progressively become worse over time. Local residents are becoming frustrated while being trapped at their homes due to accessibility problems. Arizona Geological Survey is not certain if it's desiccation cracks or an earth fissure. There is also a concern that underground electrical and phone lines may become compromised due to this evolving event. Emergency vehicles are unable to access the area which in itself is a hazard.



Recently developed earth fissure near Willcox. (Arizona Geology, 2011)

<u>Probability/Magnitude</u>

There are no methods of quantifiably predicting the probability and magnitude of earth fissures. The locations of potential fissures or extension of existing fissures may be predictable in specific areas if enough information about the subsurface material properties and groundwater levels are available. It is a fair assurance that continued groundwater depletion will result

in more fissures. The magnitude of existing and new fissures is dependent upon several variables including the depth to groundwater, type and depth of superficial material present, amount and rate of groundwater depletion, groundwater basin depth, depth to bedrock, volume and rate of runoff due to precipitation entering the fissure, and human intervention.

The Arizona Geological Survey has mapped known and suspected fissure lineaments for certain locations in Cochise County, with the latest update of GIS data having a version date of January 2016. These locations are indicated on the Maps at the end of this section. Four types of earth fissure classifications are depicted. The "Continuous" and "Discontinuous" depict two different surface expressions of earth fissures. The "Reported/Unconfirmed" lines represent approximate locations of previously reported, but cannot be re-located, and therefore their existence cannot be confirmed for various reasons. The "Confirmed/Unsurveyed" lines represent fissures that need additional evaluations.

Vulnerability – CPRI Results

Fissure CPRI results for each community are summarized in the following table:

Table 5.10. CPRI Results by Jurisdiction for Fissure

Participating Jurisdiction	Probability	Magnitude/ Severity	Warning Time	Duration	CPRI Score
Benson	2.53 (Possible/Likely)	1.89 (Negligible/Limited)	3.37 (6-12 hours/< 6 hours)	2.58 (< 24 hours/< 1 week)	2.47
Bisbee	2.22 (Possible/Likely)	2.12 (Limited/Critical)	3.22 (6-12 hours/< 6 hours)	2.34 (<24 hours/< 1 week)	2.35
Douglas	2.1 (Possible/Likely)	1.5 (Negligible/Limited)	3.5 (6-12 hours/< 6 hours)	2.2 (< 24 hours/< 1 week)	2.14
Huachuca City	1.48 (Unlikely/Possible)	1.81 (Negligible/Limited)	3.39 (6-12 hours/< 6 hours)	1.87 (< 6 hours/< 24 hours)	1.9
Sierra Vista	2 (Possible)	1.91 (Negligible/Limited)	3.61 (6-12 hours/< 6 hours)	1.78 (< 6 hours/< 24 hours)	2.19
Tombstone	1.5 (Unlikely/Possible)	1.33 (Negligible/Limited)	3.83 (6-12 hours/< 6 hours)	1.5 (< 6 hours/<24 hours)	1.8
Willcox	2.38 (Possible/Likely)	1.88 (Negligible/Limited)	3.56 (6-12 hours/< 6 hours)	2.12 (< 24 hours/< 1 week)	1.31
Unincorporated Cochise County	2.66 (Possible/Likely)	2.1 (Limited/Critical)	3.93 (6-12 hours/< 6 hours)	2.52 (< 24 hours/< 1 week)	2.67
				County-wide average CPRI =	2.1

Based on the CPRI Evaluation, the City of Benson and those living or working in Unincorporated Cochise County feel they would be most at risk from a Fissure event. As demonstrated in the table above, the probability of this event occurring in these two jurisdictions is believed to be more likely and the magnitude of impacts more significant.

Vulnerability – Loss Estimations

The Arizona Land Subsidence Group (ALSG) prepared a white paper in 2007 (ASLG, 2007) that summarizes fissure risk and various case studies. The following figure is an excerpt from that report listing various types of damages that either have or could occur as a result of fissures:

Table 1. Hazards Directly Associated with Earth Fissures	
• Cracked or collapsing roads • Broken pipes & utility lines • Damaged or breached canals • Cracked foundation/separated walls • Loss of agricultural land • Livestock & wildlife injury or death	• Severed or deformed railroad track • Damaged well casing or wellhead • Disrupted drainage • Contaminated groundwater aquifer • Sudden discharge of ponded water • Human injury or death

(After Pewe, 1990; Bell & Price, 1993; and Slaff, 1993)

Figure 5.10. Damages Associated with Earth Fissures

Recorded losses in Cochise County due to fissures primarily involve damages to roadways. Other infrastructure such as pipelines, and other miscellaneous improvements are noted to be in proximity of fissures, but no records of damages were noted in the research. According to the ALSG:

> *"The problems encountered with subsidence and earth fissures in Arizona will increase as groundwater continues to be withdrawn at unsustainable levels. More damage to structures and infrastructure can be expected with ever increasing economic losses, and, more importantly, a burgeoning threat to human health and safety, too." (ASLG,2007)*

The estimation of potential exposure to fissure risk was accomplished by intersecting the County's parcel data with existing fissure data. The following table displays the total number of impacted parcels that intersect with fissure lines, for each participating jurisdiction. The maps at the end of this section show these identified fissure locations.

Table 5.11. Impacted Parcels (Fissures)

Jurisdiction	Parcels
Benson	0
Tombstone	0
Willcox	0
Bisbee	0
Douglas	0
Sierra Vista	0
Huachuca City	0
County	287

There are no commonly accepted methods for estimating potential fissure related losses and no loss estimates will be made in this Plan. No critical facilities are predicted to be impacted by fissure lines in Cochise County. The primary vulnerability at this time, is where the fissure lineaments intersect roadways or other transportation corridors. The vulnerability lies both with the road improvements themselves, safety of travel, and the potential impact to utilities that often share the right-of-way or roadway alignments.

Vulnerability – Development Trends

There are several fissures located in areas that have potential for development and future growth. Most of these impacted areas are within unincorporated districts, but there are parts in the northern part of Willcox that could also be affected. Another concern is that several roadways intersect the fissures and

the potential for damages and threat to public safety is uncertain. Monitoring of the fissures and regular maintenance of the roadway within the fissure areas will be necessary activities.

Sources

Arizona Division of Emergency Management, 2013, State of Arizona Multi-Hazard Mitigation Plan, 2010.

Arizona Geological Survey, 2016, Webpage entitled: Arizona's Earth Fissure Center, http://www.azgs.az.gov/EFC.shtml

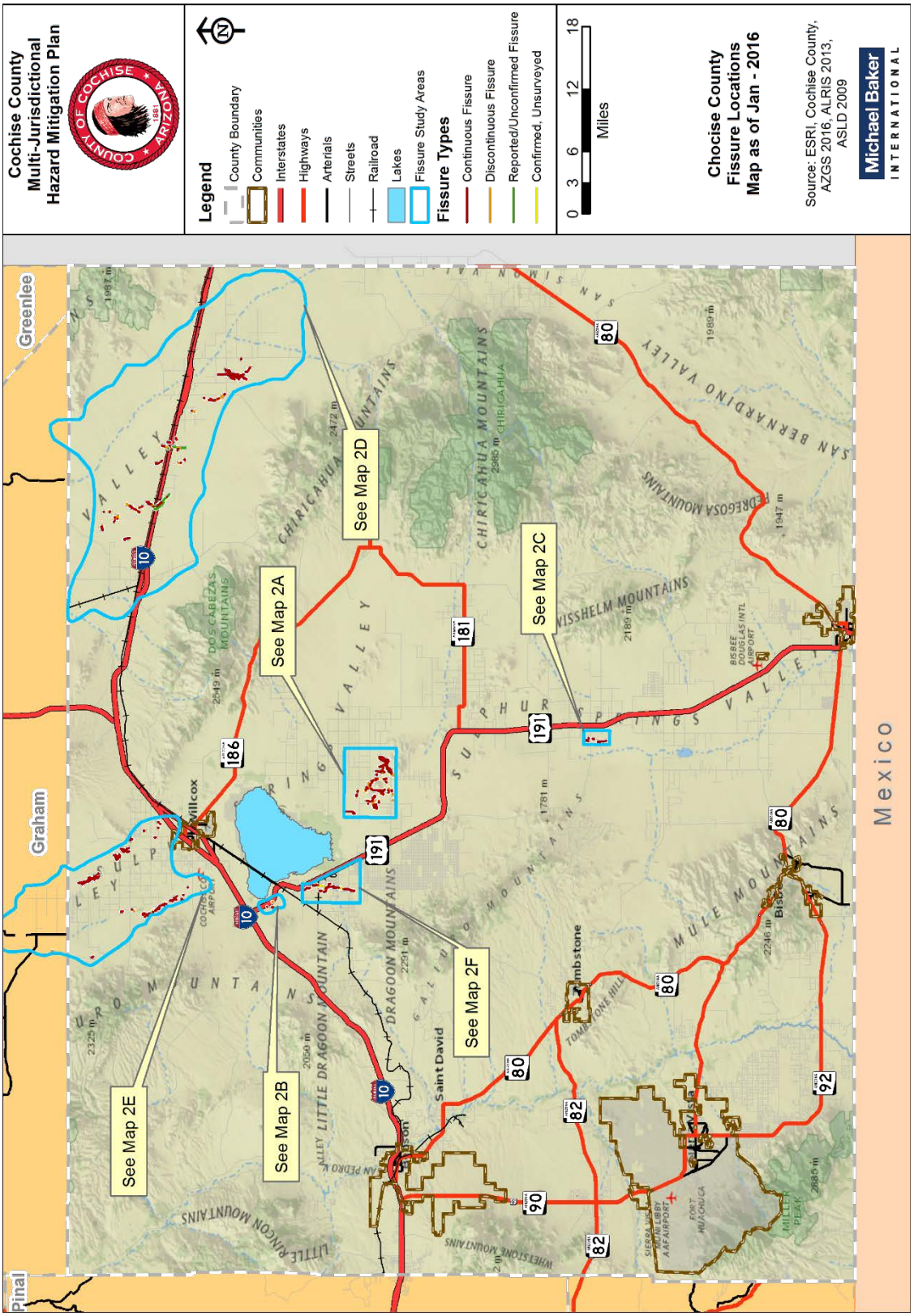
Arizona Land Subsidence Group, 2007. Land subsidence and earth fissures in Arizona: Research and informational needs for effective risk management, white paper, Tempe, AZ, http://www.azgs.az.gov/Earth%20Fissures/CR-07-C.pdf

Profile Maps

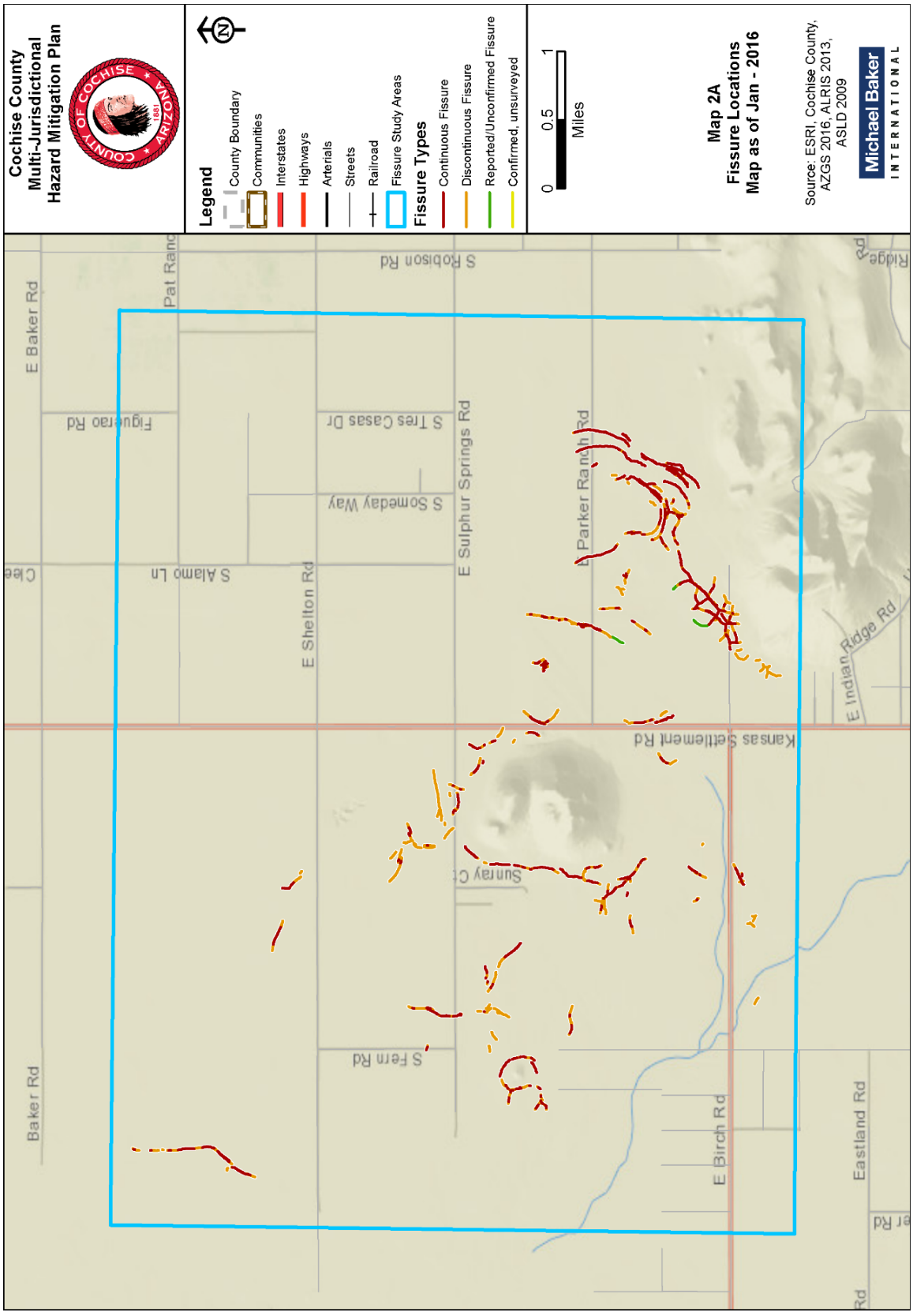
Map 5.5 – Fissure Locations Countywide

Map 5.6 through 5.11 – Fissure Hazard Map – Fissure Locations

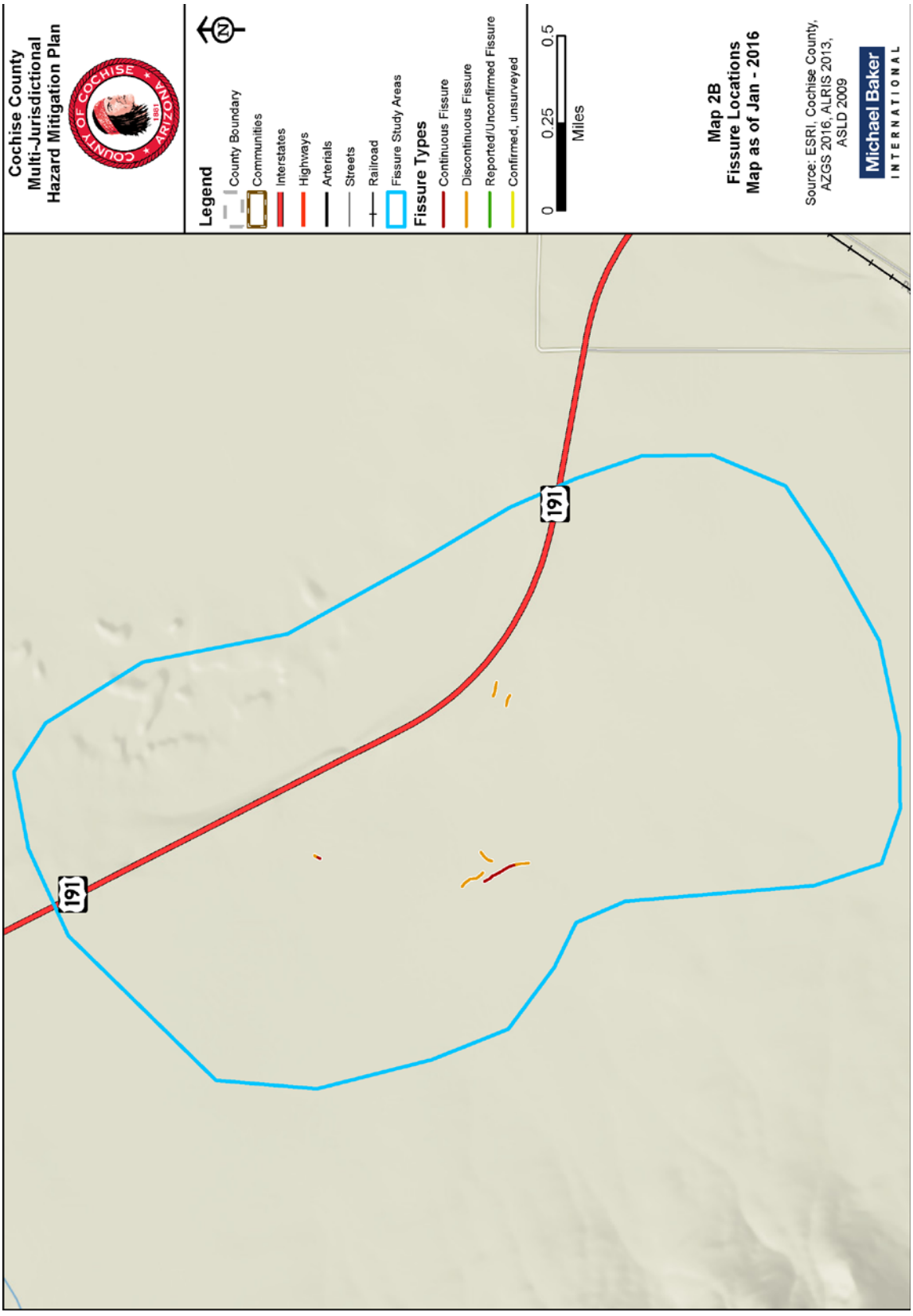
Map 5.5. Cochise County Fissure Locations



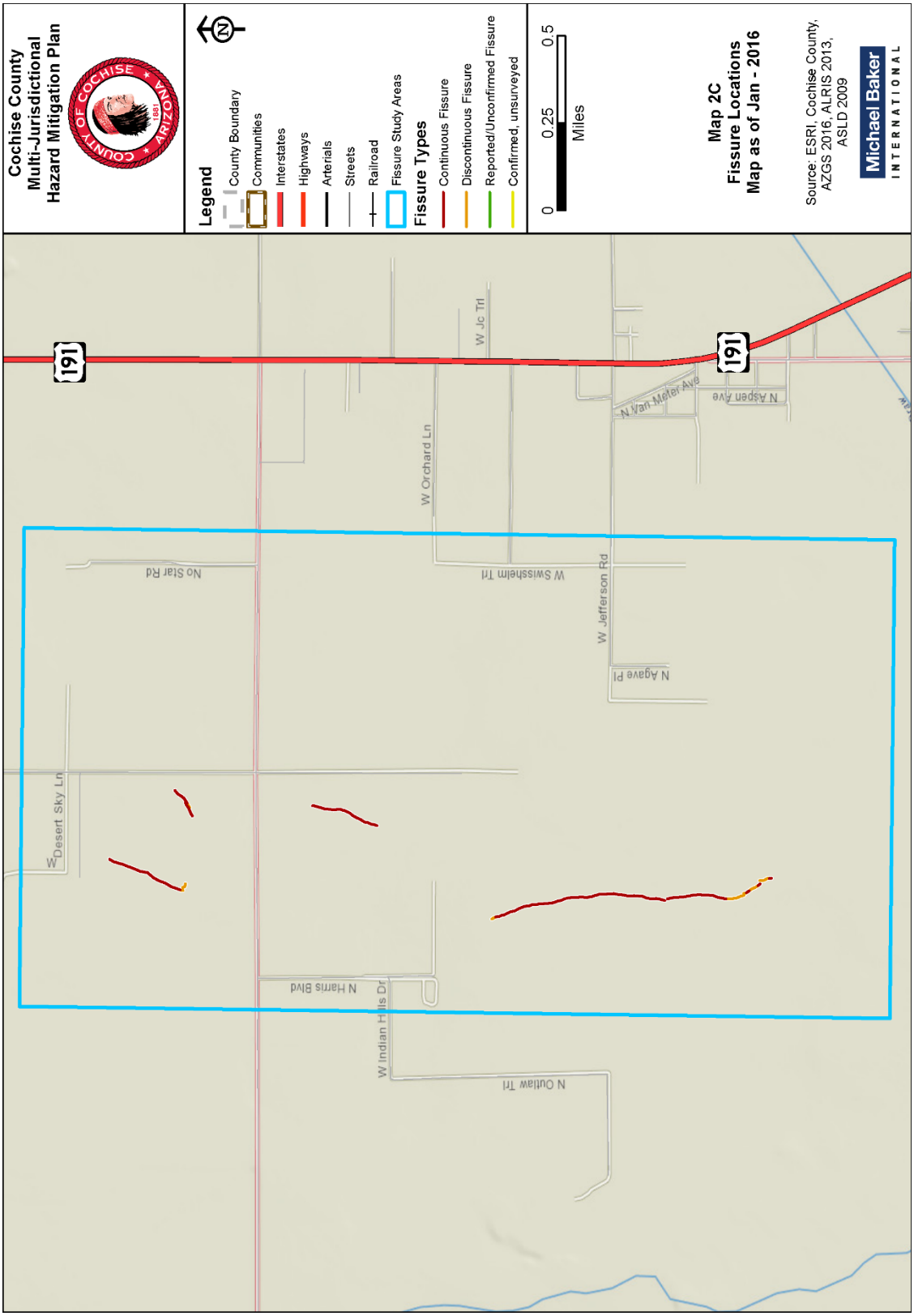
Map 5.6. Fissure Locations (2A)



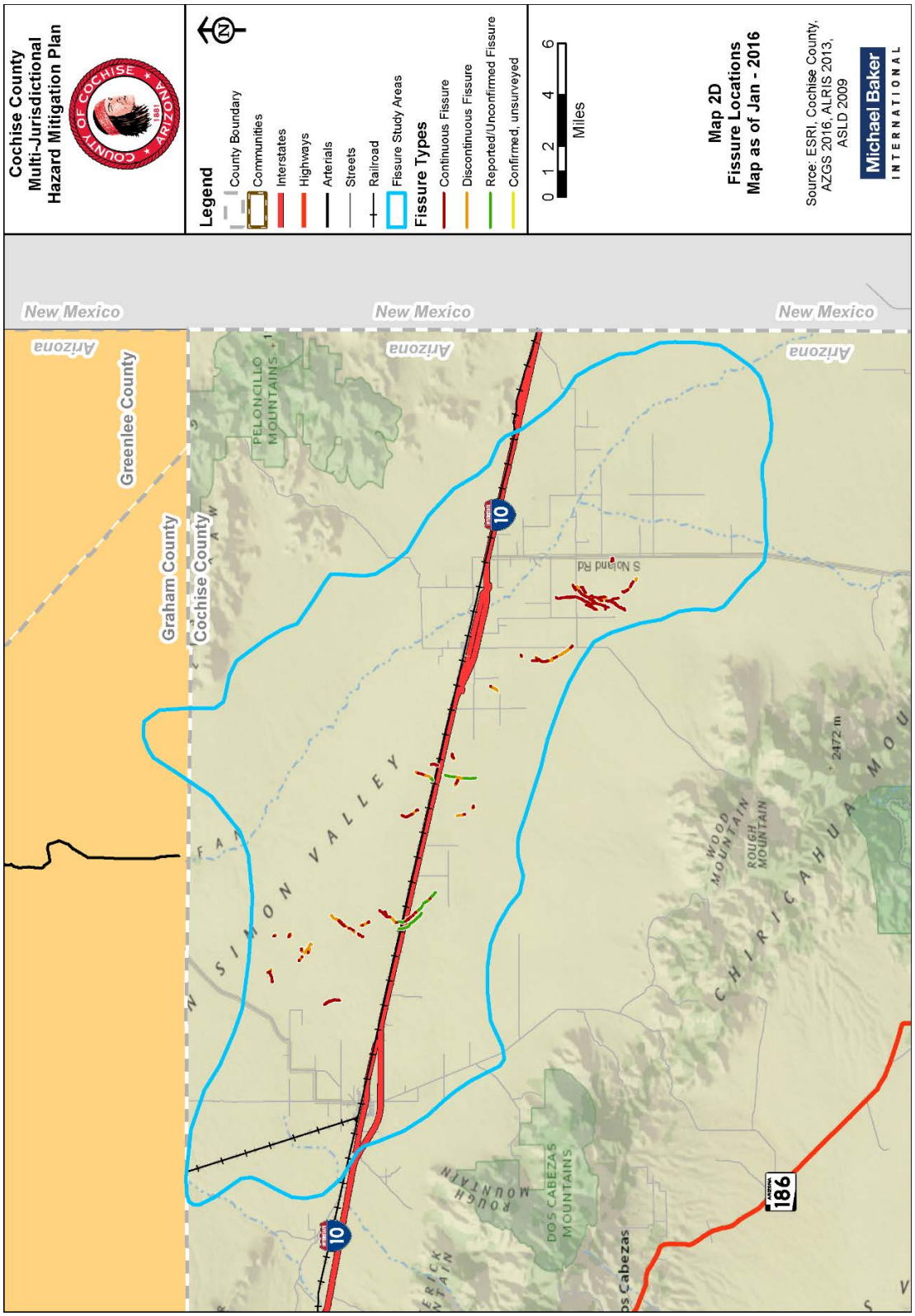
Map 5.7. Fissure Locations (2B)



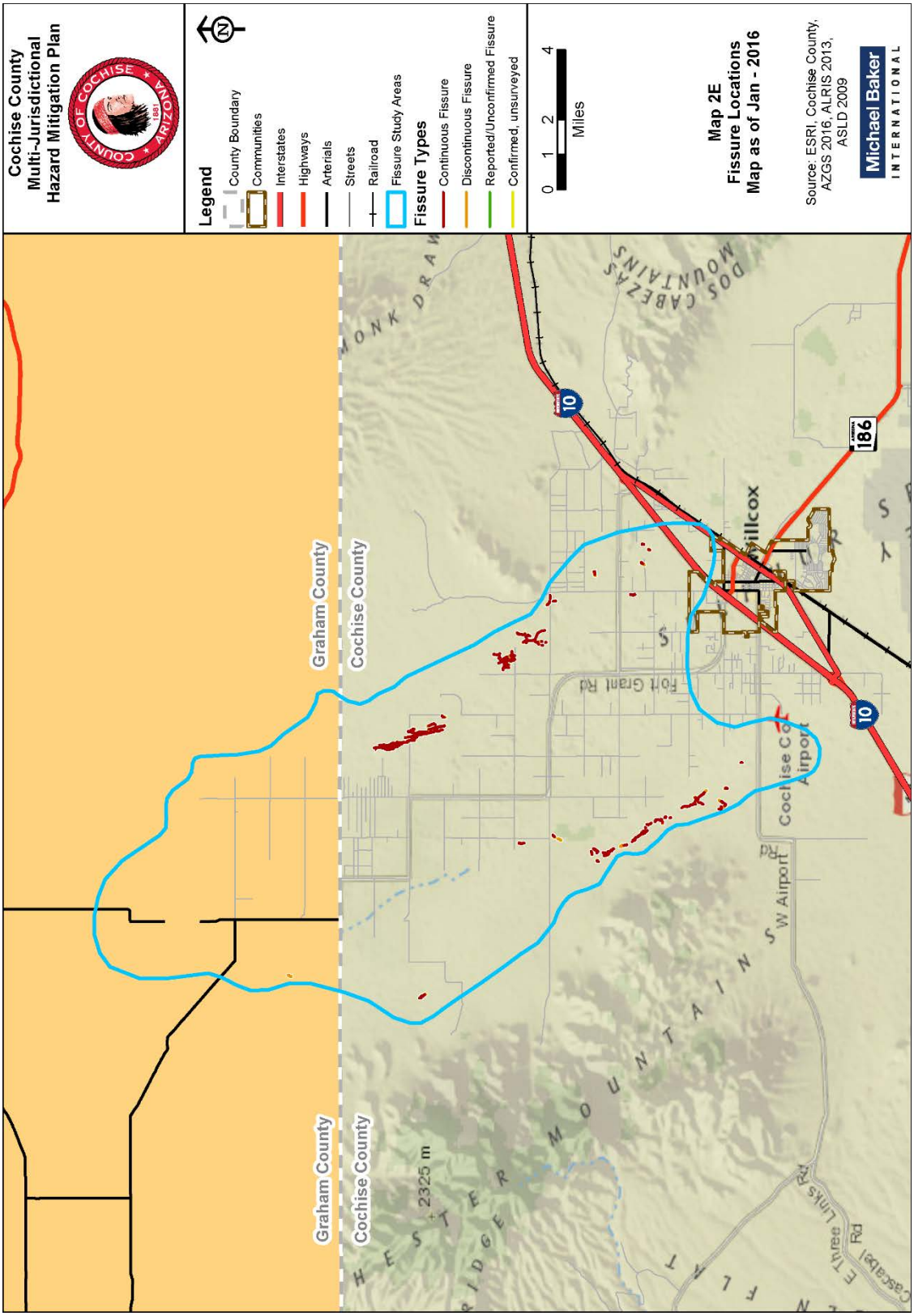
Map 5.8. Fissure Locations (2C)



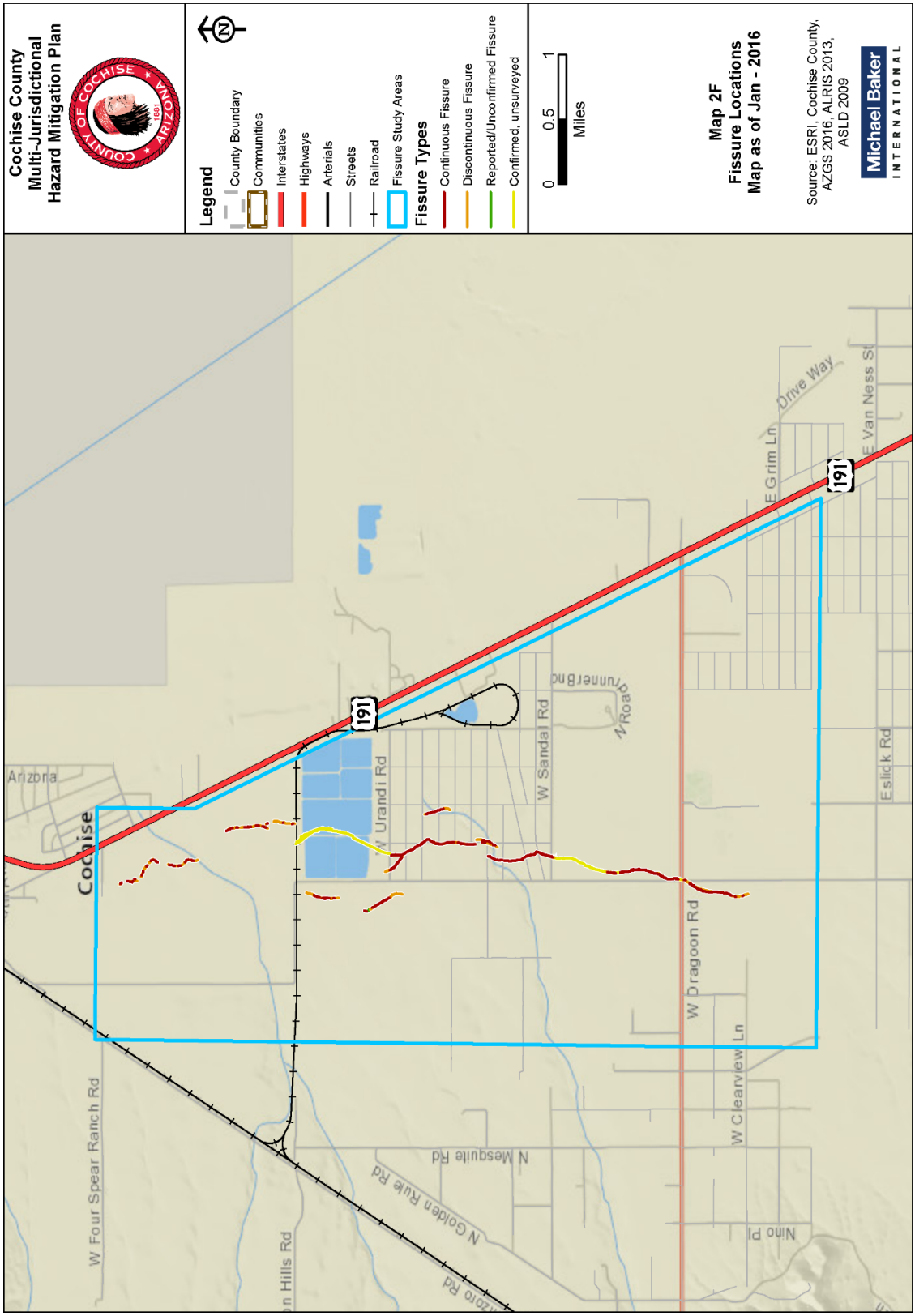
Map 5.9. Fissure Locations (2D)



Map 5.10. Fissure Locations (2E)



Map 5.11. Fissure Locations (2F)



5.3.5 Flood/Flash Flood

Description

For the purpose of this Plan, the hazard of flooding addressed in this section will pertain to floods that result from precipitation/runoff related events. Other flooding due to dam or levee failures are addressed separately. The three seasonal atmospheric events that tend to trigger floods in Cochise County are:

- *Tropical Storm Remnants*: Some of the worst flooding tends to occur when the remnants of a hurricane that has been downgraded to a tropical storm or tropical depression enter the State. These events occur infrequently and mostly in the early autumn, and usually bring heavy and intense precipitation over large regions causing severe flooding.
- *Winter Rains*: Winter brings the threat of low intensity; but long duration rains covering large areas that cause extensive flooding and erosion, particularly when combined with snowmelt.
- *Summer Monsoons*: In mid to late summer the monsoon winds bring humid subtropical air into the State. Solar heating triggers afternoon and evening thunderstorms that can produce extremely intense, short duration bursts of rainfall. The thunderstorm rains are mostly translated into runoff and in some instances, the accumulation of runoff occurs very quickly resulting in a rapidly moving flood wave referred to as a flash flood. Flash floods tend to be very localized and cause significant flooding of local watercourses.

Damaging floods in the county include riverine, sheet, alluvial fan, and local area flooding. Riverine flooding occurs along established watercourses when the bankfull capacity of a watercourse is exceeded by storm runoff or snowmelt and the overbank areas become inundated. Sheet flooding occurs in regionally low areas with little topographic relief that generate floodplains over a mile wide. Alluvial fan flooding is generally located on piedmont areas near the base of the local mountains and are characterized by multiple, highly unstable flowpaths that can rapidly change during flooding events. Local area flooding is often the result of poorly designed or planned development wherein natural flowpaths are altered, blocked or obliterated, and localized ponding and conveyance problems result. Erosion is also often associated with damages due to flooding.

Another major flood hazard comes as a secondary impact of wildfires in the form of dramatically increased runoff from ordinary rainfall events that occur on newly burned watersheds. Denuding of the vegetative canopy and forest floor vegetation, and development of hydrophobic soils are the primary factors that contribute to the increased runoff. Canopy and floor level brushes and grasses intercept and store a significant volume of rainfall during a storm event. They also add to the overall watershed roughness which generally attenuates the ultimate peak discharges. Soils in a wildfire burn area can be rendered hydrophobic, which according the NRCS is the development of a thin layer of nearly impervious soil at or below the mineral soil surface that is the result of a waxy substance derived from plant material burned during a hot fire. The waxy substance penetrates into the soil as a gas and solidifies after it cools, forming a waxy coating around soil particles. Hydrophobic soils, in combination with a denuded watershed, will significantly increase the runoff potential, turning a routine annual rainfall event into a raging flood with drastically increased potential for soil erosion and mud and debris flows.

History

Flooding is clearly a major hazard in Cochise County as shown in by the number of declared disaster events, as seen in Section 5.1. Cochise County has been part of nine (9) flood related disaster declarations. There have been numerous other non-declared events of reported flooding incidents. Over 151 flood and flash flooding events have occurred since 1996, according to the NCEI. Out of these 151 events, there were 11 direct deaths and four (4) injuries due to flooding and flash flooding. Over $3

million in estimated property damage also occurred due to these events. The following incidents represent examples of major flooding that have impacted the County:

- In October of 1977, Tropical Storm Heather caused four days of heavy rains and severe flooding in the Santa Cruz and San Pedro Rivers. Four-day rainfall amounts recorded for Bisbee and Douglas exceeded five inches. Overall, 700 people were evacuated from their homes, and severe damage occurred to crops, livestock, water supplies, and property (Tucson NWS, 2006).
- In August of 1982, a torrential rain storm of 2.5 inches in 2 hours flooded Bisbee streets and a four-foot wall of water came roaring down Brewery Gulch. A man trying to remove his car from a flooded street was carried downstream and into an underground culvert, where he drowned (Tucson NWS, 2006).
- In Late September – Early October 1983, extremely heavy rain deluged much of the state. During the previous week, a series of minor, widespread thunderstorms saturated the ground. On September 30th, another disturbance entered the state at the same time as a surge of moisture from Tropical Storm Octave off the coast of Baja California. The result was torrential rains and very destructive flooding over the southeast quarter of the State in broad zones along rivers, creeks, and washes. About 10,000 people were displaced from their residences. Water, mud and debris severely damaged or destroyed over 1300 homes; 1700 received lesser damage. Many persons who fled from their homes were cut off from help because roads, bridges, and phone and electric lines were washed away. Twenty main highways, including I-10, were closed, isolating dozens of towns. Nine (9) people drowned trying to cross flooded washes; four (4) others were killed when two aircraft got caught in downbursts and crashed. Numerous people were rescued from rooftops and stranded cars by helicopters. In many communities, water and sewer lines were severed. Damage to agriculture was enormous in all categories: crops, land, irrigation canals and ditches, wells, livestock and machinery. About one-seventh of the state's cotton crop was severely damaged or destroyed. Local produce growers in Willcox suffered massive damages as the flooding occurred just prior to the popular fall harvest and u-pick events. Willcox was also isolated for several days due to floods overtopping I-10 and other local roads.
- In August of 1989, sheet flooding from the mountains inundated the downtown and Playa area of Willcox (URS, 2004).
- In January and February of 1993, winter rain flooding damage occurred from winter storms associated with the El Nino phenomenon. These storms flooded watersheds throughout Arizona by dumping excessive rainfall amounts that saturated soils and increased runoff. Warm temperature snowmelt exacerbated the situation over large areas. Erosion caused tremendous damage and some communities along normally dry washes were devastated. Stream flow velocities and runoff volumes exceeded historic highs across the state. Many flood prevention channels and retention reservoirs were filled to capacity and floodwaters were diverted to the emergency spillways or the reservoirs were breached, causing extensive damage in some cases (e.g., Painted Rock Reservoir spillway). Ultimately, the President declared a major federal disaster that freed federal funds for both public and private property losses for all of Arizona's fifteen counties. The total of private and public damages for Cochise County is estimated to exceed $700,000. (Cochise County Multi-Hazard Mitigation Plan, 2007)
- In October of 2000, the east approach on Hereford Road and bridge was under 3 feet of water. 150 feet of Hereford Road was damaged and the north side of the road was eroded. The San Pedro River near Hereford had a height of 20 feet at the center point of the river. The San Pedro River near the Riparian National Conservation overflowed its banks damaging roads and trails along the river. The water spread out a half of a mile wide onto surrounding grasslands. Near Palominas, the San Pedro river exceeded flood stage of 15 feet. The water

was traveling at 17,500 cubic feet per second which was the highest flow recorded since 1940. The highest water levels of 18.9 feet occurred at 10:00 on the 23rd. The road between Tombstone and Gleeson flooded and eight cars were towed out of the Ghost Town Trail area. In Bisbee, a retaining wall collapsed at 124 OK Street onto a stairway leading into Brewery Gulch. Minor flooding of homes occurred down Brewer Gulch. Also, small rock slides were reported along Highway 80 on both sides of Mule Pass Tunnel near Bisbee. On Fire Road between Canelo and Coronado National Monument, a series of rock slides and mud slides occurred. There were several road closures near Elfrida, including Davis Road and Frontier Road between Bisbee and Douglas due to flooding. At Charleston, the San Pedro River reached highest water levels of 9.7 feet at 1900 on the 23rd which exceeded bankfull stage of 7 feet. The flood stage is 20 feet. A total of $120,000 in damages was reported. (Cochise County Multi-Hazard Mitigation Plan, 2007)

- In July of 2007, several homes were flooded in the Comstock neighborhood in Benson due to flash flooding. A swift water rescue also took place at Interstate 10 and the Pomerene Road exit in Benson which caused $75,000 in property damage. Excessive rainfall and low visibility contributed to a fatal accident on Highway 92 near Hereford. The Cochise County emergency dispatch facility flooded along with Highway 80 at Davis road. In this location two vehicles were stuck in high water which resulted in $5,000 in damages. (NCEI, 2010)
- In August of 2007, flash flooding from thunderstorms in the City of Douglas caused damage to several city buildings and facilities at a cost of $10,000. (NCEI, 2010)
- In September of 2009, scattered thunderstorms produced locally heavy rainfall near the intersection of State Highway 80 and Old Divide Road, approximately 2 miles northwest of Bisbee. Rainfall was not excessively heavy, with radar estimates of near 1.25 inch. However, an earlier fire burned hillsides in the area in May 2009, leaving the landscape prone to flash flooding. Flooding and debris flows destroyed portions of the road and surrounding culverts, and forced the closure of Old Divide Road. The damages were reported at $50,000. (NCEI, 2010)
- In July of 2010, thunderstorms produced heavy rainfall that resulted in flash flooding across portions of Cochise County. An automated rain gauge 3 miles southeast of Dragoon reported 2.6 inches of rain in less than 50 minutes. A vehicle stranded in Terry's Wash was pulled out of the wash by a trained spotter. Two people stranded in Prude Wash from their vehicle were assisted by the Cochise County sheriff. Prude Wash, which is normally dry, was running about 3 feet deep. The damages were reported at $10,000. (NCEI, 2010)
- In August of 2010, the Benson News-Sun reported that a man was pulled from a running wash after he attempted to drive through 2 feet of running water on an adjacent street. The force of the water on the street carried his car into the wash and up against a concrete wall. The driver then attempted to get out of the vehicle, but fell 10-15 feet down into the wash underneath his car. Fire crews were able to quickly rescue the driver. He was escorted to the local hospital. City officials also reported numerous washes flooding neighborhood streets. The damages were reported at $30,000. (NCEI, 2010)
- In September 2014, over a period of 3 days, the remnants of Hurricane Odile moved into Southeastern Arizona depositing over 6” of rain over much of Cochise County. Heavy downpours caused excessive roadway infrastructure and waterway embankment damage. Cochise County received a State of Arizona emergency declaration due to the extensive damage. Cochise County, Willcox and Bisbee received over $1.5M in combined disaster recovery funding from Arizona.

Probability and Magnitude

For the purposes of this Plan, the probability and magnitude of flood hazards in Cochise County jurisdictions are primarily based on the 1% annual chance flood event (100-year) floodplains delineated on FEMA Flood Insurance Rate Maps (FIRMs). FEMA recently completed a FIRM update that went Effective on 10/20/2016. DFIRM floodplain GIS base files were obtained from FEMA and are the basis for the flood hazard depictions in this Plan.

Map 5.12 shows the flood hazard areas for the entire county. Maps 5.13 through 5.19 show the flood hazard areas for Willcox, Tombstone, Sierra Vista, Huachuca City, Douglas, Bisbee, and Benson, respectively.

Vulnerability – CPRI Results

Flooding CPRI results for each community are summarized in the following table:

Table 5.12. CPRI Results by Jurisdiction for Flooding

Participating Jurisdiction	Probability	Magnitude/ Severity	Warning Time	Duration	CPRI Score
Benson	3.16 (Likely/Highly Likely)	2.74 (Limited/Critical)	3.21 (6-12 hours/< 6 hours)	2 (< 24 hours)	2.93
Bisbee	3.17 (Likely/Highly Likely)	2.76 (Limited/Critical)	2.68 (12-24 hours/6-12 hours)	2.34 (< 24 hours/< 1 week)	2.89
Douglas	3.2 (Likely/Highly Likely)	2.2 (Limited/Critical)	3 (6-12 hours)	2.1 (< 24 hours/ < 1 week)	2.76
Huachuca City	2.81 (Possible/Likely)	2.48 (Limited/Critical)	3.19 (6-12 hours/< 6 hours)	1.94 (< 6 hours/< 24 hours)	2.68
Sierra Vista	3.52 (Likely/Highly Likely)	2.48 (Limited/Critical)	2.48 (12-24 hours/6-12 hours)	2.04 (< 24 hours/< 1 week)	2.9
Tombstone	3.17 (Likely/Highly Likely)	2 (Limited)	3.5 (6-12 hours/< 6 hours)	1.67 (< 6 hours/< 24 hours)	2.72
Willcox	3.19 (Likely/Highly Likely)	2.75 (Limited)	2.81 (12-24 hours/6 - 12 hours)	2.5 (< 24 hours/< 1 week)	1.5
Unincorporated Cochise County	3.59 (Likely/Highly Likely)	2.62 (Limited/Critical)	3 (6-12 hours)	2.24 (< 24 hours/< 1 week)	3.08
				County-wide average CPRI =	2.68

Based on the CPRI Evaluation, Benson, Bisbee, Sierra Vista, and those living or working in Unincorporated Cochise County feel they are at most risk from a Flood / Flash Flood event. As demonstrated in the table above, the probability of this event occurring in these two jurisdictions is deemed more likely and the magnitude of flooding impacts are thought to be more severe. It should be noted that almost all jurisdictions feel that a flood event is highly likely to occur.

Vulnerability – Loss Estimations

The estimation of potential exposure to flooding risk was accomplished by intersecting the county parcel data with the with the SFHA data. The following table displays the total number of impacted parcels located in the Special Flood Hazard Areas (SFHA, i.e. – 100-year floodplain), for each participating jurisdiction.

Table 5.13. Impacted Parcels (Flood)

Jurisdiction	Parcels (SFHA)
Benson	101
Tombstone	66
Willcox	4,065
Bisbee	986
Douglas	969
Sierra Vista	963
Huachuca City	264
County	21,620

Utilizing Hazus 3.1, FEMA's loss estimation and hazard modeling software, a standard Hazus flood analysis was conducted for Cochise County, Arizona based on the default general Building Stock comprised of 2010 Census block data. Additionally, a user-defined 100 year flood Depth Grid was created using 10m National Elevation Dataset (NED) terrain data and FEMA's National Flood Hazard Layer (NFHL) floodplain data. The loss estimates where then calculated in the Hazus flood scenario at the census block level.

The Hazus model estimates that approximately 900 buildings will be at least moderately damaged by a 100-year flood event affecting all mapped floodplains throughout the entire county. An estimated 100 buildings will be substantially destroyed and most of the damage occurred will be to residential buildings. The model also estimates that 3,740 households will be displaced due to flooding and of these, 7,003 people will seek temporary shelter in public shelters. Total building-related losses are expected to be over $200 million.

The following table summarizes the critical facility (CF) exposure estimates for flood risk in the SFHA, which included a 100' buffer. Estimates are broken out by CF type, impacted structure count, and estimated CF replacement value (when available). In summary, approximately $259 million in critical facility related losses are estimated for flood hazards in the SFHA, for all the participating jurisdictions in Cochise County.

Overall results from the analysis show that the unincorporated areas of the county have the most structures at risk from a flooding event. From a jurisdictional viewpoint, Wilcox is most at risk to a flood event. All jurisdictions, however; do have localized areas of their communities at risk from a flood event. The results of this vulnerability assessment greatly contrast with the community's perception of flood hazard. This disconnect present an opportunity for focused public outreach and educational efforts.

Table 5.14. Critical Facilities Flood Impact

	Benson	Bisbee	Cochise County	Douglas	Huachuca City	Sierra Vista	Tombstone	Willcox
CF Type	Impacted Structures/Replacement Value							
Banking and Finance Institution	-	2 / NA	3 / $7,400,000	1 / $2,000,000	-	-	-	3 / $7,400,000
Cultural	-	-	1 / $750,000	-	1 / NA	-	-	1 / $750,000
Educational	-	-	6 / $15,500,000	-	-	-	-	4 / $15,500,000
Electrical Power System	-	-	4 / $17,000,000	-	-	-	-	3 / $14,000,000
Emergency Services	-	1 / NA	5 / $20,000,000	-	-	-	-	4 / $20,000,000
Gas and Oil Facilities	2 / $550,000	3 / NA	5 / $11,545,000	1 / $1,000,000	-	-	-	4 / $11,500,000
Government Services	-	2 / NA	8 / $28,450,000	1 / $560,000	-	-	-	6 / $28,250,000
Telecommunications Infrastructure	-	1 / $6,992,800	14 / $12,420,000	1 / $20,000	1 / NA	1 / $20,000	-	5 / $12,060,000
Transportation Networks	-	-	4 / $2,000,300	-	-	-	-	-

	Benson	Bisbee	Cochise County	Douglas	Huachuca City	Sierra Vista	Tombstone	Willcox
CF Type	Impacted Structures/Replacement Value							
Water Supply Systems	-	1 / NA	6 / $11,500,000	-	-	1 / $500,000	-	5 / $11,500,000

It should be noted that all infrastructure in floodplains and potential flooding areas are also vulnerable. Based on past flooding experiences, oftentimes bridge structures are oftentimes the most at risk to the effects of a flood event. This is especially important to take into account when assessing the risk presented by flood events, as the loss of bridges can have a cascading effect on a jurisdiction if transportation and evacuation routes are rendered inaccessible.

Vulnerability – Repetitive Loss Properties

Repetitive Loss (RL) properties are those NFIP-insured properties that since 1978, have experienced multiple flood losses. FEMA tracks RL property statistics, and in particular to identify Severe RL (SRL) properties. RL properties demonstrate a track record of repeated flooding for a certain location and are one element of the vulnerability analysis. RL properties are also important to the NFIP, since structures that flood frequently put a strain on the National Flood Insurance Fund. FEMA records dated September 2016 (provided by DEMA) indicate that there is no identified RL or SRL property in Cochise County.

Vulnerability – Development Trends

Over the last five years, Cochise County and the incorporated jurisdictions of Douglas and Sierra Vista have experienced moderate growth. All future growth areas will likely be impacted by the flood hazards. Growth areas located just outside of Willcox and Douglas are expected to be at an even higher risk due to the density of floodplain and floodway in those areas. Aside from future growth areas, all areas of the county and remaining jurisdictions will see impacts from flood events. Most of the floodprone properties in Cochise County pre-date the planning jurisdictions' entry into the NFIP and were constructed prior to current floodplain management practices. The development of new properties or substantial re-development of existing structures is now subject to regulatory review procedures implemented by each jurisdiction throughout the entire county. Challenges to the management of new growth include the need for converting approximate floodplain delineations into detailed delineations to better mitigate against flood risks, or to establish additional floodplain delineations to identify and map the flood hazards within the growth areas where no mapping currently exists.

Sources

Arizona Division of Emergency Management, 2013, State of Arizona Multi-Hazard Mitigation Plan.

FEMA, 2001, Understanding Your Risks; Identifying Hazards and Estimating Losses, FEMA Document No. 386-2.

JE Fuller/ Hydrology & Geomorphology, 2012, Cochise County Multi-Hazard Mitigation Plan

NOAA, National Weather Service Forecast Office – Tucson, 2011, website data accessed via the following URL: http://www.wrh.noaa.gov/twc/hydro/floodhis.php

National Centers for Environmental Information (NCEI), June 2016, Storm Events Database, website data accessed via the following URL: http://www.ncdc.noaa.gov/stormevents/

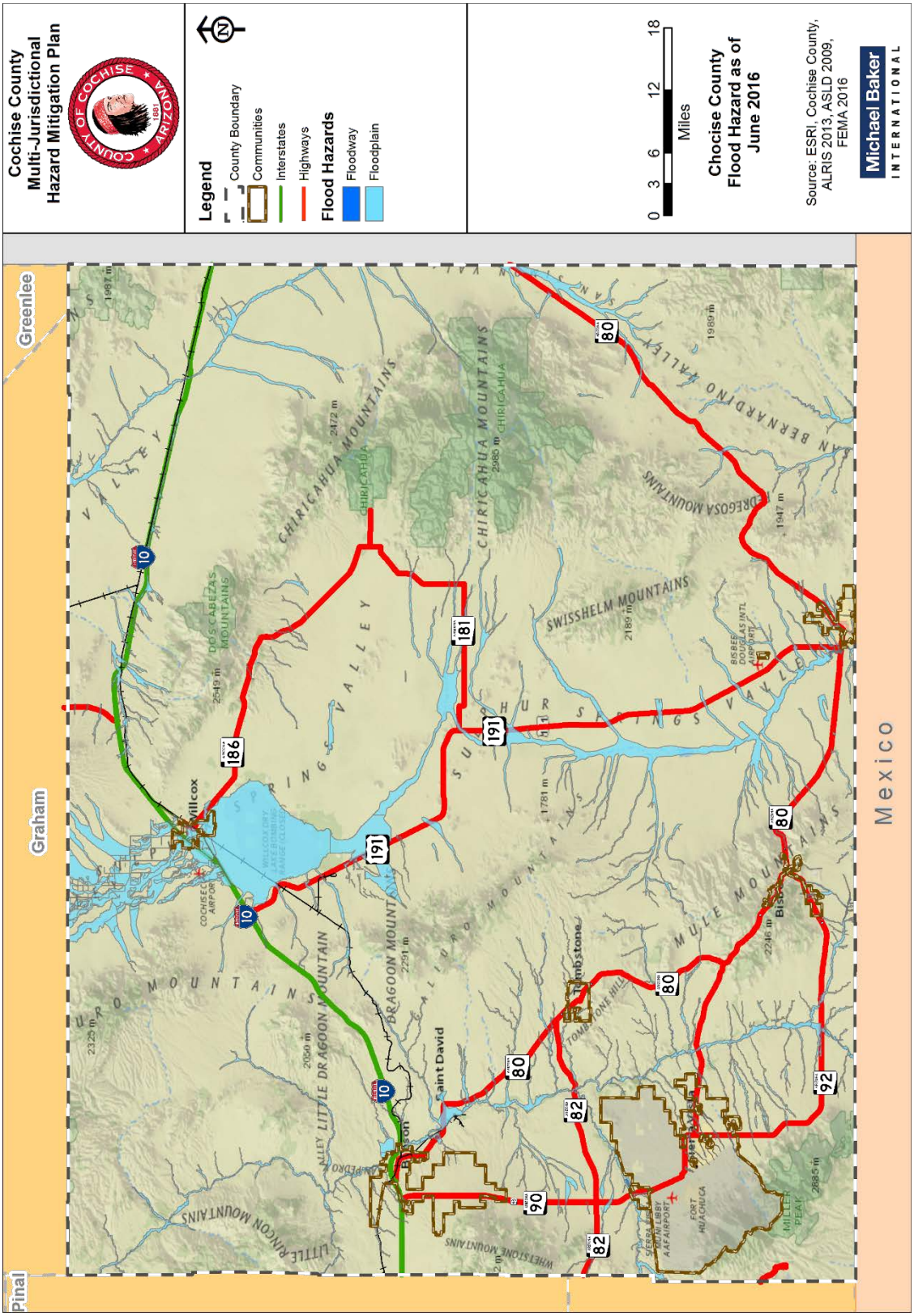
U.S. Army Corps of Engineers, Los Angeles District, 1994, Flood Damage Report, State of Arizona, Floods of 1993.

Profile Maps

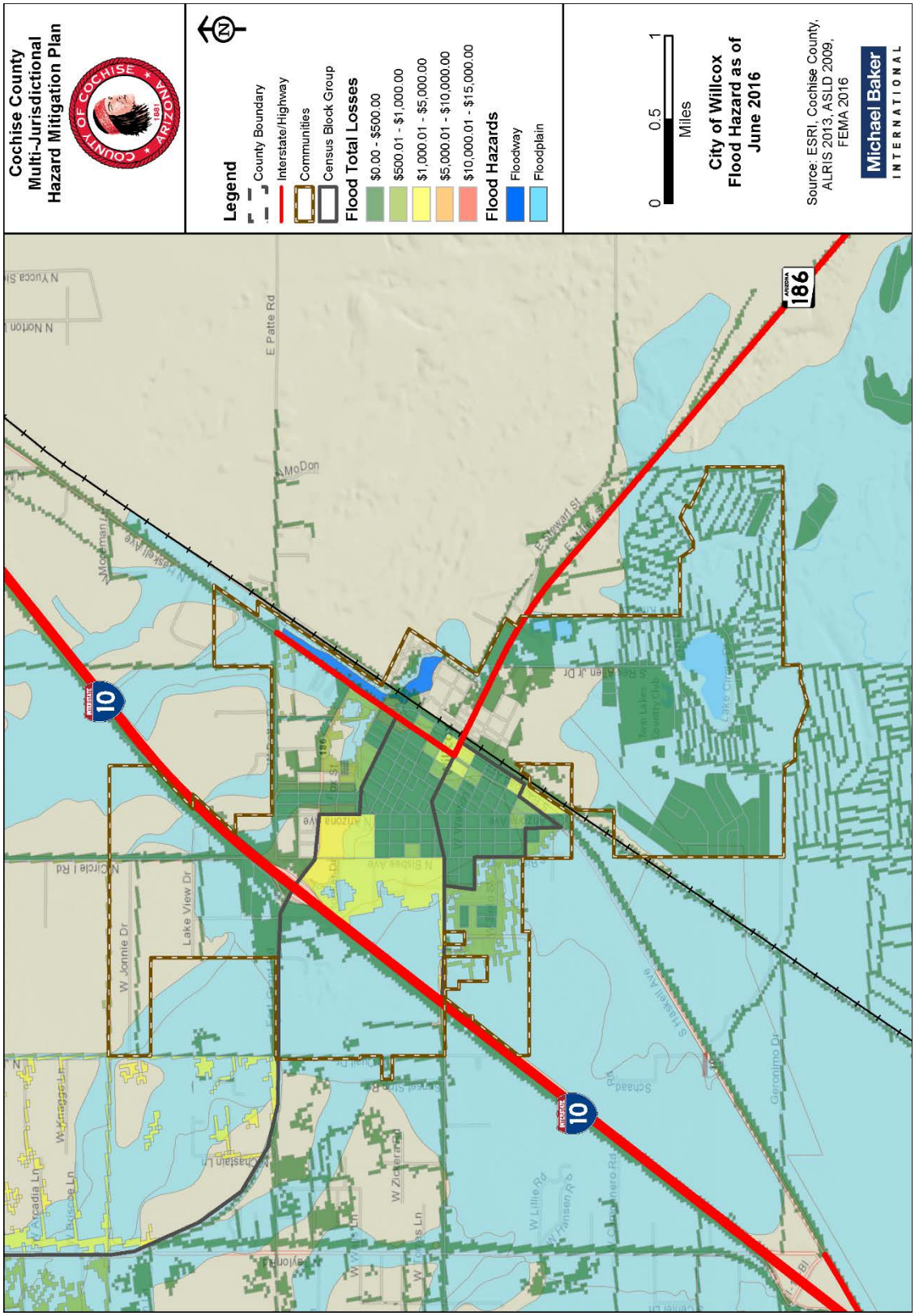
Map 5.12 – County-Wide Flood Hazard Map

Maps 5.13 through 5.19 – Benson, Bisbee, Douglas, Huachuca City, Sierra Vista, Tombstone, and Willcox Flood Hazard Maps

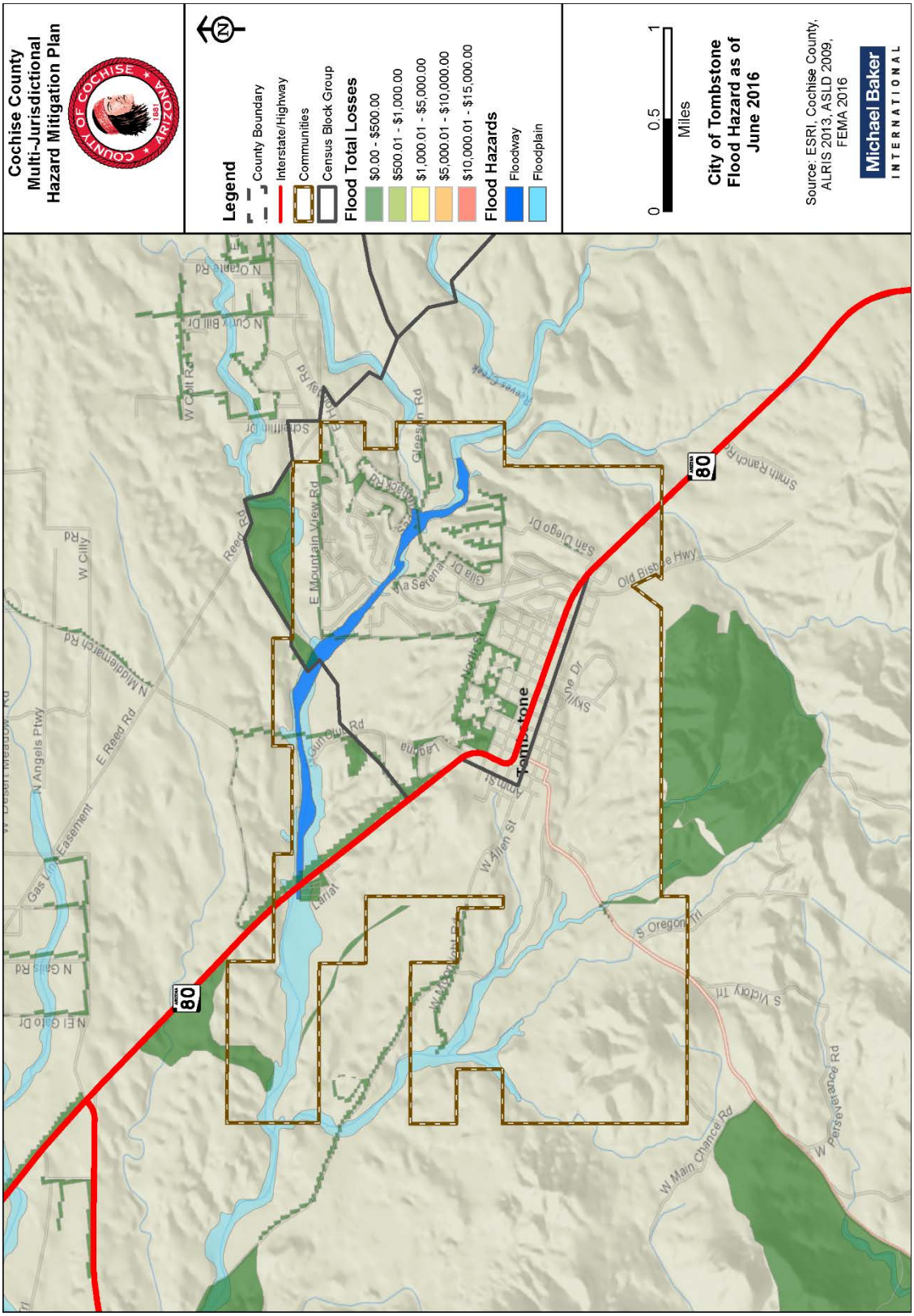
Map 5.12. Cochise County Flood Hazard



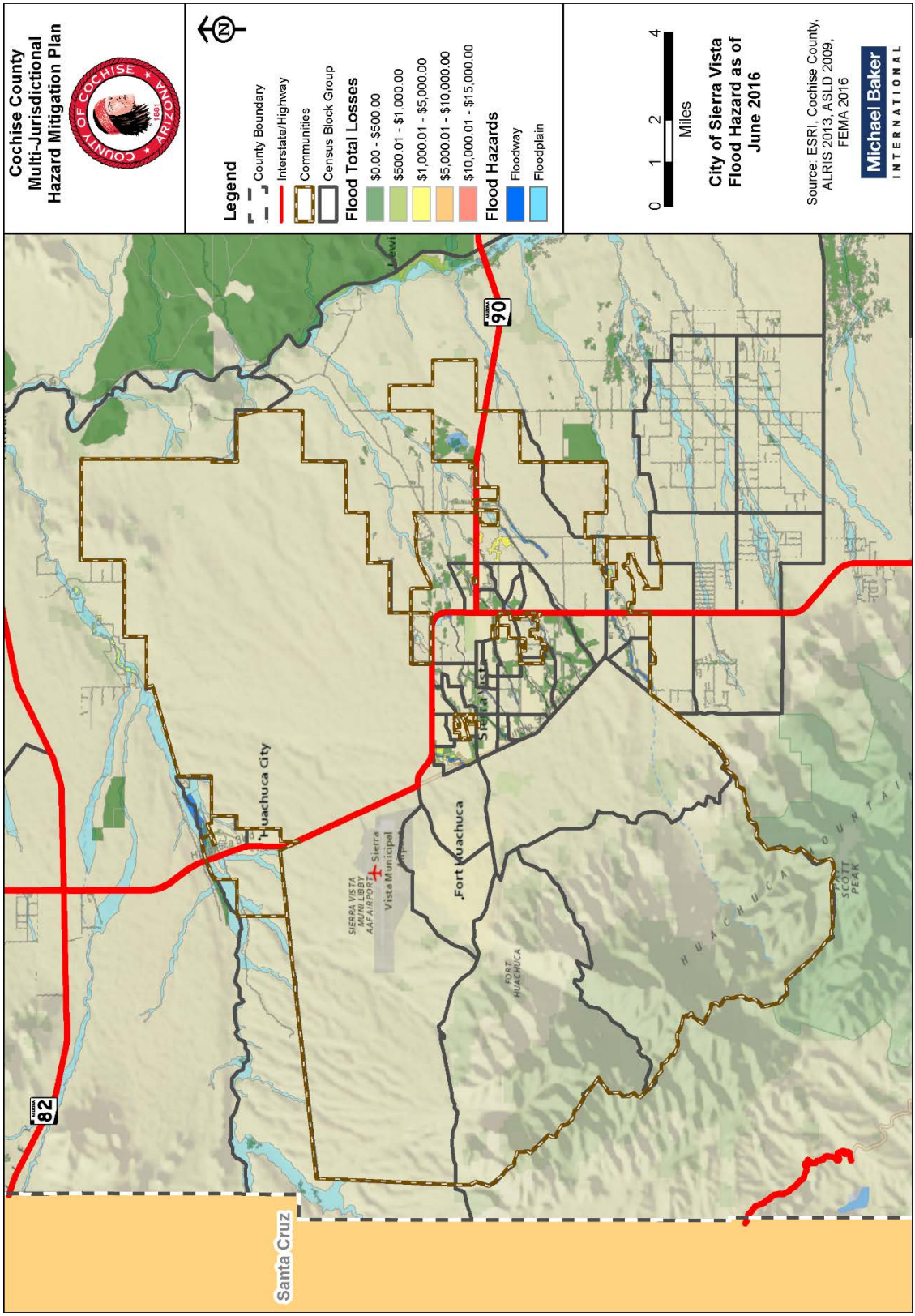
Map 5.13. City of Willcox Flood Hazard



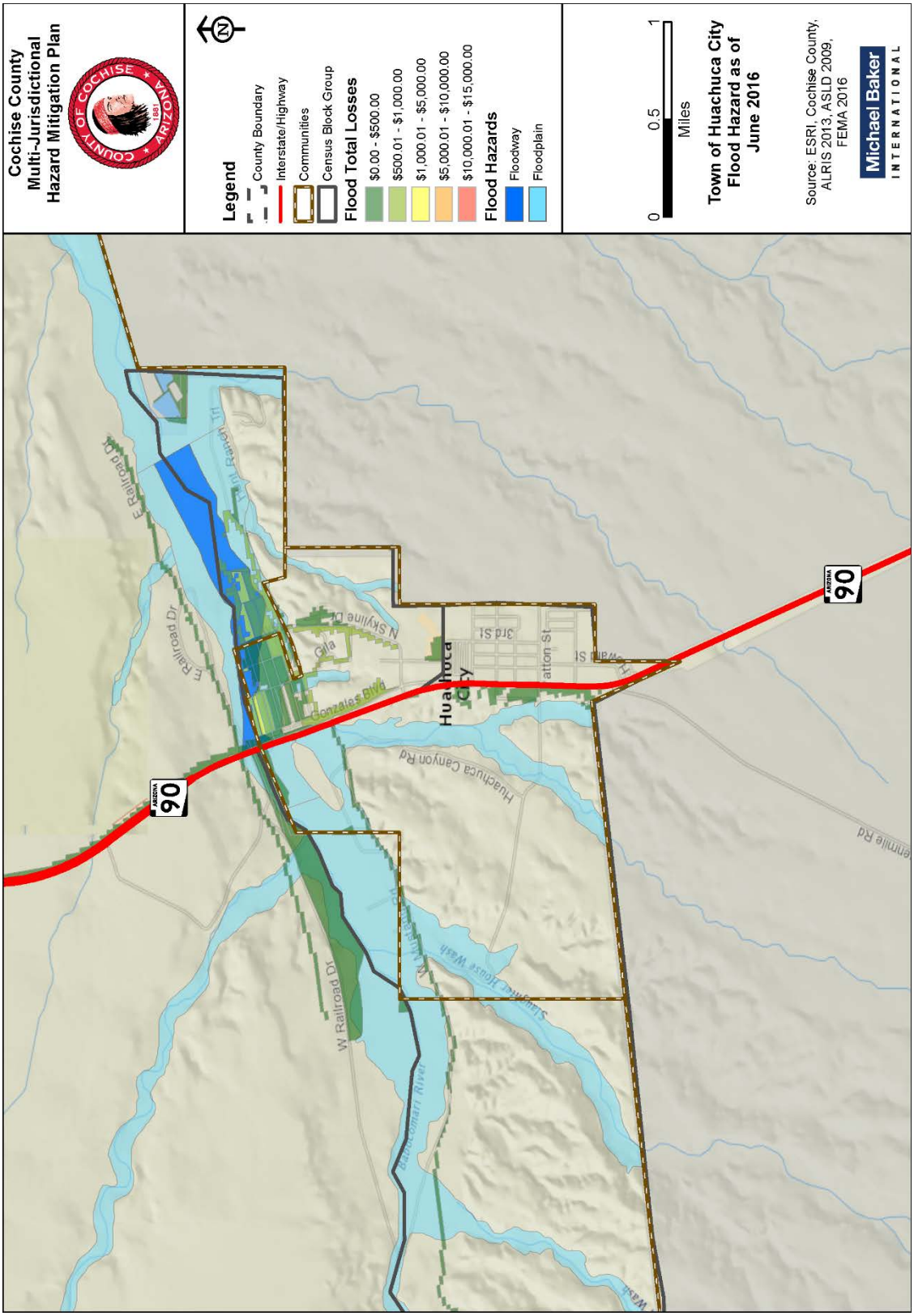
Map 5.14. City of Tombstone Flood Hazard



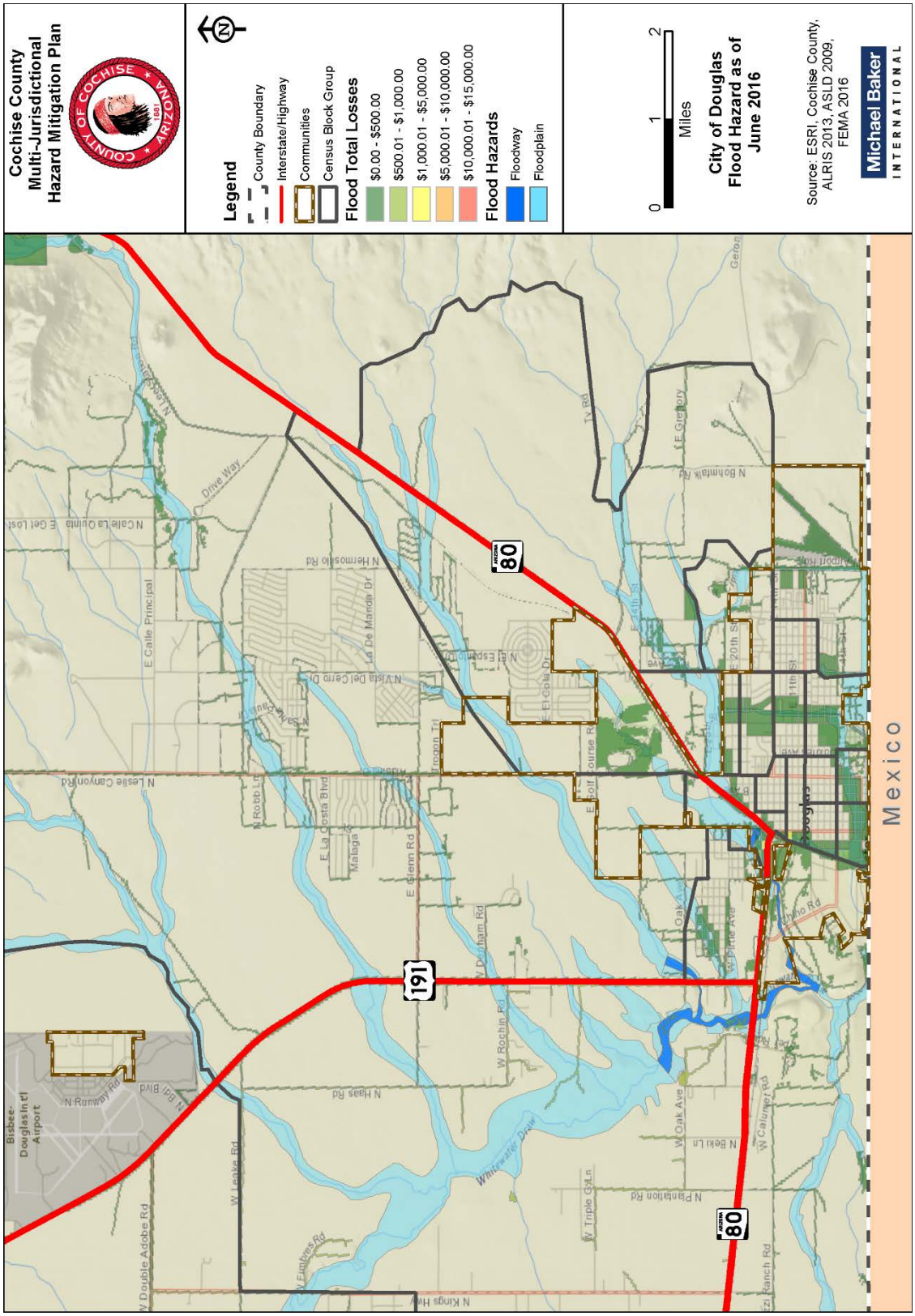
Map 5.15. City of Sierra Vista Flood Hazard



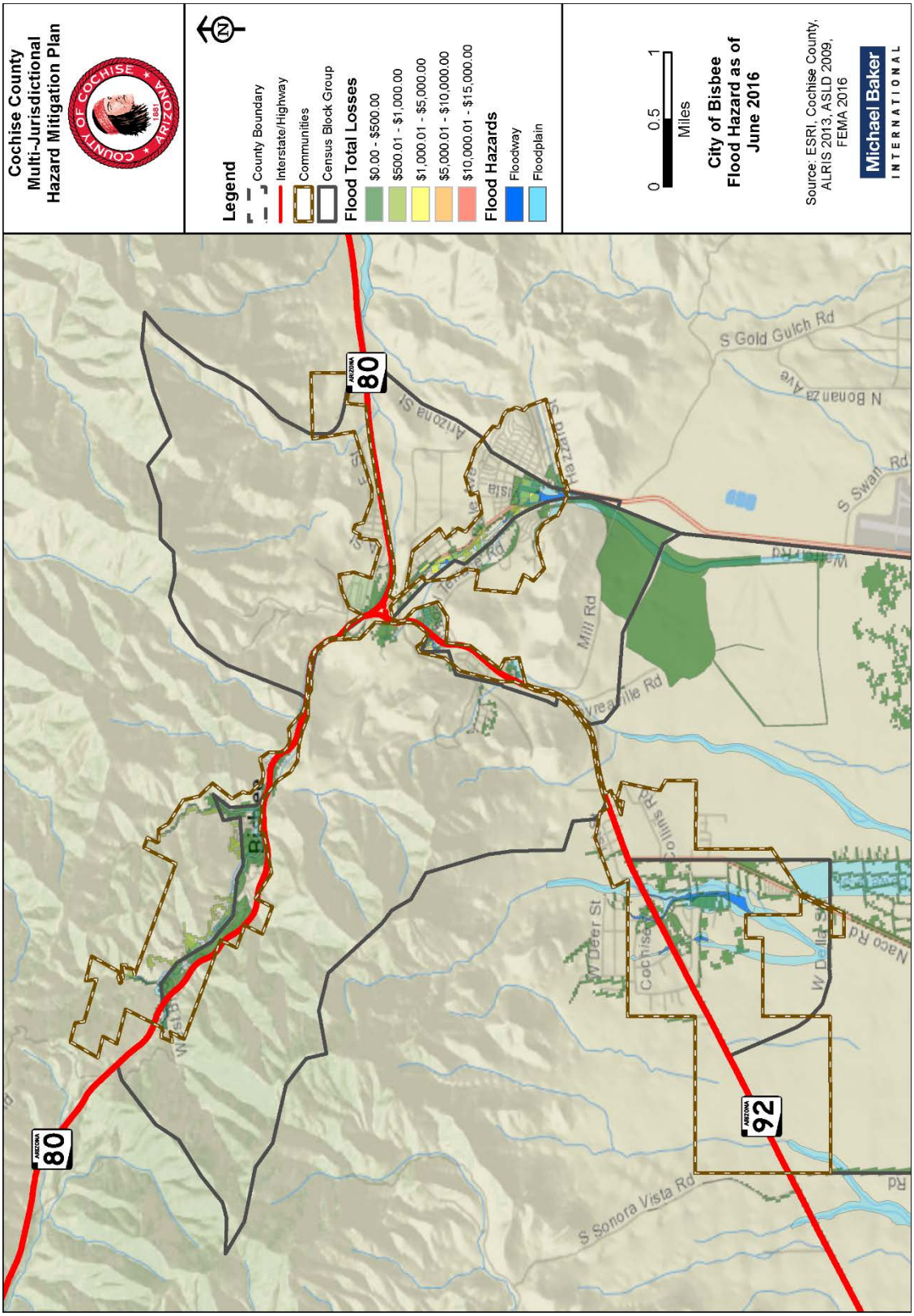
Map 5.16. Town of Huachuca City Flood Hazard



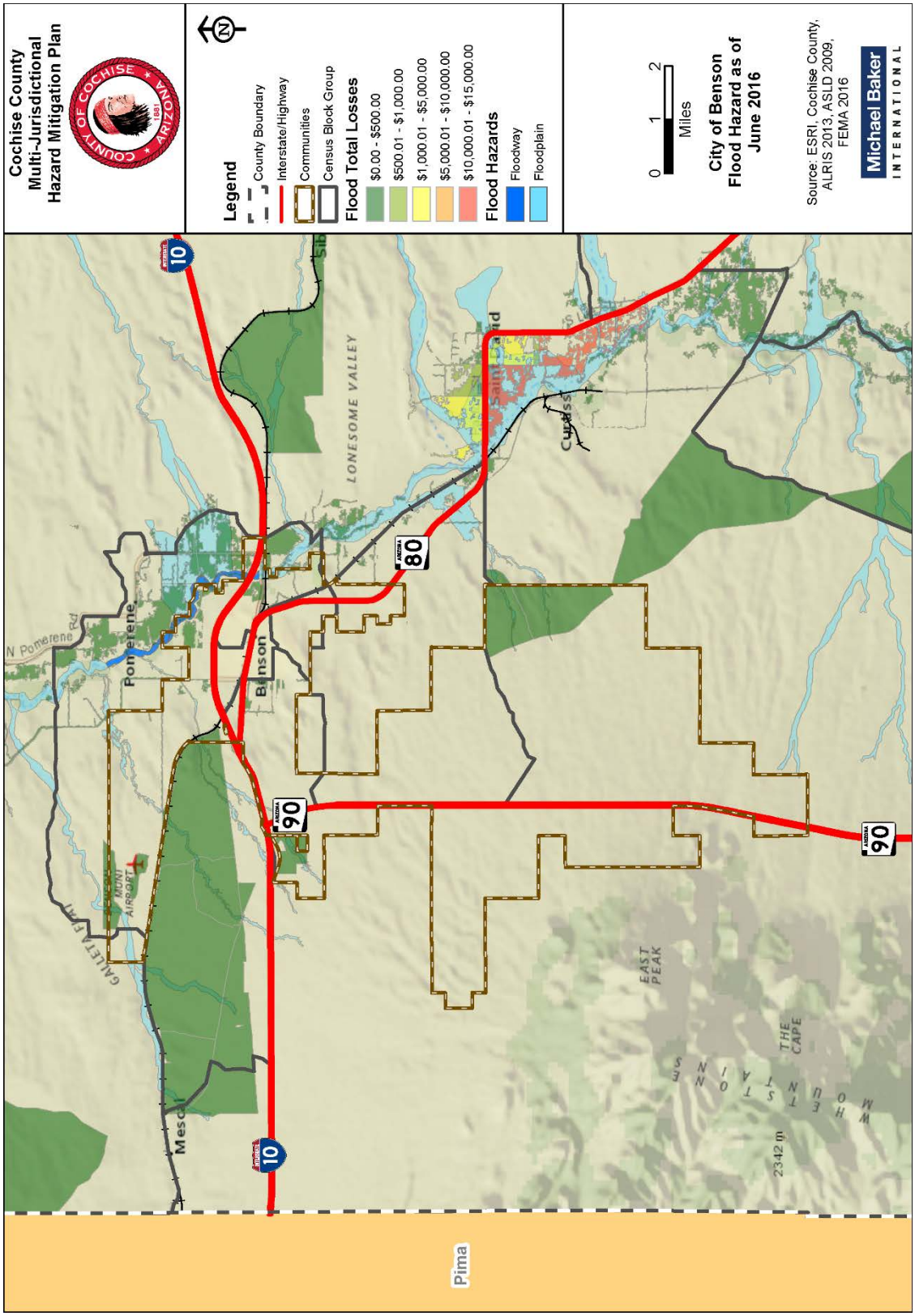
Map 5.17. City of Douglas Flood Hazard



Map 5.18. City of Bisbee Flood Hazard



Map 5.19. City of Benson Flood Hazard



5.3.6 Severe Wind

Description

The hazard of severe wind encompasses all climatic events that produce damaging winds. For Cochise County, severe winds usually result from either extreme pressure gradients that usually occur in the spring and early summer months, or from thunderstorms. Thunderstorms can occur year-round and are usually associated with cold fronts in the winter, monsoon activity in the summer, and tropical storms in the late summer or early fall.

Three types of damaging wind related features typically accompany a thunderstorm; 1) downbursts, 2) straight line winds, and infrequently, 3) tornadoes.

Downbursts are columns of air moving rapidly downward through a thunderstorm. When the air reaches the ground, it spreads out in all directions, creating horizontal wind gusts of 80 mph or higher. Downburst winds have been measured as high as 140 mph. Some of the air curls back upward with the potential to generate a new thunderstorm cell. Downbursts are called macrobursts when the diameter is greater than 2.5 miles, and microbursts when the diameter is 2.5 miles or less. They can be either dry or wet downbursts, where the wet downburst contains precipitation that continues all the way down to the ground, while the precipitation in a dry downburst evaporates on the way to the ground, decreasing the air temperature and increasing the air speed. In a microburst the wind speeds are highest near the location where the downdraft reached the surface, and are reduced as they move outward due to the friction of objects at the surface. Typical damage from downbursts includes uprooted trees, downed power lines, mobile homes knocked off their foundations, block walls and fences blown down, and porches and awnings blown off homes.

Straight line winds are developed similar to downbursts, but are usually sustained for greater periods as a thunderstorm reaches the mature stage, traveling parallel to the ground surface at speeds of 75 mph or higher. These winds are frequently responsible for generating dust storms and sand storms, reducing visibility and creating hazardous driving conditions.

A tornado is a rapidly rotating funnel (or vortex) of air that extends toward the ground from a cumulonimbus cloud. Most funnel clouds do not touch the ground, but when the lower tip of the funnel cloud touches the earth, it becomes a tornado and can cause extensive damage. For Cochise County, tornadoes are the least common severe wind to accompany a thunderstorm.

History

According to Table 2, one declared severe wind event has been recorded for Cochise County. In reality, strong winds are a way of life for most areas of the county and severe wind events occur on frequent basis, and especially during the spring and early summer months. These events do not always have reported damages however. For example, a total of 154 severe wind events were noted in the NCEI database for period of July 1956 through October 2016. Forty-one (41) of those events caused three (3) deaths and 32 injuries, and had over $7.6 million in reported damages associated with them.

In September of 1999, Cochise County was included in a Federal Declaration (FEMA-1304-DR) with Maricopa County for summer monsoon events that caused $30.3 million in damages from thunderstorms, high winds and flooding. The following are examples of significant non-declared events that have occurred recently:

- In December 2007, strong winds off the Huachuca Mountains caused widespread damage to areas around Sierra Vista and Fort Huachuca. Damage in Sierra Vista included a roof blown off a home, a carport ripped off its foundation, numerous trees knocked down including one onto a vehicle. At Fort Huachuca downed trees snapped power lines and a portion of the Mountain View Golf Course

clubhouse's roof was damaged. Also, an 80 foot tall communications tower near Hereford Road and Highway 92 was bent almost halfway. Damages were estimated to exceed $150,000. (NCEI, 2010)

- In June 2008, strong outflow winds from a thunderstorm complex caused severe winds across the Douglas area. Strong winds blew down a storage shed in Douglas, knocked down several trees and caused a partial roof collapse. Damages were estimated to exceed $50,000. (NCEI, 2010)
- In May 2009, a thunderstorm outflow wind gust estimated at 60 mph destroyed a horse barn on the Diamond P Ranch on Brookerson Road, 17 miles north of Willcox. The 10-stall horse barn was completely destroyed by the wind gust. Two racehorses that were not in the barn were killed, when debris from the barn landed on them. Damages were estimated to exceed $20,000. (NCEI, 2010)
- In August 2009, severe thunderstorm microburst winds caused significant damage to mobile homes at Mescal. At least two mobile homes suffered roof damage or roof collapse. Several awnings on the mobile homes were destroyed. Thunderstorm winds were estimated to be near 70 mph. Damages were estimated to exceed $30,000. (NCEI, 2010)
- In October 2009, strong winds associated with a passing cold front created blowing dust across Cochise county into the overnight hours. Blowing dust created limited visibility on Interstate 10, which led to a three vehicle collision about 20 miles east of Willcox. A commercial truck entered the dust storm and slowed down due to the low visibility. A freight truck collided with the commercial truck from behind, before the freight truck was struck by a bus from behind as well. Three people from the three vehicles suffered injuries. Damages were estimated to exceed $50,000. (NCEI, 2010)
- In December 2009, widespread damaging winds occurred across Cochise County during the overnight hours. Law enforcement reported winds blew out windows of some businesses in Sierra Vista. Wind gusts near 70 mph blew portions of a roof off a warehouse in Sierra Vista, with the debris striking nearby power lines and causing power disruptions. Roof damage was also reported at a motel in Sierra Vista, with about half of the roof removed. Debris from the roof landed in a nearby parking lot, damaging several cars. High winds damaged a large sign at a restaurant, with numerous traffic signs receiving damage throughout the Sierra Vista area. Several reports of fallen trees and broken limbs were received, and at least four people in Sierra Vista reported falling trees causing damage to their vehicles. Strong winds caused damage to numerous power poles and power lines in Sierra Vista and surrounding Cochise County, resulting in power outages for thousands of homes and businesses. Many other power poles were damaged by the strong winds near Bowie, San Simon, and Willcox. The ASOS at Fort Huachuca measured a wind gust of 71 mph at 12:38 AM MST. Damages were estimated to exceed $1,000,000. (NCEI, 2010)
- In January 2010, several reports of high winds and wind damage were received from Cochise County during the afternoon and evening hours. The ASOS at Fort Huachuca measured a wind gust of 63 mph at 1:55 PM MST. At approximately 6 PM, a 70-foot transmission power pole was downed by the high winds along Buffalo Soldier Trail near Sierra Vista, resulting in a loss of power to approximately half of Sierra Vista. Seven additional power poles were downed near the intersection of Ramsey Road and Highway 92, resulting in power losses to another 500 residences. A trained spotter measured a wind gust of 67 mph at Bisbee at 10:39 PM MST, while another trained spotter measured a wind gust of 78 mph, 6 miles northwest of Pearce-Sunsites, at 11:30 PM MST. Damaging winds downed several trees across Monument Roadway near Chiricahua National Monument. Damages were estimated to exceed $80,000. (NCEI, 2010)
- In July 2010, the ASOS at the Bisbee-Douglas Airport measured a wind gust of 68 mph at 556 pm MST. Law enforcement reported that thunderstorm winds blew a roof off a residence on Double Adobe Road, approximately 7 miles west of the Bisbee-Douglas Airport. The Bisbee sheriff reported thunderstorm winds blew a roof completely off a large barn along Burnt Adobe Road, and snapped four power poles. A tree was uprooted and fell on a building at the Douglas Municipal Airport. Damages were estimated to exceed $50,000. (NCEI, 2010)

- In August 2010, the Benson News-Sun and a local city official reported extensive damage to much of the city of Benson from thunderstorm activity. The city official reported numerous mature and young trees uprooted, street signs bent or pulled completely out of the ground, damage to dwellings from uprooted trees, small sheds and car ports were lifted and thrown 50-75 feet, and shingle damage to numerous homes. Also, property fences were knocked over, camper trailers were turned over, and numerous power outages. The newspaper added that one particular insurance provider received 40 claims from residents, mostly related to roof damage. Additional information from the newspaper stated that at least 80 street signs had to be replaced. Extensive damage was also done to the Turquoise Hills Golf Course where numerous large trees were downed and buildings damaged. Damages were estimated to exceed $1,000,000. (NCEI, 2010) Map 17 presents a depiction of historic severe wind incident locations as reported by the NCEI for the period of 1955 to 2015. It is noted that this map is only intended to provide a visual view of areas impacted most and is not intended to represent a predictive tool.
- Beginning in 2016, Interstate 10 in the San Simon (NE Cochise County) area has closed down numerous times during high wind events due to agricultural tilling of property adjacent to the interstate. In 2016 & 2017 several serious accidents occurred on the interstate during zero-visibility dust events. These accidents caused both property damage, as well as driver injuries including one fatality. Additionally, forced I-10 road closures due to dust storms in the San Simon area resulted in 110 mile detours for both east and west-bound private and commercial traffic. Agricultural exemptions for dust control regulations in Arizona have made mitigating the dust problem extremely difficult.

Probability and Magnitude

Many severe wind events are associated with summer monsoon thunderstorms. The probability of a severe thunderstorm occurring with high velocity winds increases as the average duration and number of thunderstorm events increases. The average annual duration of thunderstorms in Cochise County ranges from 60 to 90 minutes and is among the longest in the nation (DEMA, 2004). Despite the long duration time, the actual number of thunderstorms on average varies from 50 to 70 per year across the county. Lightning strikes are another indicator of a thunderstorm hazard. According to recent data published by Vaisala©, strike densities across Cochise County for the period of 2005 to 2014, vary from 1 to 8 lightning strikes per square kilometer per year.

The NWS issues a severe thunderstorm watch when conditions are favorable for the development of severe thunderstorms. The local NWS office considers a thunderstorm severe if it produces hail at least 3/4-inch in diameter, wind of 58 mph or higher, or tornadoes. When a watch is issued for a region, residents are encouraged to continue normal activities but should remain alert for signs of approaching storms, and continue to listen for weather forecasts and statements from the local NWS office. When a severe thunderstorm has been detected by weather radar or one has been reported by trained storm spotters, the local NWS office will issue a severe thunderstorm warning. A severe thunderstorm warning is an urgent message to the affected counties that a severe thunderstorm is imminent. The warning time provided by a severe thunderstorm watch may be a couple hours, while a severe thunderstorm warning typically provides an hour or less warning time.

The American Society of Civil Engineers (ASCE) has identified a 3-second wind gust speed as the most accurate measure for identifying the potential for damage to structures, and is recommended as a design standard for wind loading. Most of Arizona and all of Cochise County is designated with a design 3-second gust wind speed of 90 mph, indicating relatively low levels of risk from severe winds (ASCE, 1999).

Likewise, FEMA identifies most of the county to be in design wind speed Zone I, as illustrated in the following figure. In this zone, a design wind speed of 130 mph is recommended for the design and construction of community shelters.

Based on the historic record, the probability of tornados occurring in Cochise County is probable. Tornado damage severity is measured by the Enhanced Fujita Scale. The EF-Scale measures tornado strength and associated damages and classifies tornadoes into six intensity categories, as shown in the following Table. The EF scale was revised in 2007 to reflect better examinations of tornado damage surveys, so as to align wind speeds more closely with associated storm damage. This new scale takes into account how most structures are designed, and is thought to be a much more accurate representation of the surface wind speeds in the most violent tornadoes. Most tornadoes last less than 30 minutes, but some last for over an hour. The path of a tornado can range from a few hundred feet to miles. The width of a tornado may range from tens of yards to more than a quarter of a mile.

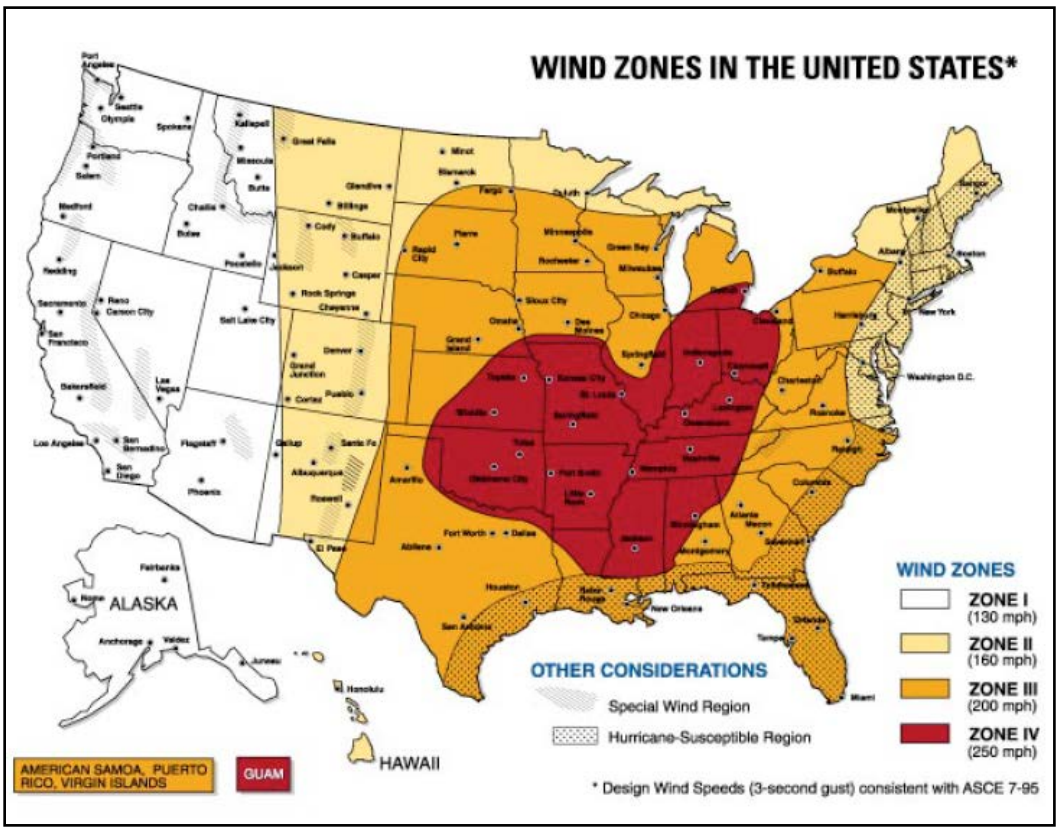


Figure 5.11. Illustration of FEMA Wind Zones

(Source: FEMA Website at the following URL: https://www.fema.gov/pdf/library/ism2_s1.pdf)

Table 5.15. Enhance Fujita Scale

Enhanced Fujita (EF) Scale		
Enhanced Fujita Category	Wind Speed (mph)	Potential Damage
EF0	65-85	**Light damage**: Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over.
EF1	86-110	**Moderate damage**: Roofs severely stripped; mobile homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF2	111-135	**Considerable damage**: Roofs torn off well-constructed houses; foundations of frame homes shifted; mobile homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
EF3	136-165	**Severe damage**: Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations blown away some distance.
EF4	166-200	**Devastating damage**: Well-constructed houses and whole frame houses completely leveled; cars thrown and small missiles generated.
EF5	>200	**Incredible damage**: Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 m (109 yds.); high-rise buildings have significant structural deformation; incredible phenomena will occur.

Vulnerability – CPRI Results

Severe Wind CPRI results for each community are summarized in the following table:

Table 5.16. CPRI Results by Jurisdiction for Severe Wind

Participating Jurisdiction	Probability	Magnitude/ Severity	Warning Time	Duration	CPRI Score
Benson	3.16 (Likely/Highly Likely)	2.47 (Limited/Critical)	2.84 (12-24 hours/6-12 hours)	2.11 (< 24 hours/< 1 week)	2.8
Bisbee	3.2 (Likely/Highly Likely)	2.46 (Limited/Critical)	2.22 (12-24 hours/6-12 hours)	2.29 (< 24 hours/< 1 week)	2.74

Participating Jurisdiction	Probability	Magnitude/ Severity	Warning Time	Duration	CPRI Score
Douglas	3 (Likely)	2.5 (Limited/Critical)	2.9 (12-24 hours/6-12 hours)	1.9 (< 6 hours/< 24 hours)	2.73
Huachuca City	3.39 (Likely/Highly Likely)	2.52 (Limited/Critical)	2.94 (12-24 hours/6-12 hours)	1.77 (< 6 hours/< 24 hours)	2.9
Sierra Vista	3.74 (Likely/Highly Likely)	2.35 (Limited/Critical)	2.3 (12-24 hours/6-12 hours)	1.91 (< 6 hours/< 24 hours)	2.92
Tombstone	3.17 (Likely/Highly Likely)	2 (Limited)	3.5 (6-12 hours/< 6 hours)	1.83 (< 6 hours/< 24 hours)	2.73
Willcox	3.69 (Likely/Highly Likely)	2.69 (Limited/Critical)	2.81 (12-24 hours/6-12 hours)	2.44 (< 24 hours/< 1 week)	1.47
Unincorporated Cochise County	3.59 (Likely/Highly Likely)	2.17 (Limited/Critical)	2.72 (12 - 24 hours/6-12 hours)	2.17 (< 24 hours/< 1 week)	2.89
				County-wide average CPRI =	**2.61**

Based on the CPRI Evaluation, the Huachuca City, Sierra Vista, and unincorporated parts of the county are perceived to be most at risk from a Severe Wind event. As demonstrated in the table above, the probability of this event occurring in these two jurisdictions is thought to be more likely and the magnitude of impacts more severe.

Vulnerability – Loss Estimations

The entire county is assumed to be equally exposed to the damage risks associated with severe winds. Incidents are typically localized and damages associated with individual events are usually minor, unless the event occurs within a densely populated area. According to NCEI, Cochise County jurisdictions have experienced over $3.3 million in property damage and $5,000 in crop damage between 1959 and 2016. No deaths or injuries have been recorded, but it is not unreasonable to predict that severe wind incidents could cause harm to community members. No estimates of losses for individual jurisdictions are made due to the lack of discrete data.

Vulnerability – Development Trend Analysis

Since the 2010 Census, Cochise County has seen and projects continued population decreases. This means minimal new development is expected, which will keep the structure inventory at risk similar to what is was when the 2012 plan was updated. Future development can expand the exposure of life and property to the damaging effects of severe wind events. Enforcement and/or implementation of modern building codes to regulate new developments in conjunction with public education on how to respond to severe wind conditions are arguably the best way to mitigate against losses.

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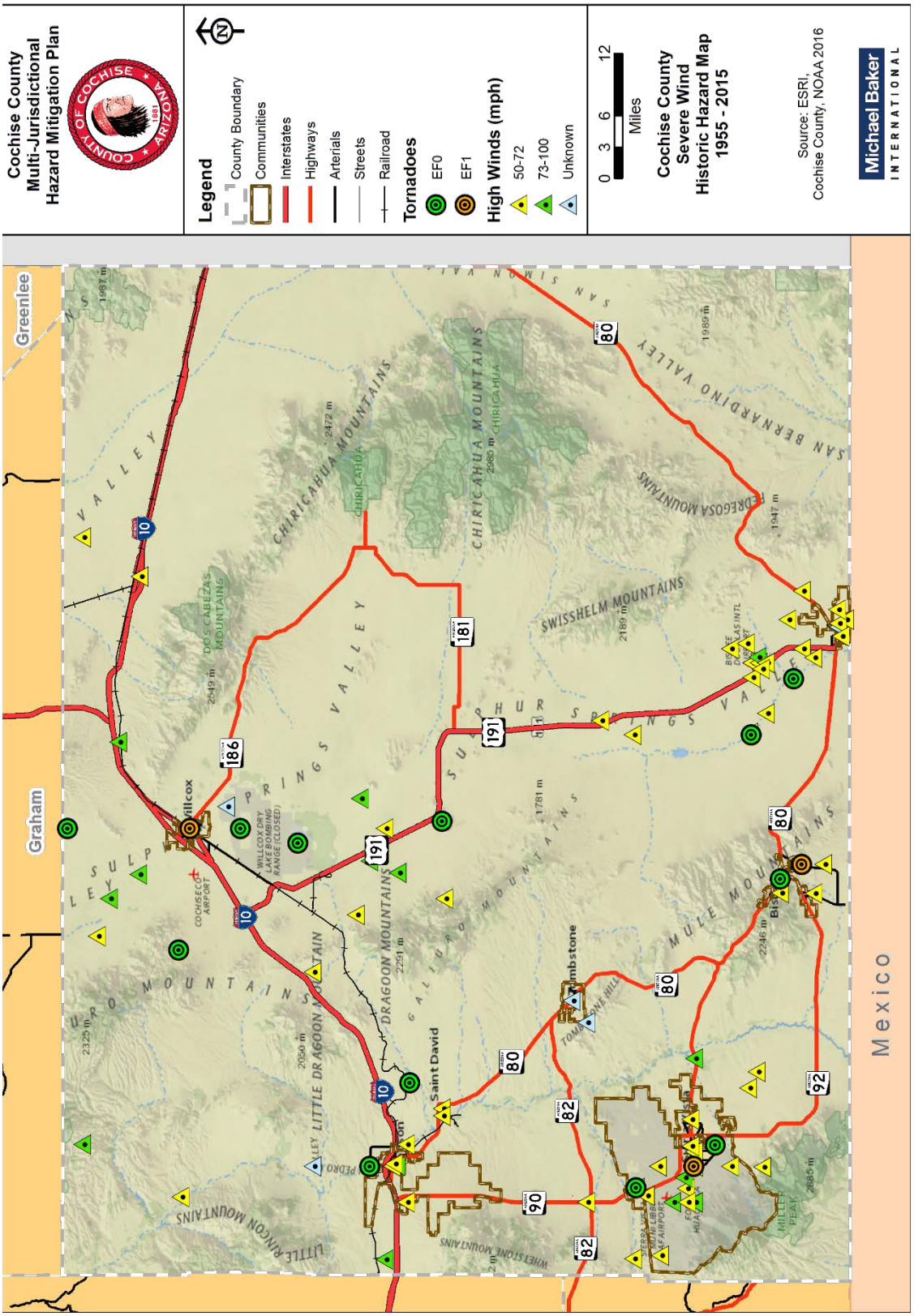
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Profile Maps

Map 5.20 – County-Wide Severe Wind Historic Hazard Map

Map 5.20. Severe Wind



5.3.7 Wildfire

Description

A wildfire is an uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures. They often begin unnoticed, spread quickly, and are usually signaled by dense smoke. Wildfires can be human-caused through acts such as arson, unattended campfires, or the improper burning of debris, or even an errant cigarette butt. Naturally sparked wildfires are usually caused by lightning. Wildfires can be categorized into four types:

- *Wildland fires* occur mainly in areas under federal control, such as national forests and parks, and are fueled primarily by natural vegetation. Generally, development in these areas is nonexistent, except for roads, railroads, power lines, and similar features.
- *Interface or intermix fires* occur in areas where both vegetation and structures provide fuel. These are also referred to as urban-wildland interface fires.
- *Firestorms* occur during extreme weather (e.g., high temperatures, low humidity, and high winds) with such intensity that fire suppression is virtually impossible. These events typically burn until the conditions change or the fuel is exhausted.
- *Prescribed fires and prescribed natural fires* are intentionally set or natural fires that are allowed to burn for beneficial purposes.

The following three factors contribute significantly to wildfire behavior and, as detailed more fully later, can be used to identify wildfire hazard areas:

- *Topography*: As slope increases, the rate of wildfire spread increases. South facing slopes are also subject to greater solar radiation, making them drier and thereby intensifying wildfire behavior. However, ridgetops may mark the end of wildfire spread, since fire spreads more slowly or may even be unable to spread downhill.
- *Fuel:* Wildfires spread based on the type and quantity of available flammable material, referred to as the fuel load. The basic characteristics of fuel include size and shape, arrangement and moisture content. Each fuel is assigned a burn index (the estimated amount of potential energy released during a fire), an estimate of the effort required to contain a wildfire, and an expected flame length.
- *Weather:* The most variable factor affecting wildfire behavior is weather. Important weather variables are temperature, humidity, wind, and lightning. Weather events ranging in scale from localized thunderstorms to large fronts can have major effects on wildfire occurrence and behavior. Extreme weather, such as high temperatures and low humidity, can lead to extreme wildfire activity. By contrast, cooling and higher humidity often signals reduced wildfire occurrence and easier containment. Wind has probably the largest impact on a wildfire's behavior, and is also the most unpredictable. Winds supply the fire with additional oxygen, further dry potential fuel, and push fire across the land at a quicker pace.

The frequency and severity of wildfires is also impacted by other hazards, such as lightning, drought, and infestations (e.g., Pine Bark Beetle, Salt Cedar and Buffelgrass). In Arizona, these hazards combine with the three other wildfire contributors noted above (topography, fuel, weather) to present an on-going and significant hazard across much of Arizona.

If not promptly controlled, wildfires may grow into an emergency or disaster. Even small fires can threaten lives, resources, and destroy improved properties. It is also important to note that in addition to affecting people, wildfires may severely affect livestock and pets. Such events may require the emergency watering/feeding, shelter, evacuation, and increased event-caused deaths and burying of animals.

The indirect effects of wildfires can also be catastrophic. In addition to stripping the land of vegetation and destroying forest resources, large, intense fires can harm the soil, waterways and the land itself. Soil exposed to intense heat may lose its capability to absorb moisture and support life. Exposed soils erode quickly and enhance siltation of rivers and streams thereby enhancing flood potential, harming aquatic life and degrading water quality. Lands stripped of vegetation are also subject to increased landslide hazards.

History

According to the 2014 Cochise County Wildfire Protection Plan (CCWPP), there have been a total of 54 large wildfires in the Cochise County Wildland-Urban Interface (WUI) since 2000. These fires have burned over 315,000 acres of land in total. Fires greater than 1,000 acres that have occurred in the last five years are described below in chronological order:

- *Horseshoe 2 Fire* – On May 8, 2011, the Horseshoe 2 Fire was ignited by human causes and burned a total of 222,954 acres within the Chiricahua Mountains of Southeastern Arizona. A total of 23 structures were destroyed, and at least $51.1 million in fire suppression costs were estimated. The fire was contained June 25, 2011 at approximately 6:00pm (CNF, 2011a). Figure 13 shows a map of the Horseshoe 2 Fire burn area and burn intensities.

- *Monument Fire* – On June 12, 2011, the Monument Fire burned a total of 32,074 acres in an area located four miles east of Hereford, Arizona. The cause of the fire is unknown. Early news reports estimated that about 40 homes and the Our Lady of the Sierras shrine, along with 10 other structures, were reportedly burned, and about 650 homes were evacuated (Tucson Sentinel, 2011). A subsequent report estimated over 50 homes destroyed and the evacuation of the entire community of Hereford, Arizona (AZCentral.com, 2011). A later report estimated four businesses and 14 residential structures were damaged or lost when the Monument Fire came down from Miller Canyon. Forty-four homes and 17 other buildings were damaged or destroyed in the Ash Canyon area. In the Stump Canyon area, seven houses and four other structures were destroyed. A vehicle and a historic building were also damaged. Authorities estimated that approximately 3,000 homes and 12,000 people were evacuated, and there was one injury as a result of smoke inhalation (AZFamily.com, 2011). Post-fire flooding from the burned watersheds also destroyed the City of Tombstone's water catchment structures on 24 springs in Carr and Miller Canyons, with damages estimated at over $30,000 and the possibility of a severe shortage in water supply until the springs are restored. Figure 14 shows a map of the Monument Fire burn area and burn intensities. The fire was declared 98% contained on July 6, 2011 and the fire suppression costs were estimated to exceed $20.35 million (CNF, 2011b).

- On June 21, 2008, the Adams Fire was started by lightning and burned 1,040 acres of Adams Peak, east of Benson, Arizona. The fire was contained on June 25, 2008 and there were no reported structure or human losses, and the fire suppression costs were estimated to exceed $4,000 (NWGC, 2010).

- On June 23, 2008, the Jack Wood WFU Fire was started by lightning and burned 8,241 acres located 12 miles southwest of Rodeo, New Mexico. The fire was contained on July 11, 2008, there were no reported structure or human losses, and the fire suppression costs were estimated to exceed $150,000 (NWGC, 2010).

- On July 3, 2008, the Buck Fire was started by human causes and burned 2,250 acres located 30 miles northeast of Douglas, Arizona. The fire was contained on July 8, 2008, there were no reported structure or human losses, and the fire suppression costs were estimated to exceed $100,000 (NWGC, 2010).

- On March 1, 2009, the Hog Fire was started by human causes and burned 16,802 acres located 25 miles northeast of Douglas, Arizona. The fire was contained on March 10, 2009, there were no

reported structure or human losses, and the fire suppression costs were estimated to exceed $265,000 (NWGC, 2010).

- On March 25, 2009, the Geronimo Fire was started by human causes and burned 2,460 acres near Sunizona, Arizona. The fire required the evacuation of about 50 residents and threatened 10 residential homes, 20 outbuildings or other assets, and ultimately destroyed 8 outbuildings and 2 vehicles. There were no human losses reported and the fire was contained on March 29, 2009, Fire suppression costs were not estimated (NWGC, 2010).
- On May 26, 2010, the Horseshoe Fire was started by human causes and burned 3,401 acres located 5 miles south of Portal, AZ. The fire was contained July 9, 2010. There were no reported structure losses, six reported injuries, and the fire suppression costs were estimated to exceed $10 million (NWGC, 2010).
- On June 24, 2010, the Brushy Fire was started by lightning and burned 5,935 acres located 15 miles east of Elfrida, AZ. The fire was contained July 10, 2010. There were no reported structure or human losses and the fire suppression costs were estimated to exceed $600,000 (NWGC, 2010).

Maps 6A through 6D provide a graphical depiction of the 100 acre plus wildfires for the 2002-2010 period (NWGC, 2010).

Two recent fires in 2011, have proven to be the worst fires to burn Cochise County, and are summarized below.

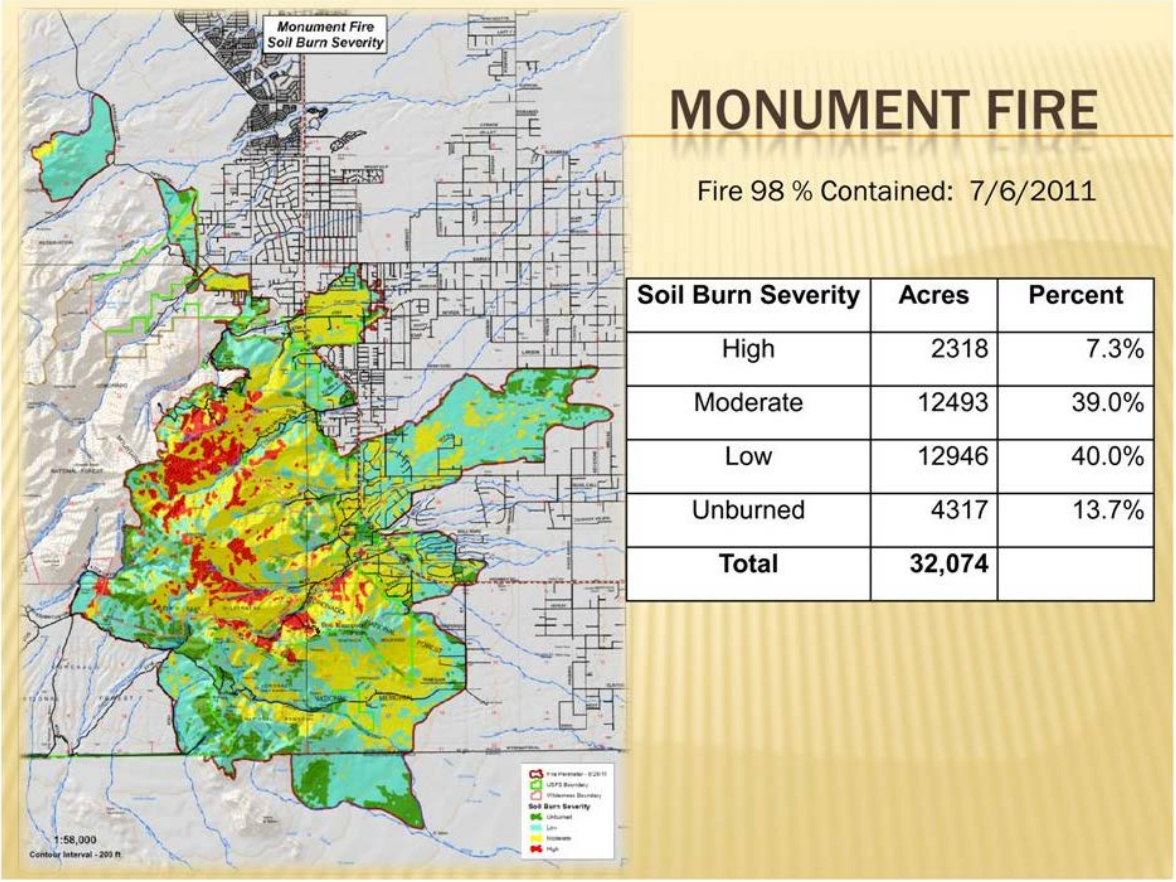


Figure 5.12. Monument Fire Soil Burn Severity

(Source: InciWeb, 2011, http://www.inciweb.org/incident/map/2324/1/)

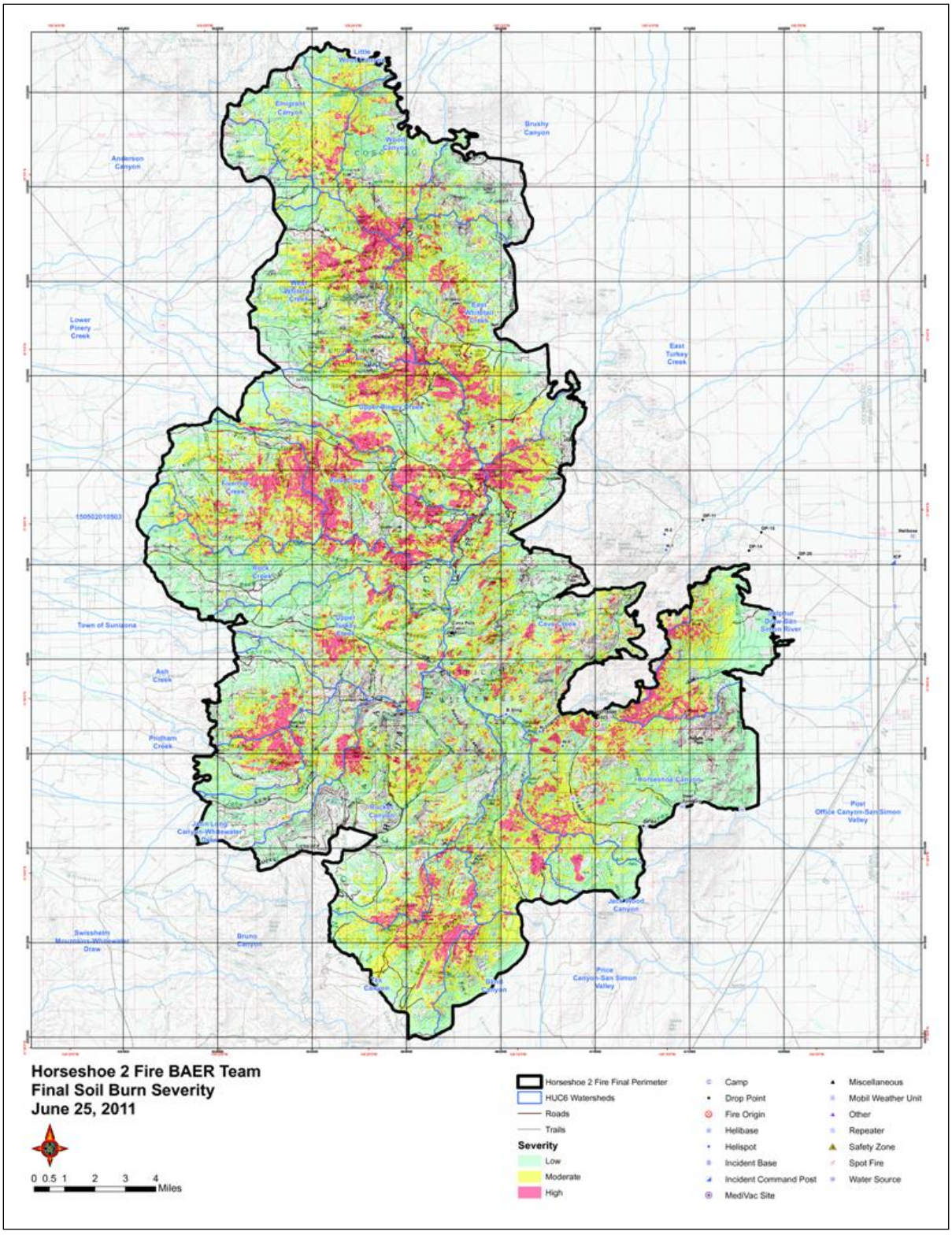


Figure 5.13. Horseshoe 2 Fire Soil Burn Severity

(Source: InciWeb, 2011, http://www.inciweb.org/incident/map/2225/0/)

On June 17, 2011, Governor Jan Brewer signed a Declaration of Emergency in response to the Horseshoe 2 and Monument Fires in Cochise County. This declaration released $100,000 from the Governor's Emergency Funds (via the State General Fund) to pay for emergency responses and recovery expenses for damage resulting from the fires. The funding will support costs not covered by the Federal Fire Management Assistance Grant (FMAG), as well as recovery efforts following suppression of the fire.

The Planning Team recognized that the disaster and historic hazard data collected and summarized in Section 5.1 does not adequately reflect the true cost of a wildfire. Particularly, the cost of wildfire suppression efforts to prevent structure and human loss. For example, the Brushy Fire did not result in any structure losses, however, the suppression costs exceeded $600,000. Furthermore, the County, State, Forest Service, and other agencies spend millions of dollars every year in wildfire mitigation in fuel treatment projects.

Probability and Magnitude

The probability and magnitude of wildfire incidents for Cochise County are influenced by numerous factors including vegetation densities, previous burn history, hydrologic conditions, climatic conditions such as temperature, humidity, and wind, ignition source (human or natural), topographic aspect and slope, and remoteness of area.

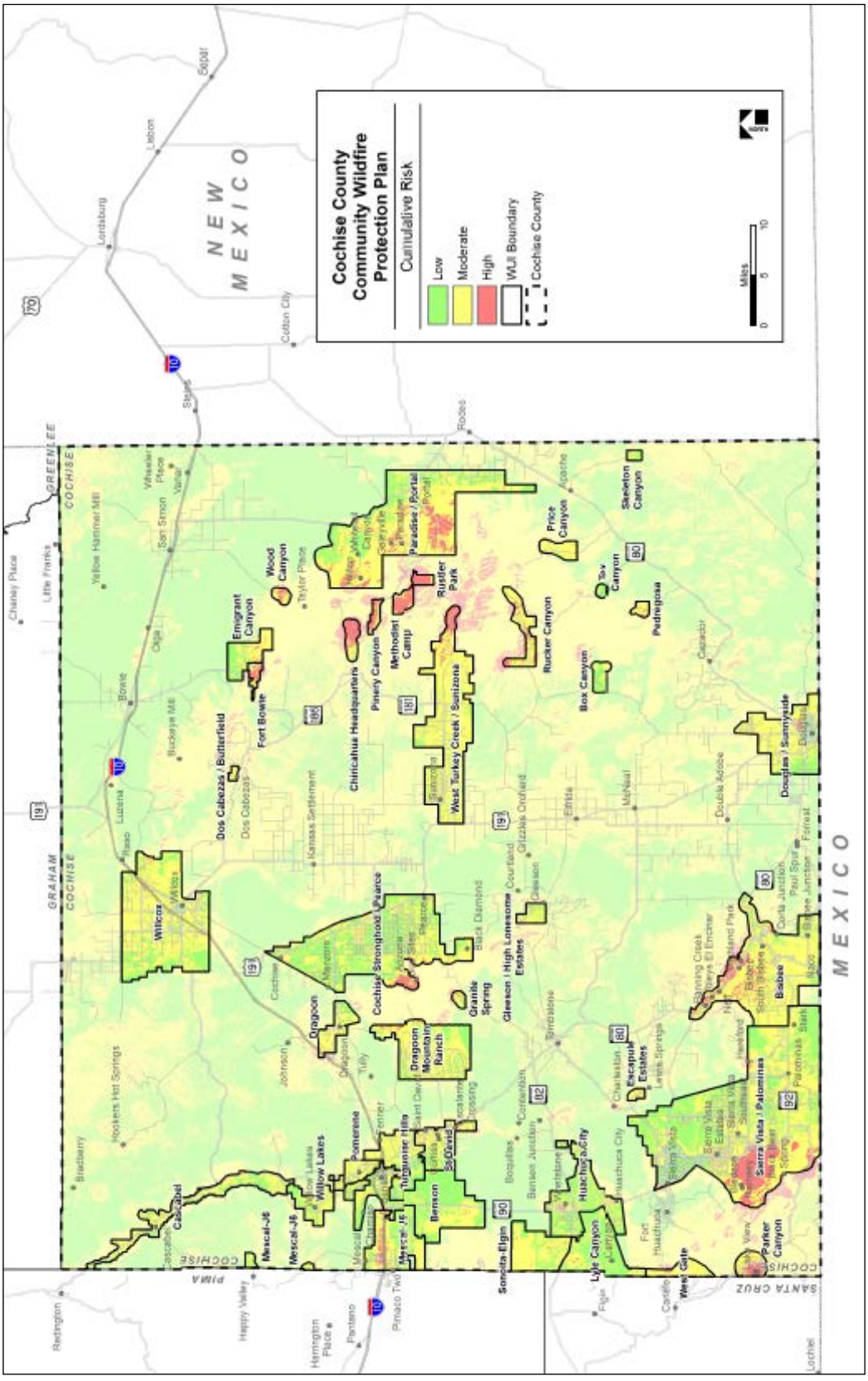
In 2014, Cochise County collaborated with various cooperating stakeholders to prepare the Cochise County Wildfire Protection Plan (CWPP), which discusses Wildland Urban Interface (WUI) areas and wildfire risk elements. The City of Bisbee had previously developed their own CWPP. The CWPP wildfire analysis records participating communities' WUI risk ratings, as seen in the following recommended at-risk communities table.

Table 5.17. CWPP Wildfire Risk Analysis

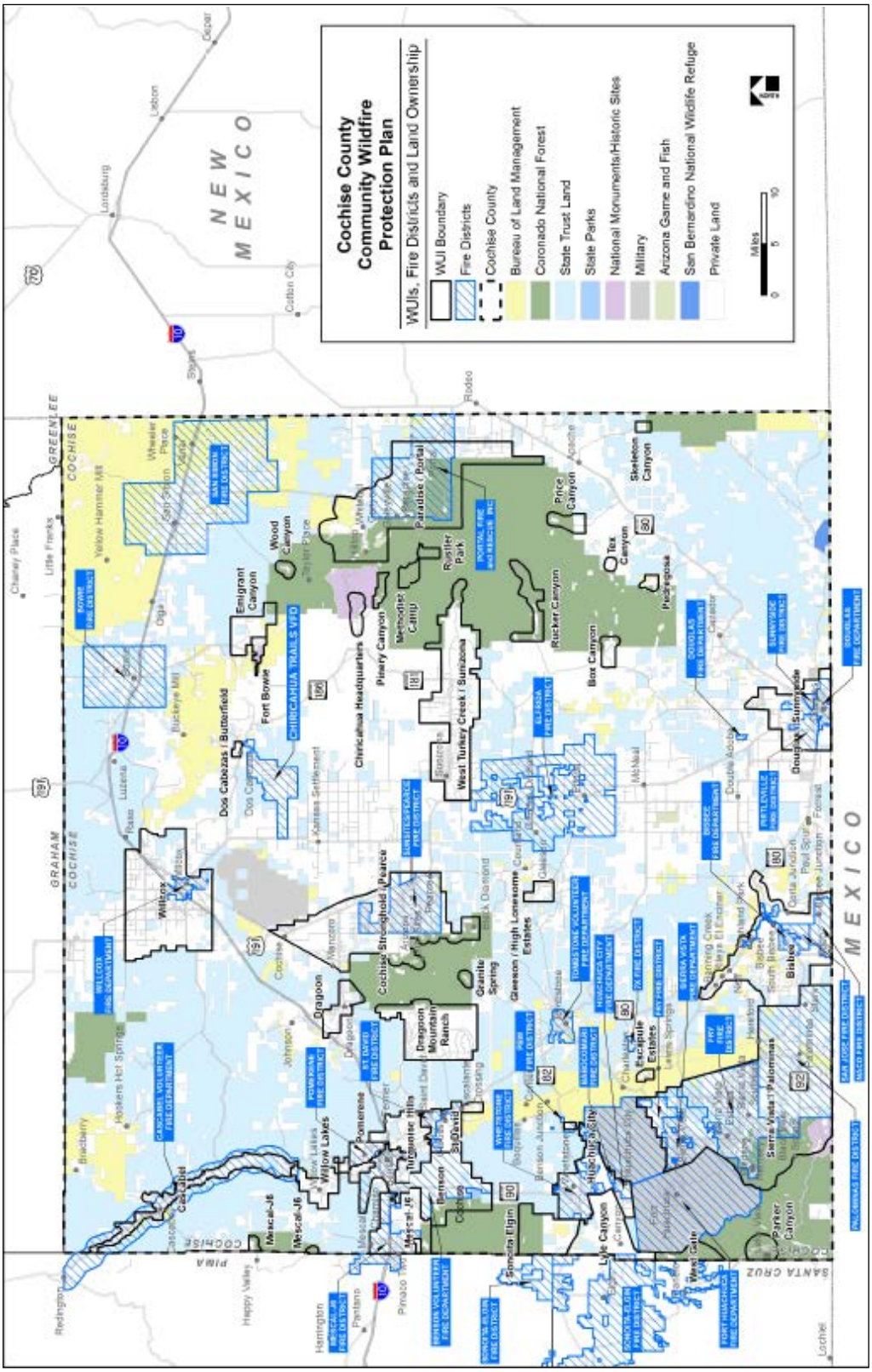
Community WUI	WUI Risk	Communities within WUI	Fire Dept/Dist
Benson	Low	Benson	Benson Fire Department
Bisbee	From Bisbee CWPP: 37% High 34% Moderate 29% Low	Bisbee Banning Creek, Highland Creek, Naco, South Bisbee, Warren	Bisbee Fire Dept., Naco Fire Dist., San Jose Fire Dist.
Douglas/Sunnyside	Moderate	Calumet, Douglas, Pirtleville, Sunnyside	Douglas Fire Dept., Sunnyside Fire Dist., Pirtleville Fire Dist.
Town of Huachuca City	Low	Campstone, Huachuca City, Whetstone	Huachuca City Fire Dept., Whetstone Fire Dept., PBW Fire Dist.
Sierra Vista/Palominas	Moderate	Bledsoe, Hereford, Miracle Valley, Nicksville, Palominas, Ramsey, Sierra Vista, Sierra Vista Southeast, Stark	Sierra Vista Fire Dept., Fry Fire Dist., Palominas Fire Dist.
Willcox	Moderate	Willcox	Willcox Fire Dept.

The following Map 5.21 displays the results of the cumulative risk analyses, which was conducted for Cochise CWPP. The risk analysis identifies areas and relative percentages of WUI areas of high, moderate, and low risk and synthesizes the risks that are associated with fuel hazards, wildfire ignitions, wildfire occurrence, and community values. Map 5.22 displays the established WUI boundaries, Fire Districts, and Land Ownership areas for the entirety of Cochise County.

Map 5.21. CWPP Cumulative Risk Analysis



Map 5.22. CWPP WUI Area



Vulnerability – CPRI Results

Wildfire CPRI results for each community is summarized in the following table:

Table 5.18. CPRI Results by Jurisdiction for Wildfire

Participating Jurisdiction	Probability	Magnitude/ Severity	Warning Time	Duration	CPRI Score
Benson	2.79 (Possible/Likely)	2.58 (Limited/Critical)	2.95 (12-24 hours/6-12 hours)	2.95 (< 24 hours/< 1 week)	2.76
Bisbee	3.05 (Likely/Highly Likely)	3.05 (Limited/Critical)	3.05 (6-12 hours/< 6 hours)	3.17 (< 1 week/> 1 week)	3.06
Douglas	3.2 (Likely/Highly Likely)	2.6 (Limited/Critical)	3.3 (6-12 hours/< 6 hours)	3.2 (< 1 week/> 1 week)	3.04
Huachuca City	3. (Likely/Highly Likely)	2.9 (Limited/Critical)	3.45 (6-12 hours/< 6 hours)	2.39 (< 24 hours/< 1 week)	3.04
Sierra Vista	3.61 (Likely/Highly Likely)	3.26 (Critical/Catastrophic)	2.78 (12-24 hours/6-12 hours)	3 (< 1 week)	3.32
Tombstone	3.17 (Likely/Highly Likely)	2.33 (Limited/Critical)	3.33 (6-12 hours/< 6 hours)	2.83 (< 24 hours/< 1 week)	2.91
Willcox	3.25 (Likely/Highly Likely)	2.88 (Limited/Critical)	3.19 (6-12 hours/< 6 hours)	2.5 (< 24 hours/< 1 week)	1.59
Unincorporated Cochise County	3.34 (Likely/Highly Likely)	2.97 (Limited/Critical)	3.24 (6-12 hours/< 6 hours)	3.59 (< 1 week/> 1 week)	3.24
				County-wide average CPRI =	2.87

Based on the CPRI Evaluation, the Bisbee, Douglas, Huachuca City, Sierra Vista, and those who live or work in Unincorporated Cochise County believe that they are most at risk from Wildfire event. It should be noted that almost every jurisdiction feels that a wildfire is highly likely to occur in their community.

Vulnerability – Loss Estimations

The estimation of potential exposure to High Risk Fire was accomplished by intersecting the county parcel data with the wildfire cumulative risk layer, which is depicted in Maps 5.24 – 5.30 at the end of this section. The following table displays the total number of impacted parcels located in the high risk fire area, for each participating jurisdiction.

Table 5.19. Impacted Parcels (Wildfire)

Jurisdiction	Parcels (High Risk Fire)
Benson	57
Tombstone	82
Willcox	5
Bisbee	366
Douglas	64
Sierra Vista	5
Huachuca City	36
County	4,926

The following table summarizes the critical facility (CF) exposure estimates for the high wildfire hazard areas, which includes a 100' buffer. Estimates are broken out by CF type, impacted structure count, and estimated CF replacement value (when available).

Table 5.20. Critical Facilities Wildfire Impact

	Bisbee	Cochise County
CF Type	Impacted Structures/Replacement Value	
Banking and Finance Institution	-	-
Cultural	-	-
Educational	-	1/NA
Electrical Power System	-	-
Emergency Services	-	1/NA
Gas and Oil Facilities	-	-
Government Services	-	-
Telecommunications Infrastructure	1/$20,000	13/$260,000
Transportation Networks	-	1/$1,610,000
Water Supply Systems	-	-

In summary, approximately $1.9 million in critical facility related losses are possible in areas of high wildfire hazard, for all the participating jurisdictions in Cochise County. It should be noted that these

exposure dollar amounts do not include the cost of wildfire suppression, which can be substantial. For example, deployment of a Type 1 wildland firefight crew costs about $1 million per day.

It is duly noted that the loss and exposure numbers presented above represent a comprehensive evaluation of the County as a whole. It is unlikely that a wildfire would occur that would impact all of the high wildfire hazard areas at the same time. Accordingly, actual event based losses and exposure are likely to be only a fraction of those summarized above.

Vulnerability – Development Trend Analysis

By its very definition, the WUI represents the fringe of urban development as it intersects with the natural environment. As previously discussed, wildfire risks are significant for a sizeable portion of the county. Any future development will only increase the WUI areas and expand the potential exposure of structures to wildfire hazards. The Cochise County CWPP addresses mitigation opportunities for WUI areas and provides recommended guidelines for safe building and land-use practices in wildfire hazard areas. It also presents recommendations for enhanced wildland fire protection capabilities and public education, information, and outreach.

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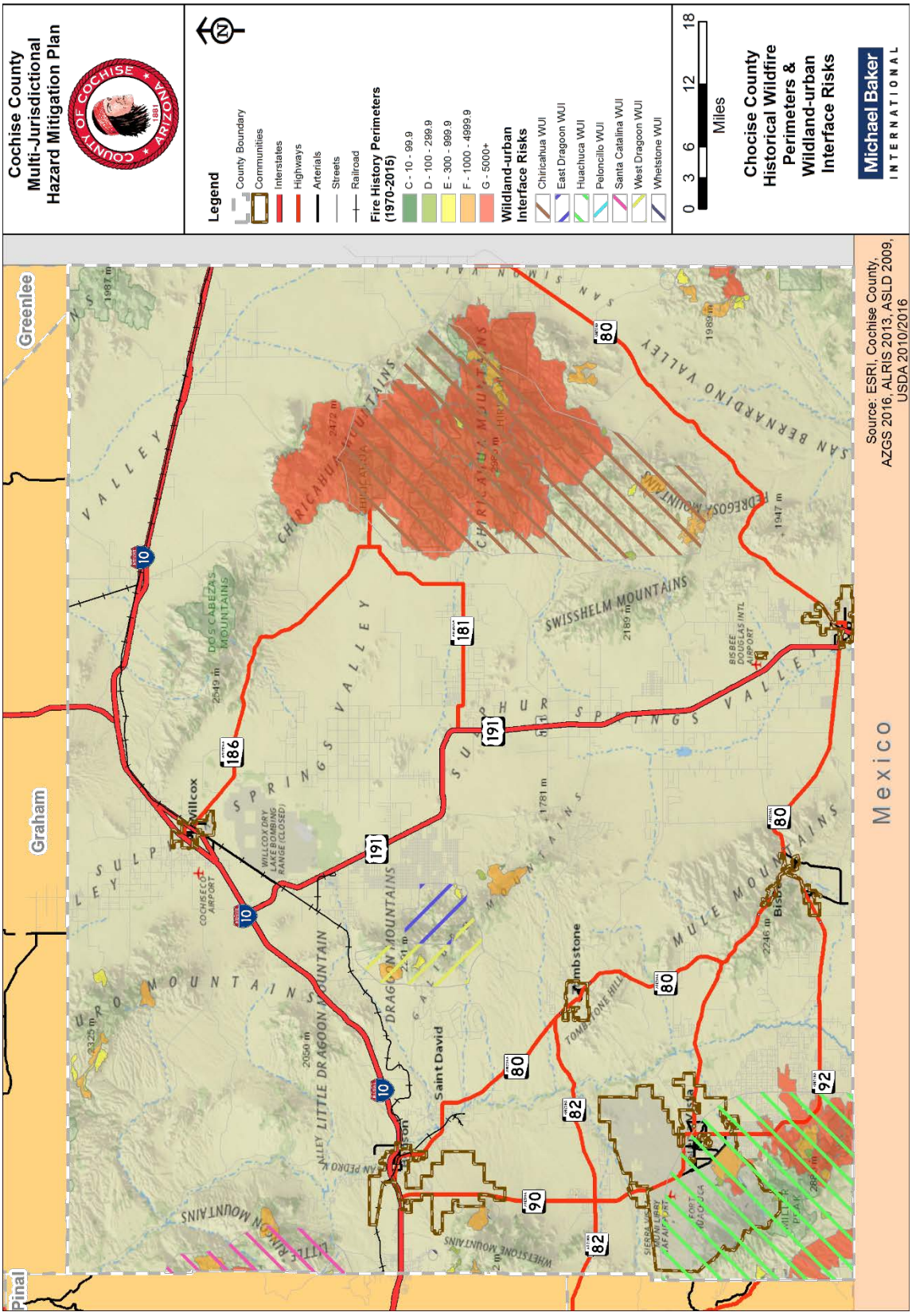
Cochise County Community Wildfire Protection Plan (CWPP), May 2014, prepared by the Bureau of Land Management (BLM) Gila District Office; the Coronado National Forest (CNF) Douglas and Sierra Vista Ranger Districts; the US Fish and Wildlife Service; and the National Park Service (NPS) Chiricahua National Monument, Fort Bowie National Historic Site, and Coronado National Memorial
https://forestryandfire.az.gov/sites/default/files/documents/files/2014%20Cochise%20County%20Community%20Wildfire%20Protection%20Plan-%20reduced%20file%20siz%20%20%20.pdf

Profile Maps

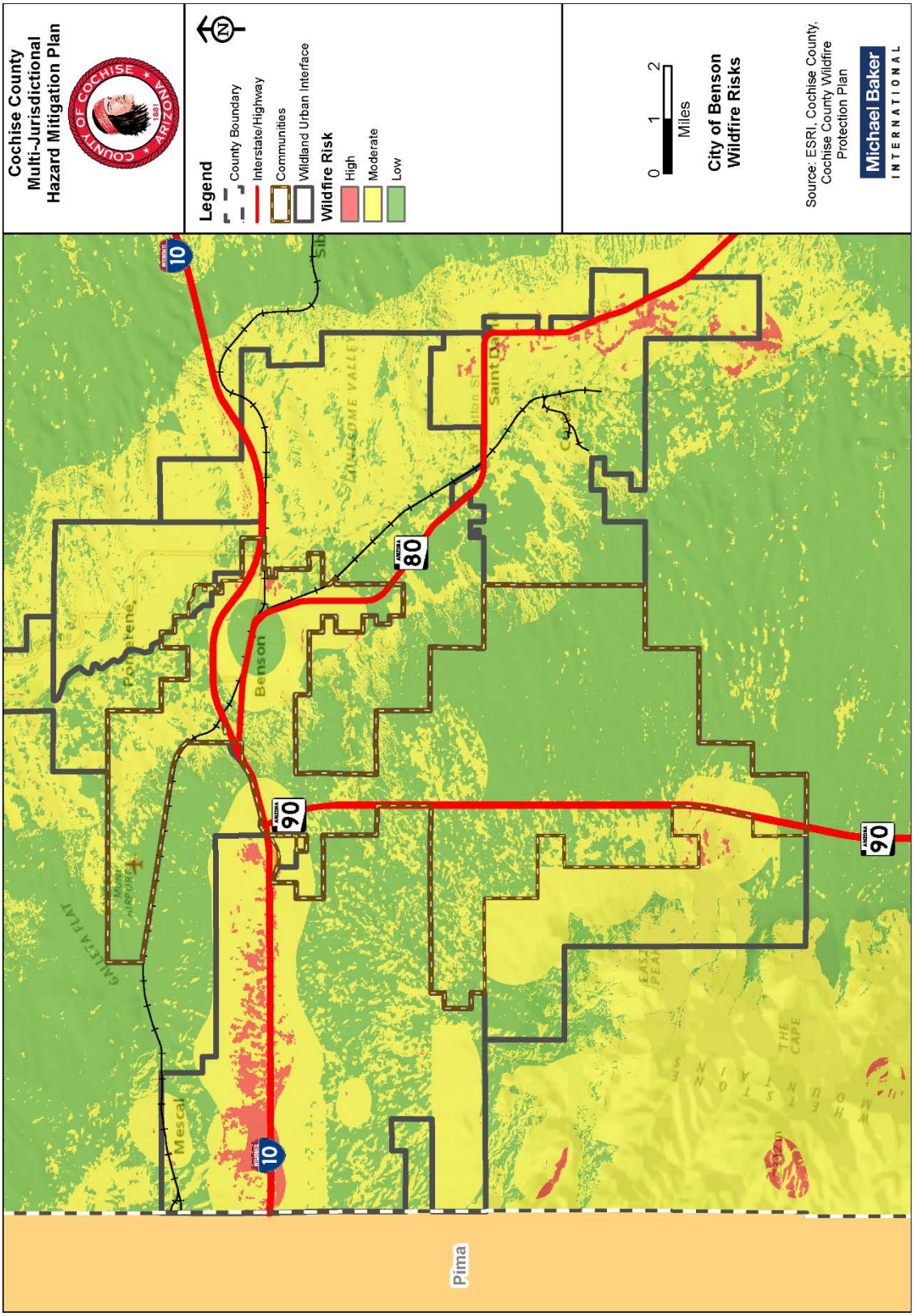
Maps 5.23 – County-Wide Historical Wildfire Perimeters & WUI Risks Map

Maps 5.24 through 5.30 – Benson, Bisbee, Douglas, Huachuca City, Sierra Vista, Tombstone, and Willcox Wildfire Hazard Maps

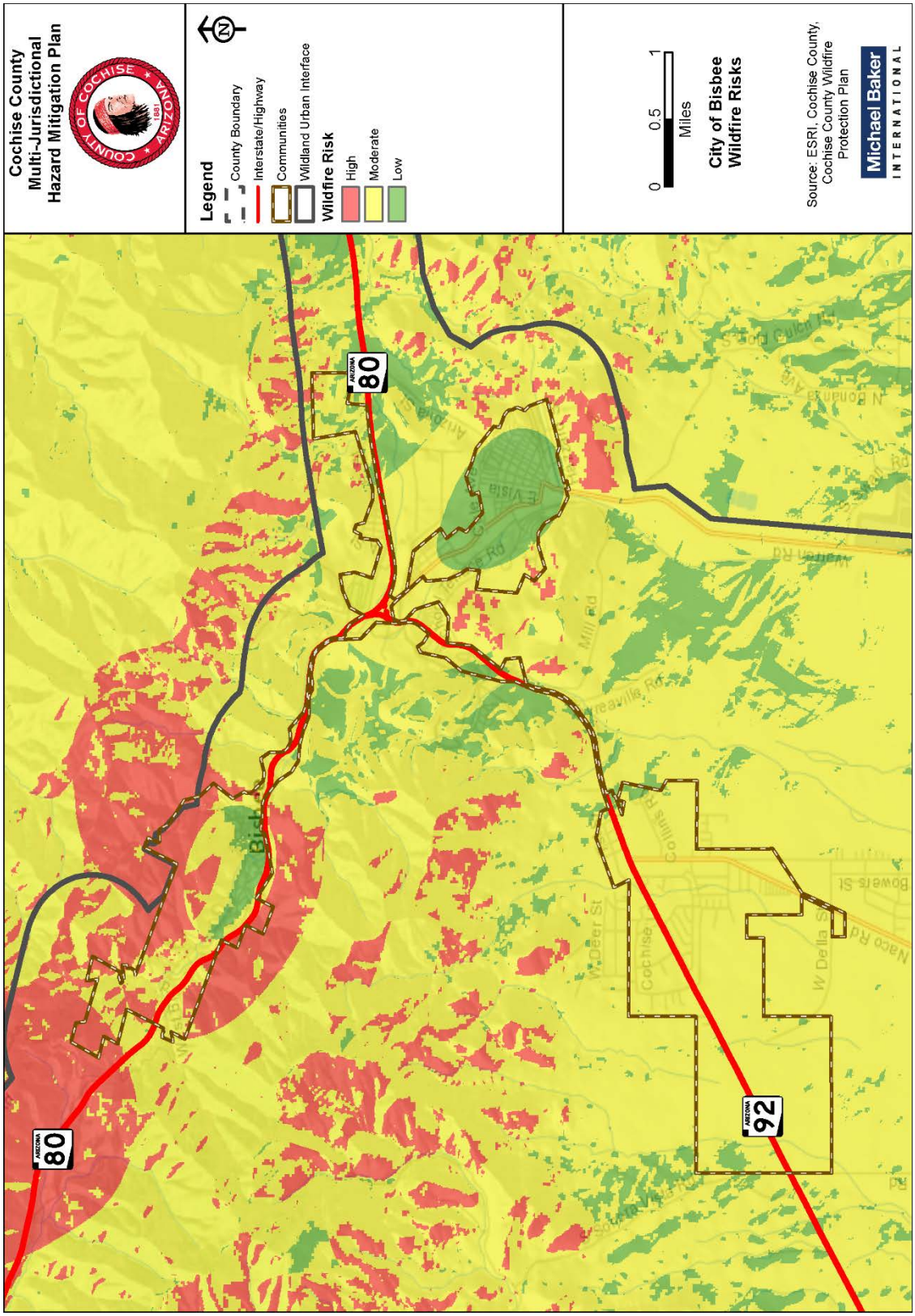
Map 5.23. Historical Wildfire Perimeters & Wildland-Urban Interface Risks



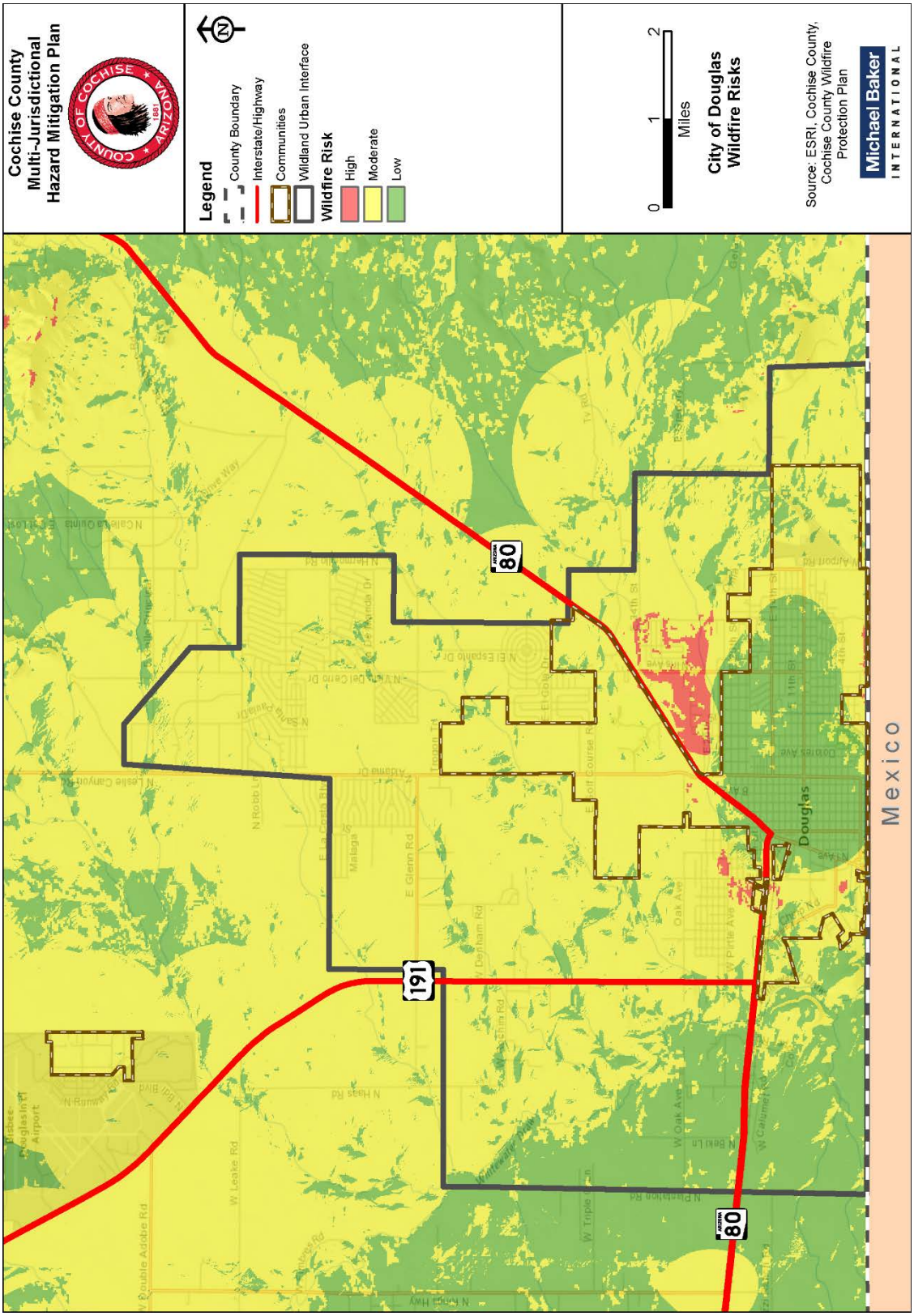
Map 5.24. City of Benson Wildfire Risks



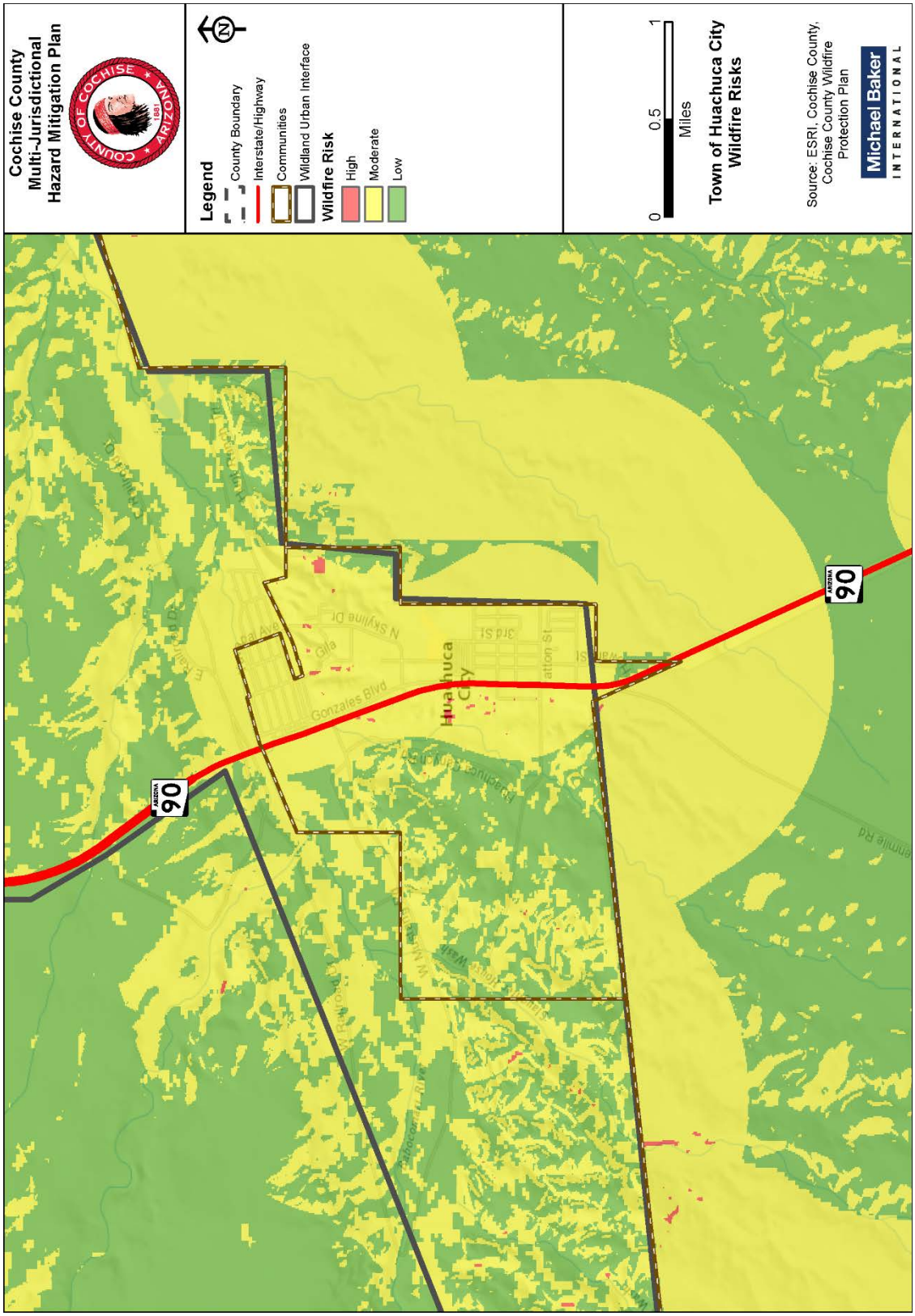
Map 5.25. City of Bisbee Wildfire Risks



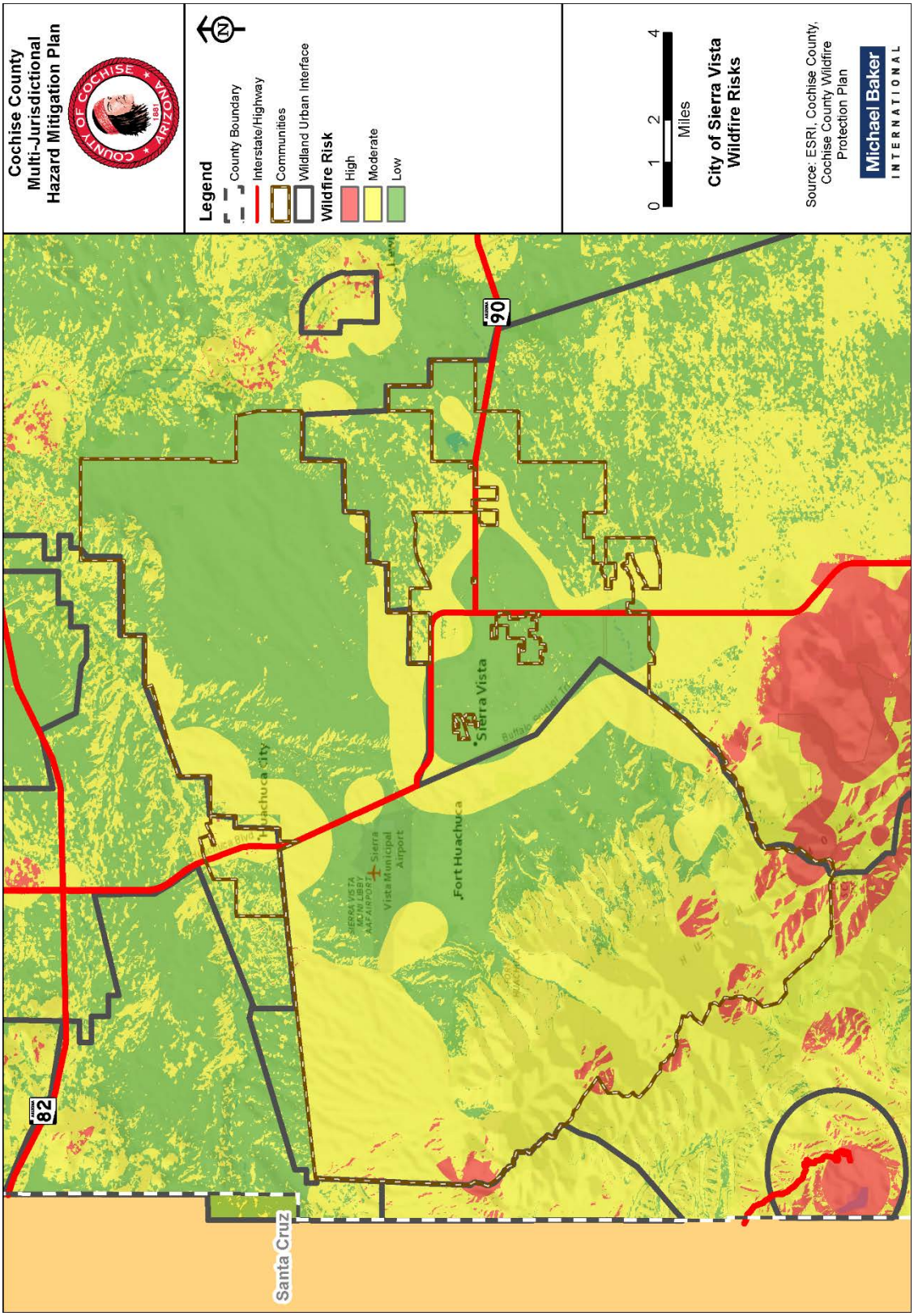
Map 5.26. City of Douglas Wildfire Risks



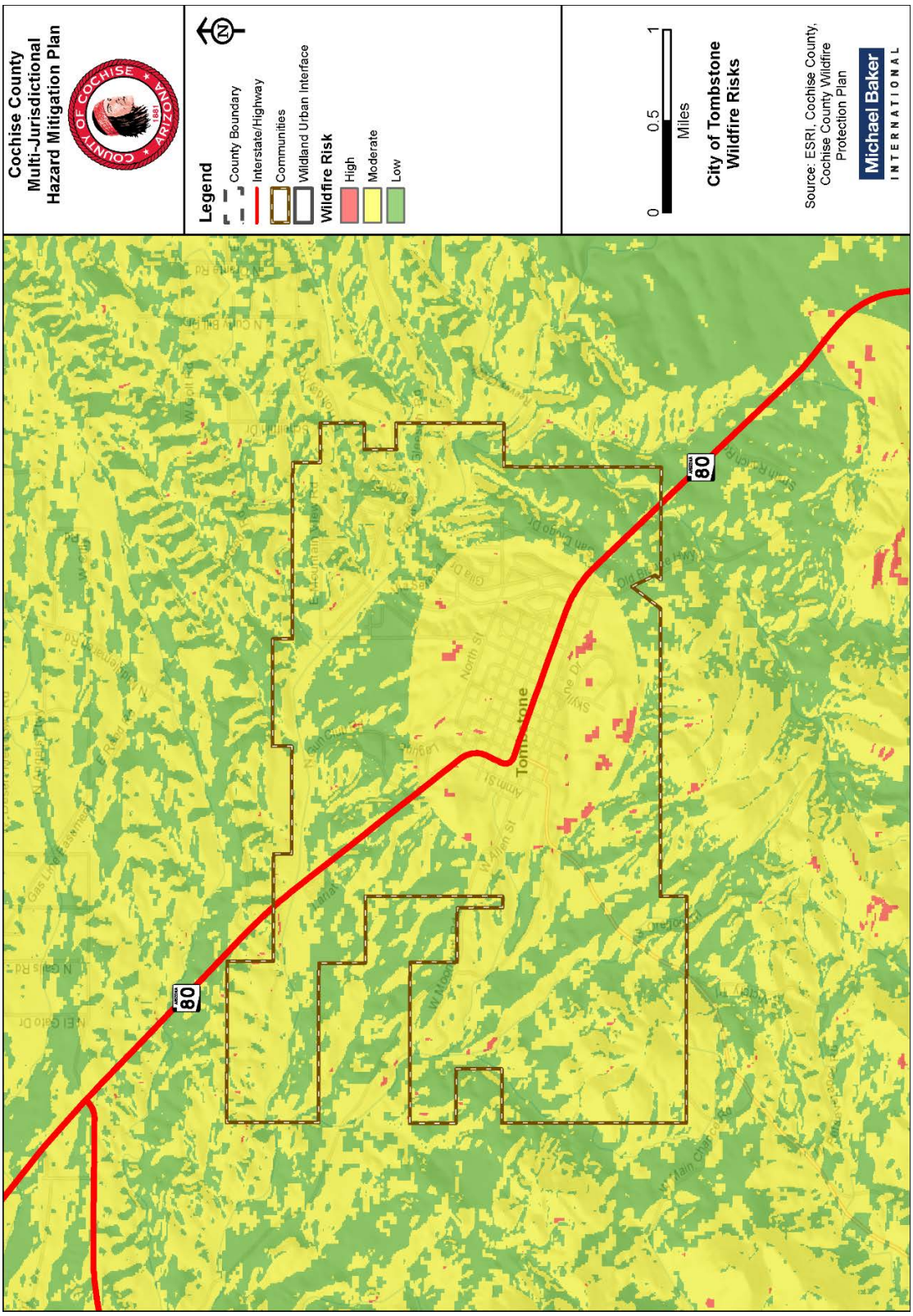
Map 5.27. Town of Huachuca City Wildfire Risks



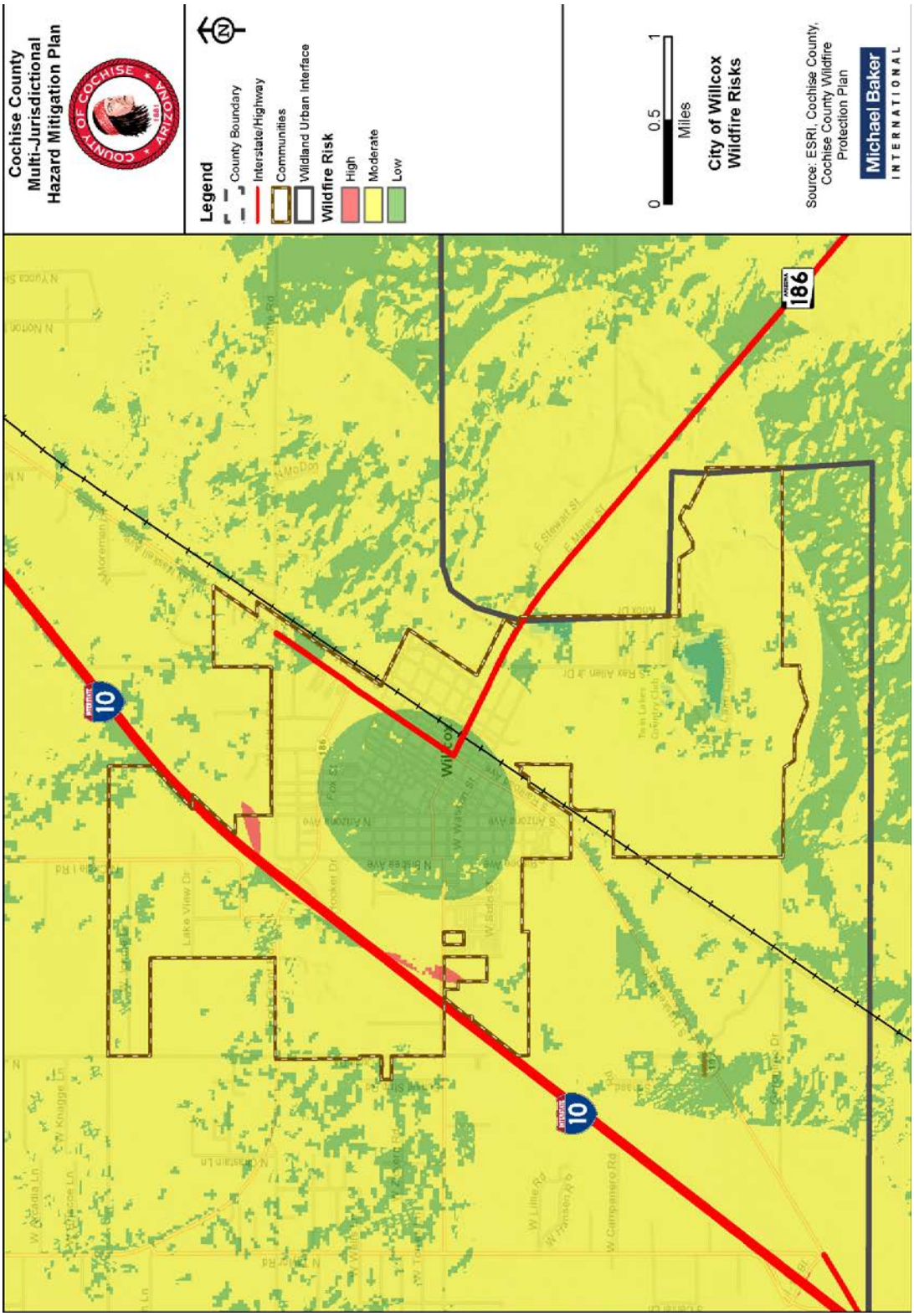
Map 5.28. City of Sierra Vista Wildfire Risks



Map 5.29. City of Tombstone Wildfire Risks



Map 5.30. City of Willcox Wildfire Risks



5.4 Risk Assessment Summary

The jurisdictional variability of risk associated with each hazard assessed in Section 5.3 is demonstrated by the various historical events, CPRI ratings, risk and vulnerability analysis, and loss estimation results. Accordingly, each jurisdiction has varying levels of vulnerabilities and risk to the hazards profiled as part of this plan. The following table presents each jurisdiction's self-identified overall risk ranking. These rankings were performed at the end of the planning process by each jurisdiction's Planning Team participants, after a thorough review of all components of the Plan's risk assessment and public outreach efforts.

It is important that these end results weigh in on the updated mitigation strategy and resulting mitigation projects identified by each jurisdiction. The Planning Team agreed that at a minimum, each jurisdiction would identify one mitigation action/project per each of their own 'high' risk hazards.

Table 5.21. Summary of Hazard Risk Rankings

Jurisdiction	Building Collapse / Mine Subsidence	Drought	Earthquake	Fissure	Flooding/Flash Flood	Severe Wind	Wildfire
Unincorporated Cochise County	L	H	L	M	H	M	H
Benson	L	H	L	M	H	M	H
Bisbee	H	M	H	H	H	M	M
Douglas	L	H	L	M	M	H	M
Huachuca City	L	M	L	L	M	H	H
Sierra Vista	L	M	L	L	H	M	H
Tombstone	H	L	M	L	H	M	L
Willcox	L	H	L	M	H	H	M
High Risk (H), Medium Risk (M), Low Risk (L)							

SECTION 6: MITIGATION STRATEGY

> ***§201.6(c)(3):*** *[The plan shall include…] (3) A* ***mitigation strategy*** *that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and its ability to expand on and improve these existing tools. This section shall include:*
> *(i) A description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.*
> *(ii) A section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.*
> *(iii) An action plan describing how the actions identified in paragraph (c)(3)(ii) of this section will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.*
> *(iv) For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.*

The mitigation strategy provides a collection of mitigation actions and projects that will reduce or possibly remove the community's exposure to hazard risks. According to DMA 2000, the primary components of the mitigation strategy are generally categorized into the following:

Goals and Objectives

Capability Assessment

Mitigation Actions/Projects and Implementation Strategy

The entire 2012 Plan mitigation strategy was reviewed and updated by the Planning Team. Specifics of the changes and updates are discussed in the subsections below.

6.1 Hazard Mitigation Strategy

An assessment of the 2012 Plan goals and objectives by the Planning Team was made with consideration of the following[26]:

- Do the goals and objectives identified in the 2012 Plan reflect the updated risk assessment?
- Did the goals and objectives identified in the 2012 Plan lead to mitigation projects and/or changes to policy that helped the jurisdiction(s) to reduce vulnerability?
- Do the goals and objectives identified in the 2012 Plan support any changes in mitigation priorities?
- Are the goals and objectives identified in the 2012 Plan reflective of current State goals?
- Do the goals and objectives still align with the updated 2013 State Plan?

As a conclusion to the discussions, the Planning Team chose to continue utilizing the 2012 Mitigation Strategy to help focus the identification and development of new Mitigation Actions / Projects for 2017. Objective 1 was also updated to better reflect its intention.

Elements of this Mitigation Strategy are:

Goal: Reduce or eliminate the risk to people and property for all hazards.

- Objective 1: Reduce or eliminate the long term risks from natural disasters to life and property in the incorporated and unincorporated jurisdictions within Cochise County.
- Objective 2: Reduce risk to critical facilities and infrastructure from all hazards.

[26] FEMA, 2008, *Local Multi-Hazard Mitigation Planning Guidance*

- Objective 3: Promote hazard mitigation throughout the incorporated and unincorporated jurisdictions within Cochise County.

- Objective 4: Increase public awareness of hazards and risks that threaten the incorporated and unincorporated jurisdictions within Cochise County.

It is noted that no jurisdictions chose to include any additional goals or objectives.

6.2 Capability Assessment

An important component of the Mitigation Strategy is a review of each participating jurisdiction's resources in order to identify, evaluate, and enhance the capacity of local resources to mitigate the effects of hazards. The capability assessment is comprised of several components:

- ✓ Legal and Regulatory Review – a review of the legal and regulatory capabilities, including ordinances, codes, plans, manuals, guidelines, and technical reports that address hazard mitigation activities.
- ✓ Technical Staff and Personnel – this assessment evaluated and describes the administrative and technical capacity of the jurisdiction's staff and personnel resources.
- ✓ Fiscal Capability – this element summarizes each jurisdiction's fiscal capability to provide the financial resources to implement the mitigation strategy.
- ✓ National Flood Insurance Program (NFIP) Participation – the NFIP contains specific regulatory measures that enable government officials to determine where and how growth occurs relative to flood hazards. Participation in the NFIP is voluntary for local governments, but the program is promoted by FEMA as a basic first step for implementing and sustaining an effective flood hazard mitigation program, and is a key indicator for measuring local capability as part of this assessment.
- ✓ Prior Mitigation Actions – the final part of the capability assessment is a summary review of prior mitigation actions and/or projects that have been completed over the last five or so years.

The Planning Team reviewed the information provided in the 2012 Plan and decided to simply review and update the content, with only minor edits to the table structures.

6.2.1 Jurisdictional Capabilities

The following Tables summarize the legal and regulatory mitigation capability for each participating jurisdiction. Three separate tables have been developed for each jurisdiction. The first Table includes a brief listing of current codes, mitigation relevant ordinances, plans, and studies/reports. The second respective Table for each jurisdiction summarize the staff and personnel resources employed by each jurisdiction that serve as a resource for hazard mitigation. Each jurisdiction's third and final Table summarize the fiscal capability and budgetary tools available to each participating jurisdiction. Each of these three tables are listed below by jurisdiction.

Since the last plan update in 2012, the county and its jurisdictions have seen a decrease in population. This lack of growth has meant that many of these local governments are functioning with the same if not less funding and staffing levels. The Planning Team did review all of the following information to ensure that it is accurate, but it should be noted that there were not many increases or improvements to mitigation capabilities since the last plan update.

In addition to local capabilities, there are other potential mitigation resources available to the county and it's jurisdictions. These could include, but are not limited to: Coronado National Forest, Arizona Parks, Customs and Boarder Protection, Fort Huachuca, Fry Fire, Palominas, and other unincorporated communities within Cochise.

Cochise County Unincorporated Areas

Table 6-1-1: Legal and regulatory capabilities for Cochise County		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
CODES	• 2012 International, Commercial Building, Mechanical, Plumbing, and Fire Codes • 20011 National Electrical Code • 2012 International Fuel Gas Code	Community Development Services, Planning & Zoning Division
ORDINANCES	• Cochise Co Zoning Ordinance adopted Jan 1975 per Resolution 74-28; revised June 2008, Resolution 08-31; revised July 2016, Resolution 16-02. • Cochise Co Subdivision Regulations, re-adopted June 04, Res# 04-41. Revised June 2008, per Resolution 08-45 • Floodplain Regulation for Cochise Co (Amended Feb 1, 2003) • Zoning Ordinance revised Nov 1984, Res 84-64; Nov 1999, Res 99-68; June 2008, Res 08-31; Nov 2011, Res 11-03, 11-04, 11-05.	Community Development Services, Planning & Zoning Division Community Development Services, Highway & Floodplain Division
PLANS, MANUALS, and/or GUIDELINES	• Site Plan Review Requirements - Administrative review required prior to issuance of building permits. • Cochise Co Comprehensive Plan adopted in 1984, revised in 1996 & amended in 2002; Revised in 2006. Amended and Readopted in 2015. Includes sections related to land use, water conservation and public facility goals & policies. • CIP - The Highway & Floodplain Division prepares its CIP for roadways and Flood Control Structures. This plan is updated every Fiscal Year. • Emergency Response & Recovery Plan • Road Design & Construction Standards & Specifications for Public Improvements, Adopted May 27, 2003, Revised Apr 4, 2005, Revised Oct 11, 2005 • Cochise Co Long-Range Strategic Plan (2001-2015), April 2011 • Residential Green Building Program, February 2009 • Subdivision Regulations, revised Jan 2007, Res 06-127; April 2008, Res 08-20; June 2008, Res 08-45. • Floodplain Regulations of Cochise Co, adopted 2002, amended December 5, 2015. • Cochise Co Hazardous Materials Response & Recovery Plan, 1991, Revised February 2015.	Community Development Services Department: Planning & Zoning Division; Highway and Floodplain Division Economic Development Division Emergency Services Division Cochise County Board of Supervisors
STUDIES	• Cochise County Water Assessment & Strategy for the Sierra Vista Sub-Watershed of the Upper San Pedro River: This assessment & strategy states the position of the Cochise County Board of Supervisors regarding the County's approach to water issues in the SV sub-watershed of the San Pedro River. (September, 2003) • 2016 and 2008 Digital Flood Insurance Rate Maps (D-FIRMS) by FEMA and utilized daily to analyze flood hazards	Cochise County Board of Supervisors; Upper San Pedro Partnership; Cochise County Flood Control District Community Development Services Department: Planning & Zoning Division and Highway & Floodplain Division

Table 6-2-1: Summary of technical staff and personnel capabilities for Cochise County	
Staff/Personnel Resources	Department/Agency - Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Planning & Zoning Dept – Planners
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Highway & Floodplain Division – County Engineer & Staff Planning & Zoning Dept – Building Official & Inspectors
Planner(s) or engineer(s) with understanding of natural and/or human-caused hazards	Community Development Services Director & Staff Cochise County Board of Supervisors Office – Emergency Services Coordinator & Staff
Floodplain Manager	Highway & Floodplain Division – Floodplain Administrator
Surveyors	Highway & Floodplain Division – County Surveyor
Staff with education or expertise to assess the community's vulnerability to hazards	Community Development Services Director & Staff Cochise County Board of Supervisors Office – Emergency Services Coordinator & Staff
Personnel skilled in GIS and/or HAZUS	GIS Dept
Scientists familiar with the hazards of the community	Highway & Floodplain Division: County Engineer & Staff Availability of other agencies – NWS, NRCS, USGS, etc.
Emergency Manager	Cochise County Board of Supervisors Office – Emergency Services Coordinator
Grant writer(s)	Board of Supervisors Office - Community Relations/Grants Administrator

Table 6-3-1: Fiscal capabilities for Cochise County	
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)
Community Development Block Grants	Yes, but must apply for new grants
Capital Improvements Project funding	Yes
Authority to levee taxes for specific purposes	Yes
Fees for water, sewer, gas, or electric service	No, services are privately owned
Impact fees for homebuyers or new developments/homes	Yes, none are currently implemented
Incur debt through general obligation bonds	Yes, none in progress or in future plans
Incur debt through special tax bonds	Yes, none in progress or in future plans

Benson

Table 6-1-2: Legal and regulatory capabilities for Benson		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
CODES	• International Building Code, 2006 • Fire Codes 2006	Building /Fire Department
ORDINANCES	• Flood Damage Prevention (Chapter 17 of City Code established by Ordinance No. 305) • Drainage Planning (§14-6 of City Code as modified by Ordinance No. 355)	Building/Fire Department
PLANS, MANUALS, and/or GUIDELINES	• General Development Plan: State-mandated document covering growth and development in Benson. Adopted every 10 years, reviewed every year, updated 2011 – map change. • Capital Improvement Plan –updated yearly • Economic Development Plan – 2007 Economic Development subcommittee was formed to provide clear direction for Benson's economic development future. • Airport Master Plan – Adopted 2002-completed 2007 • Small Area Transportation Plan (underway) • NW Cochise County Transportation Plan, updated 2010 • Subdivision Street Standards – in process • Floodplain Regulations for Cochise County, Arizona - promotes public health, safety and general welfare by reducing threats caused by stormwaters, amended February 1, 2003.	GDP -Planning and Zoning CIP – Finance Economic Development – Economic Development Subcommittee AMP – Public Works NWCTP – Public Works SSS – Public Works FP – City of Benson Flood Plain Management responsibility accepted by Cochise County PW.
STUDIES	• Drainage Study – CDBG project 106-11	Public Works

Table 6-2-2: Technical staff and personnel capabilities for Benson	
Staff/Personnel Resources	Department/Agency - Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	COB Public Works – City Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	COB Public Works – City Engineer
Planner(s) or engineer(s) with understanding of natural and/or human-caused hazards	COB Public Works – City Engineer
Floodplain Manager	Cochise County has a full-time one.
Surveyors	Contracted as needed
Staff with education or expertise to assess the community's vulnerability to hazards	Police & Fire Chiefs
Personnel skilled in GIS and/or HAZUS	GIS Manager on staff
Scientists familiar with the hazards of the community	
Emergency Manager	Fire Chief
Grant writer(s)	Public Works, City Manager

Table 6-3-2: Fiscal capabilities for Benson	
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)
Community Development Block Grants	Yes. We apply for them every 2 years.
Capital Improvements Project funding	Yes
Authority to levee taxes for specific purposes	Yes, haven't implemented
Fees for water, sewer, gas, or electric service	Yes, Natural Gas, Water, Sewer, and Garbage
Impact fees for homebuyers or new developments/homes	Yes, currently Chapter 16 of City code. Will be reviewed per State Statue
Incur debt through general obligation bonds	Yes, 2010
Incur debt through special tax bonds	Yes, haven't implemented

Bisbee

Table 6-1-3: Legal and regulatory capabilities for Bisbee		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
CODES	• Uniform Building Code - Bisbee, Res # R-94-50. Codes Adopted: o 2002 National Electric Code o 1997 Uniform Building Code o 1997 Uniform Fire Code o 1997 Uniform Plumbing Code • 1997 Mechanical Code	Community Development Fire Department
ORDINANCES	• Zoning Ord #0-72-2 and 0-84-138 and Res #R-84-235 • Subdivision Code adopted 12-17-85 Ord 0-85-177 • Floodplain Regulations for Cochise Co (Amended Feb 2003) • Post-Disaster Recovery Ordinance	Community Development
PLANS, MANUALS, and/or GUIDELINES	• Site Plan Review Requirements • Bisbee General Plan Oct 2003 • Bisbee Municipal Airport Master Plan: The plan specifies design standards and airport safety measures (1999). • USPP-2005 Water Management and Conservation Plan: Provides information on the Upper San Pedro Partnership's water management and conservation efforts since the release of last year's Plan (March 2005). • Cochise Co Road Construction Standards and Specifications: Standardizes engineering design guidelines for roadway design elements in Cochise Co.	Community Development Public Works
STUDIES	• N/A	N/A

Table 6-2-3: Technical staff and personnel capabilities for Bisbee	
Staff/Personnel Resources	Department/Agency - Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Public Works - Superintendent
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Community Development, Building Inspector Public Works, Director and Superintendent
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	Public Works, Director and Superintendent
Floodplain Manager	Cochise Co Highway & Floodplain and Board of Supervisors
Staff with education or expertise to assess the community's vulnerability to hazards	Police Chief; Fire Chief; Public Works, Director and Superintendent
Personnel skilled in GIS and/or HAZUS	Public Works
Emergency Manager	City Manager
Grant writer(s)	Assistant City Manager
Planner(s) or engineer(s) with knowledge of land development and land management practices	Public Works - Superintendent
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Community Development, Building Inspector Public Works, Director and Superintendent

Table 6-3-3: Fiscal capabilities for Bisbee	
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)
Community Development Block Grants	Yes
Capital Improvements Project funding	Don't Know
Authority to levy taxes for specific purposes	Yes
Fees for water, sewer, gas, or electric service	Yes, Sewer and Garbage
Impact fees for homebuyers or new developments/homes	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes

Douglas

Table 6-1-4: Legal and regulatory capabilities for Douglas		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
CODES	• Uniform Building Code, 1997 Edition	Dept of Public Works, Building Safety Division
ORDINANCES	• Special Purpose Ordinance: Flood Hazard Control - Chapter 15.20 of the City Code	Dept of Public Works, Engineering Division
PLANS, MANUALS, and/or GUIDELINES	• Douglas General Plan April, 2002 • Douglas Municipal Airport Master Plan Update: Plan specifying design standards and airport safety measures. (Nov 1994) • Water Master Plan: The Water Supply Master Plan outlines the City's options and strategies for meeting future water demands and provides stages and phasing for capital improvements related to the water supply system's infrastructure needs. (Aug 1996) • Drainage Master Plan: Drainage master plan and CIP. (Sept 2002) • Emergency Operations Plan • Douglas Strategic Plan 2004-2009: Outlines the City's mission and goals, examine the organization's strengths, weaknesses, opportunities and threats, outline a map for the organization to follow. (2004) • Cochise Co Road Construction Standards and Specifications: Standardizes engineering design guidelines for roadway design elements in Cochise Co. (Apr 2005)	Dept of Public Works, Planning & Zoning And Engineering Divisions.
STUDIES	• Drainage Report: Drainage improvements. (1976)	Department of Public Works, Engineering Division

Table 6-2-4: Technical staff and personnel capabilities for Douglas	
Staff/Personnel Resources	Department/Agency - Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Public Works – Director City Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Public Works – Director City Engineer
Planner(s) or engineer(s) with understanding of natural and/or human-caused hazards	Public Works – Director City Engineer
Floodplain Manager	Public Works – Director City Engineer
Surveyors	Consultant Contract
Staff with education or expertise to assess the community's vulnerability to hazards	Public Works – Director City Engineer
Personnel skilled in GIS and/or HAZUS	Public Works – Director City Engineer
Scientists familiar with the hazards of the community	Consultant Contract
Emergency Manager	Fire Dept, Fire Chief; Police Dept – Police Chief
Grant writer(s)	Neighborhoods Housing/Grants-Director
Others	Public Works – Director City Engineer

Table 6-3-4: Fiscal capabilities for Douglas	
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)
Community Development Block Grants	Yes
Capital Improvements Project funding	Yes
Authority to levee taxes for specific purposes	Yes
Fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or new developments/homes	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Other	Yes, Various grants and incur debt through private activity bonds.

Huachuca City

Table 6-1-5: Legal and regulatory capabilities for Huachuca City		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
CODES	• 2012 International Bldg Code • 2012 International Fire • 2012 International Residential Code • 2014 National Electrical Code • 2012International Existing Bldg Code with amendments • 2012 International Property Maintenance • Res 2014 Residential Anti displacement & Relocation Assistance	Code Official Fire Department Town Manager/Town Clerk
ORDINANCES	• Zoning Ordinance (Title 17 of City Code) • Subdivision Ordinance (Title 16 of City Code – Large Scale Development) • 2012 Fire, Building and Construction	Code Official Town Clerk Fire Chief
PLANS, MANUALS, and/or GUIDELINES	• Huachuca General Plan (2016) • Emergency Response Plan (2007)	All Departments
STUDIES	• Resolution 2016-12 Flood Insurance Study	Code Official

Table 6-2-5: Technical staff and personnel capabilities for Huachuca City	
Staff/Personnel Resources	Department/Agency - Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Development services Planning and Zoning Commission
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Code Official/Engineer Public Works Department
Planner(s) or engineer(s) with understanding of natural and/or human-caused hazards	Code Official/Engineer Police Department Public Works Department
Floodplain Manager	Development Services
Surveyors	Public Works Department
Staff with education or expertise to assess the community's vulnerability to hazards	Planning & Zoning Commission Public Works Department Police Department
Personnel skilled in GIS and/or HAZUS	Code Official/Engineer
Scientists familiar with the hazards of the community	
Emergency Manager	Police Department Public Works Department City Manager
Grant writer(s)	Director of Library Services

Table 6-3-5: Fiscal capabilities for Huachuca City	
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)
Community Development Block Grants	Yes, CDBG Block Grant 2016 Water infrastructure Improvements
Capital Improvements Project funding	Yes
Authority to levee taxes for specific purposes	No
Fees for water, sewer, gas, or electric service	Yes, Water, Sewer, Refuse, Refuse Collection
Impact fees for homebuyers or new developments/homes	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No

Sierra Vista

Table 6-1-6: Legal and regulatory capabilities for Sierra Vista		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
CODES	• 2011 International Building Code (with the following adds) ✓ Basic wind speed-90 mph (3-second gust) ✓ Seismic Design Category - B ✓ Exposure – C ✓ Live load – 20lb ✓ Rainfall – 3 inches per hour ✓ Ground snow load – 5 lbs ✓ Weathering – Negligible ✓ Frost line depth – 0 ✓ Termite – very heavy ✓ Decay – None to slight ✓ Winter design temperature – 18-20 degrees ✓ Flood hazards – (a) May 1984 & (b) June 2001 • 2006 International Existing Building Code • 2006 International Residential Code • 2006 International Plumbing Code • 2006 International Mechanical Code • 2006 International Fuel Gas Code • 2006 International Fire Code including Appendix B • 2006 International Energy Conservation Code • 2006 International Property Maintenance Code • 2011 National Electrical Code • 1997 Uniform Code for the Abatement of Dangerous Buildings	• Department of Community Development/Building Inspections Division • Fire Department
ORDINANCES	• City of Sierra Vista Code of Ordinances (updated annually)	• City Clerk's Office
PLANS, MANUALS, and/or GUIDELINES	• Vista 2020 General Plan: A general plan to establish goals and strategies for future growth and management in such areas as land use, environment, transportation, public services, etc., and to provide a basis for development regulations and project funding. • Development Code (continuous updates) • Emergency Response and Recovery Plan: Sierra Vista operation plan for all-hazard emergencies. (2008) • Sierra Vista Municipal Airport Master Plan: a plan specifying design standards and airport safety measures. (2002) • USPP-2005 Water Management and Conservation Plan: provides information on the Upper San Pedro Partnership's water management and conservation efforts since the release of last year's Plan. (March 9, 2005) • Surface Water Plan (1988 – New plan currently underway) • Wastewater Management and Sewerage Master Plan (1999). • 208 Water Quality Management Plan with Amendments (2010) • Sierra Vista Public Transit System Three-Year Transit Plan Update (2009)	• Department of Community Development/Building Inspections Division • Fire Department • Police Department • Public Works Department

Table 6-1-6: Legal and regulatory capabilities for Sierra Vista		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
STUDIES	• Flood Insurance Study for Sierra Vista, Cochise County, AZ: Flood study administered by FEMA to define special flood hazard zones per requirements of the National Flood Insurance Program. (April 2, 2008) • Flood Insurance Rate Maps (DFIRMs) for Sierra Vista, Cochise County, AZ: Maps depicting special flood hazard areas within the city boundaries. (April 2, 2008)	• Public Works Department

Table 6-2-6: Technical staff and personnel capabilities for Sierra Vista	
Staff/Personnel Resources	Department/Agency - Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Public Works – Director, City Engineer, Engineering Services Division Staff Community Development – Planning Division Staff
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Public Works – Director, City Engineer, Engineering Services Division Staff Community Development – Building Inspections Division Staff
Planner(s) or engineer(s) with understanding of natural and/or human-caused hazards	Public Works – Director, City Engineer, Engineering Services Division Staff Community Development – Planning Division Staff
Floodplain Manager	Community Development - Director
Surveyors	Public Works –Engineering Services Division
Staff with education or expertise to assess the community's vulnerability to hazards	Public Works – Director, City Engineer, Engineering Services Division Staff Community Development – Planning Division Staff Fire Department -
Personnel skilled in GIS and/or HAZUS	Community Development – Planning Division Staff Public Works –Engineering Services Division
Scientists familiar with the hazards of the community	Public Works –Engineering Services Division Community Development – Planning Division Staff
Emergency Manager	
Grant writer(s)	Grant writing performed by department

Table 6-3-6: Fiscal capabilities for Sierra Vista	
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)
Community Development Block Grants	Yes. CDBG 2016 was primarily used to improve sidewalks and install street lights.
Capital Improvements Project funding	Yes
Authority to levee taxes for specific purposes	No, however, County has a flood control district tax
Fees for water, sewer, gas, or electric service	Yes, Sewer and Refuse Only
Impact fees for homebuyers or new developments/homes	Yes
Incur debt through general obligation bonds	Yes

Incur debt through special tax bonds	Yes

Tombstone

Table 6-1-7: Legal and regulatory capabilities for Tombstone		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
CODES	• City Code Title 3 • 2006 International Building Code • 2006 Uniform Fire Code (NFPA 1) • 2006 International Property Maintenance Code • 1988 National Electrical Code (NFPA 72) • 1988 Uniform Mechanical Code • 1988 Uniform Plumbing Code	Public Works Building Inspector Fire Department
ORDINANCES	• Zoning Ordinance adopted in 1994 • Flood Damage Prevention (Title 3, Chapter 3 of City Code)	Planning & Zoning Commission
PLANS, MANUALS, and/or GUIDELINES	• Tombstone Master Plan (Title 12 of City Code) • Emergency Response Plan (1997) • Capital Improvements Plan (2014)	Planning & Zoning Commission Fire Dept
STUDIES	• Groundwater and the Benson, Oct 2000	Public Works / Water Dept

Table 6-2-7: Technical staff and personnel capabilities for Tombstone	
Staff/Personnel Resources	Department/Agency - Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Public Works – Building Inspector
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Public Works – Building Inspector
Planner(s) or engineer(s) with and understanding of natural and/or human-caused hazards	Public Works, Fire Dept., & Marshal's Office
Floodplain Manager	Cochise County has a full-time one.
Surveyors	Contracted as needed
Staff with education or expertise to assess the community's vulnerability to hazards	Public Works, Marshal's Office & Fire Dept.
Personnel skilled in GIS and/or HAZUS	Assistance provided by Cochise County
Scientists familiar with the hazards of the community	N/A
Emergency Manager	Fire Dept. – Fire Chief Marshal's Dept. - Marshal
Grant writer(s)	Grant writing performed by department

Table 6-3-7: Fiscal capabilities for Tombstone	
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)
Community Development Block Grants	Yes
Capital Improvements Project funding	Yes
Authority to levy taxes for specific purposes	Yes
Fees for water, sewer, gas, or electric service	Yes, Water and sewer
Impact fees for homebuyers or new developments/homes	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes

Willcox

Table 6-1-8: Legal and regulatory capabilities for Willcox		
Regulatory Tools for Hazard Mitigation	Description	Responsible Department/Agency
CODES	• City of Willcox City Code • 2003 international building code	Development Services
ORDINANCES	• Zoning Ordinance (Title 17 of City Code) • Subdivision Ordinance (Title 16 of City Code – Large Scale Development)	Development Services Planning & Zoning Commission
PLANS, MANUALS, and/or GUIDELINES	• Willcox General Plan (2016) • City of Willcox Multi-Hazard Mitigation Plan (2006 – Never adopted by council or approved by FEMA). • Emergency Response Plan (2015)	City Manager Police Department Public Works Department
STUDIES	• N/A	N/A

Table 6-2-8: Technical staff and personnel capabilities for Willcox	
Staff/Personnel Resources	Department/Agency - Position
Planner(s) or engineer(s) with knowledge of land development and land management practices	Development services
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Public Works Director Public Works Department
Planner(s) or engineer(s) with understanding of natural and/or human-caused hazards	Development Services Police Department Public Works Department
Floodplain Manager	Development Services
Surveyors	Public Works Department
Staff with education or expertise to assess the community's vulnerability to hazards	Planning & Zoning Commission Public Works Department Police Department
Personnel skilled in GIS and/or HAZUS	
Scientists familiar with the hazards of the community	
Emergency Manager	Police Department Public Works Department City Manager
Grant writer(s)	N/A

Table 6-3-8: Fiscal capabilities for Willcox	
Financial Resources	Accessible or Eligible to Use (Yes, No, Don't Know)
Community Development Block Grants	Yes
Capital Improvements Project funding	Yes
Authority to levee taxes for specific purposes	Yes
Fees for water, sewer, gas, or electric service	Yes, water, sewer, gas, and refuse
Impact fees for homebuyers or new developments/homes	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes

6.2.2 Historical Mitigation Activities

The Table in Appendix D provides an updated summary, by jurisdiction, of historical mitigation activities completed over previous planning cycles. This section will continue to serve as a record of mitigation successes for the county and its jurisdictions. As part of each Plan update, completed mitigation activities from the previous Plan's (in this case the 2007 A/Ps), will be migrated into this Appendix.

The City of Bisbee is the only participating jurisdiction to receive funding for a project through federal hazard mitigation grant money such as FMA, HMGP, or PDM. In 2001, the city received HMGP funds from the 1993 flooding disaster (FEMA-977-DR) to provide flood proofing of a retaining wall along Brewery Gulch Road, storm drain rehabilitation and structural augmentation for the Mule Gulch drainage channel, stormwater management and slope stabilization for the High Road retaining wall, and stormwater management for the Brooks Apartment drainage system. The total project costs for all four areas amounted to $787,390. Cochise County jurisdictions have also benefitted from PDM funds procured by DEMA for the development of the 2007, 2012, and 2017 hazard mitigation plans.

6.2.3 National Flood Insurance Program Participation

Participation in the NFIP is a key element of any community's local floodplain management and flood mitigation strategy. Cochise County and the seven other incorporated jurisdictions participate in the NFIP. Joining the NFIP requires the adoption of a floodplain management ordinance that requires jurisdictions to follow established minimum standards set forth by FEMA and the State of Arizona, when developing in the floodplain. These standards require that all new buildings and substantial improvements to existing buildings will be protected from damage by the 100-year flood, and that new floodplain development will not aggravate existing flood problems or increase damage to other properties. As a participant in the NFIP, communities also benefit from having Flood Insurance Rate Maps (FIRM) that map identified flood hazard areas and can be used to assess flood hazard risk, regulate construction practices, and set flood insurance rates. FIRMs are also an important source of information to educate residents, government officials, and the private sector about the likelihood of flooding in their community. The following Table summarizes the NFIP status and statistics for each of the jurisdictions participating in this Plan.

Table 6-5: NFIP status and statistics for Cochise County and participating jurisdictions as of November 2016

Jurisdiction	Community ID	NFIP Entry Date	Current Effective Map Date	Number of Policies	Amount of Coverage (x $1,000)	Floodplain Management Role
Cochise County	040012	12/4/1984	10/20/16	656	$119,501	Provides floodplain management for the Unincorporated County and assistance to other jurisdictions as needed
Benson	040013	6/25/1976	2/3/2016	7	$1,695	Benson provides floodplain management for the incorporated areas of the city
Bisbee	040014	1/3/1979	8/16/2006	104	$14,760	Cochise County provides floodplain management for the city
Douglas	040015	9/29/1978	10/20/16	99	$15,995	Douglas provides floodplain management for the incorporated areas of the city
Huachuca City	040016	2/14/1976	8/28/2008	34	$3,504	Cochise County provides floodplain management for the city
Sierra Vista	040017	9/28/1984	2/3/2016	100	$23,614	Sierra Vista provides floodplain management for the incorporated areas of the city
Tombstone	040106	2/16/1983	8/28/2008	N/A	N/A	Cochise County provides floodplain management for the city
Willcox	040018	7/17/1978	8/28/2008	318	$51,087	Willcox provides floodplain management for the incorporated areas of the city

Source: FEMA Community Status Report (2016)

6.3 Mitigation Actions / Projects and Implementation Strategy

Mitigation actions / projects (A/P) are those activities identified by a jurisdiction, that when implemented, will have the effect of reducing the community's exposure and risk to the particular hazard or hazards being mitigated against. The implementation strategy addresses the "*how, when, and by whom?*" questions related to implementing an identified A/P.

The process for defining the list of mitigation A/Ps for the Plan was accomplished in three steps. First, an assessment of the actions and projects specified in Section 6 of the 2012 Plan was performed, wherein each jurisdiction reviewed and evaluated their jurisdiction specific list. Second, a new list of A/Ps for the updated Plan was developed by combining the carry forward results from the assessment with new identified A/Ps. Third, an implementation strategy for the combined list of A/Ps was formulated. Details of each step and the results of the process are summarized in the following sections.

6.3.1 Past Plan Mitigation Actions/Projects Assessment

Each jurisdiction reviewed and assessed the actions and projects identified in the 2012 Plan. The assessment included evaluating and classifying each of the previously identified A/Ps based on the following criteria:

- Complete
- Ongoing
- In Process
- Deferred
- Cancelled / No Longer Applicable

Any A/P with a status of Ongoing, In Process, or Deferred was carried forward to become part of the A/P list for the 2017 Plan. Any A/Ps that were either Completed or Cancelled have been moved to Appendix D (those moved from the A/P list from the 2012 Plan have the last cell highlighted in grey), for continued tracking of mitigation successes and projects that jurisdictions may want to revisit in the future.

6.3.2 New Mitigation Actions / Projects and Implementation Strategy

Upon completion of the assessment summarized in Section 6.3.1, each jurisdiction developed new A/Ps in conjunction with the updated mitigation strategy, results of the vulnerability analysis and capability assessment, public survey results, and the planning team's institutional knowledge of hazard mitigation needs in the community

For each A/P, the following elements were identified:

- ID – a unique alpha-numeric identification number for the A/P.
- Mitigation Action / Project Description – a brief description of the A/P including a supporting statement that tells the "what" and "why" reason for the A/P.
- Hazard(s) Mitigated – a list of the hazard or hazards mitigated by the A/P.
- Estimated Costs – concept level cost estimates that may be a dollar amount or estimated as staff time.
- Priority Ranking – unless otherwise noted below, each A/P was assigned a priority ranking of either "High", "Medium", or "Low".
- Primary Agency / Job Title Responsible for Implementation –the agency, department, office, or other entity and corresponding job title that will have responsibility for the A/P and its implementation.

- **Summary** – Any additional notes or information.

Once the full list of A/Ps was identified, jurisdictions were then asked to help to prioritize each A/P. During the final Mitigation Strategy Workshop, Planning Team members were presented with ideas and tools relating to A/P prioritization. FEMA's STAPLEE method was included in these discussions, as was the need to ensure A/P costs versus benefits were taken into account when prioritizing the new A/Ps.

After Planning Team discussions about the pros and cons on various methods, it was decided that a simple priority ranking of either "High", "Medium", or "Low" would be utilized. The assignments were subjectively made using a simple process that assessed how well the A/P satisfied the following considerations:

- A favorable benefit versus cost evaluation, wherein the perceived direct and indirect benefits outweighed the project cost.
- A direct beneficial impact on the ability to protect life and/or property from natural hazards.
- A mitigation solution with a long-term effectiveness

Tables 6-6 at the end of this section lists all A/Ps identified by the Planning Team to be included in this 2017 Plan update.

6.3.3 Potential Funding Sources

The following information relates to potential mitigation project funding sources to be evaluated by the plan's participating jurisdictions:

Hazard Mitigation Grant Program
POC: FEMA Region IX and State Hazard Mitigation Officer
Website: https://www.fema.gov/hazard-mitigation-grant-program

Pre-Disaster Mitigation Grant Program
POC: FEMA Region IX and State Hazard Mitigation Officer
Website: https://www.fema.gov/pre-disaster-mitigation-grant-program

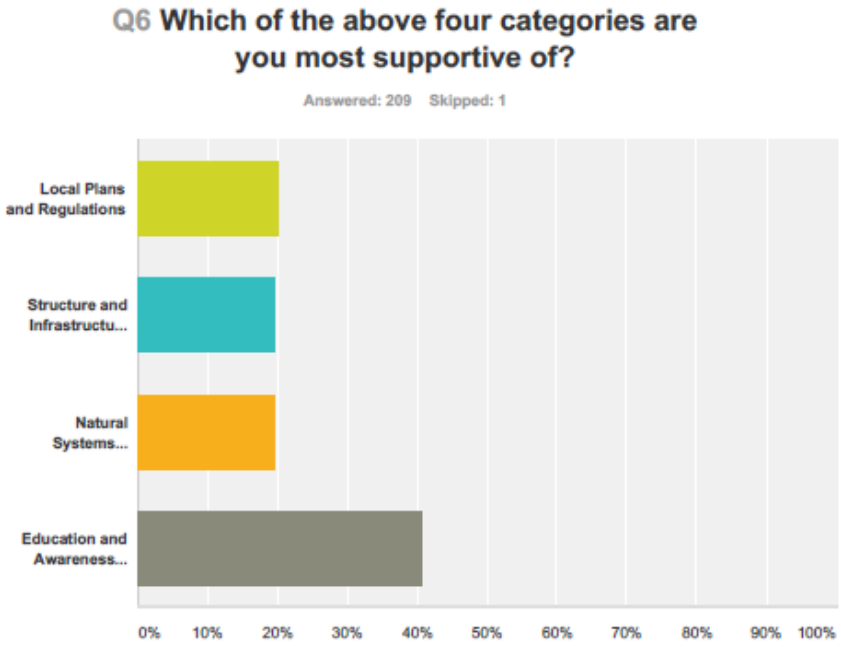
Flood Mitigation Assistance Grant Program
POC: FEMA Region IX and State Hazard Mitigation Officer
Website: https://www.fema.gov/flood-mitigation-assistance-grant-program

Emergency Management Performance Grant Program
POC: FEMA Region IX
Website: https://www.fema.gov/emergency-management-performance-grant-program

6.3.4 Public Opinion on Mitigation Strategy

As mentioned in Section 4, the public was asked to weigh in on the subject of Mitigation Actions / Projects as part of this 2017 planning process. A total of 210 individual surveys were completed by residents of all participating jurisdictions. In addition to asked about preferred types of mitigation A/Ps, the survey also requested any specific A/P ideas. A total of 39 specific ideas were collected from the public. The full summary results of the survey can be found in Appendix C. These results were also provided to the Planning Team for consideration as they updated their jurisdictional A/P lists for 2017.

The main take-away from the public survey results was that a majority of survey participants preferred mitigation projects focused on Education and Awareness. That mitigation category was the preferred mitigation category to both: Local Plans and Regulations, Structure and Infrastructure Projects, and Natural Systems Protection by a two to one (2:1) margin.



Answer Choices	Responses	
Local Plans and Regulations	20.10%	42
Structure and Infrastructure Projects	19.62%	41
Natural Systems Protection	19.62%	41
Education and Awareness Programs	40.67%	85
Total		209

Figure 6.1. Public Survey Sample Result

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-24	Drainage Study and Mapping of City Flood Plains. Floodplain mapping will be compliant with NFIP requirements.	Benson	Flooding	$150,000	High	2020	Public Works	In Process	NFIP Compliance, Funds not available
2012-25	Obtain and place signage and barricades at wash crossings within the city to reduce loss of life and property damage due to vehicular crossing of flooded washes.	Benson	Flooding	$100,000	High	2019	Public Works	In Process	Funds not available at this time
2012-26	Continue to enforce zoning and building codes through current site plan, subdivision, and building permit review processes to reduce the effects of drought, flood, severe wind, and other hazards on new buildings and infrastructure.	Benson	All	$10,000	Medium	2017	Development Services	Ongoing	Completed as plans are submitted
2012-27	Enforcement program to enforce recently added provisions to City building codes to address building settlement and collapse problems.	Benson	Building Collapse / Mine Subsidence	$10,000	Medium	2020	Development Services	Ongoing	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-28	Expand and maintain the City's Fire Wise programs for all communities, neighborhoods and home owners associations within the wildland fire/urban interface including instruction materials, facilitating partnerships with insurance agencies, clean-up crew programs.	Benson	Wildfire	$7,000	Low	2020	Fire/BLM	Ongoing	Funds not available
2012-30	Union Street Wash Crossing Improve existing culvert crossing to provide additional capacity to provide improved access to the only access to neighborhood area in times of flooding.	Benson	Flooding	$100,000	Low	2021	Public Works	Deferred	Lack of Funding
2017-1	Establish interconnection of Whetstone and Benson water system for reliability	Benson	Drought	$350,000	Medium	2019	Public Works	New	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2017-2	Improve drainage System on Northwest side of Benson at river to increase capacity	Benson	Flooding	$500,000	Medium	2021	Public Works	New	
2017-3	Obtain brush chipper to help reduce fuel in the city limits	Benson	Wildfire	150,000	low	2020	Public Works	New	
2012-31	Improvement and/or replacement of numerous bridge/culvert crossings of Mule Gulch Drainage Channel.	Bisbee	Flooding	$1 million	High	2022	Public Works / Director	In Process	
2012-32	Develop a drought mitigation plan for Bisbee as guided by the Governor's Drought Mitigation Task Force.	Bisbee	Drought	$15,000	High	2022	Public Works / DirectorFire Department / Fire Chief	In Process	
2012-33	Construction of bank stabilization and culvert improvements along 1/4 mile long reach of Santa Cruz Wash in southwest Bisbee.	Bisbee	Flooding	$1.3 million	High	2022	Public Works / Director	In Process	
2012-34	Rehabilitation, capacity expansion and cleaning of 1.5 mile long channel through Tombstone Canyon in Old Bisbee as a part of the Mule Gulch Drainage Project.	Bisbee	Flooding	$12 million	High	2022	Public Works / Director	In Process	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-35	Perform an evaluation of City Hall, Library, Museum, Senior Center and Pump House buildings and infrastructure to determine infrastructure repair/replacement/maintenance needs.	Bisbee	Building Collapse, Flood	$75,000 per building	Medium	2022	Community Development / Director	In Process	
2012-36	Continue to enforce zoning and building codes through current site plan, subdivision, and building permit review processes to reduce the effects of drought, flood, severe wind, and other hazards on new buildings and infrastructure.	Bisbee	Drought, Flood, Severe Wind	Staff Time	Medium	2022	Community Development / Public Works Director	Ongoing	Annually
2012-37	Maintain current IGA with Cochise County Flood Control District to provide floodplain management services and review per the requirements of the NFIP and the City's floodplain ordinance.	Bisbee	Flooding	$30,000 for a 5 year period	Medium	2022	Public Works / Director	Ongoing	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-38	Purchase equipment to meet international border and associated terrorism related law enforcement needs including: vehicles, computers, in-car cameras, radios.	Bisbee	Border Security, Terrorism	$150,000 per year	Medium	2022	Police Department / Chief	Ongoing	
2012-39	Review existing City of Bisbee building codes for inclusion of provisions for addressing wildfire hazards to existing and future structures, and revise as needed.	Bisbee	Wildfire	Staff Time	Low	2021	Fire Department / Chief	Deferred	
2017-4	GIS Mapping for Fissures	Bisbee	Fissure	15000	High	2022	City Engineering	New	Phase 1 in progress
2017-5	Mule Gulch Rehabilitation This is a drainage channel that runs through the entire length of downtown Bisbee. Sections of the retaining walls require	Bisbee	Flooding	Staff Time	High	2022	City Streets Dept	New	50% complete

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
	re-engineering and replacement								
2017-6	Earthquake: public awareness and planning project to identify high-risk populations and educate population on earthquake resistant modifications they can make to their homes or businesses.	Bisbee	Earthquake	Staff Time	High	2022	Public Works	New	Public awareness meeting begin July 10,2017
2017-7	Building collapse due to mine settling: identify locations and neighborhoods of existing mine tunnels and analyze potential damage and mitigation options.	Bisbee	Building Collapse / Mine Subsidence	1.5 M	High	2025	Public Works /Freeport McMoran	New	
2012-1	Support part-time road crew to perform roadside wildfire hazard fuel reduction along county roads.	Cochise County	Wildfire	$350,000	High	Annually 2022	Highway & Floodplain Division-Director	Ongoing	Ongoing annual effort. Weed and grass control is a regular part of the routine maintenance performed by the County.

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-2	Identify and map new flood hazard areas and update existing mapping in accordance with FEMA & NFIP requirements.	Cochise County	Flooding	$1,000,000	High	2022	Highway & Floodplain Division-Director	Ongoing	Richland Ranchettes, St.David, N of Benson and 4 watersheds in Sierra Vista area mapped or remapped. Next Re-mapping Effective Map Date Feb. 3rd, 2016
2012-3	Construction of flood control improvements to address flooding that affects development in Hereford area.	Cochise County	Flooding	$5,000,000	High	2019	Highway & Floodplain Division-Director	In Process	Projects completed in Stump Canyon & Ash Canyon. Stone Ridge design & Arabian design complete. Design complete. Awaiting funding for Arabian.
2012-4	Install additional in stream, weather, and precipitation gauges in watersheds impacting Cochise County, particularly the eastern part of the county. Scope will include website development and	Cochise County	Flooding	$500,000	High	2020	Highway & Floodplain Division-Director	In Process	13 Installed. Propose 2 per FY.

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
	remote dial up for public agencies.								
2012-5	Install road signage warning motorists of possible fissure activity in elevated fissure risk areas.	Cochise County	Fissure	$5,000	High	Annually 2022	Highway & Floodplain Division-Director	Ongoing	As needed.
2012-6	Continue to partner with AZGS to collect and monitor subsidence satellite data for Cochise County for the purpose of identifying potential hazard areas.	Cochise County	Subsidence, Fissure, Flood	$10,000 per year	High	Annually 2022	Highway & Floodplain Division-Director	Ongoing	FCD Board continues to fund annually $10K for support for satellite coverage.
2012-7	Provide hazardous materials awareness training to all County employees who work outside the conventional County facilities, to include Sheriff personnel, Highways personnel and others as identified	Cochise County	HAZMAT	$10,000 per year	High	Annually 2022	Office of Emergency Services/Risk Management-Directors	Ongoing	Completed FY 2015. Done annually.

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-8	Davis Road -Three drainage crossing improvements	Cochise County	Flooding	$7,822,735	High	2022	Highway & Floodplain Division-Director	In Process	Attained environmental clearance. In process of acquiring ROW
2012-9	Davis Road - Design concept report. Design evaluation of Davis Road from Hwy 80 to Hwy 191.	Cochise County	Flooding	$431,303	High	2019	Highway & Floodplain Division-Director	In Process	Phase II: ROW declared/acquired Final Plans FY 16/17
2012-10	Leslie Canyon Ponds - Obtaining responsibility of breached pond. Constructing to meet jurisdictional dam requirements.	Cochise County	Flooding	$50,000	High	2020	Highway & Floodplain Division-Director	In Process	Surveying waterline delineation
2012-11	Fort Grant - 14 mile asphalt reconstruction. Removing, recycling and repaving Fort Grant Road from Cochise County Line to to Virginia Road to aleviate flooding on roadway and fissue damage.	Cochise County	Building Collapse / Mine Subsidence	$14M	High	2022	Highway & Floodplain Division-Director	In Process	14 miles need funding

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-12	Davis Road - Project assessment of road and develop a plan for improving the roadway and mitigating roadway flooding	Cochise County	Flooding	$376,697	Medium	2019	Highway & Floodplain Division-Director	In Process	PA ID Next Steps Final PA Ongoing project
2012-13	Study, design, and construct a flood control facility to mitigate flooding on Rucker Creek for the Elfrida Community.	Cochise County	Flooding	$50,000	Medium	2022	Highway & Floodplain Division-Director	In Process	No progress made Need funding
2012-14	Evaluation of impact on flooding and county services resulting from unregulated lot splitting in unincorporated Cochise County.	Cochise County	Flooding	$100,000	Medium	2020	Planning & Zoning Division-Director	In Process	No progress made Lower priority due to economic downturn
2012-15	Continue drought mitigation measures for Cochise County as directed by the Governor's Drought Preparedness Plan	Cochise County	Drought	$250,000	Medium	Annually 2022	County administration	Ongoing	As needed
2012-16	Review feasibility of installing upgraded road stabilization at select high risk fissure areas to mitigate roadway damages caused by fissures.	Cochise County	Fissure	$50,000	Medium	2022	Highway & Floodplain Division-Director	Ongoing	Monitoring conditions, will address if needed.

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-17	Perform construction to mitigate flood damage and maintain access along Moson Road. As a part of the process, project assessment and scoping will be performed to identify and prioritize improvement locations.	Cochise County	Flooding	$5,000,000	Low	2022	Highway & Floodplain Division-Director	In Process	Project assessment done. Funding needed for ROW & construction Funding needed for drainage easement
2012-22	Review existing Cochise County building codes for inclusion of provisions for addressing severe winds and revise as needed to protect existing and future structures.	Cochise County	Severe Wind	$250,000	Low	2022	Planning & Zoning Division-Director	Ongoing	
2012-23	Cochise County Drought Relief Plan Development of drought mitigation plan for Cochise County as directed by the Governor's Drought Mitigation Task Force.	Cochise County	Drought	$250,000	Medium	2019	Cochise County Emergency Services	In Process	Continue drought mitigation measures through the Water Conservation Office for Cochise County as directed by the Governor's Drought Preparedness Plan.

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2017-8	Bella Vista Recharge- Design and building a groundwater recharge facility for the San Pedro River System	Cochise County	Drought	$8,300,000	High	2022	Highway & Floodplain Division-Director	New	Mitigating against drought by recharging waters near San Pedro. In the design stage. Funds for construction may need to be obtained from multiple channels.
2017-9	Continued implementation and tracking of projects identified in May 2014 Cochise County Community Wildfire Protection Plan (CWPP).	Cochise County	Wildfire	~$1,500,000	High	Annually 2022	Cochise County Emergency Services	New	
2017-10	Drainage repair: Washington & 34th; Bay Acres	Cochise County	Flooding	$500,000	High	2020	Highway & Floodplain Division-Director	New	Multiple drainage repair and projects needed to minimize and/or help alleviate flooding hazards

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-40	The City will continue to encourage the use of strapping and tie-downs for out-buildings and ancillary structures such as sheds and awnings.	Douglas	Severe Wind	$1,200	High	Annually 2022	Public Works / Building Safety	Ongoing	Annually
2012-41	Backup power supply (generator) for the new Emergency Operation Center. This system will supply the EOC with a backup power supply and help maintain emergency communication and operations during power failures.	Douglas	All	$150,000	High	2018	Public Works / City Engineer	In Process	
2012-42	To install CSV around all well-sites and security systems that will alert us of any illegal entries and tampering. This will provide us with secured facilities that will connected to the City's communication center.	Douglas	Border Security, Terrorism	$1,000,000	High	2018	Public Works / City Engineer	In Process	
2012-43	Grade and line Rose Avenue Channel from 15th Street to International Street to alleviate overflow of runoff to adjacent homes. The Rose Avenue Channel will intercept runoff	Douglas	Flooding	$80,000	Medium	2019	Public Works / City Engineer	In Process	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
	generated by the area between it and the Airport Channel.								
2012-44	Develop plans & specifications and construct retention/detention facilities in the Bay Acres area in order to mitigate flooding in Bay Acres and other areas to the west.	Douglas	Flooding	$1,000,000	Medium	2020	Public Works / City Engineer	In Process	
2012-45	Grade and line Airport Channel from International Street to 15th Street to alleviate overflow of runoff to adjacent homes. This channel is the first line of flood mitigation for runoff approaching the City from the east.	Douglas	Flooding	$2,000.00	Medium	2018	Public Works / City Engineer	In Process	
2012-46	Install backup generators at five of the City's water production wells.	Douglas	Severe Wind	$1,000,000	High	2020	Public Works / City Engineer	In Process	
2012-48	Construct flood control structures to address flooding that affects existing residential areas adjacent to the Palm Grove Wash drainage channel	Douglas	Flooding	$2,500,000	Medium	2020	Public Works / City Engineer	In Process	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
	located on private property, not within a dedicated drainage easement. Improvements will include an all-weather crossing at the intersection of 18th Street and I Avenue. This is the primary access to the Fairview and Pirtleville area.								
2012-49	Install CSV around the reservoir and security system that will alert the city of any illegal entries and tampering. This will provide a secured facility that is connected to the city's communication center.	Douglas	Border Security, Terrorism	$1,000,000	High	2021	Public Works / City Engineer	In Process	
2012-50	Prepare a city-wide master drainage plan for the identification and prioritization of all drainage and storm water improvements for the City of Douglas and contributing watershed. Study will include evaluation and update recommendations for current FEMA NFIP floodplains.	Douglas	Flooding	$1,500,000	High	2022	Public Works / City Engineer	In Process	
2012-51	Construction of flood control structures to address flooding and uncontrolled flow of stormwater along and through the Border Fence and	Douglas	Flooding	$5,000,000	Medium	2025	Public Works / City Engineer	In Process	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
	International Street. Mitigation of the flooding is a necessary part of homeland security.								
2012-53	Install CCTV around the WWTP and a security system that will alert the City of any illegal entries and tampering. This will provide the City with a secured facility that will be connected to the City's communication center. The Douglas WWTP is located right at the U.S. Mexico Border.	Douglas	Border Security, Terrorism	$1,000,000	High	2025	Public Works / City Engineer	In Process	
2017-11	Enforcement of tie down procedures for mobile homes and other building types will be strengthened	Douglas	Severe Wind	$70,000	High	2018	Public Works / Building Safety	New	
2017-12	Prepare comprehensive plan for water production in the case of long-term power outage, and demand from other systems.	Douglas	Drought	$500,000	High	2018	Public Works / City Engineer	New	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2017-13	Construct retention/detention basins on both sides of town to reduce flood flows going into Mexico, and to allow basic treatment of the stormwater (settling, skimming)	Douglas	Flood	$660,000	High	2018	Public Works / City Engineer	New	
2017-14	Inspect derelict commercial buildings in the downtown area for safety in wind, rain, and earthquake	Douglas	Severe Wind	$500,000	High	2018	Public Works / City Engineer	New	
2017-15	Provide free landfill services one day each month to help reduce wildfire risk.	Huachuca City	Wildfire	Staff Time	Medium	monthly starting in 2018	Public Works	New	Five free days provided in October
2017-16	We have developed a Wildfire Plan and are currently implementing this plan in our town. We are debrushing and creating fire breaks near housing.	Huachuca City	Wildfire	Staff Time	High	2019	Fier Chief and Public Works	New	The Town is working towards this goal for fire prevention.
2017-17	The Town has been working with the public on high winds with flying debris. We plan to develop a public education campaign aimed at securing or eliminating items around the home and business that may	Huachuca City	Severe Wind	Staff Time	High	2019	Fire and Police working Supervisors	New	Ongoing work towards educating the public on securing property.

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
	cause damage during high wind events.								
2017-18	Implement public awareness program for possible flooding and flash floods. Educate property owners and tenants about mitigation techniques.	Huachuca City	Flooding	Staff Time / $500.00	Medium	2018	Public Information Officer/Code Official	New	Code official will teach this class.
2012-54	Administer city-wide water conservation programs and public awareness campaigns. Also, continue to take a pro-active lead in regional water conservation and management organizations.	Sierra Vista	Drought	$20,000	High	Starting 7/1/17, Ongoing	Public Works/Director	Ongoing	
2012-55	Identify and map new flood hazard areas and update existing mapping in accordance with FEMA and NFIP requirements	Sierra Vista	Flooding	$50,000	High	Starting 7/1/17, Ongoing	Public Works/ Director Community Development Director	Ongoing	
2012-56	Operate and maintain Reverse 911 for City of Sierra Vista to warn public of emergency situations. The system would be implemented out of the City of Sierra Vista Police Department.	Sierra Vista	All	$15,000	High	Completed	Police Department / Chief	Ongoing	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-57	Purchase containment materials such as sand, absorbent litter and containment "pigs" for HAZMAT spills.	Sierra Vista	HAZMAT	$50,000	High	Starting 7/1/17, Ongoing	Fire Department / Chief Public Works / Director	Ongoing	
2012-58	Coyote Wash Flood Control Project Phase 1 (Coronado Site) - construct gabion walls, drop structures and concrete bank armor to mitigate flood damage to susceptible community developments.	Sierra Vista	Flooding	$300,000	Medium	6/30/2020	Public Works / Director	Deferred	
2012-59	Plan and construct a central facility for the collection and redistribution of household hazardous wastes from residents of the community.	Sierra Vista	HAZMAT	$250,000	Low	Starting 7/1/17, Ongoing	Public Works / Director	In Process	
2012-60	Coyote Wash Flood Control Project Phase 2 - construct gabion walls, drop structures and concrete bank armor to mitigate flood damage to susceptible community developments.	Sierra Vista	Flooding	$160,000	Low	6/30/2022	Public Works / Director	In Process	
2012-61	Retrofit all city buildings, as necessary, with equipment to reduce the impacts and damage of lightning strike on	Sierra Vista	Lightning	$50,000	Low	6/30/2020	Public Works / Director	In Process	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
	existing structures and equipment.								
2012-63	Third Street Wash. Construct gabion walls, drop structures, and concrete bank armor to mitigate flood damage to susceptible community developments.	Sierra Vista	Flooding	$170,000	Low	6/30/2018	Public Works / Director	In Process	
2017-19	Reuse treated effluent from the City's EOP for on-site equipment cleaning to reduce portable water use.	Sierra Vista	Drought	$400,000	High	6/30/2019	Public Works / Director	New	Save over 10 million gallons of potable water per year
2017-20	Keep City's Emergency Response Plan and Continuity of Operations Plan Up to Date	Sierra Vista	All	$5,000/year	High	Starting 7/1/18, Ongoing	Fire Department / Chief	New	
2017-21	Improve security at critical City buildings	Sierra Vista	Terrorism	$2,000,000	High	6/30/2019	Police Department / Public Works	New	
2017-22	Obtain brush clearing equipment for use in removing fire fuels along City roads, alleys, washes and at the airport and other areas where fire poses a significant hazard.	Sierra Vista	Wildfire	$300,000	High	6/30/2020	Public Works / Director	New	

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2017-23	Upgrade existing and install new back-up generators for critical public infrastructures	Sierra Vista	Severe Wind	$500,000	High	6/30/2020	Public Works / Director	New	
2017-24	Consider programs to promote rainwater harvesting, water recharge, and other water conservation practices	Sierra Vista	Drought	$100,000	Medium	Starting 7/1/17, Ongoing	Public Works	New	
2017-25	Drainage Improvement. Implement the recommended drainage improvement projects for communities in the City	Sierra Vista	Flood	$1,500,000	Medium	6/30/2022	Public Works / Director	New	
2012-65	Providing emergency back up electrical power for emergency service radio repeaters due to extended power failure from sudden violent thunder storms, which stretch all available electrical service to its limit.	Tombstone	Severe Wind, lightning	$5,000	High	2020	Tombstone Marshal's Office/ Fire Department	Ongoing	In the process of obtaining generators for this purpose
2012-68	Continuation of educational awareness regarding fire prevention in the local school system for youths as well as adults through local civic organizations; and establishment of City fire breaks through weed abatement.	Tombstone	Wildfire	$1,000	Medium	2022	Fire Department	Ongoing	Annually

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012-69	Trouble shoot for cracks in concrete, pavement and structures as well as holes in anything caused by seismic energy to identify potential problem areas regarding collapse of mines within the City's Mining District as well as potential unidentified mine hazard areas.	Tombstone	Building Collapse / Mine Subsidence	Staff Time	Medium	2021	Fire Department/Public Works	Ongoing	Ongoing; matter being monitored as needed and required.
2017-26	Working with local mining companies, state and county authorities to accurately map all residual vertical and horizontal shafts, using GPS technology, located inside the city limits.	Tombstone	Mine Subsidence		High	2018	Public Works / Fire Department	New	
2017-27	Obtaining brush clearing equipment for use in removing fire fuels along City roads, washes, the airport, and other areas where fire poses a significant hazard.	Tombstone	Wildfire	$20,000	Medium	2017	Public Works / Tombstone Marshal's Office	New	Purchase of equipment and tools for road clearing crew.
2017-28	Establish city-wide water conservation programs and public awareness campaigns. Establish working relationships with regional water conservation and management	Tombstone	Drought		Low	2020	Public Works / Fire Department	New	Public education

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
	organizations to offer public education classes.								
2017-29	Design and construct improvements to the City's water system to mitigate future issues with the 30 mile Aqueduct.	Tombstone	Wildfire		High	2021	Public Works Department	New	Improvements to be considered: a new well, storage tanks.
2017-30	Design and construct improvements to roads that repeatedly sustain damage in flood prone areas and that have a high probability of leaving motorists or first responders stranded.	Tombstone	Flooding / Flash Flood	$450,000	High	2020	Public Works Department	New	Improvements will first be looked at along Charleston Rd.
2012-71	Clean, maintain and improve water drainage though out town to prevent flooding.	Willcox	Flooding	$20,000	High	2021	Public Works Department / Supervisor	Ongoing	1st step to clean, then annually maintain Willcox's drainage system is in desperate need of improvement involving engineering planning.

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
2012 -72	Conduct a public education campaign to increase awareness of fire hazards. Distribute mitigation flyers outlining defensible space mitigation strategies at public gathering opportunities as appropriate.	Willcox	Wildfire	$1,000	High	2021	Fire Department/ Fire Chief	Ongoing	Annually City of Willcox working towards goal.
2012 -73	Develop evacuation plans for the areas along I-10 and Railroad areas due to heavy traffic with hazardous materials on board.	Willcox	HAZMAT	Staff Time	High	2022	Fire Department/ Fire Chief	Ongoing	Once developed, regularly revisit.
2012 -74	Review and update "Title 18 flood damage prevention ordinance" and municipal codes to help prevent flooding and maintain compliance with the NFIP Program.	Willcox	Flooding	Staff Time	High	2021	Development Services / Supervisor	Ongoing	Annually.
2017 -31	Quail Park: Grading of drainages for water flow, installation of energy dissipaters such as rip raps and toe downs along drainages, as necessary	Willcox	Flooding	$25,000	Medium	2021	Public Works Department / Supervisor	New	
2017 -32	Implement annual program relating to wildfire mitigation in City right of ways- Clean up	Willcox	Wildfire	$3,000	Medium	2018	Fire Department/ Fire Chief	New	Reduce the risk of wildfires

Table 6-6: 2017 Mitigation Actions / Projects									
ID	Mitigation Action/Project Description	Jurisdiction	Hazard(s) Mitigated	Estimated Cost	Priority Ranking	Anticipated Completion Date	Primary Agency / Job Title Responsible for Implementation	Status	Summary
	parkways and property to reduce wildfire fuels								
2017-33	Implement annual program relating to wildfire mitigation in City ROWs- Clean up parkways and property to reduce debris and other items that could potentially cause damage during a high wind event	Willcox	Severe Wind	$3,000	High	2020	Public Works	New	Reduce high wind damage
2017-34	Willcox plans to work with the public on reducing flying debris during high wind events. We plan to develop a public education campaign aimed at securing or eliminating items around the home and business that may cause damage during high wind events.	Willcox	Severe Wind	3000	High	2019	Fire/Police	New	Ongoing work towards educating the public on securing property.

SECTION 7: PLAN MAINTENANCE PROCEDURES

> ***§201.6(c)(4):*** *[The plan shall include…] (4) A* ***plan maintenance process*** *that includes:*
> *(i) A section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.*
> *(ii) A process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.*
> *(iii) Discussion on how the community will continue public participation in the plan maintenance process.*
>
> ***§201.6(d)(3):*** *Plans must be reviewed, revised if appropriate, and resubmitted for approval within five years in order to continue to be eligible for HMGP project grant funding.*

According to the DMA 2000 requirements, each plan must define and document processes or mechanisms for maintaining and updating the hazard mitigation plan within the established five-year planning cycle. Elements of this plan maintenance section include:

Monitoring and Evaluating the Plan

Updating the Plan

Implementing the Plan by Incorporation into Other Agency or Jurisdictional Planning Mechanisms

Cochise County and the participating jurisdictions recognize that this hazard mitigation plan is intended to be a "living" document with regularly scheduled monitoring, evaluation, and updating.

As part of the 2012 Plan update process, the Planning Team recognized the need for improvement to the Plan monitoring and evaluation process. The Planning Team discussed ways to make sure that the Plan review and maintenance process will occur over the next five years. The results of those discussions are outlined in the following sections and the plan maintenance strategy.

7.1 Monitoring and Evaluation

During the 2017 Plan update process, it was clear that the planned improvements to the monitoring and evaluation process were successfully implemented. The Planning Team had established the following monitoring and evaluation procedures:

- Schedule – The Plan shall be reviewed on at least an annual basis or following a major disaster. The County EM will contact each jurisdiction's point of contact or the City/Town Manager/Clerk to coordinate the Plan review.
- Review Content – The content and scope of the Plan review and evaluation will address the following questions:
    - *Hazard Identification: Have the risks and hazards changed?*
    - *Goals and objectives: Are the goals and objectives still able to address current and expected conditions?*
    - *Mitigation Projects and Actions: Has the project been completed? If not complete but started, what has been done and what percent of the project has been completed? What remains to be done? Are there changes to the scope of work?*

Each jurisdiction will review the Plan as it relates to their community and document responses to the above questions in the form of an informal memorandum. During the annual review process, each jurisdiction may present their review findings to the Planning Team to discuss concerns or successes. Documentation of the annual review will include a compilation of the memorandums generated by each jurisdiction plus any notes on discussions and conclusions. Copies of the annual review report are included in Appendix E. Additional information and

7.2 Plan Update

According to DMA 2000, the Plan requires updating and approval from FEMA every five years. The plan updates will adhere to that set schedule using the following procedure:

- ✓ Approximately one year prior to the plan expiration date, the Planning Team, or their designated planning consultant, will perform an update to the Plan and planning process and will revise the appropriate or affected portions of the plan and produce a revised plan document.
- ✓ The revised plan document will be presented before the respective councils and boards for an official concurrence/adoption of the changes.
- ✓ The revised plan will be submitted to DEMA and FEMA for review, comment and approval.

7.3 Incorporation into Existing Planning Mechanisms

Incorporation of this Hazard Mitigation Plan into other planning mechanisms, either by content or reference, enhances a community's ability to perform natural hazard mitigation by expanding the scope of the Plan's influence. A poll of the participating jurisdictions revealed that success of incorporating the 2012 Plan elements over the past planning cycle into other planning programs has varied. Successes are summarized below:

Cochise County:

- The County plan correlated 2012 Plan mitigation A/Ps with the County Highway and Floodplain Division's CIP project list.
- The 2012 Plan was referred to as a part of the regular grant planning process.

City of Benson:

- The City correlated 2012 Plan mitigation A/Ps with the City's CIP project list.

City of Douglas:

- The City incorporated 2012 A/Ps into the Road Capital Improvements Plan.

City of Sierra Vista:

- Correlation of 2012 Plan mitigation A/Ps with the City's CIP project list.
- Mitigation planning was considered during all General Plan and development code updates.

City of Tombstone:

- The City used the 2012 Plan to help prevent development in areas of 'flood prone' washes.

City of Willcox:

- During and following Hurricane Odile, the 2012 Plan was reviewed for potential mitigation project ideas to implement.

In all of the above instances, the 2012 Plan was found to be beneficial, and especially with regard to the critical facility inventories, vulnerability analysis results, and the mitigation strategy. Other specific insights and lessons learned shared by various participating jurisdictions include:

- Several of the communities just do not have much in the way of "plans" that correlate to the mitigation plan.
- Changes in staff/personnel or the lack of staff/personnel to accomplish the Plan goals and also a lack of priority.

Ways in which the 2017 Plan will be incorporated or referenced into other planning mechanisms for each jurisdiction are summarized below:

Cochise County:

- The County plans to continue correlation of 2017 Plan mitigation A/Ps with the County Highway and Floodplain Division's CIP project list.
- The 2017 Plan will continue to be referred to as a part of the regular grant planning.
- Risk assessment data from 2017 Plan will be used for future Emergency Operations Plan (EOP) updates.

City of Benson:

- Continued correlation of 2017 Plan mitigation A/Ps with the City's CIP project list.

City of Bisbee:

- The City will look for opportunities to incorporate mitigation actions / projects from the 2017 Plan as part of the annual monitoring and evaluation process.

City of Douglas:

- 2017 Plan will be reviewed during updates to all Capital Improvement Plans going forward.

Town of Huachuca City:

- The Town plans to incorporate portions of the HMP into a new Development Plan that is being formulated.
- The Town also plans to integrate the results of the HMP into a 10-Year / General Plan that is currently being updated, which included building code updates.

City of Sierra Vista:

- Continued correlation of 2017 Plan mitigation A/Ps with the city's CIP project list.
- Mitigation planning will continue to be considered during all General Plan and development code updates.

City of Tombstone:

- The City plans to reference the HMP as they update their Emergency Management Program.

City of Willcox:

- The 2017 Plan will be reviewed by the City during the annual monitoring and evaluation process to identify opportunities for incorporation into other City planning mechanisms.

Typical ways to use and incorporate the Plan over the next five-year planning cycle, discussed by the Planning Team, included:

- Use of, or reference to, Plan elements in updates to general and comprehensive planning documents, codes, and ordinances.
- Addition of defined mitigation A/Ps to capital improvement programming.
- Inclusion of Plan elements into development and retrofitting planning and practices.
- Resource for developing and/or updating emergency operations plans, community wildfire protection plans, emergency response plans, etc.
- Make use of the annual evaluations to keep the Plan awareness elevated and that stakeholders are still identified.

The Plan will continue to function as a standalone document subject to its own review and revision schedule presented in Sections 7.1 and 7.2. The Plan will also serve as a reference for other mitigation and land planning

needs of the participating jurisdictions. Whenever possible, each jurisdiction will endeavor to incorporate the risk assessment results and mitigation actions and projects identified in the Plan, into existing and future planning mechanisms. Specific incorporation of the Plan risk assessment elements into the natural resources and safety elements of each jurisdictions' general plans (county comprehensive plan) and development review processes, adding or revising building codes, adding or changing zoning and subdivision ordinances, and incorporating mitigation goals and strategies into general and/or comprehensive plans, will help to ensure hazard mitigated future development.

7.4 Continued Public Involvement

The Planning Team reviewed the subject of continued public involvement as was documented in the 2012 Plan and discussed the challenges and successes regarding the identified continued public involvement strategy. It was noted that public education and outreach relating to the hazards faced by communities was an on-going effort. Some of the participating jurisdictions specifically identified mitigation actions / projects relating to these public education and outreach efforts. Additional details relating to these can be found in Section 6.

This left the subject of how best to involve the public going forward with this updated Plan? As is detailed later on in Section 7 of this document, one of the greatest successes of the Planning Team was their willingness and ability to hold yearly plan review and monitoring meetings. Therefore, it was decided that this annual process would be expanded upon to include a larger component relating to continued public involvement of the Plan, and most importantly of the identified mitigation actions / projects.

Following the yearly plan review and monitoring meetings, meeting minutes and/or a summary report of progress on mitigation actions / projects will be produced and posted on the County website. Public questions relating to the yearly meeting and ideas for additional mitigation actions / projects will also be solicited.

In addition, some jurisdictions provided additional opportunities for continued public involvement relating to the HMP:

- Cochise County
    - Public hearing/meeting process for all mitigation actions/projects.
    - County will provide various mitigation brochures and information at the County Fair.
    - Provide mitigation and code literature at the SACA Home Show.
    - Free Dump Day for disposal of HAZMATs and other debris for each jurisdiction.
    - Educational material will be provided for our Small MS4 Permit Program
- City of Douglas
    - Public hearing/meeting process for all mitigation actions/projects.
    - City provides various mitigation brochures and information at the County Fair.
    - Public notices in utility bills for drought mitigation and conservation efforts.
    - Free Dump Day for disposal of HAZMATs and other debris.
    - Include a hazard mitigation agenda item to the regular LEPC meetings.
- Town of Huachuca City
    - Public Workshop for Planning and Public Meetings, Public Hearings or meetings for all mitigation actions and projects.
    - Incorporating the 2017 HMP into the City's Development Plan.
    - Add EOP and HMP Plans to the Occupancy Permits.
- City of Tombstone

- Public hearing/meeting process for all mitigation actions/projects.
- Public service announcements for mitigation activities.
- Public notices in utility bills for drought mitigation and conservation efforts.
- Free Dump Day for disposal of HAZMATs and other debris.
- Notices regarding meetings/hearings/updates on social media and websites.

SECTION 8: PLAN TOOLS

8.1 Acronyms

A/P ..... Mitigation Action/Project
ADEM ..... Arizona Division of Emergency Management
ADEQ ..... Arizona Department of Environmental Quality
ADWR ..... Arizona Department of Water Resources
AGFD ..... Arizona Game and Fish Department
ALOHA ..... Areal Location of Hazardous Atmospheres model
ARS ..... Arizona Revised Statutes
ASCE ..... American Society of Civil Engineers
AZSERC ..... Arizona State Emergency Response Commission
ASLD ..... Arizona State Land Department
AZGS ..... Arizona Geological Survey
BLM ..... Bureau of Land Management
CAMEO ..... Computer Aided Management of Emergency Operations model
CAP ..... Central Arizona Project
CAP ..... Community Assistance Program
CIKR ..... Critical Infrastructure and Key Resources
CLIMAS ..... Climate Assessment for the Southwest
CFR ..... Code of Federal Regulations
CRS ..... Community Rating System
CWPP ..... Community Wildfire Protection Plan
DEMA ..... Arizona Department of Emergency and Military Affairs
DFIRM ..... Digital Flood Insurance Rate
DMA 2000 ..... Disaster Mitigation Act of 2000
DOT ..... Department of Transportation
EHS ..... Extremely Hazardous Substance
EOP ..... Emergency Operations Plan
EPA ..... Environmental Protection Agency
EPCRA ..... Emergency Planning and Community Right to Know Act
FEMA ..... Federal Emergency Management Agency
FMA ..... Flood Mitigation Assistance Grant Program
GIS ..... Geographic Information System
HAZMAT ..... Hazardous Material
HAZUS-99 ..... Hazards United States1999
HAZUS-MH ..... Hazards United States Multi-Hazard
HMGP ..... Hazard Mitigation Grant Program
IFCI ..... International Fire Code Institute
LEPC ..... Local Emergency Planning Committee
MJHMP ..... Multi-Jurisdictional Hazard Mitigation Plan
MMI ..... Modified Mercalli Intensity
NCEI ..... National Center for Environmental Information
NDMC ..... National Drought Mitigation Center
NESDIS ..... National Environmental Satellite, Data and Information Service
NFIP ..... National Flood Insurance Program
NFPA ..... National Fire Protection Association
NHC ..... National Hurricane Center
NIBS ..... National Institute of Building Services
NID ..... National Inventory of Dams
NIST ..... National Institute of Standards and Technology

NSF .....National Science Foundation
NOAA .....National Oceanic and Atmospheric Administration
NRC .....National Response Center
NWCG .....National Wildfire Coordination Group
NWS .....National Weather Service
PDM .....Pre-Disaster Mitigation Grant
PSDI .....Palmer Drought Severity Index
RL .....Repetitive Loss
SARA .....Superfund Amendments and Reauthorization Act
SRLP .....Severe Repetitive Loss Properties
SRL .....Severe Repetitive Loss
SRP .....Salt River Project
TPC .....Threshold Planning Quantity
UBC .....Uniform Building Code
USACE .....United States Army Corps of Engineers
USDA .....United States Department of Agriculture
USFS .....United States Forest Service
USGS .....United States Geological Survey
VA.....Vulnerability Analysis
WUI .....Wildland Urban Interface

8.2 Definitions

The following terms and definitions are provided for reference and are taken from the 2007 State Plan with a few minor modifications.

ARIZONA HAZARDS

Dam Failure

A dam failure is a catastrophic type of failure characterized by the sudden, rapid and uncontrolled release of impounded water. Dam failures are typically due to either overtopping or piping and can result from a variety of causes including natural events such as floods, landslides or earthquakes, deterioration of foundation or compositional materials, penetration by vegetative roots or animal burrows, fissures or improper design and construction. Such a failure presents a significant potential for a disaster as significant loss of life and property would be expected in addition to the possible loss of power and water resources.

Drought

A drought is a deficiency of precipitation over on extended period of time, resulting in water shortage for some activity, group or environmental sector. "Severe" to "extreme" drought conditions endanger livestock and crops, significantly reduce surface and ground water supplies, increase the potential risk for wildland fires, increase the potential for dust storms, and cause significant economic loss. Humid areas are more vulnerable than arid areas. Drought may not be constant or predictable and does not begin or end on any schedule. Short term droughts are less impacting due to the reliance on irrigation and groundwater in arid environments.

Earthquake

An earthquake is a naturally-induced shaking of the ground, caused by the fracture and sliding of rock within the Earth's crust. The magnitude is determined by the dimensions of the rupturing fracture (fault) and the amount of displacement that takes place. The larger the fault surface and displacement, the greater the energy. In addition to deforming the rock near the fault, this energy produces the shaking and a variety of seismic waves that radiate throughout the Earth. Earthquake magnitude is measured using the Richter Scale and earthquake intensity is measured using the Modified Mercalli Intensity Scale.

Fissure

Earth fissures are tension cracks that open as the result of subsidence due to severe overdrafts (i.e., pumping) of groundwater, and occur about the margins of alluvial basins, near exposed or shallow buried bedrock, or over zones of differential land subsidence. As the ground slowly settles, cracks form at depth and propagate towards the surface, hundreds of feet above. Individual fissures range in length from hundreds of feet to several miles, and from less than an inch to several feet wide. Rainstorms can erode fissure walls rapidly causing them to widen and lengthen suddenly and dangerously, forming gullies five to 15- feet wide and tens of feet deep.

Flooding

Flooding is an overflowing of water onto normally dry land and is one of the most significant and costly of natural disasters. Flooding tends to occur in Arizona during anomalous years of prolonged, regional rainfall (typical of an El Nino year), and is typified by increased humidity and high summer temperatures.

Flash flooding is caused excessive rain falling in a small area in a short time and is a critical hazard in Arizona. Flash floods are usually associated with summer monsoon thunderstorms or the remnants of a tropical storm. Several factors contribute to flash flooding: rainfall intensity and duration, topography, soil conditions, and ground cover. Most flash flooding is caused by slow-moving thunderstorms or thunderstorms repeatedly moving over the same area and can occur within a few minutes or hours of excessive rainfall, or a quick release from a dam or levee failure. Thunderstorms produce flash flooding, often far from the actual storm and at night when natural warnings may not be noticed.

Landslide / Mudslide

Landslides like avalanches are massive downward and outward movements of slope-forming materials. The term landslide is restricted to movement of rock and soil and includes a broad range of velocities. Slow movements, although rarely a threat to life, can destroy buildings or break buried utility lines. A landslide occurs when a portion of a hill slope becomes too weak to support its own weight. The weakness is generally initiated when rainfall or some other source of water increases the water content of the slope, reducing the shear strength of the materials. A mud slide is a type of landslide referred to as a flow. Flows are landslides that behave like fluids: mud flows involve wet mud and debris.

Levee Failure / Breach

Levee failures are typically due to either overtopping or erosive piping and can result from a variety of causes including natural events such as floods, hurricane/tropical storms, or earthquakes, deterioration of foundation or compositional materials, penetration by vegetative roots or animal burrows, fissures, or improper design, construction and maintenance. A levee breach is the opening formed by the erosion of levee material and can form suddenly or gradually depending on the hydraulic conditions at the time of failure and the type of material comprising the levee.

Severe Wind

Thunderstorms are characterized as violent storms that typically are associated with high winds, dust storms, heavy rainfall, hail, lightning strikes, and/or tornadoes. The unpredictability of thunderstorms, particularly their formation and rapid movement to new locations heightens the possibility of floods. Thunderstorms, dust/sand storms and the like are most prevalent in Arizona during the monsoon season, which is a seasonal shift in the winds that causes an increase in humidity capable of fueling thunderstorms. The monsoon season in Arizona typically is from late-June or early-July through mid-September.

Tornadoes are violently rotating columns of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds in excess of 250 mph. Damage paths can exceed a mile wide and 50 miles long. The damage from tornadoes is due to high winds. The Fujita Scale of Tornado Intensity measures tornado / high wind intensity and damage.

Tropical Storms are storms in which the maximum sustained surface wind ranges from 39-73 mph. Tropical storms are associated with heavy rain and high winds. High intensity rainfall in short periods is typical. A tropical storm is classified as a hurricane when its sustained winds reach or exceed 74 mph. These storms are medium to large in size and are capable of producing dangerous winds, torrential rains, and flooding, all of which may

result in tremendous property damage and loss of life, primarily in coastal populated areas. The effects are typically most dangerous before a hurricane makes landfall, when most damage occurs. However, Arizona has experienced a number of tropical storms that caused extensive flooding and wind damage.

Subsidence

Land subsidence in Arizona is primarily attributed to substantial groundwater withdrawal from aquifers in sedimentary basins. As the water is removed, the sedimentary layers consolidate resulting in a general lowering of the corresponding ground surface. Subsidence frequently results in regional bowl-shaped depressions, with loss of elevation greatest in the center and decreasing towards the perimeter. Subsidence can measurably change or reverse basin gradients causing expensive localized flooding and adverse impacts or even rupture to long-baseline infrastructure such as canals, sewer systems, gas lines and roads. Earth fissures are the most spectacular and destructive manifestation of subsidence-related phenomena.

Wildfire

Wildfire is a rapid, persistent chemical reaction that releases heat and light, especially the exothermic combination of a combustible substance with oxygen. Wildfires present a significant potential for disaster in the southwest, a region of relatively high temperatures, low humidity, low precipitation, and during the spring moderately strong daytime winds. Combine these severe burning conditions with people or lightning and the stage is set for the occurrence of large, destructive wildfires.

Winter Storm

Winter storms bring heavy snowfall and frequently have freezing rain and sleet. Sleet is defined as pellets of ice composed of frozen or mostly frozen raindrops or refrozen partially melted snowflakes. These pellets of ice usually bounce after hitting the ground or other hard surfaces. Freezing rain begins as snow at higher altitudes and melts completely on its way down while passing through a layer of air above freezing temperature, then encounters a layer below freezing at lower level to become supercooled, freezing upon impact of any object it then encounters. Because freeing rain hits the ground as a rain droplet, it conforms to the shape of the ground, making one thick layer of ice. Snow is generally formed directly from the freezing of airborne water vapor into ice crystals that often agglomerates into snowflakes. Average annual snowfall in Arizona varies with geographic location and elevation, and can range from trace amounts to hundreds of inches. Severe snow storms can affect transportation, emergency services, utilities, agriculture and basic subsistence supply to isolated communities. In extreme cases, snowloads can cause significant structural damage to under-designed buildings.

GENERAL PLAN TERMS

Asset

Any natural or human-caused feature that has value, including, but not limited to people; buildings; infrastructure like bridges, roads, and sewer and water systems; lifelines like electricity and communication resources; or environmental, cultural, or recreational features like parks, dunes, wetlands, or landmarks.

Building

A structure that is walled and roofed, principally above ground and permanently affixed to a site. The term includes a manufactured home on a permanent foundation on which the wheels and axles carry no weight.

Critical Facilities and Infrastructure

Systems or facilities whose incapacity or destruction would have a debilitating impact on the defense or economic security of the nation. The Critical Infrastructure Assurance Office (CIAO) defines eight categories of critical infrastructure, as follows:

Telecommunications infrastructure: Telephone, data services, and Internet communications, which have become essential to continuity of business, industry, government, and military operations.

Electrical power systems: Generation stations and transmission and distribution networks that create and supply electricity to end-users.

Gas and oil facilities: Production and holding facilities for natural gas, crude and refined petroleum, and petroleum-derived fuels, as well as the refining and processing facilities for these fuels.

Banking and finance institutions: Banks, financial service companies, payment systems, investment companies, and securities/commodities exchanges.

Transportation networks: Highways, railroads, ports and inland waterways, pipelines, and airports and airways that facilitate the efficient movement of goods and people.

Water supply systems: Sources of water; reservoirs and holding facilities; aqueducts and other transport systems; filtration, cleaning, and treatment systems; pipelines; cooling systems; and other delivery mechanisms that provide for domestic and industrial applications, including systems for dealing with water runoff, wastewater, and firefighting.

Government services: Capabilities at the federal, state, and local levels of government required to meet the needs for essential services to the public.

Emergency services: Medical, police, fire, and rescue systems.

Disaster Mitigation Act of 2000 (DMA2K)
A law signed by the President on October 30, 2000 that encourages and rewards local and state pre-disaster planning, promotes sustainability as a strategy for disaster resistance, and is intended to integrate state and local planning with the aim of strengthening statewide mitigation planning.

Emergency Preparedness and Response (EPR) Directorate
One of five major Department of Homeland Security Directorates which builds upon the formerly independent Federal Emergency Management Agency (FEMA). EPR is responsible for preparing for natural and human-caused disasters through a comprehensive, risk-based emergency management program of preparedness, prevention, response, and recovery. This work incorporates the concept of disaster-resistant communities, including providing federal support for local governments that promote structures and communities that reduce the chances of being hit by disasters.

Emergency Response Plan
A document that contains information on the actions that may be taken by a governmental jurisdiction to protect people and property before, during, and after a disaster.

Federal Emergency Management Agency (FEMA)
Formerly independent agency created in 1978 to provide a single point of accountability for all Federal activities related to disaster mitigation and emergency preparedness, response and recovery. As of March 2003, FEMA is a part of the Department of Homeland Security's Emergency Preparedness and Response (EPR) Directorate.

Flood Insurance Rate Map (FIRM)
Map of a community, prepared by FEMA that shows the special flood hazard areas and the risk premium zones applicable to the community.

Frequency
A measure of how often events of a particular magnitude are expected to occur. Frequency describes how often a hazard of a specific magnitude, duration, and/or extent typically occurs, on average. Statistically, a hazard with a 100-year recurrence interval is expected to occur once every 100 years on average, and would have a 1% chance – its probability – of happening in any given year. The reliability of this information varies depending on the kind of hazard being considered.

Geographic Information Systems (GIS)
A computer software application that relates physical features on the earth to a database to be used for mapping and analysis.

Hazard
A source of potential danger or adverse condition. Hazards include both natural and human-caused events. A natural event is a hazard when it has the potential to harm people or property and may include events such as

floods, earthquakes, tornadoes, tsunami, coastal storms, landslides, and wildfires that strike populated areas. Human-caused hazard events originate from human activity and may include technological hazards and terrorism. Technological hazards arise from human activities and are assumed to be accidental and/or have unintended consequences (e.g., manufacture, storage and use of hazardous materials). While no single definition of terrorism exists, the Code of Federal Regulations defines terrorism as "…unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives."

Hazard Event
A specific occurrence of a particular type of hazard.

Hazard Identification
The process of identifying hazards that threaten an area.

Hazard Mitigation
Cost effective measures taken to reduce or eliminate long-term risk associated with hazards and their effects.

Hazard Profile
A description of the physical characteristics of hazards and a determination of various descriptors including magnitude, duration, frequency, probability, and extent.

HAZUS
A GIS-based nationally standardized earthquake, flood and high wind event loss estimation tool developed by FEMA.

Mitigate
To cause to become less harsh or hostile; to make less severe or painful. Mitigation activities are actions taken to eliminate or reduce the probability of the event, or reduce its severity of consequences, either prior to or following a disaster/emergency.

Mitigation Plan
A systematic evaluation of the nature and extent of vulnerability to the effects of natural hazards typically present in a defined geographic area, including a description of actions to minimize future vulnerability to hazards.

100-Hundred Year Floodplain
Also referred to as the Base Flood Elevation (BFE) and Special Flood Hazard Area (SFHA). An area within a floodplain having a 1% or greater chance of flood occurrence in any given year.

Planning
The act or process of making or carrying out plans; the establishment of goals, policies, and procedures for a social or economic unit.

Probability
A statistical measure of the likelihood that a hazard event will occur.

Promulgation
To make public and put into action the Hazard Mitigation Plan via formal adoption and/or approval by the governing body of the respective community or jurisdiction (i.e. – Town or City Council, County Board of Directors, etc.).

Q3 Data
The Q3 Flood Data product is a digital representation of certain features of FEMA's Flood Insurance Rate Map (FIRM) product, intended for use with desktop mapping and Geographic Information Systems technology. The digital Q3 Flood Data are created by scanning the effective FIRM paper maps and digitizing selected features and lines. The digital Q3 Flood Data are designed to serve FEMA's needs for disaster response activities, National Flood Insurance Program activities, risk assessment, and floodplain management.

Repetitive Loss Property

A property that is currently insured for which two or more National Flood Insurance Program losses (occurring more than ten days apart) of at least $1,000 each have been paid within any 10 year period since 1978.

Risk
The estimated impact that a hazard would have on people, services, facilities, and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate, or low likelihood of sustaining damage beyond a particular threshold due to a specific type of hazard event. It also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.

Substantial Damage
Damage of any origin sustained by a structure in a Special Flood Hazard Area whereby the cost of restoring the structure to its before-damaged condition would equal or exceeds 50% of the market value of the structure before the damage.

Vulnerability
Describes how exposed or susceptible to damage an asset is. Vulnerability depends on an asset's construction, contents, and the economic value of its functions. Like indirect damages, the vulnerability of one element of the community is often related to the vulnerability of another. For example, many businesses depend on uninterrupted electrical power–if an electric substation is flooded, it will affect not only the substation itself, but a number of businesses as well. Often, indirect effects can be much more widespread and damaging than direct effects.

Vulnerability Analysis
The extent of injury and damage that may result from a hazard event of a given intensity in a given area. The vulnerability analysis should address impacts of hazard events on the existing and future built environment.

Vulnerable Populations
Any segment of the population that is more vulnerable to the effects of hazards because of things such as lack of mobility, sensitivity to environmental factors, or physical abilities. These populations can include, but are not limited to, senior citizens and school children.

Goals
General guidelines that explain what you want to achieve. Goals are usually broad statements with long-term perspective.

Objectives
Defined strategies or implementation steps intended to attain the identified goals. Objectives are specific, measurable, and have a defined time horizon.

Actions/Projects
Specific actions or projects that help achieve goals and objectives.

Implementation Strategy
A comprehensive strategy that describes how the mitigation actions will be implemented.

GENERAL HAZARD TERMS

Fujita Scale of Tornado Intensity
Rates tornadoes with numeric values from F0 to F5 based on tornado winds peed and damage sustained. An F0 indicates minimal damage such as broken tree limbs or signs, while an F5 indicates severe damage sustained.

Liquefaction
The phenomenon that occurs when ground shaking (earthquake) causes loose soils to lose strength and act like viscous fluid. Liquefaction causes two types of ground failure: lateral spread and loss of bearing strength.

Modified Mercalli Intensity Scale

The Modified Mercalli Intensity Scale is commonly used in the United States by seismologists seeking information on the severity of earthquake effects. Intensity ratings are expressed as Roman numerals between I at the low end and XII at the high end. The Intensity Scale differs from the Richter Magnitude Scale in that the effects of any one earthquake vary greatly from place to place, so there may be many Intensity values (e.g.: IV, VII) measured from one earthquake. Each earthquake, on the other hand, should have just one Magnitude, although the several methods of estimating it will yield slightly different values (e.g.: 6.1, 6.3).

Monsoon

A monsoon is any wind that reverses its direction seasonally. In the Southwestern U.S., for most of the year the winds blow from the west/northwest. Arizona is located on the fringe of the Mexican Monsoon which during the summer months turns the winds to a more south/southeast direction and brings moisture from the Pacific Ocean, Gulf of California, and Gulf of Mexico. This moisture often leads to thunderstorms in the higher mountains and Mogollon Rim, with air cooled from these storms often moving from the high country to the deserts, leading to further thunderstorm activity in the desert. A common misuse of the term monsoon is to refer to individual thunderstorms as monsoons.

Richter Magnitude Scale

A logarithmic scale devised by seismologist C.F. Richter in 1935 to express the total amount of energy released by an earthquake. While the scale has no upper limit, values are typically between 1 and 9, and each increase of 1 represents a 32-fold increase in released energy.

APPENDIXES

Appendix A: Official Resolution of Adoption

Appendix B: Planning Process Documentation

Michael Baker
INTERNATIONAL

We Make a Difference

Cochise County Multi-Jurisdiction Hazard Mitigation Plan
Project Kick-Off Meeting

When and Where
June 1st, 2016, 10:00 – 12:00 AM
BOS Board room, 1415 Melody Lane, Bldg. G, Bisbee

Agenda

1. Welcome and Introductions
2. Project Overview/Purpose
    a. Hazard mitigation overview
    b. Benefits to Adoptees
3. Project Approach
4. Project Schedule
    a. Future Planning Team Meetings
5. Participation Requirements
6. Hazards to Profile / Perceived Risk Exercise
7. 5-Year Plan Review
8. Mitigation Strategy
9. Data request
10. Public Outreach / Project Website
11. Additional Questions?

2929 N. Central Avenue., Suite 800 |
Phoenix Plaza Tower II
Phoenix, AZ 85012 | Office: 602.279.1234

Michael Baker
INTERNATIONAL

We Make a Difference

Cochise County Multi-Jurisdiction Hazard Mitigation Plan
Project Kick-Off Meeting

When and Where
County Board of Supervisor's Boardroom, 1415 Melody Lane, Building G, Bisbee
June 1st, 2016, 10:00 AM – 12:00 PM

Attendees

Name	Representing	Email
Gabe Robison	City of Willcox	
Tammy Mitchell	Town of Huachuca	
Jim Thies	HCPS	
Brad Simmons	Cochise County H & F	bsimmons@cochise.az.gov
Michael Izzo	Cochise County	MIzzo@Cochise.az.gov
Andy Hargrik	CO 13	
Sharon Flissar	CCSV	sharon.flissar@sierravistaaz.gov
Jing Luo	COSV	jing.luo@SierraVistaAZ.gov
PAT KELLY	CITY OF TOMBSTONE	publicworks.tombstone@gmail.com
Daisy Ramsey	Forest Service	dramsey@fs.fed.us
CARLOS DE LA TORRE	CITY OF DOUGLAS	carlos.delatorre@douglasaz.gov
Sandra Espinoza	AZDEMA	Sandra.espinoza@azdema.gov
KEITH SPANGLER	BENSON FIRE	KSPANGLER@BENSONAZ.GOV
Bradley J. Hamilton	City of Benson	bhamilton@bensonaz.gov

Michael Baker
INTERNATIONAL

We Make a Difference

Cochise County Multi-Jurisdiction Hazard Mitigation Plan
Planning Team Conference Call

When and Where
Call-in information and webinar link to be distributed
Date - Time: 9/19/16 - 10:00 PM
Conference Call Info: 571-209-6390 / Access Code: 993 661 259

Agenda

1. Project status update
2. Risk Assessment Update
3. Critical Infrastructure and Key Resources discussion
4. Public Outreach / Project Website
5. Additional Questions?

Michael Baker
INTERNATIONAL

We Make a Difference

Cochise County Multi-Jurisdiction Hazard Mitigation Plan
Planning Team Conference Call

When and Where
Call-in information and webinar link to be distributed
Date - Time: 11/4/16 - 2:00 PM
Conference Call Info: 571-209-6390 / Access Code: 993 661 259

Agenda

1. Project status update
2. Risk Assessment Complete – Draft available for HMP Planning Team review and comment
3. Adopting Jurisdiction To-Do's
    a. Update/edit capability tables
    b. Update/edit incorporation into existing planning mechanisms
    c. Update/edit continued public involvement
4. Scheduling upcoming Final HMP Planning Team Meeting – Mitigation Project Workshop
5. Public Outreach / Project Website
6. Additional Questions?

Michael Baker
INTERNATIONAL

We Make a Difference

Cochise County Multi-Jurisdiction Hazard Mitigation Plan
Mitigation Strategy Meeting

When and Where
County Board of Supervisor's Boardroom, 1415 Melody Lane, Building G, Bisbee
December 12th, 2016, 1:00 – 3:00 AM

Agenda

1. Welcome and Introductions
2. Project Overview/Purpose
3. Project Schedule
4. Participation Requirements
5. Review of Past Jurisdictional Tasks
6. Mitigation Strategy
7. Future Monitoring
8. Additional Questions?

To-Do's

1. Review Past Mitigation Action/Project reporting
2. Identify New Mitigation Actions/Projects (at a minimum addressing 'high hazards')
3. Review Draft Updated Plan
4. Help to Disseminate Final Public Survey
5. Help to Disseminate Final Draft Plan for Public Review/Comment
6. Inform Your Communities About Mitigation Strategy

Michael Baker
INTERNATIONAL

We Make a Difference

Cochise County Multi-Jurisdiction Hazard Mitigation Plan
Mitigation Strategy Meeting

When and Where
County Board of Supervisor's Boardroom, 1415 Melody Lane, Building G, Bisbee
December 12th, 2016, 1:00 – 3:00 AM

Attendees

Name	Representing	Email
Lynn Kortehner	City of Douglas	
Jing Luo	Sierra Vista	
Tammy Mitchell	Town of Huachuca	
Kelly Norris	Town of Huachuca City	knorris@huachucacityaz.gov
Gale Robison	City of Willcox	
Andy Haratyk	City of Bisbee	
Bradley Simmons	Cochise County H & F	bsimmons@cochise.az.gov
Paul Esparza	Cochise County P & Z	pesparza@cochise.az.gov
Bradley J. Hamilton	City of Benson	bhamilton@bensonaz.gov
David Brewster	City of Tombstone	tombstonefire94@gmail.com
Norm Sturm	Cochise County OES	

Cochise County Hazard Mitigation Plan Update

As a participating member of the Cochise County Hazard Mitigation Planning Team, you serve as a vital link between the county and its jurisdictions, businesses, and residents. Individual jurisdictional and organizational representatives can help ensure a successful planning process by helping to inform your communities about this process and the ultimate goal of a more resilient Cochise County. Please leverage any opportunities that you may have to inform your jurisdictional staff and public about this important project (https://www.cochise.az.gov/emergency-services/2016-cochise-county-multi-jurisdictional-hazard-mitigation-plan-update).

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Jurisdiction/Organization:	Cochise County – Public Relations Dept
Meeting / Event :	Lisa Marra, Community Relations Administrator
Date:	
Location:	
Brief Description of outreach performed:	**Various:** Friday Focus Morning Radio Show – Norm Sturm 7/22/16 Daily Brief – Norm's email blast - ongoing CC Website Home page – 7/26/16 – scrolling photo County Facebook Pages – 7/26/16 Bookmobile – same Elfrida Library – same Bowie Library – same Sunsites Library – same Sunizona Library – same Portal Library - same *This will repeat on social media for the duration of the survey life and plan participation and be shared by over 2500 users.

Please return these forms to Mike Garner (mgarner@mbakerintl.com). Thanks for your participation.

Cochise County Hazard Mitigation Plan Update

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Jurisdiction/Organization:	Cochise County
Meeting / Event :	Update on Hazard Mitigation planning progress at County safety Officer's meeting
Date:	8/17/2016
Location:	County Highway Department meeting room
Brief Description of outreach performed:	Norm Sturm Gave a 10 minute update on the HMP planning purpose and progress.

Please return these forms to Mike Garner (mgarner@mbakerintl.com). Thanks for your participation.

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Jurisdiction/Organization:	Cochise County
Meeting / Event :	Update on Hazard Mitigation planning progress at the Cochise County Department Directors Meeting
Date:	9/7/2016
Location:	County BOS meeting room, Melody Lane Campus, Bisbee
Brief Description of outreach performed:	Norm Sturm Gave a 10 minute update on the HMP planning purpose and progress to Cochise County Department Directors and senior staff..

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Cochise County Hazard Mitigation Plan Update

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Jurisdiction/Organization:	Cochise County
Meeting / Event :	Update on Hazard Mitigation planning progress at the Cochise County Fire Association meeting
Date:	9/28/2016
Location:	Sunsites-Pearce Fire District
Brief Description of outreach performed:	Norm Sturm Gave a 10 minute update on the HMP planning purpose and progress to County Fire Chiefs and senior staff.

Please return these forms to Mike Garner (mgarner@mbakerintl.com). Thanks for your participation.

Cochise County Hazard Mitigation Plan Update

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Jurisdiction/Organization:	City of Douglas
Meeting / Event :	Distribution of Jurisdictional Risk Perception Survey
Date:	09/26/2016
Location:	City Hall, 425 10th Street, Douglas, AZ 85607
Brief Description of outreach performed:	Forwarded survey document to various department heads, with request that they forward to as many people as possible.

Please return these forms to Mike Garner (mgarner@mbakerintl.com). Thanks for your participation.

Cochise County Hazard Mitigation Plan Update

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Jurisdiction/Organization:	Town of Huachuca City
Meeting / Event :	Development Plan
Date:	September 12, 2016, October 12, 2016
Location:	Community Center
Brief Description of outreach performed:	This is for residents and business owners to present their input of Huachuca City Planning. This will help with Hazard mitigation with what the Town can do with shelters etc. Planning to incorporate the 2012 HMP to the City.

Please return these forms to Mike Garner (mgarner@mbakerintl.com). Thanks for your participation.

Cochise County Hazard Mitigation Plan Update

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Jurisdiction/Organization:	Town of Huachuca City
Meeting / Event :	Planning and Zoning Meeting
Date:	January 4 and February 1, 2017
Location:	Council Chambers 500 N Gonzales Blvd
Brief Description of outreach performed:	Discussion on incorporating the Hazard Mitigation Plan into or Development Plan. The Mitigation Plan will stand alone and also be within our City Plan for easy access. This is so the public can give their input on what they would like to see done for the Town. We are also putting this on water bills for those who could not attend to still get this information and know where to look for our plan.

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Jurisdiction/Organization:	City of Sierra Vista
Meeting / Event :	Phone call from Zimmerman
Date: after 6/8/16	
Location:	
Brief Description of outreach performed:	Surface Water Plan Update, floodplain at Player Avenue- Residents along player Avenue have been paying high prices for flood insurance. Their calls prompted staff to examine the Zone A floodplain in light of the new hydrology developed as part of the Surface Water Plan Update. The new hydraulic model shows that the breakout from the Country Club Estates Drainageway does not occur given the new flows. Therefore, staff has begun to prepare a Letter of Map Revision (LOMR) submittal to have the floodplain boundaries re-drawn. This has been in progress for approximately 2 years due to lack of resources to apply to the LOMR preparation. As an interim solution, approximate BFEs were established in the Zone A floodplain along Player Ave. It is hoped that residents can obtain an elevation certificate to lower their insurance premiums. Called asking about BFE's + had questions about ECs.

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Jurisdiction/Organization:	City of Sierra Vista
Meeting / Event :	Phone call From Zimmerman
Date: 4/14/16	2405 Player
Location:	
Brief Description of outreach performed:	Surface Water Plan Update, floodplain at Player Avenue- Residents along player Avenue have been paying high prices for flood insurance. Their calls prompted staff to examine the Zone A floodplain in light of the new hydrology developed as part of the Surface Water Plan Update. The new hydraulic model shows that the breakout from the Country Club Estates Drainageway does not occur given the new flows. Therefore, staff has begun to prepare a Letter of Map Revision (LOMR) submittal to have the floodplain boundaries re-drawn. This has been in progress for approximately 2 years due to lack of resources to apply to the LOMR preparation. As an interim solution, approximate BFEs were established in the Zone A floodplain along Player Ave. It is hoped that residents can obtain an elevation certificate to lower their insurance premiums. Called asking for information. His insurance rates increased.

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Cochise County Hazard Mitigation Plan Update

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Jurisdiction/Organization:	City of Sierra Vista
Meeting / Event :	Dissecussion of BFE, 2457 Player
Date: 6/17/16	
Location:	w/ owner Deb Gunsh
Brief Description of outreach performed:	Surface Water Plan Update, floodplain at Player Avenue- Residents along player Avenue have been paying high prices for flood insurance. Their calls prompted staff to examine the Zone A floodplain in light of the new hydrology developed as part of the Surface Water Plan Update. The new hydraulic model shows that the breakout from the Country Club Estates Drainageway does not occur given the new flows. Therefore, staff has begun to prepare a Letter of Map Revision (LOMR) submittal to have the floodplain boundaries re-drawn. This has been in progress for approximately 2 years due to lack of resources to apply to the LOMR preparation. As an interim solution, approximate BFEs were established in the Zone A floodplain along Player Ave. It is hoped that residents can obtain an elevation certificate to lower their insurance premiums. phone conversation + email exchange

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Cochise County Hazard Mitigation Plan Update

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Jurisdiction/Organization:	City of Sierra Vista
Meeting / Event :	Letters to homeowners
Date: 6/8/16	
Location:	
Brief Description of outreach performed:	Surface Water Plan Update, floodplain at Player Avenue- Residents along player Avenue have been paying high prices for flood insurance. Their calls prompted staff to examine the Zone A floodplain in light of the new hydrology developed as part of the Surface Water Plan Update. The new hydraulic model shows that the breakout from the Country Club Estates Drainageway does not occur given the new flows. Therefore, staff has begun to prepare a Letter of Map Revision (LOMR) submittal to have the floodplain boundaries re-drawn. This has been in progress for approximately 2 years due to lack of resources to apply to the LOMR preparation. As an interim solution, approximate BFEs were established in the Zone A floodplain along Player Ave. It is hoped that residents can obtain an elevation certificate to lower their insurance premiums. Mailed 16 letters to homeowners w/ site specific BFEs for their homes

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Cochise County Hazard Mitigation Plan Update

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Jurisdiction/Organization:	City of Sierra Vista
Meeting / Event :	Phone conversations with Cassius Mathews, 2431 Player
Date: 2014-2016	
Location:	
Brief Description of outreach performed:	Surface Water Plan Update, floodplain at Player Avenue- Residents along player Avenue have been paying high prices for flood insurance. Their calls prompted staff to examine the Zone A floodplain in light of the new hydrology developed as part of the Surface Water Plan Update. The new hydraulic model shows that the breakout from the Country Club Estates Drainageway does not occur given the new flows. Therefore, staff has begun to prepare a Letter of Map Revision (LOMR) submittal to have the floodplain boundaries re-drawn. This has been in progress for approximately 2 years due to lack of resources to apply to the LOMR preparation. As an interim solution, approximate BFEs were established in the Zone A floodplain along Player Ave. It is hoped that residents can obtain an elevation certificate to lower their insurance premiums. I've had close to 20 phone conversations w/ Mr Mathews regarding insurance; the modeling process; the responsibility of the City to Remodel the Player Floodplain

Please return these forms to Mike Garner (mgarner@mbakerintl.com). Thanks for your participation.

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Jurisdiction/Organization:	Tombstone
Meeting / Event :	Public Survey #2
Date:	January 19th, 2017
Location:	Tombstone Fire Dept. Facebook page
Brief Description of outreach performed:	General information along with a link to the survey was posted for public view.

Please return these forms to Mike Garner (mgarner@mbakerintl.com). Thanks for your participation.

Appendix C: Public Involvement Records

COCHISE COUNTY Arizona

HOME DEPARTMENTS NEWS CALENDAR JOBS ABOUT US

2016 Cochise County Multi-jurisdictional Hazard Mitigation Plan Update

Hom Emergency Services / County Emergency Plans / 2016 Cochise County Multi-jurisdictional Hazard Mitigation Plan Update

Welcome to the project webpage for the **2016 Cochise County Multi-jurisdictional Hazard Mitigation Plan Update.** Please check back often for project updates and postings. This webpage will be discontinued after the project is completed.

What is Hazard Mitigation?

The term "Hazard Mitigation" describes actions that can help reduce or eliminate long-term risks caused by hazards, or disaster, such as floods, hurricanes, wildfires, landslides, tornadoes, earthquakes, dam failures, or terrorism. As the costs of disasters continue to rise, governments and ordinary citizens must find ways to reduce hazard risks to our communities and ourselves. Efforts made to reduce hazard risks are easily made compatible with other community goals; safer communities are more attractive to employers as well as residents. As communities plan for new development and improvements to existing infrastructure, mitigation can and should be an important component of the planning effort.

While mitigation activities can and should be taken before a disaster event has the chance to occur, after disasters hazard mitigation is essential. Oftentimes after disasters, repairs and reconstruction are often completed in such a way as to simply restore damaged property to pre-disaster conditions. These efforts may "get things back to normal", but the replication of pre-disaster conditions often results in a repetitive cycle of damage, reconstruction, and repeated damage. Hazard mitigation breaks this repetitive cycle by producing less vulnerable conditions through post-disaster repairs and reconstruction. The implementation of such hazard mitigation actions now by state and local governments means building stronger, safer and smarter communities that will be able to reduce future injuries and future damage.

About the Project

Cochise County created its previous Mitigation Plan in accordance with the requirements of the Federal Stafford Act, the National Flood Insurance Act, and 44 Code of Federal Regulations (CFR). The last plan was approved by FEMA in 2012, and was adopted by the County Board of Supervisors and municipalities within Cochise County. These plans must be updated and approved by FEMA every five years.

Cochise County and its participating jurisdictions, agencies, and organizations are now in the process of

CONTACT US

Emergency Services Coordinator
Norman A. Sturm Jr., M.S., CEM

Locations
Main Office
1415 Melody Lane
Bldg A
Bisbee, AZ 85603
Ph: 520-432-9220
more...

LATEST NEWS

NEW! **Ready for Anything**

Communication, awareness keys to safety during disaster **BY AMANDA BAILLIE** For the Herald/Review

In case of emergency, follow Norm Sturm's advice.

As the go-to guy when a crisis...
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City of Sierra Vista
20 mins

This brief survey will help Cochise County update a plan that ensures our area is prepared for natural disasters and other hazards. Residents throughout the county are encouraged to offer their input.



Cochise County Hazard Mitigation Plan - Hazard Mitigation Strategy Survey

Welcome to Cochise County, Arizona

Public Programs...Personal Service

WHAT?

Disasters & Hazard Mitigation
living more safely on a restless planet

Cochise County Multi-Jurisdictional Hazard Mitigation Plan 2012

WHY?

Why have a hazard mitigation plan?
- Required to receive mitigation grant funding
- Prepared to act on projects when opportunity presents itself

Click here for Public Risk Perception Survey!

Last Day to Register to Vote in the Primary Election

Last day to register to vote in the Primary Election or to make any changes to your voter registration file such as change of address, party or your name is August 1, 2016. The Primary Election is Tuesday, August 30... Read more

AUGUST

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

UPCOMING EVENTS

08/01 Last Day to Register to...
08/03 Early Voting begins for...
08/04 ALICE Training - Naco...
08/11 ALICE Student Training...

NEWS

08/01 **2016 Over-the-Counter Sales** Selected properties within Cochise County held by...
08/01 **Cochise County Auctions Off Surplus**

MEETING INFO

Legal Notices
Other Public Meetings

CUSTOMER SURVEY

Take our survey.

EMERGENCY INFO

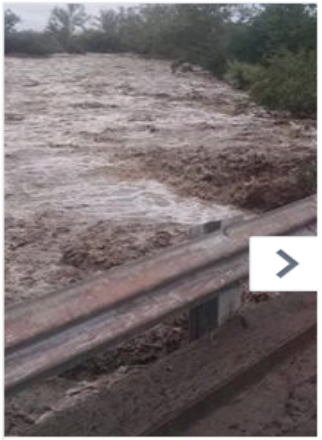
Cochise County
August 22 at 2:43pm

Multi-jurisdictional Hazard Mitigation Plan

Cochise County, along with all incorporated communities within the county, has begun the process of updating the county's Multi-jurisdictional Hazard Mitigation Plan (HMP). The current HMP was updated in 2012, and the Federal Emergency Management Agency (FEMA) requires the plan to be updated at least every five years. The County has set up a webpage dedicated to the HMP update - click on picture below for link.

The public as wel... See More





2016 Cochise County Multi-jurisdictional Hazard Mitigation Plan Update | Cochise County

2016 Cochise County Multi-ju Hazard Mitigation Plan Updat

BENSON, ARIZONA

Home of Kartchner Caverns State Park

Search



Home
Calendar - City Meetings
Summer Programs
City Pool
What to do Today
ADOT Traffic Alerts

City of Benson Begins Work on Hazard Mitigation Plan

A planning team comprised of representatives from the City of Benson, Arizona Department of Emergency Management and other Cochise County communities and organizationswill be meeting regularly to participate in a hazard mitigation planning process. The team will develop a Multi-Jurisdictional Hazard Mitigation Plan for Cochise County, according to The Disaster Mitigation Act of 2000 (DMA2K).

The DMA2K requires all local, county, tribal and state governments to have a FEMA approved hazard mitigation plan in order to be eligible for federal hazard mitigation funds. The plan will focus on the area's most threatening hazards to citizens and property and will provide a strategy to reduce or eliminate the risk from those hazards.

Quick Links

- *Apply for a City Job
- *Volunteer Opportunities
- Building Permits
- City Code of Ordinances
- Community Links
- Maps
- Online Business License Payment
- Online Utility Payment
- Police Department Employment
- Press Room
- Register to Vote
- Voting and Election Information
- Zoning Map Information

Development in City Hall. The Draft Annual Action Plan is also available here or by contacting Jenifer Thornton at (520) 439-2200 and requesting a copy.

Land Use Assumptions and Infrastructure Improvement Plan
On May 12, 2016, the Sierra Vista City Council adopted the Land Use Assumptions and Infrastructure Improvement Plan found by clicking on this link. This document will guide the Council's consideration of the City's updated development impact fees. A public hearing on the proposed fees has been scheduled for Thursday, June 23 at 5:00 p.m. during the City Council's regular meeting. The City Council will consider formal action at their regular meeting of July 28 at 5:00 p.m. Both meetings will be held in the City Council Chambers at City Hall.

Cochise County and its jurisdictions are in the

Sierra Vista

Visitor's Center

- Monday - Tuesday Hikers Group 7/19/2016 7:30 AM
- High Desert Farmers Market 7/20/2016 9:00 AM
- Tourism Commission 07/21/16 7/21/2016 8:00 AM

More |

Welcome to Douglas Arizona

City of Douglas

Home | Services | Government | Businesses | Gallery | Visitors | Employment | Contact

Home

City of Douglas Begins Work on Hazard Mitigation Plan

A planning team comprised of representatives from the City of Douglas, Arizona Department of Emergency Management and other Cochise County communities and organizations will be meeting regularly to participate in a hazard mitigation planning process. The team will develop a Multi-Jurisdictional Hazard Mitigation Plan for Cochise County, according to The Disaster Mitigation Act of 2000 (DMA2K).

City News

Community News & Events

- City of Douglas Begins Work on Hazard Mitigation Plan
- Official Election Results
- Unofficial Election Results
- CDBG Annual Action Plan (Draft)

Tombstone Fire Department

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Tombstone Fire Department

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August 22

Multi-jurisdictional Hazard Mitigation Plan

Cochise County, along with all incorporated communities within the county, has begun the process of updating the county's Multi-jurisdictional Hazard Mitigation Plan (HMP). The current HMP was updated in 2012, and the Federal Emergency Management Agency (FEMA) requires the plan to be updated at least every five years. The County has set up a webpage dedicated to the HMP update (https://www.cochise.az.gov/.../2016-cochise-county-multi-juri...) that contains the latest information regarding the current planning process. The public as well as area stakeholder groups are encouraged to provide input into the HMP update. A short public perception survey can be accessed at https://www.surveymonkey.com/r/CochiseHazardRisk.





PEOPLE ALSO LIKE

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The Old Tombstone Ga... — Media/News/Publishing — Like

Fire Stations in Tombstone, Arizona

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Tombstone Sarsaparilla — Like

The City of Willcox has been serving the community since 1915. We specialize in Customer satisfaction, and our City offers quality and reliable services you can count on. In addition, our friendly and professional staff is here to answer any questions you may have about our City or our services.

Whether you are visiting the area or relocating to Willcox, we have what you need at prices you can afford. At the City of Willcox, our goal is to provide you with courteous, expedient, professional service of the highest caliber.

Browse our Web site for more information about the City of Willcox. If you have any questions or would like to speak with a City of Willcox representative regarding our services, please e-mail us at city@willcoxcity.org or call us at 520-384-4271.

At the City of Willcox, the customer always comes first.

Opportunities to give

Donate

Public library

Welcome . . .



Historic Railroad Avenue, Willcox.

Originally known as "Maley", Willcox was founded in 1880 as a whistlestop on the Southern Pacific Railroad. It was later renamed in honor of General Orlando B. Willcox who arrived on the first train in 1880. The town was incorporated in 1915. Willcox has maintained its rural lifestyle through a strong agricultural and ranching economy.

Today is Mon, 1st August 2016

City of Willcox Notices

6th July 2016 **Quail Park Rodeo Grounds** CLOSED Quail Park Rodeo grounds is temporarily shut down due to storm damage. The City will not be accepting any reservations for Quail Park rodeo grounds until further notice.

22nd July 2016 **County Hazard Mitigation survey and information** Residents are being asked to participate in an eleven question survey regarding hazards and risks (at https://www.surveymonkey.com/r/CochiseHazardRisk) in the community. A link to the County's Hazard

Companion Websites

Willcox Tourism and Chamber
Cochise County Tourism Council
Willcox Unified School District
Northern Cochise Community Hospital
Willcox Historic Theater

Bill Pay

Xpress Bill Pay instructions
Xpress Bill Pay iOS App

Pay Bills on-line HERE

Community News

Whats Happening in Willcox
Quarterly City Newsletter

Facilities Reservations



City of Willcox
101 S. Railroad Ave Suite. B
Willcox, AZ 85643
520-384-4271
city@willcoxcity.org

Hours of operation:

HOME ABOUT MAYOR AND COUNCIL COMMISSIONS POLICE & FIRE TOWN CODE
IMPORTANT DOCUMENTS

Administrative
Elections
Library
Animal Shelter
Public Works
Landfill
Planning & Zoning
Magistrate
Transit
Procurement of Goods and Services/Job Openings
Community Events
Senior Center
Schools

Welcome to the Sunset City

Huachuca City is located on State Route 90 inSoutheastern Arizona. We are just minutes from the City of Sierra Vista and our neighbor the U.S. Army Base, Fort Huachuca. We are a small, vibrant rural town with the benefits of shopping and employment all around us!

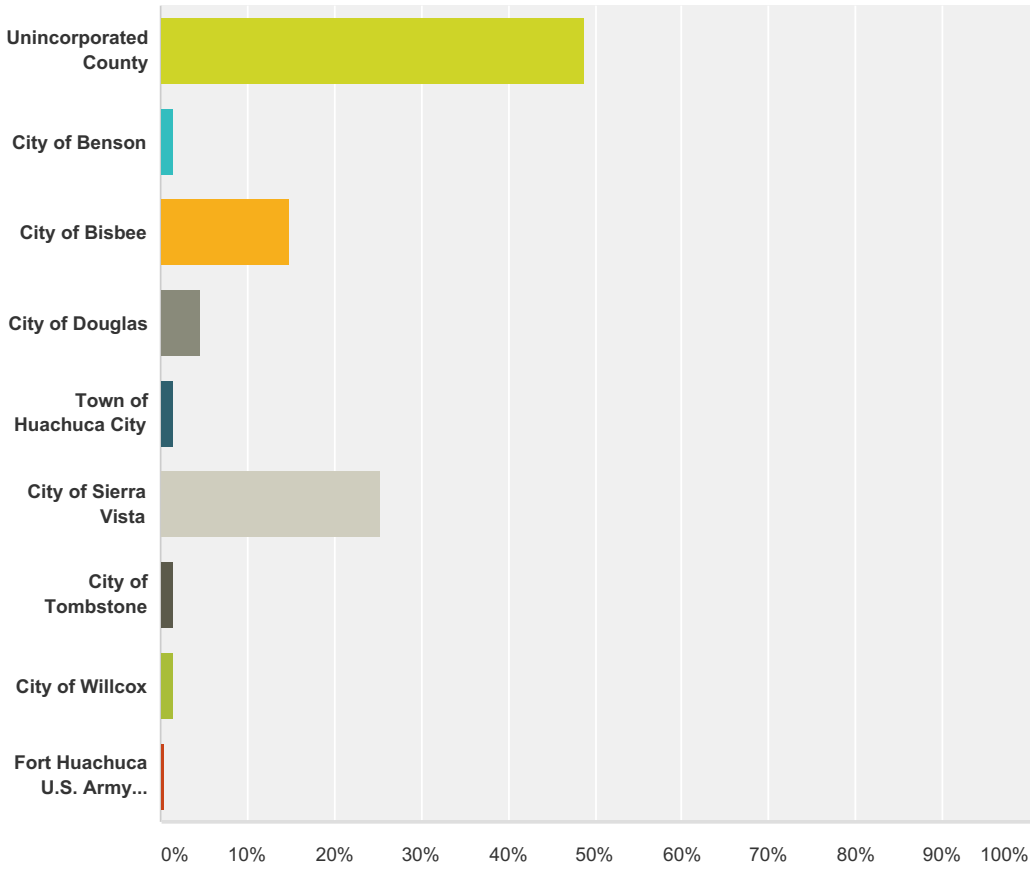
****** The Town of Huachuca City does not endorse or host any other websites, facebook pages, complaint forms, etc outside of this website. Any complaint forms from other sites do not go to Huachuca City Officials. These sites are held by individuals not associated with the Huachuca City Municipal Government. Any complaints for the Town of Huachuca City or the Huachuca City Police and Fire should be directed to Town Hall or the Police Department. ******

Cochise County Multi-Jurisdictional Hazard Mitigation Plan - Update Website

Cochise County Multi-Jurisdictional Hazard Mitigation Plan - Public Risk Perception Survey

Q1 Do you live in the Unincorporated County, or in one of its Cities?

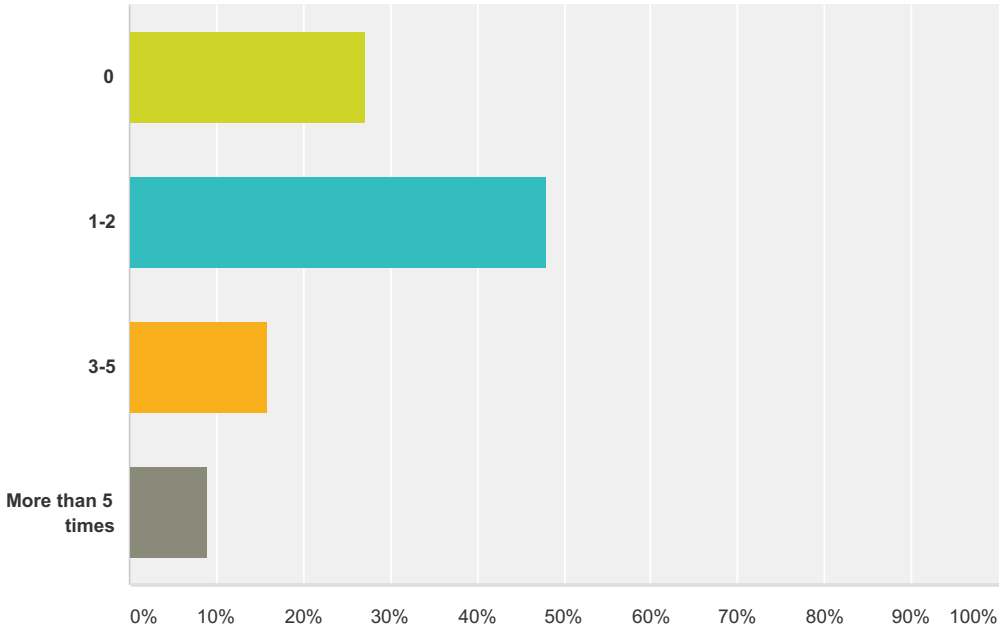
Answered: 258 Skipped: 0



Answer Choices	Responses	
Unincorporated County	**48.84%**	126
City of Benson	**1.55%**	4
City of Bisbee	**14.73%**	38
City of Douglas	**4.65%**	12
Town of Huachuca City	**1.55%**	4
City of Sierra Vista	**25.19%**	65
City of Tombstone	**1.55%**	4
City of Willcox	**1.55%**	4
Fort Huachuca U.S. Army Garrison	**0.39%**	1
Total		**258**

Q2 How many times has a natural hazard disrupted your daily life in the last five years?

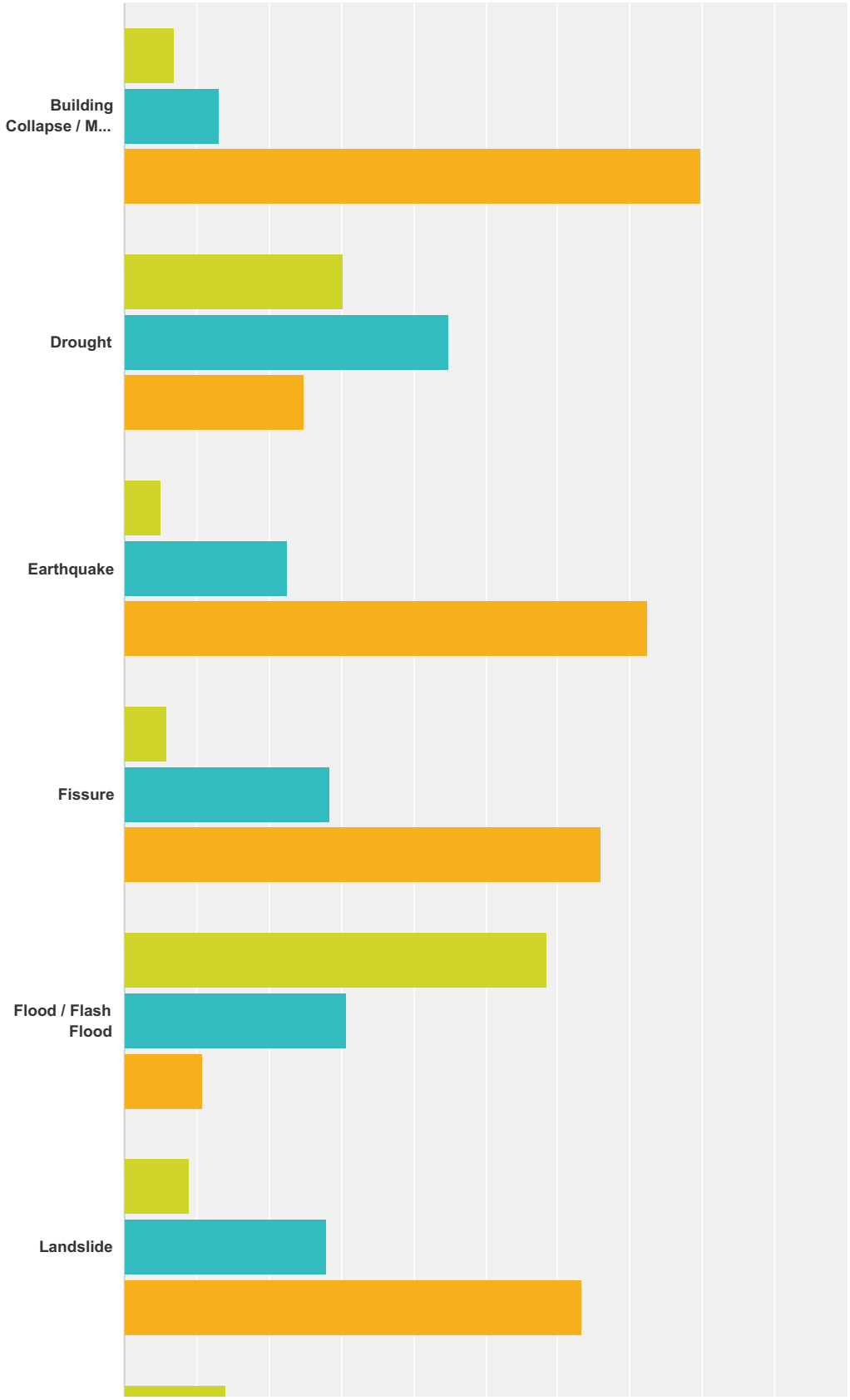
Answered: 258 Skipped: 0



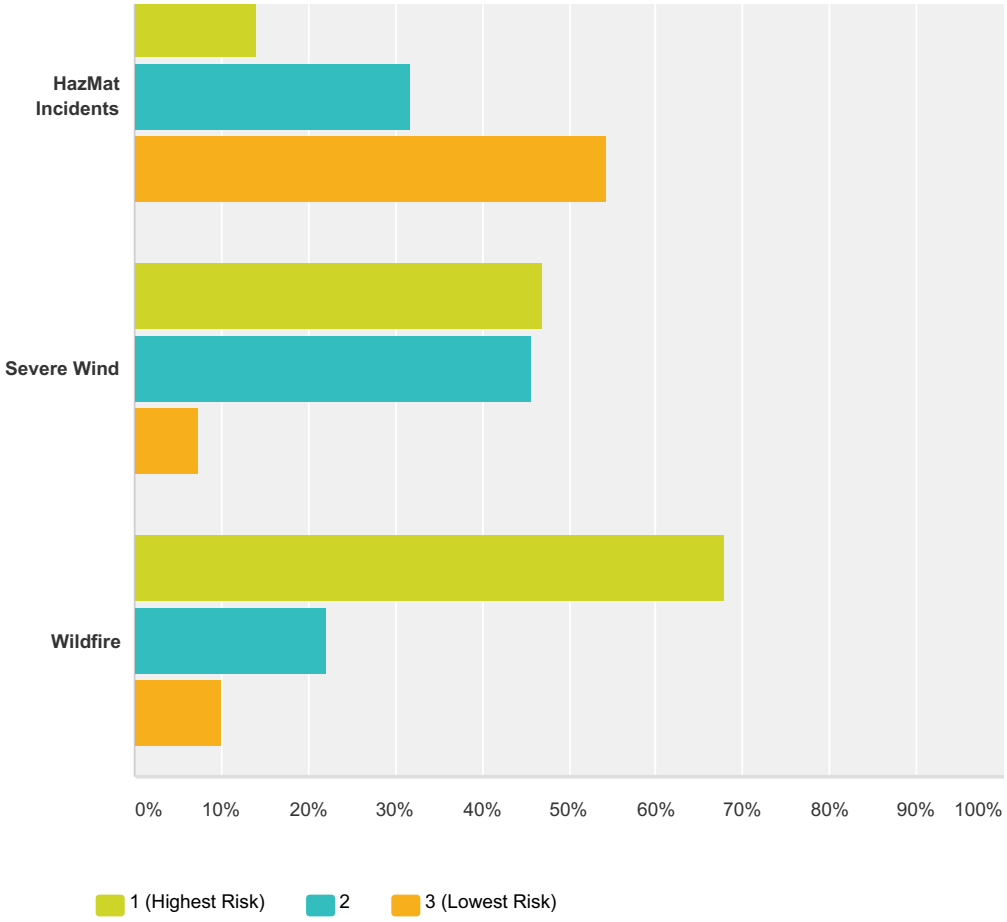
Answer Choices	Responses	
0	**27.13%**	70
1-2	**48.06%**	124
3-5	**15.89%**	41
More than 5 times	**8.91%**	23
Total		**258**

Q3 Please rank the following hazards based on the overall risk that they present.

Answered: 258 Skipped: 0



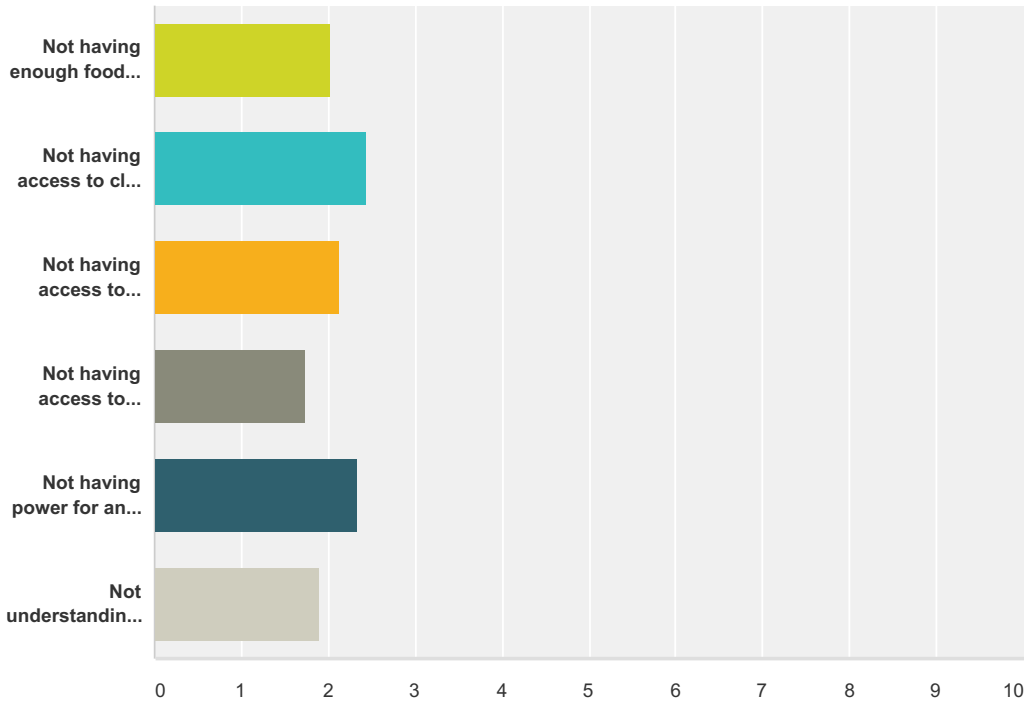
Cochise County Public Risk Perceptions



	1 (Highest Risk)	2	3 (Lowest Risk)	Total
Building Collapse / Mine Subsidence	**6.98%** 18	**13.18%** 34	**79.84%** 206	258
Drought	**30.23%** 78	**44.96%** 116	**24.81%** 64	258
Earthquake	**5.04%** 13	**22.48%** 58	**72.48%** 187	258
Fissure	**5.81%** 15	**28.29%** 73	**65.89%** 170	258
Flood / Flash Flood	**58.53%** 151	**30.62%** 79	**10.85%** 28	258
Landslide	**8.91%** 23	**27.91%** 72	**63.18%** 163	258
HazMat Incidents	**13.95%** 36	**31.78%** 82	**54.26%** 140	258
Severe Wind	**46.90%** 121	**45.74%** 118	**7.36%** 19	258
Wildfire	**67.83%** 175	**22.09%** 57	**10.08%** 26	258

Q4 How concerned are you about the following scenarios?

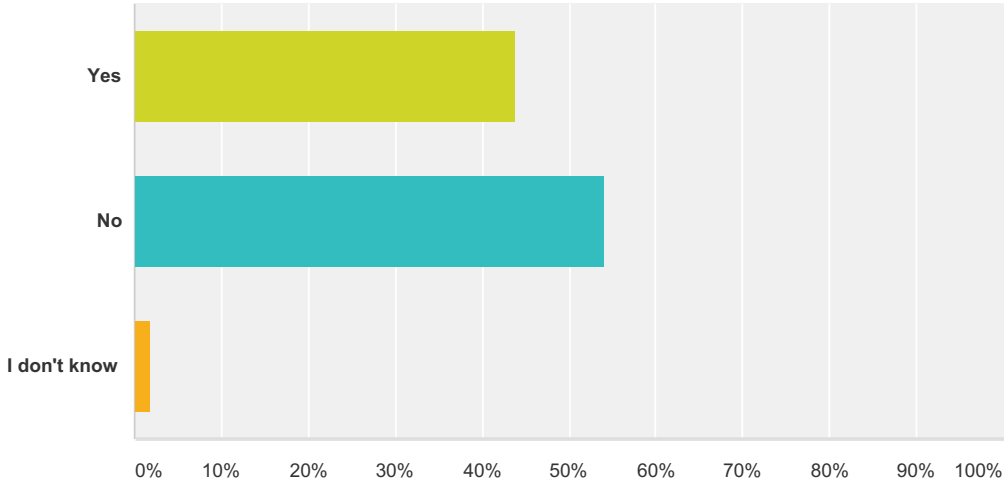
Answered: 258 Skipped: 0



	Not Concerned	Somewhat Concerned	Extremely Concerned	I don't know/no opinion	Total	Weighted Average
Not having enough food during a disaster	**20.39%** 52	**56.86%** 145	**22.35%** 57	**0.39%** 1	255	2.03
Not having access to clean water during a disaster	**7.00%** 18	**41.63%** 107	**51.36%** 132	**0.00%** 0	257	2.44
Not having access to medications during a disaster	**22.35%** 57	**44.31%** 113	**32.16%** 82	**1.18%** 3	255	2.12
Not having access to transportation in the event of an evacuation	**45.49%** 116	**36.47%** 93	**16.86%** 43	**1.18%** 3	255	1.74
Not having power for an extended period of time	**10.89%** 28	**43.97%** 113	**45.14%** 116	**0.00%** 0	257	2.34
Not understanding/hearing warning sirens or other warning messages	**35.32%** 89	**41.67%** 105	**21.83%** 55	**1.19%** 3	252	1.89

Q5 Do you have a preparedness kit?

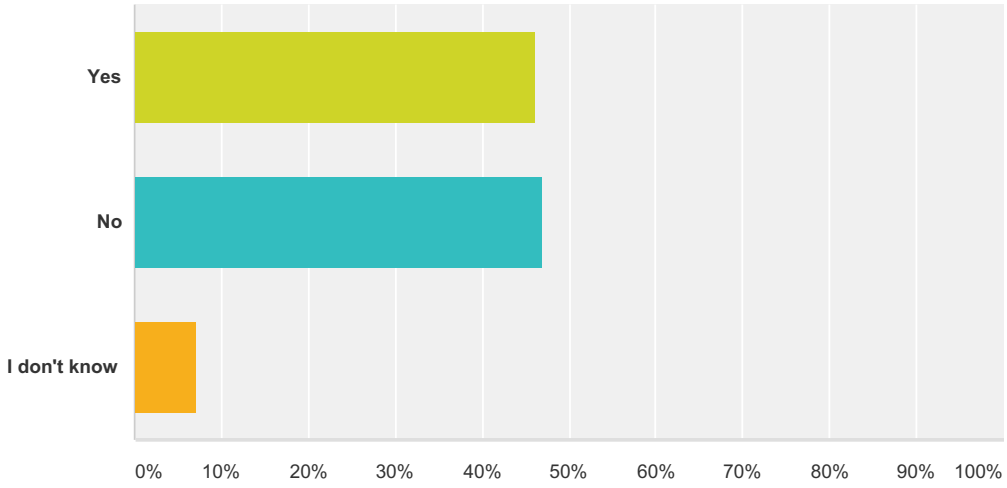
Answered: 255 Skipped: 3



Answer Choices	Responses	
Yes	**43.92%**	112
No	**54.12%**	138
I don't know	**1.96%**	5
Total		**255**

Q6 Have you taken any actions to make your home or neighborhood more resistant to hazards?

Answered: 256 Skipped: 2



Answer Choices	Responses	
Yes	**46.09%**	118
No	**46.88%**	120
I don't know	**7.03%**	18
Total		**256**

#	If yes, please explain	Date
1	Maintain grass	9/9/2016 10:18 PM
2	I have a countertop water filter and igloo jug, I always have 4-5 gallons of potable water available. Always have extra food, matches, radio, working vehicle with sufficient gas. Getting to know my neighbors and exchange contact info. Am designing water catchment zones to lessen runoff and grow food.	9/9/2016 1:34 PM
3	keep extra pet food on hand, keep car gas tank at least half full, have important documents in one place	8/24/2016 8:37 PM
4	clear home of excessive grass and weeds	8/24/2016 9:45 AM
5	Defensible area for wildfires	8/23/2016 4:20 PM
6	Strap water heater; berm to divert sheet flow to unused public land/wash to the south	8/22/2016 8:50 PM
7	I keep a fire break cut around my home and keep drainage areas clear for water	8/22/2016 2:38 PM
8	Called County when road needs maintenance. Sandbags.	8/22/2016 1:49 PM
9	30ft plus fire break around the house assist in road main. so we have an exit	8/22/2016 1:02 PM
10	30 ft perimeter , metal roofs	8/22/2016 12:26 PM
11	Mowing grass short around the house	8/22/2016 12:00 PM
12	Worked on road to improve drainage so that the road is passable during monsoon.	8/22/2016 11:17 AM
13	firewise mitigation around my house and outbuildings	8/22/2016 11:11 AM
14	Removing combustibles from around the buildings to create a firebreak	8/22/2016 9:41 AM

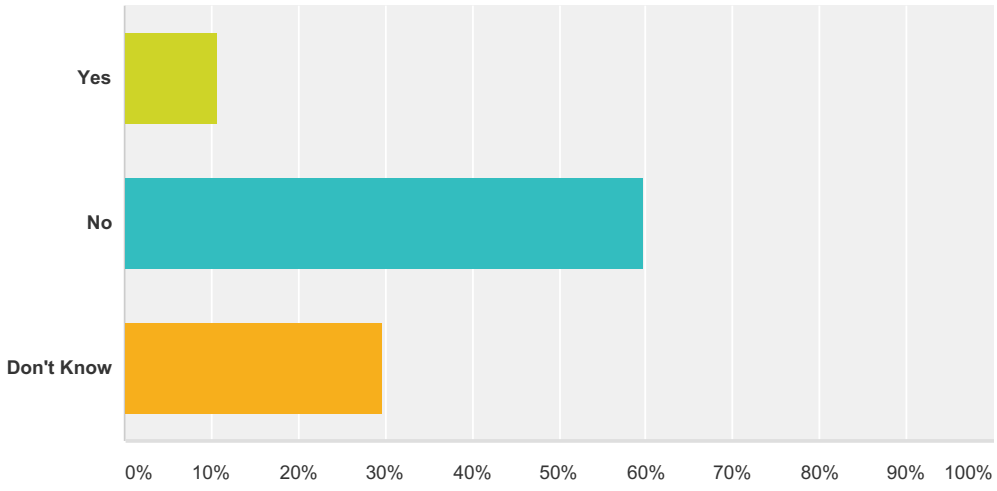
15	Try to keep dry brush cleared away from buildings; drainage ditch to carry off running water	8/20/2016 3:37 PM
16	Groun cleared	8/19/2016 4:53 PM
17	Clearing out all dry/dead vegatation away from structures	8/19/2016 2:17 PM
18	We have a plan and we have a binder of important documents that we can easily grab.	8/19/2016 2:00 PM
19	Land surrounding home kept cut/grazed so no fuel for gire	8/19/2016 12:49 PM
20	Keeping area clear around house - water storage	8/19/2016 12:10 PM
21	continually work on public roads that are not county maintained so there are more than one way in and out of our area	8/19/2016 11:25 AM
22	We have dry ditches to run water away from the house	8/19/2016 11:18 AM
23	keep living area clear of brush and fuel for fires	8/19/2016 11:18 AM
24	Brush clearing in areas near structures.	8/19/2016 10:25 AM
25	Defensible space (standoff) for fire, water storage.	8/19/2016 10:25 AM
26	Self reliance preparations.	8/17/2016 4:02 PM
27	cleaned a barrier of no plants, grass or weeds around my home.	8/17/2016 2:45 PM
28	Try to keep a fire area between the buildings.	8/17/2016 2:21 PM
29	I keep my grass mowed to the best of my ability and include mowing and mesquite trimming along our yard and the adjacent driveways of my neighbors.	8/17/2016 1:32 PM
30	Stockpile supplies	8/17/2016 12:49 PM
31	Gated entrance, stocked food, water	8/17/2016 10:04 AM
32	cutting back brush and grasses	8/17/2016 8:52 AM
33	cut weeds 50' from residence	8/17/2016 7:23 AM
34	Rainwater Collection, remove or cut grass/weeds back from house.	8/16/2016 8:48 PM
35	Have built up the foundation in case of flooding. Have food and water storage. Have plans with neighbors to assist each other in time of emergency.	8/16/2016 4:54 PM
36	Mowing weeds and keeping a 4 wheel drive auto at home	8/16/2016 4:12 PM
37	Kept bushes, grasses and trees trimmed around our home.	8/16/2016 4:08 PM
38	Cutting back vegetation,cutting in ditches,putting on a metal roof,collecting water,going solar.	8/16/2016 3:47 PM
39	keep weeds down close to the house	8/16/2016 2:57 PM
40	created wider clear spaces around structures, widened roadways for better ingress/egress	8/16/2016 2:03 PM
41	solar battery backup	8/16/2016 2:03 PM
42	Keep brush & grasses cut by home to prevent wildfire spread	8/16/2016 1:36 PM
43	Report anything that needs fixed.	8/16/2016 12:34 PM
44	clear vegetation around the house	8/16/2016 12:29 PM
45	We have sandbagged in our neighborhood.	8/16/2016 12:21 PM
46	Keep the grass and weeds around property cut/trimmed back	8/16/2016 12:07 PM
47	Live on a dirt road; made caverns on sides to re-direct water.	8/16/2016 12:03 PM
48	Extra batteries, flashlights and oil lamps on hand. One week supply of extra medication, water and food at home. Have made arrangements for a place to stay and keep a bag packed with extra medicine, clothing, toiletries in car in case cannot make it home.	8/16/2016 11:44 AM
49	keep area clear of brush/debris	8/16/2016 11:40 AM
50	House is built above ground level	8/16/2016 11:39 AM
51	I keep my brush cleared from around my home for a defensible area of at least 30 feet. I have a metal roof on my home. I have some channelling to divert water around my home.	8/16/2016 11:26 AM

52	We keep the fule for fires cut as short as possible	8/16/2016 11:24 AM
53	Keep brush clean around home, metal roof(more durable)	8/16/2016 11:21 AM
54	Keeping the yard clean and keeping water and ammo stored.	8/16/2016 11:20 AM
55	Cutting back growth around house and trees/	8/16/2016 11:03 AM
56	extra water, fire extinguisher, cutting weeds, flashlights, candles, bleach	8/16/2016 10:55 AM
57	trimmed all trees that are close to our home	8/16/2016 10:42 AM
58	cut down trees close to house in case of fire, dug areas for floodwater to flow away from house.	8/16/2016 10:40 AM
59	water diversion channels in our front and back yard in case of heavy rain or flooding	8/16/2016 10:37 AM
60	dry/canned food, water, first aid	8/16/2016 10:31 AM
61	prepared for flooding - sandbags, barriers	8/16/2016 10:29 AM
62	Remove flammable material away from home and yard; store chemicals in safe place; maintain household appliances; adhere to flashflood warnings; aware of fire-level warning at all times	8/16/2016 10:29 AM
63	property maintenance	8/16/2016 10:27 AM
64	Brush cleaned around home	8/16/2016 10:26 AM
65	brush/grass cut low, generator to provide power	8/16/2016 10:18 AM
66	trim down property keep well maintained	8/16/2016 10:18 AM
67	fire prevention measures	8/16/2016 10:14 AM
68	Food stockpile	8/16/2016 10:12 AM
69	50' perimeter around home cleared of fire fuel	8/16/2016 10:12 AM
70	keeping several 5 gallon bottles of water on hand, 3 BBQ propane tanks full at all time	8/16/2016 10:10 AM
71	Brush clearance	8/16/2016 10:09 AM
72	Clear fire hazards, secure items during high winds	8/16/2016 10:09 AM
73	removed brush near house, reworked yard/driveway to help prevent in case of extreme flood waters	8/16/2016 10:09 AM
74	Keep vegitation cleared around my home for fire prevention	8/16/2016 10:07 AM
75	Cut 'safe space' around property.	8/16/2016 10:04 AM
76	Keep weeds & grass away from structures on property	8/16/2016 10:04 AM
77	Generic stockpiling of necesseties.	8/16/2016 10:03 AM
78	Firewise trimming around my house	8/16/2016 9:43 AM
79	Have a water truck, grader, mower, and a generator. We mow a fire break, fill truck before power is out, keep water running to low ground.	8/14/2016 3:44 PM
80	Weed abatement	8/5/2016 10:29 AM
81	generator, fuel, xtra food	8/4/2016 10:00 PM
82	Cleared property 30 ft around to prevent wildfure from speading	8/4/2016 4:29 PM
83	Reduced vegetation, added rock groundcover	8/4/2016 4:02 PM
84	Purchased sandbags to prevent flood.	8/1/2016 9:11 PM
85	Secure moveable items outside, to withstand wind. Avoid plantings around house, using non flammable materials instead.	8/1/2016 10:19 AM
86	Secure moveable items outside, to withstand wind. Avoid plantings around house, using non flammable materials instead.	8/1/2016 10:15 AM
87	stored food, water, amateur radio & RACES affiliation, CERT	8/1/2016 10:11 AM
88	Keeping grass and weeds under control; water harvesting.	7/27/2016 10:47 AM
89	Cleared brush away from structures	7/26/2016 8:28 PM

90	Clearing vegetation which is a potential fire hazard.	7/22/2016 5:22 PM
91	30' defensible zone around home	7/22/2016 4:04 PM
92	Keep vegitation cut around property	7/21/2016 9:32 PM
93	My own prep, water food meds, etc generator	7/20/2016 5:06 PM
94	Keeping out side free of excess trees/brush. Ensuring proper drainage of water outside. Inside of house fire safe. Calling utilities prior to digging.	7/20/2016 3:07 PM
95	Fire-scaping, keeping brush from building up. Upgrading drainage around the house.	7/20/2016 11:02 AM
96	Water containers, food preparation	7/20/2016 9:43 AM
97	Clear space around home/buildings. Water and food storage	7/20/2016 8:06 AM
98	Fortified garage for secure storage.	7/14/2016 5:37 PM

Q7 Is your home or business currently in a FEMA designated floodplain?

Answered: 256 Skipped: 2



Answer Choices	Responses	
Yes	**10.55%**	27
No	**59.77%**	153
Don't Know	**29.69%**	76
Total		**256**

Q8 What currently mapped floodplains would you like to see revised or corrected?

Answered: 69 Skipped: 189

#	Responses	Date
1	All Flood Zone A to reflect the true Base Flood Elevation or Flood risk	10/5/2016 6:54 PM
2	n/a	9/28/2016 3:48 PM
3	na	8/30/2016 3:32 PM
4	St David	8/23/2016 8:58 AM
5	N/A	8/22/2016 2:38 PM
6	I have flood insurance thought I'm not required (not in a designated floodplain). I don't know what the benefit/risk is to revising/correcting the plains.	8/22/2016 11:11 AM
7	Didn't know there was any.	8/20/2016 10:01 PM
8	Don't know	8/19/2016 8:52 PM
9	not sure	8/19/2016 7:36 PM
10	All of them. The inaccuracy of the floodplain in SV Estates 2 is inexcusable.	8/19/2016 2:00 PM
11	Runoff area in Palominas from Huachucas.	8/19/2016 12:10 PM
12	NA	8/19/2016 11:25 AM
13	don't know	8/19/2016 10:33 AM
14	Don't know.	8/19/2016 10:25 AM
15	Warren/Galena floodplains	8/19/2016 10:13 AM
16	n/a	8/18/2016 11:00 AM
17	the area of galileo in sierra vista	8/17/2016 11:44 PM
18	The county should prioritize that, I don't know.	8/17/2016 6:30 PM
19	Flood zone	8/17/2016 4:39 PM
20	None	8/17/2016 2:45 PM
21	drainage from Carr Canyon, Ramsey Canyon, etc.	8/17/2016 1:32 PM
22	Hereford/Palominas	8/17/2016 11:28 AM
23	Don't know	8/17/2016 10:04 AM
24	Unknown	8/17/2016 8:49 AM
25	AE	8/16/2016 4:54 PM
26	FEMA has recently revised our home in a flood plain. Neighbors who have lived there for 4 generations have never experienced flooding. Feel that the government wants us to purchase insurance so it takes the burden off of us.	8/16/2016 4:54 PM
27	Coronado estates	8/16/2016 4:12 PM
28	Area of Hereford, especially Miller Canyon Area and across Hwy 92 area	8/16/2016 4:11 PM
29	All of them (?)	8/16/2016 4:08 PM
30	Don't know	8/16/2016 3:47 PM
31	where APN 102.31.144 is located	8/16/2016 1:36 PM
32	Unknown	8/16/2016 12:29 PM
33	None	8/16/2016 12:21 PM

34	I don't know what section it is under but since paving the roads in sunset acres area, the water run off is so fast there is no accumlation. I think the flood plain has probably changed now and should be reviewed. My location is likely not as high a risk anymore.	8/16/2016 12:07 PM
35	Lower Huachuca City should be re-designated	8/16/2016 11:36 AM
36	Several should be mapped that have not been	8/16/2016 11:25 AM
37	Have no Idea were to find them in the first place	8/16/2016 11:24 AM
38	NA	8/16/2016 11:21 AM
39	Entire county is overdue, i believe	8/16/2016 11:07 AM
40	entire county	8/16/2016 10:55 AM
41	dont know	8/16/2016 10:55 AM
42	Pirtleville, Az	8/16/2016 10:42 AM
43	Willcox Area	8/16/2016 10:38 AM
44	Dont know	8/16/2016 10:37 AM
45	n/a	8/16/2016 10:31 AM
46	Not sure - Newly moved to Area	8/16/2016 10:29 AM
47	Don't let builders develop the flood plains!	8/16/2016 10:18 AM
48	Moson Rd / Whetstone	8/16/2016 10:18 AM
49	NA???	8/16/2016 10:10 AM
50	Not sure. Map on Floodplain page is terrible.	8/16/2016 10:10 AM
51	unknown	8/16/2016 10:09 AM
52	100 yr flood	8/16/2016 10:04 AM
53	The above question #7 is misleading...we are ALL in a floodplain, it just depends at what level of risk. You should consider revising this question.	8/16/2016 10:04 AM
54	All should be updated more frequently than they are.	8/16/2016 10:03 AM
55	don't know	8/16/2016 10:01 AM
56	N/A	8/16/2016 9:43 AM
57	All	8/4/2016 4:29 PM
58	Palominas	8/4/2016 4:02 PM
59	High knolls area	8/2/2016 4:04 PM
60	I'd like to be able to find the maps	8/1/2016 10:11 AM
61	n/a	7/28/2016 8:59 AM
62	Lower Huachuca City	7/26/2016 9:46 AM
63	all of Cochise County, and esp the roads	7/22/2016 5:54 PM
64	Unknown	7/22/2016 5:22 PM
65	willcox	7/22/2016 4:04 PM
66	n/a	7/20/2016 5:06 PM
67	All within Sierra Vista	7/20/2016 11:02 AM
68	Palominas/Hereford area	7/20/2016 8:06 AM
69	All in City of Douglas. All are inaccurate.	7/14/2016 5:37 PM

Q9 If you responded to the previous Question 8: What Information do you have (technical knowledge, living in the areas for many years without flood issues, photos, etc) that leads you to believe the floodplain mapping is presently incorrect?

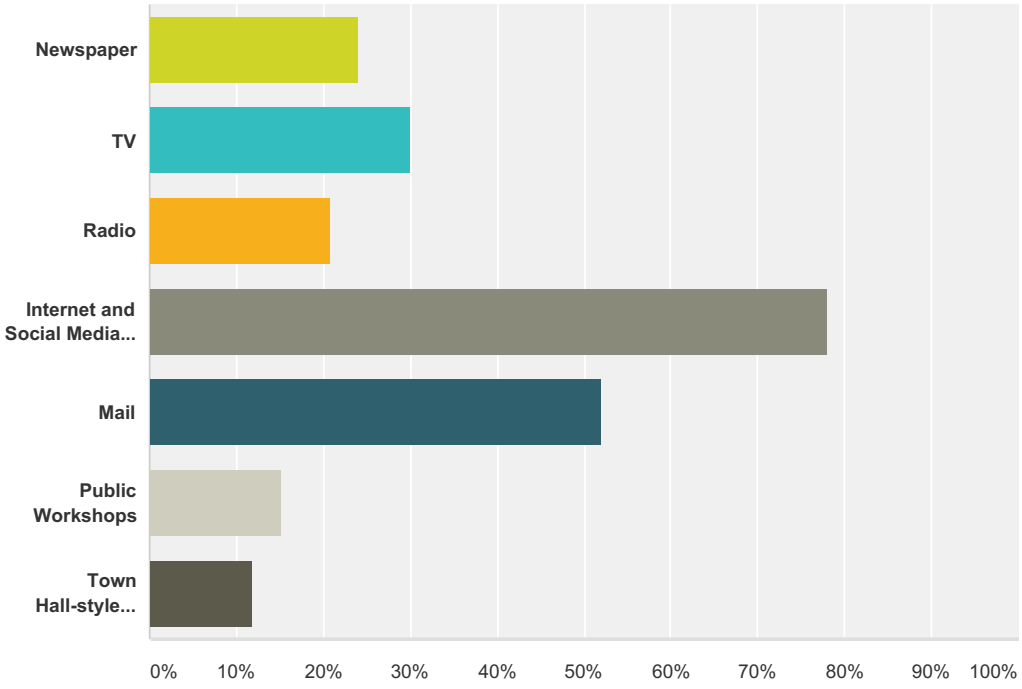
Answered: 55 Skipped: 203

#	Responses	Date
1	I work in the Floodplain dept.	10/5/2016 6:54 PM
2	Chippewa street in hereford is a disaster put county doesn't maintain ourselves and neighbors are sometimes stuck and I have no idea how emergency respondes could get to some not only on chippewa.	9/9/2016 10:18 PM
3	na	8/30/2016 3:32 PM
4	seen old floodplain maps that showed most of St David flooding	8/23/2016 8:58 AM
5	N/A	8/22/2016 2:38 PM
6	I think my area is just (possibly) underrepresented due to very limited population and narrow risk.	8/22/2016 11:11 AM
7	Didn't know there was any flood mapping, maybe that's what needs to be corrected. Informing the general public.	8/20/2016 10:01 PM
8	Husband has lived here since 74 and I since 81 and quite frankly, the wash near us has run banked to bank without any impact on our property but our property was tagged. We spent a lot of money to have our home surveyed to make sure it did not rest in the flood zone. Here's reality... you cannot insure land... only the buildings. The mortgaged building does not lie in the flood zone. But a small corner of the land does, even though in the many years we have lived here, we have never seen the running wash further than the wash itself.	8/19/2016 2:00 PM
9	I've lived here for 15 years - just want to know if there is more we should be prepared for with flooding.	8/19/2016 12:10 PM
10	NA	8/19/2016 11:25 AM
11	Problem is the Mine tailing that are draining into Galena	8/19/2016 10:13 AM
12	i don't have any	8/17/2016 11:44 PM
13	I don't have that information, the county should have it.	8/17/2016 6:30 PM
14	My last elevation that was taken to get flood insurance, that was requested by my mortgage company. I have lived in the same house for more than 20 years and just recently I needed to get flood insurance.	8/17/2016 4:39 PM
15	most of the runoff during high rain volume overfills the intended stream beds and ends up eroding the road on Moson, Ramsey	8/17/2016 1:32 PM
16	The past 5 years the flooding varies from the map	8/17/2016 11:28 AM
17	Don't know	8/17/2016 10:04 AM
18	We do have the federal flood insurance just in case.	8/17/2016 8:55 AM
19	Unknown	8/17/2016 8:49 AM
20	Being a Building Inspector, there are several areas in the county that have hazards of sheet flooding, 2" to 6" but they are required to elevate 2' to 3'.	8/17/2016 7:23 AM
21	We have a drainage ditch beside our home. We are zoned AE since the drainage is so close. We need flood insurance for that reason.	8/16/2016 4:54 PM
22	No flooding in the last 4 generations.	8/16/2016 4:54 PM
23	My home is listed as C but more that once have I had flood waters on my land	8/16/2016 4:12 PM
24	with the fires of the hereford area a few years ago, flood issues have developed along hwy 92 area's, these areas have gone unimproved upon since then.	8/16/2016 4:11 PM

25	I don't. I don't know how long it has been since mapping was completed. I do know that things can change.	8/16/2016 4:08 PM
26	N/A	8/16/2016 3:47 PM
27	Living in the area for many years without flood issues.	8/16/2016 1:36 PM
28	N/A	8/16/2016 12:29 PM
29	I've lived on Kentucky st. in Sunset acres for almost 10 years now and have never had even close to flooding in the area. Since the paving of the roads 4-5? years ago, the run off is so fast there is no water accumulation anymore. I think the flood zone has definitely changed and is no longer the risk it was 10 or more years ago.	8/16/2016 12:07 PM
30	There seems NO evidence to support the current designation given improvements over the last two decades.	8/16/2016 11:36 AM
31	Civil Engineer with experience in performing flood plain studies. Many in the County are by visual estimating rather than actual ground contours.	8/16/2016 11:25 AM
32	NA	8/16/2016 11:21 AM
33	Private developers seeking approvals have identified numerous areas where maps are out of date in recent years. I believe P&Z is aware of these areas.	8/16/2016 11:07 AM
34	I believe some areas are incorrectly included in the floodplain.	8/16/2016 10:55 AM
35	have lived there 55 yrs never seen it or heard of it flooding - yet paid for flood insurance for 20 yrs because I live in a flood zone	8/16/2016 10:42 AM
36	Needs updated	8/16/2016 10:38 AM
37	New to the Area - Not yet known	8/16/2016 10:29 AM
38	I am really old and I was born here!	8/16/2016 10:18 AM
39	not sure they are incorrect, but a new up to date mapping cant hurt.	8/16/2016 10:18 AM
40	N/A	8/16/2016 10:09 AM
41	The drainage in the Sulphur Springs Valley would not allow flooding near my property.	8/16/2016 10:04 AM
42	Same as above	8/16/2016 10:04 AM
43	My family has been here for over 20 years and there has been one adjustment of the floodplain to my knowledge. There are definitely areas that need to be reevaluated and it should be easier to access and understand.	8/16/2016 10:03 AM
44	I know that before Hereford Rd was widened, a ditch ran on the low side (north) of the road and the roads running north didn't wash out like they do now. We own Dos Amigos and it is a mess unless we fix it frequently. I saw pictures of the roads on this north side this year that looked like rivers.	8/14/2016 3:44 PM
45	Its obvious to anyone that has lived here..	8/4/2016 4:29 PM
46	Damage to schools	8/4/2016 4:02 PM
47	Live in the area for 10 years. 2 of the 3 deaths from swift water have been in the high knoll area. I'm a swiftwater tech.	8/2/2016 4:04 PM
48	I'd like to be able to find the maps!	8/1/2016 10:11 AM
49	The Babacarmi has been changed.	7/26/2016 9:46 AM
50	several of the roads are flooded during heavy rains despite not being in floodplains	7/22/2016 5:54 PM
51	Unknown	7/22/2016 5:22 PM
52	no flood damage reported in over 50 years	7/22/2016 4:04 PM
53	Erosion happened. We haven't been hit by a hurricane for years and no one realizes how much water will flow when one hits (Like Tucson's flood of '93)	7/20/2016 11:02 AM
54	Update FEMA maps! Many areas are no longer subject to flooding due to recharge projects the County has put in place (Palominas) Flood insurance is hugely expensive and a deterrent to many people selling homes/property. We have had a surveyors report done which shows we are not prone to flooding and yet no one wants to pay the expense to have the maps updated.	7/20/2016 8:06 AM
55	Maps show water backed up on downslope side of berms, no basis for edges of floodplains.	7/14/2016 5:37 PM

Q10 What is the most effective way for you to receive information about how to make your home and neighborhood more resistant to hazards (you may select more than one)?

Answered: 250 Skipped: 8



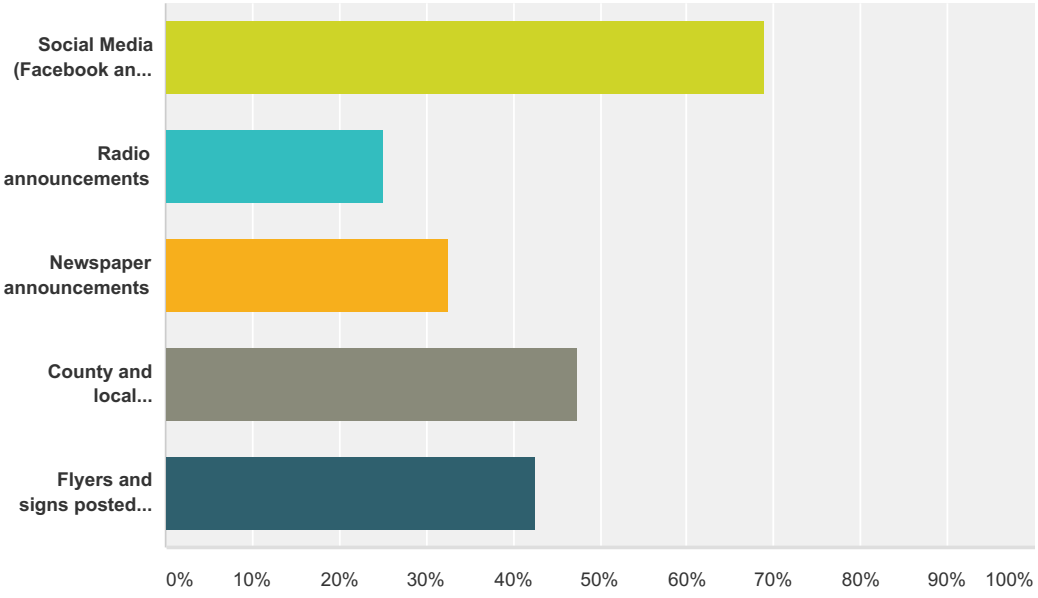
Answer Choices	Responses	
Newspaper	**24.00%**	60
TV	**30.00%**	75
Radio	**20.80%**	52
Internet and Social Media (Twitter, Facebook)	**78.00%**	195
Mail	**52.00%**	130
Public Workshops	**15.20%**	38
Town Hall-style Meetings	**12.00%**	30
Total Respondents: 250		

#	Other (please specify)	Date
1	email	10/5/2016 6:54 PM
2	Home & Garden Show; partnerships with Cochise College & The Water Project & U OF A SOUTH	8/22/2016 8:50 PM
3	Text messaging	8/22/2016 2:38 PM
4	Email	8/22/2016 1:49 PM
5	Internet. We don't have TV and no radio reception.	8/22/2016 11:17 AM

6	online and text alerts	8/22/2016 9:41 AM
7	Texting alerts to updates or events	8/19/2016 11:38 PM
8	Pointless on tv for rural people, still only get Tucson news as we only have satellite tv. Can't even access Sierra vista tv. Why wasn't this resolved after 911?	8/19/2016 12:49 PM
9	Text	8/19/2016 11:53 AM
10	The town hall meetings were terrific during the monument fire	8/19/2016 11:18 AM
11	On site inspection (Whetstone Fire)	8/19/2016 10:25 AM
12	Visit schools and let the kids know too.	8/17/2016 2:45 PM
13	Cell alerts	8/17/2016 12:49 PM
14	Cell phone warning from county	8/17/2016 10:04 AM
15	email and text message alerts	8/16/2016 5:35 PM
16	cell phone alerts	8/16/2016 4:14 PM
17	text	8/16/2016 3:23 PM
18	cell phone	8/16/2016 1:02 PM
19	Text message via cell phone	8/16/2016 11:39 AM
20	all	8/16/2016 10:55 AM
21	neighbors & dog walkers	8/16/2016 10:18 AM
22	County Email to All Staff	8/16/2016 10:10 AM
23	E-Mail	8/16/2016 10:04 AM
24	Cellphone Text	8/5/2016 3:07 PM
25	SMS texts would make the most sense in reaching the greatest amount of people quickly with emergency alerts	8/4/2016 8:51 PM
26	county website. FORGET social media, I never use it	8/1/2016 10:11 AM
27	Text message alerts	7/20/2016 11:02 AM

Q11 What is the best way for your local emergency manager to contact you about future planning activities, surveys, meetings, and announcements? Please select any options that would work well for you.

Answered: 251 Skipped: 7



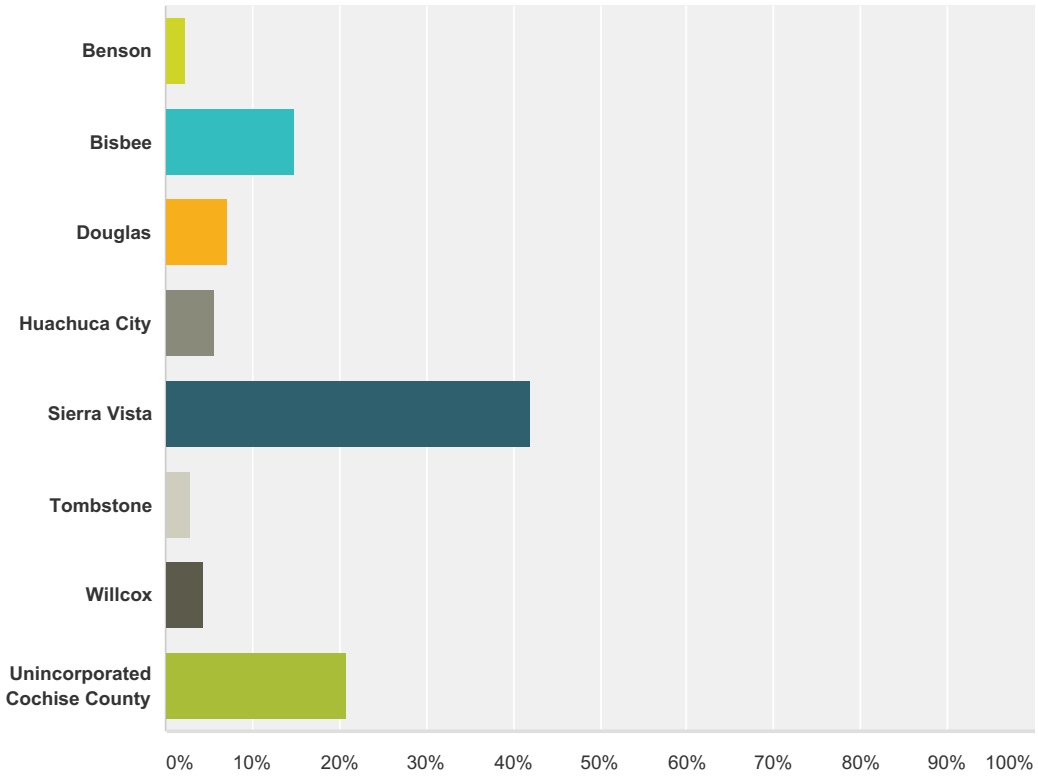
Answer Choices	Responses	
Social Media (Facebook and Twitter)	**68.92%**	173
Radio announcements	**25.10%**	63
Newspaper announcements	**32.67%**	82
County and local jurisdiction Websites	**47.41%**	119
Flyers and signs posted in public places	**42.63%**	107
Total Respondents: 251		

#	Other (please specify)	Date
1	email	10/5/2016 6:54 PM
2	Email	9/9/2016 1:34 PM
3	Email	8/22/2016 10:27 PM
4	Text messaging	8/22/2016 2:38 PM
5	Email	8/22/2016 11:17 AM
6	County emails?	8/22/2016 11:11 AM
7	mail	8/22/2016 10:05 AM
8	Online notices - I received the Daily Brief	8/22/2016 9:41 AM

9	Texting and Facebook are the best	8/19/2016 11:38 PM
10	Cell phone- like the CC emergency test service	8/19/2016 4:15 PM
11	Text	8/19/2016 11:53 AM
12	HOA	8/19/2016 10:25 AM
13	Text	8/19/2016 10:13 AM
14	Email	8/18/2016 11:00 AM
15	Mail	8/17/2016 6:30 PM
16	Tucson TV stations ABC, NBC and CBS	8/17/2016 2:45 PM
17	Cell alerts	8/17/2016 12:49 PM
18	e-mail	8/17/2016 7:23 AM
19	email	8/16/2016 8:48 PM
20	email and text message alerts	8/16/2016 5:35 PM
21	cell phone alerts	8/16/2016 4:14 PM
22	Mailings to the residential addresses. alot of people living in modest means, don't have social media or leave their homes. elderly people living in rural areas need to be contacted as well.	8/16/2016 4:11 PM
23	mail	8/16/2016 2:57 PM
24	cell phone and email	8/16/2016 1:02 PM
25	Text messages	8/16/2016 12:49 PM
26	Mail	8/16/2016 11:44 AM
27	County Staff Email	8/16/2016 10:10 AM
28	Cell Phone notifications similar to emergency notifications.	8/16/2016 10:04 AM
29	Email alerts	8/4/2016 4:02 PM
30	Would like to use this forum to point out a problem. I receive text notifications that give severe warning alerts. But, *county-wide* alerts are not useful. Our county is huge! For me, in Palominas, an alert about something happening in Portal is not helpful. These text alerts are so over broad as to be useless for me. A flash flood watch "for Cochise County" does not tell me whether I need to do anything special in my *PART* of Cochise County.	8/1/2016 10:19 AM
31	Would like to use this forum to point out a problem. I receive text notifications that give severe warning alerts. But, *county-wide* alerts are not useful. Our county is huge! For me, in Palominas, an alert about something happening in Portal. These text alerts are so over broad as to be useless for me.	8/1/2016 10:15 AM
32	option on CC Alerts to receive such info	8/1/2016 10:11 AM

Q1 What jurisdiction do you live in?

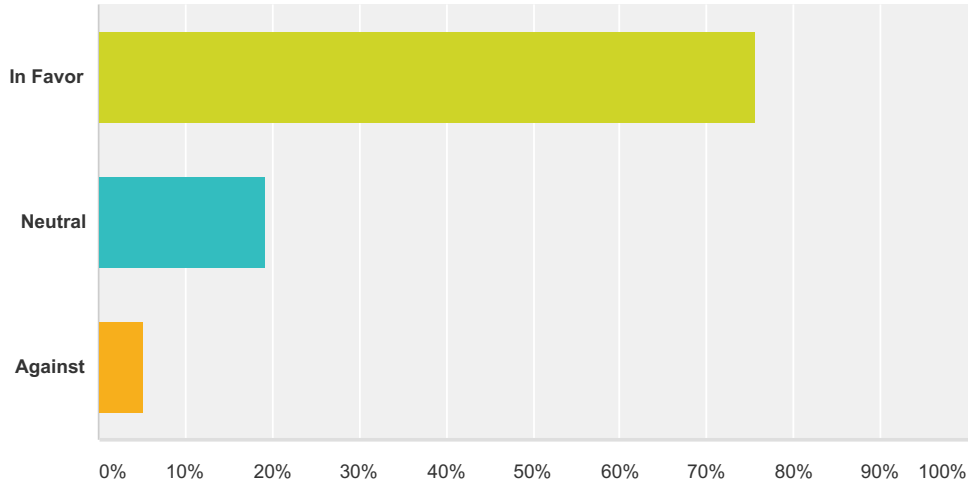
Answered: 210 Skipped: 0



Answer Choices	Responses	
Benson	2.38%	5
Bisbee	14.76%	31
Douglas	7.14%	15
Huachuca City	5.71%	12
Sierra Vista	41.90%	88
Tombstone	2.86%	6
Willcox	4.29%	9
Unincorporated Cochise County	20.95%	44
Total		**210**

Q2 Local Planning and Regulations-Building Codes-Local Zoning and Land Use Codes-Identification/Mapping of Hazard Areas-Stormwater Management Planning

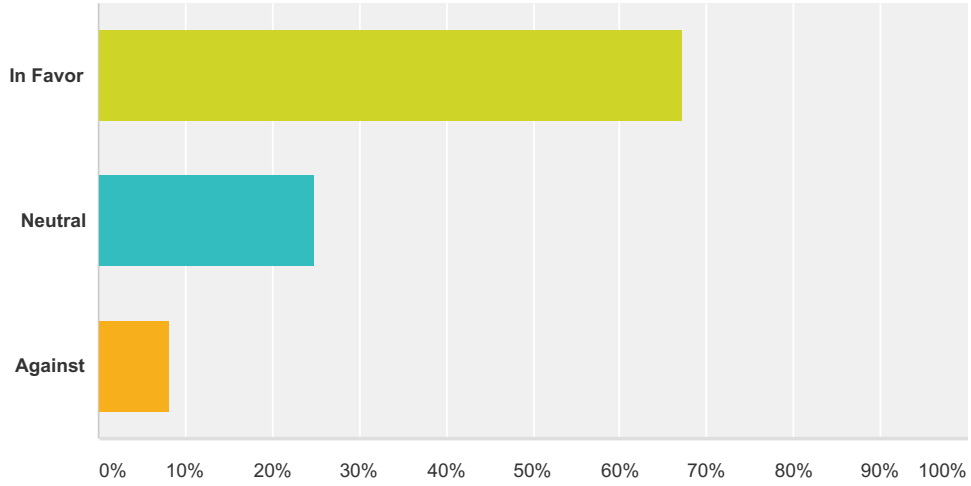
Answered: 209 Skipped: 1



Answer Choices	Responses	
In Favor	**75.60%**	158
Neutral	**19.14%**	40
Against	**5.26%**	11
Total		**209**

Q3 Structure and Infrastructure Projects-Construct Tornado Safe Rooms-Improve Drainage to Reduce Flood Threats-Retrofit Buildings to Higher Code Standards-Acquire and Demolish Structures in Hazard-prone Areas

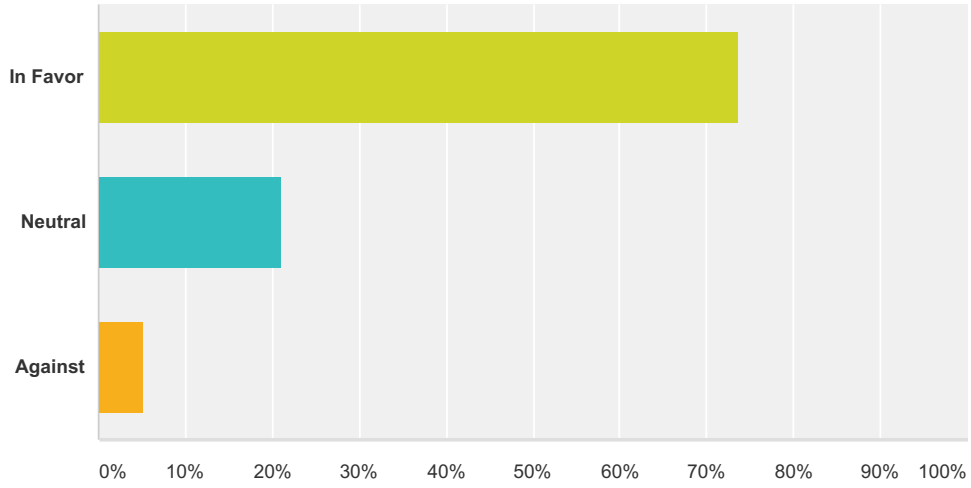
Answered: 210 Skipped: 0



Answer Choices	Responses	
In Favor	**67.14%**	141
Neutral	**24.76%**	52
Against	**8.10%**	17
Total		**210**

Q4 Natural Systems Protection-Implement Erosion Control Measures-Create Defensible Space Regulations-Protect and Preserve Natural Areasx

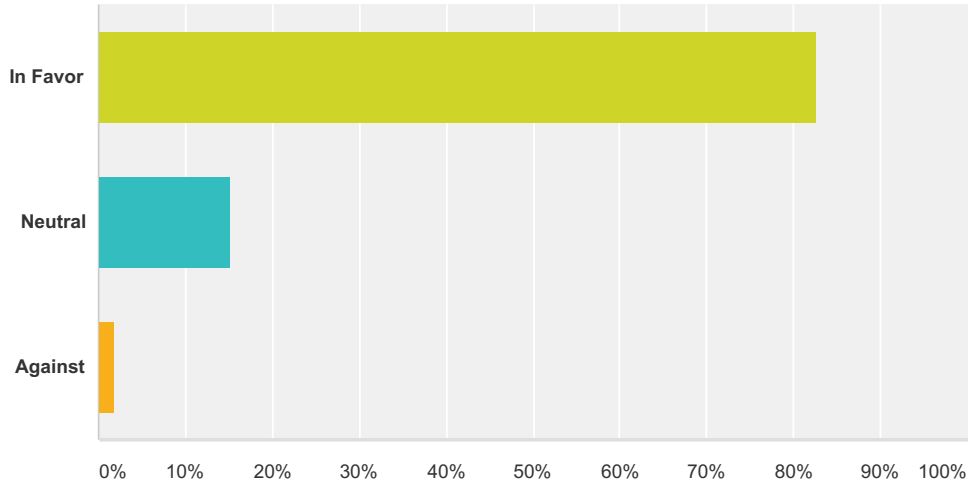
Answered: 209 Skipped: 1



Answer Choices	Responses	
In Favor	**73.68%**	154
Neutral	**21.05%**	44
Against	**5.26%**	11
Total		**209**

Q5 Education and Awareness Programs- Incentivize Drought Tolerant Landscaping- Host Informational Workshops and Events- Educate the Public about Risks

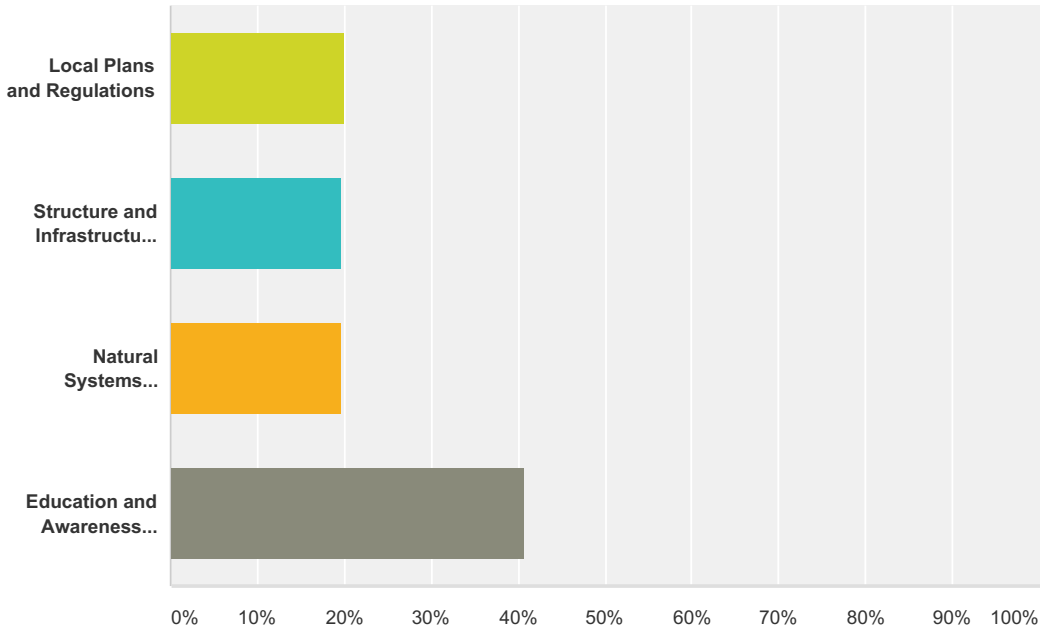
Answered: 209 Skipped: 1



Answer Choices	Responses	
In Favor	**82.78%**	173
Neutral	**15.31%**	32
Against	**1.91%**	4
Total		**209**

Q6 Which of the above four categories are you most supportive of?

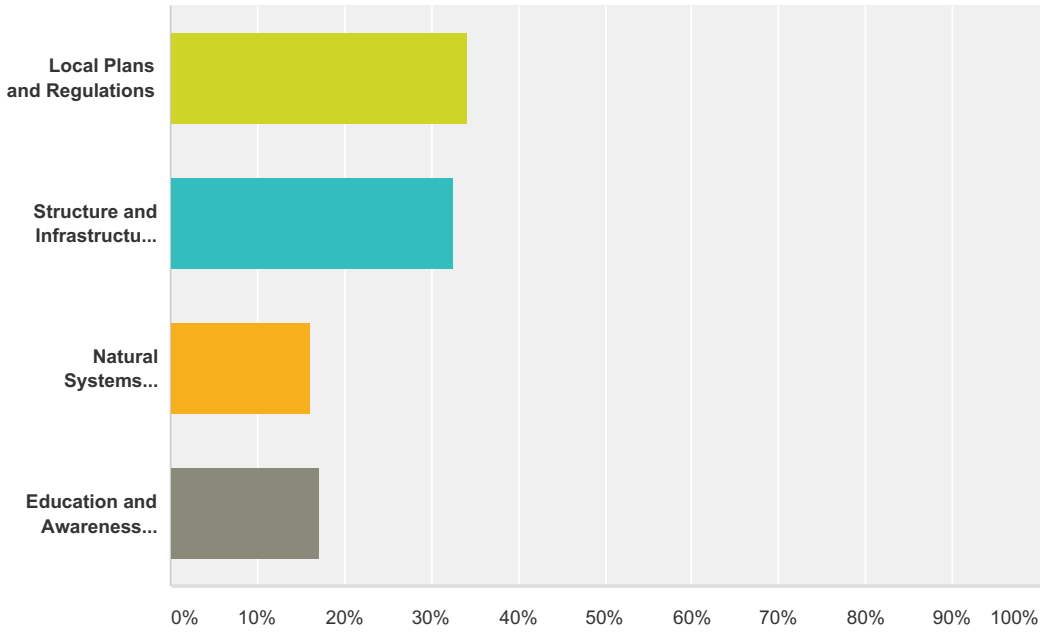
Answered: 209 Skipped: 1



Answer Choices	Responses	
Local Plans and Regulations	**20.10%**	42
Structure and Infrastructure Projects	**19.62%**	41
Natural Systems Protection	**19.62%**	41
Education and Awareness Programs	**40.67%**	85
Total		**209**

Q7 Which of the above four categories are you least supportive of?

Answered: 199 Skipped: 11



Answer Choices	Responses	
Local Plans and Regulations	**34.17%**	68
Structure and Infrastructure Projects	**32.66%**	65
Natural Systems Protection	**16.08%**	32
Education and Awareness Programs	**17.09%**	34
Total		**199**

Q8 Please share your top idea for a specific mitigation project or action that you would like to see implemented by your government, should funding be available.

Answered: 77 Skipped: 133

#	Responses	Date
1	I prefer smaller government and less regulation with greater individual property rights. Educate and inform. If a citizen or business causes a problem (i.e., fire), penalize that person or business. More regulations and codes are not the answer. We are already over-regulated.	2/3/2017 8:10 AM
2	restoration of healthy watershed function, reducing erosion	2/2/2017 8:23 AM
3	Storm water run off and collections show be are top priority in this area to help in water issues	2/2/2017 5:43 AM
4	Eliminate junkyards that provide homes for rodents/snakes and mosquitos	2/1/2017 4:12 PM
5	Service the water tank.	2/1/2017 3:40 PM
6	More Police Officers on the streets.	2/1/2017 1:20 PM
7	Hurricane force wind preparation and awareness (Particularly in the Hereford area) Earthquake threat assessment to infrastructure.	1/31/2017 11:01 PM
8	I think fire breaks for land owners would be essential as well as eliminating attractive nuisances such as inoperable vehicles, debris and trash. Erosion control and water saving landscaping education are crucial in these times. I wish county could, more importantly, would assist Huachuca City to clean up its mess that its allowing.	1/31/2017 6:59 PM
9	Public information on possible hazards	1/31/2017 1:43 PM
10	I would like to see our flood zone updated, they have not been updated in years and now my mortgage company has insisted that we get flood insurance which is very expansive and I have already done a new elevation certificate but does not march the existing maps,	1/31/2017 10:06 AM
11	Incentivize Drought Tolerant Landscaping	1/31/2017 10:01 AM
12	While I don't think the taxpayer should pay for incentivization, I think educational programs that talk about drought tolerant landscaping and other mitigation measures (fire avoidance) are a good idea.	1/31/2017 9:33 AM
13	Weed Control and better drainage for rain waters	1/31/2017 8:40 AM
14	How to fire-proof your property	1/30/2017 6:21 PM
15	Construct retention basins and channels to protect US properties as well as those of Mexico.	1/30/2017 2:01 PM
16	Help elderly, rural residents clear brush close to their home. Some local fire departments are doing this, but it's a never ending issue	1/30/2017 1:48 PM
17	Local zoning and land use codes.	1/30/2017 10:02 AM
18	Improvements in areas already implemented in the city that need updating.flood planes, erosion control. Warning system	1/28/2017 6:16 PM
19	Work with the core of engineers and FEMA, to determine how we can alleviate if not remove the flood zone in lower Huachuca City.	1/26/2017 10:35 PM
20	Fire-wise activities.	1/26/2017 8:53 PM
21	Just be fair when implementing codes that everyone has follow the standards	1/26/2017 12:07 PM
22	Public Education campaigns for water conservation (incentives not regulations are good) and especially FireWise incentives. Also...there needs to be good consideration to responsible zoning for Floodplains and WUI areas. People should not be building where there is known natural hazards. If they do...they need to take total responsibility for their decision and not have any expectations for government assistance regarding losses resulting from their location.	1/26/2017 10:32 AM

23	We need more sheriff's for our safety.... this sheriff's working in the northern part of the county are to far stretched out... there are other parts of this county besides just Sierra Vista.. contractors don't want to come to cochise county bcuz they say planning and zoning is difficult to work with and not builder friendly.	1/25/2017 9:13 AM
24	Obtain needed resources, establish memorandums of understanding between adjoining counties for assistance if needed, additional training for first responders and support staff.	1/25/2017 7:52 AM
25	Defensible space requirements Flood mitigation	1/25/2017 7:26 AM
26	Complete the bike path so it goes completely around Sierra Vista including along the by-pass.	1/24/2017 5:15 PM
27	Reducing excess fire fuels in open areas (city, county, state trust and national forest lands). Improving water shedding and sustainability of recreation trails in same areas. Improve signage and mapping for public use of same trails. Continue to build shared use paths in Sierra Vista (but add center stripes for safer user experiences). These efforts could help tourism, one of the supplemental incomes to our area.	1/24/2017 3:10 PM
28	What needs to be repaired needs to begin first.	1/24/2017 2:38 PM
29	I would like to see a location restriction of small church's based on zoning or change the restrictions on businesses who serve alcohol being close to one of these micro church's. It limits the property available to those in the beverage industry production, bars, wineries or otherwise.	1/24/2017 8:31 AM
30	I have no specific suggestions	1/24/2017 6:59 AM
31	Good luck with the water issue in Federal court in November.	1/23/2017 12:11 PM
32	Land use inforcement	1/23/2017 11:48 AM
33	Clear brush in fire prone areas	1/23/2017 11:26 AM
34	defensible space	1/23/2017 10:56 AM
35	Development projects should be cognizant of the effects of changing the local environment on properties east and south of their developments, specifically water. Runoff has increased considerably in the last 8 years as more houses are built on the east side of Sierra Vista and natural vegetation is paved over. Residents receiving the excess runoff have to mitigate runoff at huge personal costs.	1/23/2017 10:49 AM
36	Implement erosion control measures in the county.	1/23/2017 10:17 AM
37	A real exit plan in case of a serious disaster	1/23/2017 9:43 AM
38	Combination of all the above	1/23/2017 9:33 AM
39	I would like to see the broken down building demolished, they are a danger to the town.	1/23/2017 9:16 AM
40	education is the best way to handle it. We have enough laws so we do not need any more regulation. The county and state roadways should be mowed past the normal 6 feet. Grass and weeds should be cut back to the fence lines. This made a difference during the monument fire.	1/23/2017 9:06 AM
41	Create defensible space regulations	1/23/2017 8:30 AM
42	I think it would be cheaper for the county to study how the water flows BEFORE they engage in a paving project. More expensive to go back to repair a section of road after it has washed away. Installing a culvert or concrete slab first would save time and money.	1/23/2017 8:22 AM
43	I am not well versed on these matters, I feel it wouldn't be prudent to make a suggestion. I'm hopeful the government agencies will make wise and educated decisions.	1/23/2017 7:49 AM
44	wild fire and flood control in grass areas	1/23/2017 7:46 AM
45	Infrastructure	1/23/2017 7:24 AM
46	-	1/21/2017 7:42 PM
47	Demolition of aging, eyesore, and non-compliant structures. Produce community planning, and create a SAFE infrastructure with forward thinking aimed at a progressive city future.	1/21/2017 5:13 PM
48	Projects that put more water into the riparian area.	1/20/2017 8:09 PM
49	The same regulations for defensive areas applied to riparian areas locally. And allowance of taking dead and downed in local areas. USGS is not doing it .	1/20/2017 7:50 PM
50	Flood control	1/20/2017 7:06 PM
51	Flood control on Dragoon Road. It's like no one ever heard of culverts.	1/20/2017 5:11 PM

52	Road aND sidewalk improved	1/20/2017 3:12 PM
53	addresses assigned and affixed to county residence to locate residence quickly during an emergency	1/20/2017 10:53 AM
54	N/A	1/20/2017 10:07 AM
55	Road improvement in rural areas.	1/20/2017 9:59 AM
56	Additional clearing of dead trees and underbrush which remain from previous fires and invasion of non-native species.	1/20/2017 9:15 AM
57	Grants to home owners to make their own homes and properties more durable.	1/20/2017 8:27 AM
58	More water runoffmitigation, how tos for homeowners....	1/20/2017 7:50 AM
59	Awareness and education	1/20/2017 7:33 AM
60	Soft target protection from terrorist threats, particularly schools, such as improvements in building security and physical access restrictions, surveillance, and discussions about the pros and cons of armed guards.	1/20/2017 12:07 AM
61	Better bridges	1/19/2017 11:27 PM
62	Education	1/19/2017 8:21 PM
63	Better signage and drivers education regarding typical flooded roads in Cochise County	1/19/2017 8:21 PM
64	Protect and preserve water quality.	1/19/2017 6:57 PM
65	Acquire and Demolish Structures in Hazard-prone Areas	1/19/2017 5:27 PM
66	Pave roadway shoulders, accurate floodplain mapping in growth/or at least existing residential areas	1/19/2017 4:44 PM
67	Do not have an opinion.	1/19/2017 4:20 PM
68	Complete flood control program East of Bay Acres to divert sheet flows into Palm Grove Wash. Cochise County Flood Control District	1/19/2017 3:23 PM
69	Drought Prep/Workshops	1/19/2017 3:22 PM
70	mitigation of known flood hazards	1/19/2017 2:30 PM
71	Transportation of food, water, medications and other supplies	1/19/2017 2:28 PM
72	Watershed improvement through removal of brush reseeding of grasses. Use inmate labor to maunually chop out woody brush. require acre for acre watershed restoration on public lands for new subdivisions. Water is most important issue facing this region. Encourage cluster development of high quality homes with co-op owned open space instead of sprawling rectangular development pattern filled with mobile homes and junk. Reduce the number of pollution generating dirt roads	1/19/2017 2:02 PM
73	large parks and trails that protect natural areas as well as bring in revenue from tourism	1/19/2017 1:46 PM
74	Repair streets in poor condition. Majority of the neighborhood streets in Bisbee, especially in Warren area are dangerous to drive on and in the event of an emergency could impede traffic flow	1/19/2017 1:42 PM
75	Active shooter training for schools, treat assessment team training	1/19/2017 1:42 PM
76	2 & 3	1/19/2017 1:39 PM
77	Education and Awareness Programs	1/19/2017 1:37 PM

Q9 Please share any additional comments or information, relating to mitigation strategies for natural hazards, that you would like your jurisdiction to receive. If you would like to be contacted regarding your comments, please include contact information as appropriate.

Answered: 44 Skipped: 166

#	Responses	Date
1	Over regulation is a form of fascism.	2/3/2017 8:10 AM
2	minimize disruption or destruction of the land, thereby not creating an erosion problem to begin with	2/2/2017 8:23 AM
3	Eliminate weeds and dry grass to downgrade fire hazards.	2/1/2017 4:12 PM
4	None.	2/1/2017 3:40 PM
5	Be Smart about what ever is approved.	2/1/2017 1:20 PM
6	I would happily support county in all jurisdictions for all of these proposed ideas. County needs to step up and become more responsible. It also needs to seriously help small towns like Huachuca City who can't help themselves. 90% of the town would crumble in a natural disaster because of the dilapidated buildings, junk yards and lack of enforcement.	1/31/2017 6:59 PM
7	Protect and Preserve Natural Areas	1/31/2017 10:01 AM
8	There's only one highway in or out of Huachuca City. In the event of any disaster that closes the highway in either direction, people are not able to travel that direction, causing detours of 50+ miles. Partnering with Ft. Huachuca and Sierra Vista, could alternative routes be established through the surrounding military land in the event of a long-term highway closure? Thank you. Joy Banks joybanks.az@gmail.com	1/30/2017 6:21 PM
9	Floodways and retention/detention basins should be the top priority for now	1/30/2017 2:01 PM
10	There is a lot of contention with the fact much of lower Huachuca City, falls into some type of flood zone, resulting in massive insurance costs to individuals on fixed incomes. Looking at the flood map alone, there are homes over 1,000 feet away, that fall into the floodplain when their neighbors, may not.	1/26/2017 10:35 PM
11	Do educational activities - not just presentation but hands-on - with students to educate our future residents on best practices that can be done cheaply at home.	1/26/2017 8:53 PM
12	We do not have tornados in Cochise county. Why would we want to build tornado proof rooms?	1/26/2017 11:14 AM
13	The flood zones in this county are rediculous, monies should be better spent instead of county employees using the county vehicles for personal use,	1/25/2017 9:13 AM
14	N/A	1/25/2017 7:52 AM
15	Why would you include tornado shelters? Each area had some priorities and some lesser ideas. Makes decisions harder, or not valid.	1/25/2017 7:26 AM
16	Where would these tornado proof rooms be constructed? Specific buildings such as schools? Do we get a lot of tornadoes to justify the expense?	1/24/2017 5:15 PM
17	I serve as an IMBA trail steward and have volunteers that we work with if trail improvements and maintenance are desired. I can also contract specific trail work to be done (by hand) on more remote areas (like Forest Service in the Huachucas). I can advise on trail signage that would affordably improve our systems and have a good longevity. Shane Stilwell, 520-266-1951 twikaneshane@cox.net	1/24/2017 3:10 PM
18	Providing education doesn't have an effect but actions do.	1/24/2017 2:38 PM
19	Simply put I would like to see less regulation and more preservation. Thank you for the survey!	1/24/2017 6:59 AM
20	Let the Forest service people give input on this. They know more than I do!	1/23/2017 10:19 PM

21	helping senior citizens maintain their properties either by helping keep grass and weeds mowed, and trees trimmed to create defensible spaces and help with junk removal	1/23/2017 10:56 AM
22	Do not "Create Defensible Space "Regulations" (#4). Instead...do "Educate and Awareness" on this.	1/23/2017 10:35 AM
23	We really need to make sure the people who cannot get around on their own have a way to be rescued in the event of a disaster. The transit system should have a plan and registry for people who are not able to get out on their own.	1/23/2017 9:43 AM
24	I would like to see more booklets made for the citizens. And more surveying done on mitigation problem areas.	1/23/2017 9:16 AM
25	Tornado rooms?? When was the last time we had a tornado here? I believe if you would have just left that one stupid thing off of the list, you'd probably get full support for the rest in that category. Honestly...	1/23/2017 8:30 AM
26	Please continue cleanup and removal of derelict properties as quickly as possible.	1/23/2017 7:03 AM
27	-	1/21/2017 7:42 PM
28	None	1/21/2017 5:13 PM
29	There has to be a better way, more 21st century, to warn people about issues. During the 2011 Monument fire, I had facebook and I listened to the FM radio station to TRY and get updates about the evacuation and fire control efforts. It was very very limited in telling me what was going on. I read on-line the SIerra Vista Herald, to even know what was being done. If the power goes out, I done. So, information based on the way people can routinely get it, plan for it ahead of time. Some recent improvements are the emails from County Super, and the warning alerts on my phone, email etc.	1/20/2017 8:09 PM
30	Education on roads and repair of local infrastructure.	1/20/2017 7:50 PM
31	N/A	1/20/2017 10:07 AM
32	Not so much a mitigation, but a preparedness, I'd like to see the CERT program built up.	1/20/2017 8:27 AM
33	None	1/20/2017 7:50 AM
34	Perhaps explore what the impacts would be in the event of a major earth quake and damage to critical infrastructure such as severe electric disruption and access to potable water	1/20/2017 12:07 AM
35	Police and emt and firefighters	1/19/2017 8:21 PM
36	Flood preparedness.	1/19/2017 6:57 PM
37	No thank you.	1/19/2017 4:20 PM
38	The need for flood control in Douglas to prevent serious flooding in Agua Prieta, Sonora needs to be made clear to American residents.	1/19/2017 3:23 PM
39	Convert 'dips' on hard surfaced roads to bridges.	1/19/2017 3:22 PM
40	Enforce existing law; avoid new regulations. We need to open paths for new industry and business, not find new roadblocks.	1/19/2017 2:37 PM
41	floods, fire control, wild cat building are also very important issues.	1/19/2017 1:46 PM
42	I would be happy to discuss my recommendations to someone who would listen Renee Cooper 520-432-9463.	1/19/2017 1:42 PM
43	has anyone looked at the fishers over the north end of the lavender pit over the mine. they are continuing to get larger.	1/19/2017 1:42 PM
44	No building of structural residence or business in a known flood zone.	1/19/2017 1:39 PM

Appendix D: Historical Hazard Mitigation Projects

Jurisdiction	Project Name	Project Description	Project Cost	Completion Date
Cochise County	Ramsey Road Drainage Improvement Project-Hereford Area	Culvert construction to mitigate flood damage & maintain access along Ramsey Road from SR92 east to Moson Road. Budget will only allow for routine maintenance, so project was canceled by BOS, FY 10/11.	$118,141 (maint) $ 85,901 (design) $204,042 (sum)	Project Cancelled
Cochise County	Dust Storm Warning System-countywide	Purchase & use 2pair of free-standing mobile sign boards for deployment along county highways during dust and sand storms and other miscellaneous emergencies	$ 80,000	FY 09/10
Cochise County	Ft Grant Road Drainage Improvement Project-Willcox Area	Budget would only allow for misc culvert and road improvements to mitigate flood damage to maintain access on Ft Grant Road between Willcox City Limits and Graham County Line.	$805,400	FY 10/11
Cochise County City of Sierra Vista	Design, develop and equip a County Emergency Operations Center	Cochise County and the City of Sierra Vista worked to design develop and equip emergency operations centers, with one located in Sierra Vista and one located in the County Sheriff's Office Bisbee-Judd Conference room.	$8,000,000 (approx)	FY 2011
Douglas	W&WW Improvement	Replaced aging water & wastewater infrastructure.	$6,000,000	June 2010
Douglas	Washington Drainage	Improved Washington drainage area.	$50,000	June 2009
Douglas	A Avenue Repaving	Repaved A Avenue from 10th Street thru 23rd Street.	$500,000	December 2009
Douglas	21st Street Chip Seal	Chip Seal 21st Street from A Avenue to Washington Avenue.	$300,000	June 2010
Douglas	10th Street Chip Seal	Chip Seal 10th Street from A Avenue to Washington Avenue.	$300,000	June 2010
Douglas	CDBG Curbing	Curbing improvements in Ward 6.	$300,000	September 2011
Cochise County & City of Sierra Vista	County Emergency Operations Center	Design, develop and equip a County EOC.	$8,000,000	2011
Cochise County	Dust Storm Warning System	Purchase and use free-standing mobile sign boards for deployment along county highways during dust and sand storms.	$80,000	FY09/10
Cochise County	Fort Grant Road Drainage Improvement Project	Culvert and road construction to mitigate flood damage and to maintain access along Fort Grant Road, between Willcox city limits and Graham County line.	$805,400	2010
City of Benson	Fire Wise Community Programs	Expand and maintain the City's Fire Wise programs for all communities, neighborhoods and home owners associations within the wildland fire/urban interface including instruction materials, facilitating partnerships with insurance agencies, clean-up crew programs.	$30,000	2007
City of Douglas	Weed Abatement	Continue to enforce city code requiring maintenance of trash and weeds on properties within city limits, to mitigate the potential for wildfire ignition within city limits.	$15,000	Prior to 2012

Jurisdiction	Project Name	Project Description	Project Cost	Completion Date
City of Douglas	Water Conservation Measures	Establish a water conservation program that educates residents on appropriate water conservation strategies, including the use of xeriscape and other low water plants in appropriate areas of the City.	$15,000	2008
City of Douglas	Douglas Municipal Airport	Improve the existing fuel island and protect it from illegal tampering and overall airport security.	$10,000	March 2011
City of Douglas	P.W. Radio Communications	Acquire radio communication equipment for all public works vehicles to enable an adequate response and coordination to emergency situations and with other emergency service providers.	$50,000	July 2011
City of Douglas	High Zone-Water Production Well	Develop and construct a new well in the high zone to augment the City's water production capabilities. The well will provide fire suppression capacity during peak demand hours that currently do not exist. The current system does not comply with the 24-hour storage capacity requirement.	$600,000	September 2011
City of Sierra Vista	Sierra Vista Police Department	Purchase and implement Reverse 911 for City of Sierra Vista to warn public of emergency situations. The system would be implemented out of the City of Sierra Vista Police Department.	$50,000	Prior to 2012
City of Sierra Vista	Public Works Advance Warning Devices	Obtain traffic control devices, signs, barricades and lighted transportation trailer to alert the public of natural and manmade hazards.	$100,000	Prior to 2012
City of Sierra Vista	Public Works Hazardous Materials Containment	Purchase containment materials such as sand, absorbent litter and containment "pigs" for hazardous spills.	$50,000	Prior to 2012
City of Willcox	Revision to Existing City of Willcox Floodplain Regulation	Update and revise the City's existing floodplain regulation to improve protection of life and future critical facilities and infrastructure.	$800	2007
Cochise County	ADEMA – Repairs from flooding damage	Multiple roadway & drainage repair	$1,300,000	Prior to 2017
Cochise County	Flood control district	Cave Creek cleanout. Crushing.	$760,000	Prior to 2017
Cochise County	Emergency Watershed Protection (EWP)	Joint effort with the Natural Resources Conservation Service (NRCS) to mitigate post-fire flood damage. Various Sites. K-Rails, & Other Repairs	$48,000	Prior to 2017
Cochise County	Palominas Area Regional Detention & Stormwater Recharge	Analysis, Design & Construction of flood control improvements to address flooding that affects development in the Palominas area combined with a stormwater recharge pilot project.	$3,257,408	July 2015

Jurisdiction	Project Name	Project Description	Project Cost	Completion Date
City of Benson	Removal of fire fuels along roads	Obtain brush hog and other brush clearing equipment for use in removing fire fuels along City roads, alleys, washes and at the airport and other areas where fire poses a significant hazard.	$16,500	2007
City of Sierra Vista	Summit Wash Flood Control Project	Construct gabion walls, drop structures and concrete bank armor to mitigate flood damage to susceptible community developments.	$230,000	Project Cancelled / No Longer Applicable
City of Tombstone	Installation of alternate/back up electrical service to wastewater lift stations	To provide continued sanitary pumping flow service in time of loss of primary electrical power due to violent thunder storms, which stretch all available electrical resources to its limit; thus maintaining a high level of public health in this area, as well as maintain compliance with the Arizona Department of Environmental Quality (ADEQ).	$10,000	2014
City of Tombstone	Implement flood control by diverting water from residential and commercial arteries	Direct waters into designated and eventual flood plain areas to help enhance flow and progression of both vehicular and pedestrian traffic on arteries and thoroughfares throughout the City as well as helping to enhance public safety and establishing cost cutting measures for repair of City thoroughfares.	$10,000	Project Cancelled / No Longer Applicable
Cochise County	Post-wildfire mitigation for Miller Canyon, Rucker Canyon, and other properties impacted by the 2011 Monument and Horseshoe II fires	Installation of K rails and other structural projects.		2014
City of Douglas	Install a backup generator at the Public Works facility			Prior to 2017
City of Douglas	Install a backup generator at City Hall			Prior to 2017
City of Tombstone	Design and construct improvements to current roads, trails and paths to all 24 total springs and catch basins in and attributed to both Carr Canyon and Miller Canyon	Owned and maintained by the City of Tombstone, including water rights as well as water collection and transmission; design and construct permanent structures to existing springs and catch basins to help enhance maximum water flow for collection and transmission into and through the 30 Mile Aqueduct to the City's One Million Gallon Reservoir.	$250,000	2016

Appendix E: Plan Maintenance Review Memorandums

RESOLUTION 17-__

ADOPTING THE COCHISE COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN 2017

WHEREAS, the County of Cochise has historically experienced severe damage from natural and human-caused hazards such as flooding, wildfire, drought, thunderstorms/high winds, and hazardous materials incidents on many occasions in the past century, resulting in loss of property and life, economic hardship and threats to public health and safety; and

WHEREAS, the Cochise County Multi-Jurisdictional Hazard Mitigation Plan 2017 (the Plan) has been developed after more than one year of research and work by the Cochise County Multi-Jurisdictional Planning Team for the reduction of hazard risk to the community; and

WHEREAS, the Plan specifically addresses hazard mitigation strategies and plan maintenance procedures for Cochise County; and

WHEREAS, the Plan recommends several hazard mitigation actions/projects that will provide mitigation for specific natural and human caused hazards that impact Cochise County with the effect of helping to protect people and property from loss associated with those hazards,

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Cochise County, Arizona, that:

1. The Plan is hereby adopted as an official plan of Cochise County.

2. The Plan sha1l be implemented, monitored and maintained by the officials/staff designated in the Plan for a period of five (5) years with the full support of this resolution.

3. Future revision and Plan maintenance actions required by the Disaster Mitigation Act of 2000 and FEMA, are hereby adopted as part of this resolution for a period of five (5) years from the date of this resolution.

PASSED AND ADOPTED by the Board of Supervisors of Cochise County, Arizona, this ___ day of September 2017.

_____
Ann English, Chairman
Cochise County Board of Supervisors

ATTEST:

_____
Arlethe G. Rios
Clerk of the Board

APPROVED AS TO FORM:

By _____
Sara V. Ransom,
Civil Deputy County Attorney

Consent 10.

Regular Board of Supervisors Meeting **Finance**

Meeting Date:	09/12/2017		
Demands			
Submitted By:	Melissa Belasco, Board of Supervisors		
Department:	Board of Supervisors		
Presentation:	No A/V Presentation	**Recommendation:**	
Document Signatures:		**# of ORIGINALS Submitted for Signature:**	
NAME of PRESENTER:	n/a	**TITLE of PRESENTER:**	n/a
Mandated Function?:		**Source of Mandate or Basis for Support?:**	

Information

Agenda Item Text:
Approve demands and budget amendments for operating transfers.

Background:
Auditor-General's requirement for Board of Supervisors to approve.

Department's Next Steps (if approved):
Return to Finance after BOS approval.

Impact of NOT Approving/Alternatives:
Board of Supervisors will not be in compliance with State law.

To BOS Staff: Document Disposition/Follow-Up:
Return to Finance after BOS approval.

Budget Information

Information about available funds

Budgeted: ○	**Funds Available:** ○	**Amount Available:**
Unbudgeted: ○	**Funds NOT Available:** ○	**Amendment:** ☐

Account Code(s) for Available Funds

1:

Fund Transfers

Attachments

No file(s) attached.

Consent 11.

Regular Board of Supervisors Meeting **Human Resources**

Meeting Date:	09/12/2017		
Merit Commission Member Appointments			
Submitted By:	Kelley Jones, Human Resources		
Department:	Human Resources		
Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature NOT Required	**# of ORIGINALS Submitted for Signature:**	0
NAME of PRESENTER:	Julie Morales	**TITLE of PRESENTER:**	Human Resources Director
Docket Number (If applicable):			
Mandated Function?:	Federal or State Mandate	**Source of Mandate or Basis for Support?:**	ARS 11-353

Information

Agenda Item Text:

Approve the appointments of Ms. Liz York and Ms. Donna Hilton to the Cochise County Merit Commission commencing September 12, 2017 and ending September 11, 2021.

Background:

Per Cochise County Merit System Rule 2.1 - Merit System Commission Appointment, Cochise County is required to have a Merit Commission composed of five (5) members. Currently, the Cochise County Merit Commission has four (4) members. One (1) of the current members has since moved out of Cochise County and is no longer eligible to be on the Merit Commission.

Department's Next Steps (if approved):

Notify the new Merit Commission members that their appointments have been approved by the Board of Supervisors. Human Resources will have each member sign the Oath of Office.

Impact of NOT Approving/Alternatives:

Cochise County would be in violation of its Merit System Rules requiring a Merit Commission for employees to appeal disciplinary actions such as demotion, suspension and termination.

To BOS Staff: Document Disposition/Follow-Up:

Preparation of Oaths for each Merit Commission Member.

Attachments

No file(s) attached.

Action 12.

Regular Board of Supervisors Meeting **Board of Supervisors**

Meeting Date:	09/12/2017		
Award of Contract - Southern Arizona Children's Haven Arson Remediation Repair			
Submitted By:	Maria Morales, Procurement		
Department:	Procurement		
Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	2
NAME of PRESENTER:	Maria Morales	**TITLE of PRESENTER:**	Senior Buyer
Mandated Function?:	Local Mandate or Policy	**Source of Mandate or Basis for Support?:**	

Docket Number (If applicable):

Information

Agenda Item Text:

Approve the award of Invitation for Bid 17-32-BOS-03 for Southern Arizona Children's Haven Arson Remediation Repair to B-R Constructors Inc. in the amount of $119,119 and four possible Add Alternates in the amount of $45,981.00 for a total of $165,100.

Background:

IFB 17-32-BOS-03 Southern Arizona Children's Haven Arson Remediation Repair was prepared and released on May 10, 2017 via the PubicPurchase.com website. The bid was advertised in the San Pedro Valley News-Sun/Arizona Range News on May 10th and May 17th, 2017, and was posted on the Cochise County Procurement website. Bid was accessed by 74 agencies registered in the PublicPurchase.com database. A mandatory on-site job walk/pre-bid meeting was held on May 31, 2017 at 1:00p.m. at the Southern Arizona Children's Haven located at 721 N. Gonzales Blvd. Huachuca City, AZ 85616. Fifteen (15) potential contractor/subcontractors attended. Three (3) bids were received by the IFB closing date and time of August 9, 2017 at 1:00p.m. A bid tabulation is attached.

Department's Next Steps (if approved):

Issue Notice to Proceed. Execute contract. Obtain performance bond, payment bond and certificate of insurance.Schedule and conduct pre-construction meeting and monitor contractors performance.

Impact of NOT Approving/Alternatives:

Arson remediation and repair will not occur, Cochise County youth will not be able to benefit from services provided by the Southern Arizona Children's Haven. Arizona Department of Housing grant will be lost.

To BOS Staff: Document Disposition/Follow-Up:

Two copies of contract for construction services will be hand delivered to Clerk of the Board prior to board meeting. Forward signed copies to the Procurement Department.

Budget Information

Information about available funds

Budgeted: ☐	**Funds Available:** ☐	**Amount Available:**
Unbudgeted: ☐	**Funds NOT Available:** ☐	**Amendment:** ☐

Account Code(s) for Available Funds 1:

Fund Transfers

Attachments

Bid Pricing

Contract

COCHISE COUNTY, PROCUREMENT DEPARTMENT

IFB 17-32-BOS-03 OPENING RECORD
SOUTHERN ARIZONA CHILDREN'S HAVEN ARSON REMEDIATION REPAIR
Due Date: 8/9/2017, 1:00 p.m. local time

Reader: Maria G. Morales **Recorder:** CRYSTAL HERNANDEZ

Company Name: B-R CONSTRUCTION

Base Bid: Entire Project: $ 119,119.00

Additive Alternate 1: $ 525.00

Additive Alternate 2: $ 17,192.00

Additive Alternate 3: $ 7,712.00

Additive Alternate 4: $ 20,552.00

Company Name: DIVIDEND HOMES

Base Bid: Entire Project: $ 156,956.00

Additive Alternate 1: $ —

Additive Alternate 2: $ FRONT 8,200 BACK 2,200

Additive Alternate 3: $ 9,000

Additive Alternate 4: $ 2,800

COCHISE COUNTY, PROCUREMENT DEPARTMENT

IFB 17-32-BOS-03 OPENING RECORD
SOUTHERN ARIZONA CHILDREN'S HAVEN ARSON REMEDIATION REPAIR
Due Date: 8/9/2017, 1:00 p.m. local time

Company Name: MARSH DEVELOPMENT

Base Bid: Entire Project: $ 176,412.00

Additive Alternate 1: $ 10,612.00

Additive Alternate 2: $ 80,290.00

Additive Alternate 3: $ 5,051.00

Additive Alternate 4: $ 8,864.00

Company Name: _____

Base Bid: Entire Project: $ _____

Additive Alternate 1: $ _____

Additive Alternate 2: $ _____

Additive Alternate 3: $ _____

Additive Alternate 4: $ _____

COCHISE COUNTY PROCUREMENT DEPARTMENT
1415 Melody Lane, Building C, Bisbee, AZ 85603
Phone: (520) 432-8390 Fax: (520) 432-8397

CONTRACT FOR CONSTRUCTION SERVICES

No. IFB 17-32-BOS-03
SOUTHERN ARIZONA CHILDREN'S HAVEN ARSON REMEDIATION REPAIR

This Contract is made and entered into this **12th day of, September 2017**, by and between the County of Cochise, hereinafter referred to as the "COUNTY", and B-R Constructors, Inc**,** hereinafter referred to as the "CONTRACTOR".

I. SCOPE OF WORK

This Contract is for services described in the original solicitation IFB 17-32-BOS-03 and shall be completed as per the plans and technical specifications incorporated therein.

II. COMPENSATION AND METHOD OF PAYMENT

In consideration of the performance of the services described in the Scope of Work, the County shall pay the Contractor the total sum of one hundred nineteen thousand, one hundred nineteen dollars **($119,119.00)** for the base bid. This Contract sum is subject to modifications only in the manner specified in the Contract.

The County will pay the Contractor following the submission of itemized invoices(s) for the services rendered. No payment shall be issued prior to receipt of material or service and correct invoice. Each itemized invoice must bear a written certification by an authorized County representative confirming the services for which payment is requested have been performed.

III. DURATION, TERMINATION, AND RENEWAL

Upon receipt of the County's Notice to Proceed, the Contractor shall have one hundred and eighty **(180) calendar days** to complete the services included in the Scope of Work, unless terminated, cancelled or extended as provided herein. The Contractor shall commence work only after receiving Notice to Proceed from an authorized County representative. The Contractor shall complete all work to the satisfaction of the County in accordance with the Scope of Work.

The County reserves the right to immediately terminate, with or without cause, the whole or any part of this Agreement due to failure of Contractor to carry out any term, promise, or condition of this Agreement. If this Agreement is terminated, the County shall be liable only for payment for services rendered and accepted material received by the County before the effective date of termination.

The County may, by written notice to the Contractor, cancel this agreement if it is found that gratuities, in the form of entertainment, gifts or otherwise, were offered or given by the Contractor or any agent or representative of the Contractor, to any officer or employee of the County. This Agreement is subject to the provisions of A.R.S. Sec. 38-511.

IV. ENFORCEMENT, LAWS AND ORDINANCES

This agreement shall be enforced under the laws of the State of Arizona. Contractor must comply with all applicable federal, state, and local laws, ordinances, and regulations. Contractor shall ensure payment of all taxes, licenses, permits, and other expenses of any nature associated with the provision of services herein. Contractor shall maintain in current status all Federal, State and Local licenses and permits required for the operation of the business conducted by the Contractor.

V. INDEPENDENT CONTRACTOR

It is clearly understood that each party shall act in its individual capacity and not as an agent, employee, partner, joint venture, or associate of the other. An employee or agent of one party shall not be deemed or construed to be the employee or agent of the other party for any purpose whatsoever. The Contractor is advised that taxes or social security payments shall not be withheld from a County payment issued hereunder and that Contractor should make arrangements to directly pay such expenses, if any. The County will not provide any insurance coverage to the Contractor including Workmen's Compensation coverage.

VI. MODIFICATIONS

This Agreement may only be modified by a written amendment signed by persons duly authorized to enter into contracts on behalf of the County and the Contractor.

VII. WAIVER

The failure of either party of this Agreement to take affirmative action with respect to any conduct of the other which is in violation of the terms of this contract shall not be construed as a waiver thereof, or of any future breach or subsequent wrongful conduct.

VIII. INDEMNIFICATION and INSURANCE

See solicitation Special Terms and Conditions, Section 6.0, Indemnification paragraph 6.10 and Insurance Requirements paragraph 6.11.

IX. MISCELLANEOUS PROVISIONS

A. No assignment of this Agreement or subcontract shall be made by the Contractor with any other party for furnishing any of the services herein contracted for without the advance written approval of the Procurement Department. All subcontracts shall comply with Federal and State laws and regulations which are applicable to the services covered by the subcontract and shall include all the terms and conditions set forth herein which shall apply with equal force to the subcontract, as if the subcontractor were the contractor referred to herein. The Contractor is responsible for contract performance whether or not subcontractors are used.

B. The Contractor shall establish and maintain procedures and controls that are acceptable to the County for the purpose of assuring that no information contained in its records or obtained from the County or from others in carrying out its functions under the contract shall be used by or disclosed by it, its agents, officers, or employees, except as required to efficiently perform duties under the contract. Persons requesting such information must be referred to the County.

C. All services, information, computer program elements, reports, and other deliverables which may have a potential patent or copyright value and which are created under this Agreement shall be the property of the County and shall not be used by the Contractor or any other person except with the prior written permission of the County.

D. The Contractor shall comply with all applicable provisions of the Americans with Disabilities Act (Public Law 110-335, 42 U.S.C. 12101-12213) and applicable federal regulations under the Act.

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ARTICLE 1. DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

Architect/Engineer – the person licensed to practice architecture/engineering by the State of Arizona and who is identified as the Architect/Engineer of Record by affixing his/her seal upon the Contract plans, drawings, specifications and related documents. May be utilized to provide construction administration services.

Bonds – bid, performance and payment bonds and other instruments of security.

Change Order – a document approved by the County Contract Representative and which is signed by the Contractor and the County's Procurement Director or duly authorized designee and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the effective date of the Contract.

County – means the County of Cochise, Arizona, a body politic and corporate of the State of Arizona.

County Contract Representative – is the County official administering the Contract for the County of Cochise.

Completion Time – the number of calendar days agreed to by the County and Contractor for completion of the Work, which may be revised by written Change Order.

Construction – is defined as the process of building, altering, repairing, improving or demolishing any public structure or building or other public improvements of any kind to any real public property.

Construction-Manager-At-Risk – is a project delivery method in which there is a separate contract for design services and a separate contract for construction services, with design and construction taking place in sequential or concurrent phases, and in which finance services, maintenance services, operations services and preconstruction services may be included.

Construction Services – means either of the following for construction-manager-at-risk, design-build and job–order-contracting project delivery methods:

a) construction, excluding services, through the construction-manager-at-risk or job-order-contracting project delivery methods;
b) a combination of construction and, as elected by the County, one or more related services, such as finance services, maintenance services, operations services, design services and preconstruction services.

Contract – the written agreement and all associated attachments, drawings, addenda and change orders executed between the County and the Contractor covering the Work to be performed.

Contract Price – the amount payable by the County to the Contractor for satisfactory completion of the Work, and as specified in the Contract as may be amended by written Change Order, or, in the case of a job-order contract, in the Notice to Proceed.

Contractor – the person, firm or corporation with whom the County has entered into the Contract.

Design-Build – the process of entering into and managing a contract between the County and a contractor in which the Contractor agrees to both design and build a structure and in which design and construction services may be in
sequential or concurrent phases, and which may include finance services, maintenance services, operations services, design services and preconstruction services.

Design Services – is defined as architect services, engineer services or landscape architect services.

Procurement Director – the person acting as Director of the County's Procurement Department and who has authority to award and revise County solicitations and contracts for construction, construction services, and construction-related services below $50,000.00 as necessary.

Drawings – the graphic and pictorial portions of the contract, wherever located and whenever issued, showing the configuration, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

Estimate for Payment – a form furnished by the County or an approved form submitted by the Contractor in lieu of County furnished form, and is required to be used when submitting requests for payments for work actually performed and materials supplied during a an agreed-to preceding period of time.

Field Order – a written order or directive issued by the County Contract Representative that orders minor changes in the Work.

Final Completion Date – the calendar date when the Work is one hundred percent (100%) complete as determined by the County.

Finance Services – is defined as financing services for the Work.

Guaranteed Maximum Price or GMP – means the sum of the maximum cost of the Work; the CM@Risk's Construction fee; general conditions fee; taxes, bonds, insurances costs; and bid contingency as proposed and approved pursuant to this Agreement. The approved GMP will be made part of this Agreement by executing an amendment or additional amendments for phased construction.

Job-Order-Contracting – a project delivery method in which the contract is a requirements contract for indefinite quantities of construction and in which specified job orders are issued during the contract and may include finance services, maintenance services, operations services, preconstruction services and design services.

Liquidated Damages – Liquidated damages will not be applicable to this solicitation.

Maintenance Services – is defined as routine maintenance, repair and replacement of existing facilities, structures, buildings or real property.

Notice to Proceed – a written notice given by the County to the Contractor fixing the date on which the Contract Time will commence to run and on which the Contractor shall start to perform the Contractor's obligations under the Contract. In the case of a job order, it may also contain the specifications exclusive to the job order as well as consideration for the Contractor.

Operations Services – is defined as routine operation of existing facilities, structures, buildings or real property.

Preconstruction Services – is defined as advice during the design stage of the Work.

Price Proposal – a form on which the County requires estimates or price proposals to be prepared and submitted for the Work or portions of the Work.

Procurement Officer – is the County official who conducts the solicitation process to secure a Contractor for the Work and who acts under the authority and direction of the County's Procurement Director and in accordance with the County of Cochise Procurement Code.

Public Inspector(s) – that person or persons provided by the public authorities having code jurisdiction and who perform day-to-day inspections of the Work for compliance with applicable codes.

Schedule of Values – a schedule submitted by the Contractor setting forth the values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the County Contract Representative may require. This schedule must be submitted before the Contractor submits its first application for progress payment and shall be used as a basis for reviewing and approving payments to the Contractor.

Shop Drawings – drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for the Contractor to illustrate, in detail, how some portion of the Work shall be fabricated and/or installed, and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a supplier and submitted by the Contractor to illustrate material or equipment for some portion of the Work.

Specifications – those portions of the Contract, or Notice to Proceed if a Job Order, consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Substantial Completion – a written declaration of the date upon which the County, in its sole discretion, determines the Work is substantially complete such that the County has beneficial use and/or occupancy. Upon substantial completion, the right of the County to assess liquidated damages for time after the date of substantial completion ceases, except as allowed for failure to meet final completion within thirty (30) days of substantial completion.

The County of Cochise Procurement Policy – in addition to applicable State statutes and applicable Federal regulations and requirements, the County ordinance that governs the construction services contracting process as well as contract administration processes including the resolution of contract claims, disputes and controversies.

The Work – the entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract, or, in the case of a job-order contract, within individual Notices to Proceed. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract. And/or Notice to Proceed, as appropriate.

ARTICLE 2. THE CONTRACT DOCUMENT INTENT AND EXECUTION

2.1 The Contract

2.1.1 The documents in the Contract include but are not limited to the solicitation contents and any addenda, drawings, change orders and approved Contractor submittals.

2.1.2 The Contract comprises the entire agreement between the County and the Contractor concerning the Work and supersedes any prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by an instrument in writing and fully executed by the authorized parties to the Contract.

2.2 Intent of the Contract

2.2.1 The intent of the Contract is to include all labor, materials, equipment, transportation and all other costs and expenses necessary for the proper execution and completion of the Work by the Contractor.

2.2.2 The Contract shall be construed in accordance with the laws of the State of Arizona, and all such laws regulating the construction of Public Works by the County are hereby incorporated herein by reference and made a part hereof.

2.2.3 Materials or work described in words, which have a well-known technical or trade meaning, shall be held to refer to such recognized standards.

2.2.4 The organization of the Contract into divisions, sections or articles is merely for the purpose of convenient reference, and neither the headings nor divisions shall have any legal or Contractual significance and shall not control the division of the Work by the Contractor among the various subcontractor or trades.

2.2.5 The Contractor shall obtain all required County permits in addition to any and all ADOH required permits and pay any taxes or other costs associated with permitting. There will be no reimbursement for the cost of any ADOH or County permits.

2.3 Execution

2.3.1 Execution of the Contract by the Contractor is a representation that the Contractor has thoroughly examined the Contract.

2.4 Ownership of the Contract

2.41 The Contract, including, but not limited to, the drawings and specifications, is the property of the County and is not to be used by the Contractor or any subcontractor on other projects outside the scope of the Work without the express written consent of the County.

ARTICLE 3. ADMINISTRATION OF THE CONTRACT

3.1 Lines of Authority and Communications

3.1.1 The County's Procurement Director is the County official with overall authority and responsibility for the award and administration of County contracts below the adopted formal bid threshold. The Procurement Director or his designated Procurement Department representative after consultation with the County Contract Representative has the ultimate authority to resolve disputes concerning Contract performance and to stop the Work whenever such stoppage may be necessary to ensure the proper execution of the Work.

3.1.2 The County Contract Representative is the designated representative of the particular County department for which the Work is being constructed (the "user department") or the County department which is responsible for the oversight of the Work.

3.1.3 Day-to-day administration of the Contract is the responsibility of the County Contract Representative. The County Contract Representative is the County's representative during the prosecution of the Work and shall act as surveillance and technical advisor for the County. The County Contract Representative duties are more fully described in Section 3.2 of this Article.

3.1.4 The Contractor shall supervise and direct the Work and shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work, unless the Contract gives other specific instructions concerning these matters. The Contractor's duties and responsibilities are more fully described in Article 4 of these Contract conditions.

3.1.5 Except where the Contract otherwise provides or where direct communication has been specifically authorized, the Contractor shall initially communicate with the County Contract Representative.

3.2 County Contract Representative's General Authority and Responsibilities

3.2.1 Unless the Contractor is responsible for the design of the Work, the County Contract Representative shall furnish to the Contractor, free of charge unless it is provided otherwise in the Contract, copies of drawings, specifications and instructions available for the execution of the Work. The County Contract Representative may furnish additional clarifications or interpretations in writing or by drawings as may be necessary for the proper progress and execution of the Work. Such additional clarifications and interpretations shall be furnished with reasonable promptness, and the Contractor shall not do work without drawings or written clarifications where needed. All drawings, specifications and copies thereof furnished by the County Contract Representative are County property. They are not to be used on other work and, with the exception of the signed Contract, and are to be returned to the County Contract Representative at the completion of the Work.

3.2.2 The County Contract Representative shall provide general surveillance of the Work. By making sufficient periodic visits to the site of the Work, the County Contract Representative will become thoroughly familiar with the progress and quality of completed portions of the Work, and will assess if the Work is being performed in a manner indicating that the Work, when completed, will be in accordance with the Contract.

3.2.3 The County Contract Representative will decide all questions which may arise as to the quality and acceptability of materials furnished and Work performed and as to the rate of progress of the Work, and all questions which may arise as to the interpretation of the drawings and specifications.

3.2.4 The County Contract Representative shall have the authority to reject work that is not in conformity with the Contract and to order additional inspections and testing of the Work.

3.2.5 The County Contract Representative shall conduct an initial review of, and approve or deny, written Change Orders submitted by the Contractor, and may prepare Change Orders and provide field clarifications and corrections. All Change Orders shall be approved by the Procurement Director or appointed designee prior to any work being done. However, in emergencies endangering life or property, the County Contract Representative may take action and issue orders which are deemed necessary to avert the loss of life or property.

3.2.6 The County Contract Representative, pursuant to Article 10 of these General Conditions, shall make recommendations to the Procurement Director or designee as to all claims of the Contractor.

3.2.7 The County Contract Representative will review and process the Contractor's monthly Estimates for Payment, as more fully set forth in Article 7 of these General Conditions.

3.2.8 The County Contract Representative will conduct inspections to determine the dates of Substantial Completion and Final Completion and will certify such dates to the Contract Officer.

3.2.9 The County Contract Representative will not have control over or charge of, and will not be responsible for, construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility.

3.3 Public Inspections

3.3.1 Unless otherwise specifically provided in the Contract, Public Inspectors who perform day-to-day inspections of the Work for compliance with applicable codes will have authority to require compliance with drawings, specifications and applicable codes, and may provide clarification of any unspecified or unclear item or situation.

3.3.2 If the drawings or specifications, laws, ordinances, or any public authority requires any work to be specially tested or approved, the Contractor shall give the County Contract Representative timely notice of its readiness for inspection. If the inspection is by an individual, authority or entity other than the County Contract Representative or the Public Inspectors, the Contractor shall advise the County Contract Representative of the date fixed for such inspection.

3.3.3 All tests, inspections or approvals required to be performed by the County Contract Representative, Public Inspectors, or other authorities or entities shall not relieve the Contractor of their obligation to perform the Work in accordance with the Contract.

3.4 Special Inspections and Testing of Materials

3.4.1 All equipment and materials used in the construction of the Work, especially those upon which the strength and durability of the structure may depend, shall be subject to adequate inspection and testing in accordance with accepted standards, to establish conformance with specifications and suitability for the use intended, as determined by the County Contract Representative.

3.4.2 The performance of tests and the engagement of testing laboratories or agencies must have the prior approval of the County Contract Representative. Except as provided in subsection 3.4.3, the County will pay for approved tests and services rendered by the approved laboratory or agency in addition to the Contract price for construction.

3.4.3 When initial tests indicate that any portion of the Work is not in conformance with the Contract because of faulty workmanship, the Contractor shall be required to pay for necessary re-tests. When initial tests indicate that the work is in conformance with the Contract, any re-testing that's ordered by the County shall be paid for by the County.

ARTICLE 4. THE CONTRACTOR'S DUTIES AND RESPONSIBILITIES

4.1 Contractor's Review of Contract Documents and Site Conditions

4.1.1 It shall be the duty of the Contractor to carefully study and compare all drawings, specifications and instructions. If any discrepancies, errors, omissions or inconsistencies are discovered in the drawings or specifications, or between the drawings and specifications, or there are any conflicts between existing site conditions and the requirements of the drawings and specifications, the Contractor shall immediately call all such discrepancies to the attention of the County Contract Representative.

4.1.2 The Contractor shall be required to use, for data and dimensions, figures marked on the drawings in preference to what the drawings may measure to scale; but in the absence of figured dimensions, scale dimensions may be used with the prior written concurrence of the County Contract Representative. The Contractor shall verify all dimensions shown and check all measurements in connection with any present building or buildings, level or grades, walks, driveways or other existing conditions before executing any work. Errors or inconsistencies shall be reported to the County Contract Representative immediately. ***It is the responsibility of the Contractor to provide BLUESTAKE verification of underground utilities on and off the construction site.***

4.1.3 Change orders will not be issued to cover any cost, loss or expense for additional labor or materials required to rectify any error or inconsistency in the drawings and specifications unless prior notification is given by the Contractor to the County Contract Representative.

4.1.4 The Contractor shall perform the Work in accordance with the Contract and with shop drawings, product data and samples that have been approved by the County Contract Representative.

4.1.5 Notwithstanding the above provisions, if the Contractor is responsible for the design of the Work, the Contractor shall ensure the accuracy and completeness of the drawings, specifications and instructions. If any discrepancies, errors, omissions or inconsistencies are discovered in the drawings or specifications, or between the drawings and specifications, or there are any conflicts between existing site conditions and the requirements of the drawings and specifications, the Contractor shall immediately call all such discrepancies to the attention of the County Contract Representative and shall be responsible for any required corrective action.

4.2 Contractor's Supervision

4.2.1 The Contractor shall efficiently and continuously supervise and direct the Work, using its best skill and attention. Unless the Contract specifically provides otherwise, the Contractor shall be solely responsible for and shall exercise control over construction means, methods, techniques and procedures and shall coordinate the sequences of all portions of the Work.

4.2.2 The Contractor shall ensure that the key personnel submitted in response to the Invitation for Bids and assigned to this Contract are available throughout the term of the Contract. In the event that the Contractor requests substitution of key personnel, the Contractor shall obtain prior approval from the County for key personnel substitution. The Contractor shall ensure that substituted personnel are equally qualified and capable. Information on the qualifications of proposed substitutes shall be provided to the County for its consideration and approval prior to substitution taking place.

4.2.3 The Contractor agrees that it is as fully responsible to the County for the acts and omissions of its subcontractors and of persons, either directly or indirectly employed by the Contractor, as it is for the acts and omissions of persons directly employed by the Contractor.

4.3 Materials and Labor; Warranty

4.3.1 Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, equipment, tools, construction equipment and machinery, water, gas, heat, utilities, transportation, and other facilities and services necessary for the execution, completion and delivery of the Work within the specified Completion Time.

4.3.2 The Contractor shall pay all applicable taxes associated with the Work.

4.3.3 The Contractor warrants to the County that all materials and equipment furnished under the Contract shall be new unless otherwise specified, and that all of the Work shall be of good quality, free from faults and defects and in conformance with the Contract. All Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective.

4.3.4 The Contractor shall be held to furnish all work as specified in the Contract. After a price proposal for the Work has been accepted by the County, changes of brand named, trade named, trademarked, patented articles, or any other substitutions shall be allowed only by written order signed by the County Contract Representative. Unless otherwise agreed to via Change Order, the County shall receive all benefits of the difference in costs.

4.4 Construction Schedules and Submittals

4.4.1 Before commencing the Work, the Contractor shall provide the County Contract Representative with a construction schedule for the Work, fixing the dates at which various pre-determined events shall occur in order to promote a timely completion of the various parts of the Work in accordance with the Contract. The schedule may be revised from time to time as may be required by conditions of the Work, but shall not exceed time limits, or any extensions thereof, set forth in the Contract or in the individual job order, as appropriate.

4.4.2 The Contractor shall prepare and keep current for the County Contract Representative's approval, a schedule of submittals which shall be coordinated with the Contractor's construction schedule and allow the County Contract Representative reasonable time to review such submittals.

4.4.3 After review, the County Contract Representative, with reasonable promptness, shall approve these shop or setting drawings, product data, samples and sequences for conformance with the design concept of the project, the approved construction schedule, and other requirements of the Contract.

4.4.4 The Contractor shall make any corrections required by the County Contract Representative and re submit such corrected materials to the County Contract Representative for approval. Any correction or change that will result in a design or function change or in an increase or decrease in the Contract price must also receive the prior approval of the County's Director of Procurement or his designee.

4.4.5 The Contractor shall perform no portion of the Work requiring submittal and review of shop drawings, product data, samples or schedules until the respective submittals have been approved by the County Contract Representative, and shall not deviate from such submittals after final approval by the County Contract Representative.

4.4.6 As-built documents must be provided to the County by the Contractor prior to final acceptance of electrical equipment. The County reserves the right to withhold final payment until complete as-built drawings have been received in good order by the County Contract Representative.

4.5 Documents and Samples at the Work Site

4.5.1 Unless otherwise directed by the County's Contract Representative, the Contractor shall maintain at the Work site a complete file of the drawings, specifications, addenda, change orders and other approved modifications, in good order and marked to reflect changes and selections made during construction, together with all approved shop drawings, product data, samples and similar required submittals. Such files shall be made available to the County Contract Representative and Public Inspectors upon request.

4.6 Protection and Use of Site – (Signs, Utilities, Water, Sanitation, Traffic, etc.)

4.6.1 The County will provide land, rights-of-way and easements for all work specified in the Contract. (If applicable)

4.6.2 Contractor shall prevent any damage to pipes, sewers, computer and phone lines, conduits or other structures, including public and/or private lawns, gardens, shrubbery and trees encountered in the Work, and shall hold the County harmless from damages for any injury done to such pipes, structures or property during the course of the Work.

4.6.3 Work shall be accomplished so that there will be a minimum of traffic interruption and inconvenience, discomfort or damage to the public.

4.6.4 The Contractor shall supply safe drinking water and sanitary facilities for all contractor's employees at the work site.

4.6.5 If archaeological, historical or paleontological features are encountered or discovered during any activity related to the Work, the Contractor shall stop work immediately at that location and shall take all reasonable steps to secure the preservation of those features. The County Contract Representative will make arrangements for the proper treatment of the affected portion of the Work site. The Contractor shall not resume work in the affected portion without the prior approval of the County Contract Representative. Extensions in the Contract time for delays resulting from the discovery of archaeological, historical or paleontological features, if such discovery results in a delay to the progress of the Work, may be claimed by the Contractor in accordance with Article 10 of these General Conditions.

4.7 Cleaning Up

4.7.1 The Contractor shall at all time keep the construction site and surrounding area free from accumulations of waste material or rubbish caused by operations under the Contract. Upon completion of the Work, the Contractor shall remove all rubbish, tools, equipment, scaffolding and surplus materials from the site and surrounding areas and leave the area "broom clean" or its equivalent, unless otherwise instructed by the County Contract Representative.

4.7.2 If the Contractor fails to clean up as provided in the Contract, the County may do so and the cost thereof shall be charged against the Contractor.

4.8 Emergencies

4.8.1 In an emergency affecting the safety of life or property, the Contractor, without special instruction or authorization from the County Contract Representative, is hereby permitted, authorized and directed to act at its own discretion to prevent threatened loss or injury.

4.8.2 Except in the case of an emergency requiring immediate remedial work, any work performed after regular working hours, on Saturdays, Sundays or legal holidays, shall be performed without additional expense to the County unless such work has been specifically requested and approved by the County Contract Representative.

4.8.3 The Contractor shall file with the County Contract Representative the names, addresses and telephone numbers of their company who can be contacted at any time in case of emergency. These Contractor representatives must be fully authorized and equipped to correct unsafe or excessively inconvenient conditions on short notice by the County or the Public Inspectors.

4.9 Permits, Fees and Notices

4.9.1 The Contractor shall, at its expense, obtain all necessary permits and licenses for work performed under the Contract, and shall give all necessary notices required by laws, ordinances, rules, regulations and lawful orders of public authorities pertaining to performance of the work, public health and safety.

4.9.2 If the Contractor knowingly performs work which is not in compliance with such laws, ordinances, rules, regulations or orders, without such notice to the County Contract Representative**,** the Contractor shall assume full responsibility for such Work and shall bear all costs attributable thereto.

4.10 Royalties and Patents

4.10.1 The Contractor shall pay all royalties and license fees.

4.10.2 The Contractor and the surety shall defend any suit or proceeding brought against the procuring agency, during the prosecution or after the completion of the work, based on a claim that manufacture, sale, or use of any method, process, machine, technique, design, living thing, genetic material, or composition of matter, or any part thereof, furnished or used under this Contract constitutes an infringement of any patent, trademark, or copyright, and the Contractor shall pay all damages and costs awarded therein, against the procuring agency and any affected third party or political subdivision. If manufacture, sale, or use of said method, process, machine, technique, design, living thing, genetic material, or composition of matter, or any part thereof, is in such suit held to constitute infringement and if manufacture, sale, or use of said method, process, machine, technique, design, living thing, genetic material, or composition of matter, or part thereof, is enjoined, the Contractor shall, at its own expense, either procure for the procuring agency the right to continue manufacture, sale, or use of said method, process, machine, technique, design, living thing, genetic material, or composition of matter, or part thereof, or, subject to Engineer's approval, replace same with no infringing method, process, machine, technique, design, living thing, genetic material, or composition of matter, or part, or modify it so it becomes no infringing.

4.10.3 If appropriate, the Contractor shall furnish the County Contract Representative satisfactory evidence of patent licenses or patent releases covering County-specified proprietary materials, equipment, devices or processes, as the case may be.

4.11 Protection of Persons and Property

4.11.1 The Contractor shall be responsible for initiating, maintaining, supervising and directing all safety precautions and programs in connection with the performance of the Contract.

4.11.2 The Contractor shall be responsible for the protection of all Work until completion and final payment is made, including any material or equipment to be incorporated whether in storage on or off the Work site.

4.11.3 The Contractor shall, at their own expense, replace damaged or lost material, or repair damaged parts of the Work or of other property at the work site or adjacent thereto, and the Contractor and their sureties shall be liable therefore.

4.11.4 The Contractor shall assume all risks from floods and casualties and shall make no claim for damages for delay from such causes. However, a reasonable extension of time on account of such delays may be allowed, subject to the conditions contained in Article 6 of these General Conditions.

4.11.5 In the event the Contractor encounters on the work site material reasonably believed to be a hazardous material, such as asbestos or polychlorinated biphenyl (PCB), the Contractor shall immediately stop work in the area affected and report the condition to the County Contract Representative.

4.11.6 The Contractor shall take all necessary precautions for the safety of employees on the work site and other persons who may be affected thereby, and shall comply with all applicable provisions of Federal, State and Municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the Work is being performed.

The Contractor shall erect and properly maintain at all times, as required by the condition and progress of the Work, all necessary safeguards for the protection of workmen and the public and shall post danger signs warning against the hazards created by such features of construction as protruding nails, hood hoists, well holes, elevator hatchways, scaffolding, window openings, stairways and falling materials.

4.11.7 The Contractor warrants it is fully familiar and shall comply with all of the safety requirements of the Occupational Safety and Health Act (29 U.S.C. Sections 641-678, or as amended or decodified from time to time). Also the Hazard Communication Act relating to the use of hazardous materials (29 C.F.R. 1910-1200, or as amended or decodified from time to time), as promulgated by the Federal Government and as implemented by the State of Arizona, and that it will be solely responsible for all fines and penalties provided for by law for any violation of such Act and, furthermore, shall require all subcontractors to comply with such Acts and with the provisions of this section. Any claims arising out of alleged violations of such Acts are covered by the indemnification set forth in the solicitation Section 6.0, paragraph 6.10.

4.12 INSURANCE REQUIREMENTS

The County requires a complete and valid Certificate of Insurance prior to the commencement of any service or activity as specified in this Contract for Construction Services. The Contractor must submit an original copy of the Certificate of Insurance maintaining the coverage limits as specified in the original solicitation document, **Section 6.0 Special Terms and Conditions, paragraph 6.11 titled Insurance Requirements.** The coverage's shall be maintained in full force and in effect during the term of the Contract for Construction Services and shall not serve to limit any liabilities or any other Contractor obligations.

ARTICLE 5. SUBCONTRACTS AND SEPARATE CONTRACTS

5.1 Subcontracts

5.1.1 The Contractor shall ensure that the subcontractors submitted in response to the Invitation for Bid and assigned to this Contract are available throughout the term of the Contract. In the event that the Contractor requests substitution of subcontractors, the Contractor shall obtain prior approval from the County for subcontractor substitution. The Contractor shall ensure that substituted subcontractors are equally qualified and capable. Information on the qualifications of proposed substitutes shall be provided to the County for its consideration and approval prior to substitution taking place.

5.1.3 In job-order-contracting, by appropriate written agreement, the Contractor agrees that each subcontractor has been notified in writing of the negotiated amount or coefficient agreed to for billing purposes. Furthermore, by appropriate written agreement, the Contractor agrees that each subcontractor shall be bound to the Contractor by the terms of the Contract. In the event of a conflict between the substance of a written subcontract and the language of this Contract, the language of this Contract shall prevail.

5.1.4 Contractor shall ensure that each subcontract shall preserve and protect the rights of the County under the Contract with respect to the work to be performed by the subcontractor. Where appropriate, the Contractor shall require each subcontractor to enter into similar agreements with

sub-subcontractors. In this connection, the Contractor shall make available to each subcontractor, prior to execution of any subcontract, copies of the Contract provisions to which the subcontractor shall be bound. Subcontractors shall also make copies of applicable portions of the Contract available to their respective subcontractors.

5.1.5 Each subcontract shall require the subcontractor to submit to the Contractor applications for payment in such reasonable time as to enable the Contractor to apply for payment to the County in a timely manner, including any claims for extras, extensions of time, and damages for delays or otherwise to the Contractor in the manner provided in the Contract for like claims by the Contractor upon the County.

5.1.6 The Contractor further agrees:

1. To be bound to the subcontractor with respect to obligations under the contract in the same manner and to the same extent that the County assumes obligations under this Contract, including provisions of the contract that afford remedies and redress to the Contractor from the County.

2. To promptly pay the subcontractor in accordance with applicable State statute.

3. That, at all times, the subcontractors' total payments shall be proportionate to the value of the labor and materials provided by them. Payment may be preconditioned upon the subcontractors providing the Contractor with requested significant partial or final lien waivers.

4. To pay the subcontractor to such extent as may be provided by the Contract or the subcontract, if either of these provides for earlier or larger payments than the above.

5. To ensure timely payment to subcontractors for their work as performed and for materials fixed in place, less any applicable retention, despite any delay by the County in making payments to the Contractor for any cause not the fault of the subcontractor.

6. To share or forward, as appropriate, with its subcontractors or, as appropriate, with the County, any fire insurance proceeds received by the Contractor under the insurance provisions of the Contract.

7. That no claim for services rendered or materials furnished by the Contractor to the subcontractor shall be valid unless written notice thereof is given by the Contractor to the subcontractor during the first ten (10) days of the calendar month following the month in which the claim originated.

8. To give the subcontractor an opportunity to be present and to submit evidence in any Contractual claim, controversy or dispute.

5.1.7 Nothing in this Article shall create any obligation on the part of the County to pay to, or to see to the payment of, any sums to any subcontractor, except as may otherwise be required by law.

5.1.8 Each subcontract agreement for a portion of the Work is hereby assignable by the Contractor to the County provided that:

1. Assignment is effective at the sole option of the County and only upon termination of the Contract for cause pursuant to Article 9 of these General Conditions, and only for those subcontract agreements which the County determines to accept by notifying the subcontractor in writing, and

2. Assignments is subject to the prior rights of the surety obligated under the Bonds relating to the Contract.

5.2 Separate Contracts

5.2.1 The County reserves the right to perform construction or operations related to the Work with the County's own forces and to let separate Contracts in connection with other portions of the Work or other construction or operations on the Work site.

5.2.2 The Contractor shall afford other Contractors on the Work site reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate its work with theirs.

5.2.3 The County Contract Representative shall coordinate the activities of the County's own forces and of each separate Contractor with the work of the Contractor. The Contractor and all other Contractors on the Work site shall be required to review their construction schedules and cooperate with the County Contract Representative in coordinating the various portions of the Work with the schedules of such separate contractors.

5.2.4 If any part of the Contractor's work depends, for proper execution or results, upon the work of any other contractor, the Contractor shall inspect and promptly report to the County Contract Representative any defects in such work that render it unsuitable for continuance of the Contractor's Work. Failure to inspect and report may constitute an acceptance of the other contractor's work as fit and proper for the reception of the Contractor's Work, except as to defects not then reasonably discoverable.

5.2.5 Costs caused by the Contractor because of delays or by improperly timed activities or defective construction shall be borne solely by the Contractor.

5.2.6 If the Contractor causes damage to any separate contractor on the site, the Contractor, upon due notice, agrees to settle with such separate contractor by agreement or arbitration, if he will so settle. If such separate contractor sues the County on account of any damage alleged to have been so sustained, the County shall notify the Contractor, who shall defend such proceedings and, if any judgment against the County arises there from, the Contractor shall pay or satisfy it.

5.2.7 Should separate contractors on the Work cause any damage, cost or loss to the Contractor, the County shall not be held responsible or liable therefore in any way other than extensions of completion time in accordance with Article 6 of these General Conditions.

ARTICLE 6. TIME FACTORS

6.1 Time

6.1.1 Unless otherwise provided in the Contract, the Completion Time is the number of calendar days, including authorized time extensions, specified for completion of the Work.

6.1.2 Completion Time shall commence on the day specified in the Notice to Proceed. The date shall not be postponed on account of the failure of the Contractor, or of any of its subcontractors to take any action required to commence the Work.

6.1.3 The date of Substantial Completion is the date certified by the County Contract Representative pursuant to Subsection 7.4.1 of Article 7 of these General Conditions.

6.1.4 The term "day" as used in the Contract shall mean calendar day.

6.1.5 By execution of the Contract documents, or by concurrence with the Notice to Proceed in the case of a job order, the Contractor acknowledges that the time described is a reasonable period for a competent Contractor to complete the Work.

6.1.6 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the agreed upon time frame. If the Contractor is delayed on any portion of the Work for any reason whatsoever, it shall expeditiously proceed on other portions of the Work which are not affected by such delay.

6.2 Delays and Time Extensions

6.2.1 It is agreed that the County's only liability for any delay from any cause shall be limited to granting a time extension to the Contractor and that no extended general conditions for any delay will be applicable unless agreed to by the County. There is no other obligation, express or implied, on the part of the County to the Contractor for delay from any cause.

6.2.2 The completion time shall be extended when delay in completion of the Work by either the Contractor or the subcontractors is due to any preference, priority or allocation order duly issued by the Federal Government.

6.2.3 Should a dispute arise between the Contractor and the County regarding a delay or time extension, the Contractor shall continue progress on the Work until the dispute is resolved.

ARTICLE 7. PAYMENTS TO THE CONTRACTOR

7.1 Contract Price; Request for Payment; Schedule of Values

7.1.1 The Contract amount or coefficient stated in the Contract documents or, in the case of a job order, in the Notice to Proceed, plus or minus any authorized adjustments is the amount payable by the County to the Contractor for performance of the Work under the Contract or for a specific job order.

7.1.2 During the course of construction, the Contractor shall request payment for work actually performed during the preceding month or some other time period as mutually agreed to, using "ESTIMATE FOR PAYMENT" forms, which are furnished by the County or a County approved form submitted by the Contractor. Completed forms shall be submitted to the County Contract Representative. A schedule of values and an updated project schedule shall accompany the request for payment.

7.2 Certification and Payment; Retainage; Substitute Securities

7.2.1 The County by mutual agreement may make progress payments on Contracts of less than ninety (90) days and shall make monthly progress payments on all other Contracts as provided for in this paragraph.

Payment to the Contractor on the basis of a duly certified and approved estimate for payment of the work performed during the preceding calendar month under the Contract may include payment for material and equipment, but to ensure the proper performance of the Contract, the County shall retain ten per cent of the amount of each estimate until final completion and acceptance of all material, equipment and work covered by the Contract. An estimate of the work submitted shall be deemed approved and certified for payment after seven (7) days from the date of submission unless before that time the County or the County's designee prepares and issues a specific written finding setting forth those items in detail in the estimate of the work that are not approved for payment under the Contract. The County may withhold an amount from the progress payment sufficient to pay the expenses the County reasonably expects to incur in correcting the deficiency set forth in the written finding. The progress payments shall be paid on or before fourteen (14) days after the estimate of the work is certified and approved. The estimate of the work shall be deemed received by the County on submission to any person designated by the County for the submission, review or approval of the estimate of the work.

7.2.2 When the Contract is fifty per cent complete, one-half of the amounts retained including any securities substituted under paragraph 7.2.4 shall be paid to the Contractor on the Contractor's request provided the Contractor is making satisfactory progress on the Contract and there is no specific cause or claim requiring a greater amount to be retained. After the Contract is fifty per cent complete, no more than five per cent of the amount of any subsequent progress payments made under the Contract may be retained providing the Contractor is making satisfactory progress on the project, except that if at any time the County determines satisfactory progress is not being made ten

per cent retention shall be reinstated for all progress payments made under the Contract after the determination.

7.2.3 On completion and acceptance of each separate building, public work or other division of the Contract on which the price is stated separately in the Contract, except as qualified in paragraph 7.2.5, payment may be made in full, including retained percentages, less authorized deductions. In preparing estimates, the material and equipment delivered on the site to be incorporated in the job shall be taken into consideration in determining the estimated value by the architect, engineer or other person, as specified in the Contract.

7.2.4 Ten per cent of all estimates shall be retained by the County as a guarantee for complete performance of the Contract, to be paid to the Contractor within sixty (60) days after completion or filing notice of completion of the Contract. Retention of payments by the County longer than sixty (60) days after final completion and acceptance requires a specific written finding by the County of the reasons justifying the delay in payment. The County may not retain any monies after sixty (60) days that are in excess of the amount necessary to pay the expenses the County reasonably expects to incur in order to pay or discharge the expenses determined by the County in the finding justifying the retention of monies. In lieu of the retention provided in this section, the County, at the option of the Contractor, shall accept as a substitute an assignment of time certificates of deposit of banks licensed by this state, securities of or guaranteed by the United States of America, securities of this state, securities of counties, municipalities and school districts within this state or shares of savings and loan institutions authorized to transact business in this state, in an amount equal to ten per cent of the bid amount that will be retained by the County as a guarantee for complete performance of the Contract. If the County accepts substitute securities, as described in this paragraph, for the ten per cent retention, the Contractor is entitled to receive all interest or income earned by this security as it accrues and all such security in lieu of retention shall be returned to the Contractor by the County within sixty (60) days after final completion and acceptance of all material, equipment and work covered by the Contract if the Contractor has furnished the County satisfactory receipts for all labor and material billed and waivers of liens from any and all persons holding claims against the work. In no event shall the County accept a time certificate of deposit of a bank or shares of a savings and loan institution in lieu of the retention specified unless accompanied by a signed and acknowledged waiver of the bank or savings and loan association of any right or power to set off against either the County or the Contractor in relationship to the certificates or shares assigned.

7.2.5 In any instance where the County has accepted substitute security as provided in paragraph 7.2.4, any subcontractor undertaking to perform any part of this public work is entitled to provide substitute security to the Contractor on terms and conditions similar to those described in paragraph 7.2.4, and this security is in lieu of any retention under the subcontract.

7.2.6 Notwithstanding paragraphs 7.2.1 through 7.2.5, retention is not required for job-order-contracting construction services contracts, except that the County may elect to require retention for a job-order-contracting construction services contract. If the County elects to require retention, paragraphs 7.2.1 through 7.2.5 apply to the job-order-contracting construction services Contract, except that:

1. Contract, or failure to reasonably account for the application or use of those payments, constitutes grounds for disciplinary action by the Registrar of Contractors. The subcontractor or material supplier shall notify the Registrar of Contractors and the County in writing of any payment less than the amount or 1 Retention shall be five percent of each payment instead of ten percent reducing to five percent.

2. Retention applicable to each job order shall be released within sixty (60) days after final completion of the job order and acceptance of the work under the job order.

3. No retention on the job order may be released until that time.

4. The retention percentage shall not be increased.

7.2.7 The Contractor shall pay to the Contractor's subcontractors or material suppliers and each subcontractor shall pay to the subcontractor's subcontractor or material supplier, within seven (7) days of receipt of each progress payment, unless otherwise agreed in writing by the parties, the respective amounts allowed the Contractor or subcontractor on account of the work performed by the subcontractors, to the extent of each subcontractor's interest, except that no Contract for construction services may materially alter the rights of any Contractor, subcontractor or material supplier to receive prompt and timely payment as provided under this section. The payments to subcontractors or material suppliers shall be based on payments received pursuant to this section.

7.2.8 A subcontractor may notify the County in writing requesting that the subcontractor be notified by the County in writing within five (5) days from payment of each progress payment made to the Contractor. The subcontractor's request remains in effect for the duration of the subcontractor's work on the project.

7.2.9 Nothing in this section prevents the Contractor or subcontractor, at the time of application and certification to the County or Contractor, from withholding the application and certification to the County or Contractor for payment to the subcontractor or material supplier for unsatisfactory job progress, defective construction work or materials not remedied, disputed work or materials, third party claims filed or reasonable evidence that a claim will be filed, failure of a subcontractor to make timely payments for labor, equipment and materials, damage to the Contractor or another subcontractor, reasonable evidence that the subcontract cannot be completed for the unpaid balance of the subcontract sum or a reasonable amount for retention that does not exceed the actual percentage retained by the County.

7.2.10 If any payment to a Contractor is delayed after the date due interest shall be paid at the rate of one per cent per month or fraction of a month on the unpaid balance as may be due.

7.2.11 If any periodic or final payment to a subcontractor is delayed by more than seven (7) days after receipt of the periodic or final payment by the Contractor or subcontractor, the Contractor or subcontractor shall pay the subcontractor or material supplier interest, beginning on the eighth day, at the rate of one per cent per month or fraction of a month on the unpaid balance as may be due.

7.2.12 Notwithstanding anything to the contrary in this section, this section applies only to amounts payable in a construction services Contract for construction and does not apply to amounts payable in a construction services Contract for design services, preconstruction services, finance services, maintenance services, operations services and other related services.

7.2.13 The County Contract Representative, with reasonable dispatch, will review the contents of the ESTIMATE FOR PAYMENT submitted by the Contractor, determine the sufficiency of the estimate, satisfy himself that the County has received full value, certify the estimate and submit it through normal channels for payment.

7.2.14 Neither the certification nor payment made to the Contractor, nor partial or entire use or occupancy of the Work by the County shall constitute an acceptance of any portion of the Work.

7.3 <u>Payment Withheld</u>

If the County Contract Representative is unable to certify a request for payment in whole or in part because, after observing the Work and the data comprising the ESTIMATE FOR PAYMENT, the County Contract Representative determines that the Work has not progressed or the quality of the Work is not in accordance with the Contract, the County Contract Representative shall promptly notify the Contractor. If the County Contract Representative and the Contractor cannot agree on a revised amount, the County Contract Representative will promptly issue a certificate for payment in an amount he determines is justified.

7.3.2 The County Contract Representative or other County official, as a result of subsequently discovered evidence, may also withhold or nullify the whole or a part of any certification to such extent as may be necessary to protect the County from loss on account of:

1. Defective work not remedied.

2. Third-party claims filed or reasonable evidence indicating probable filing of such claims.

3. Failure of the Contractor to make payments properly to subcontractors or for labor, materials, or equipment.

4. Reasonable doubt that the Work can be completed for the unpaid balance of the Contract amount, or reasonable evidence that the Work will not be completed within the Contract Time and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay.

5. Damage to another contractor or to the County.

6. Damage to the real or personal property of another and failure to repair or replace the same.

7. Persistent failures to carry out the Work in accordance with the Contract.

7.3.3 When the grounds for withholding payment have been corrected to the satisfaction of the County Contract Representative or other County official concerned, the County shall proceed to process any amounts due.

7.4 Substantial Completion

7.4.1 When the Contractor considers that the Work, or a portion thereof which the County has agreed to accept separately, is ready for its intended use, it shall notify the County Contract Representative in writing that the work or the agreed upon portion thereof, is substantially complete and request the County Contract Representative to issue a Certificate of Substantial Completion. Within a reasonable time thereafter, the County Contract Representative shall make an inspection of the Work, or the designated portion thereof, to determine the status of completion. If the inspection discloses any item that is not in accordance with the Contract, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item. The Contractor shall then submit a request for a re-inspection by the County Contract Representative. When the Work or designated portion thereof is determined to be substantially complete, the County Contract Representative shall prepare a Certificate of Substantial Completion for signature of the parties, fixing therein the date of Substantial Completion and establishing the responsibilities of the County and Contractor, pending final payment by the County, for security, maintenance, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall finish all items on the punch list attached to the certificate.

7.4.2 Warranties required by the Contract shall commence on the date of Final Completion for a period of one year, except where a specific provision of the Contract provides otherwise.

7.5 Final Completion and Final Payment

7.5.1 Upon receipt of notice from the Contractor that the Work is ready for final inspection and upon receipt of a request for final payment, the County Contract Representative will determine that all items on the punch list have been completed or corrected and the County will make payment reflecting adjustments in retainage, if any, for such work or portion thereof as provided for in the Contract.

7.6 Consent of Surety/ Lien Waivers and As-Built Drawings

7.6.1 Neither the final payment nor any part of the retained percentage shall become due until the Contractor provides to the Contract Officer a Consent of Surety Certificate from their bonding company, or lien waivers, at the Contract Officer's discretion and all completed as-built drawings.

7.7 Partial Utilization

7.7.1 The County may occupy or use any portion of the Work which the County and the Contractor agree constitutes a separately functioning and usable part of the Work that can be used by the County without significant interference with the Contractor's performance of the remainder of the Work. Such use or occupancy may commence whether or not the portion is substantially complete, provided the County and the Contractor have accepted in writing their mutual responsibilities regarding the used portion, including but not limited to insurance coverage, maintenance and utilities.

7.7.2 Partial use or occupancy of the Work by the County shall not constitute acceptance of Work not complying with the requirements of the Contract.

ARTICLE 8. UNCOVERING AND CORRECTION OF WORK; CHANGES IN THE WORK

8.1 Uncovering of Work

8.1.1 Piping, wiring, ducts, etc., shall not be covered up before proper inspection, approval and certificates, if required, are issued. Should any work that is designated for inspection by the County Contract Representative or the Contract before covering is covered before such inspection, it must be uncovered by the Contractor at their expense when examination is ordered by the County Contract Representative.

8.1.2 If a portion of the Work not designated by the County Contract Representative or the Contract for inspection has been covered and the County Contract Representative or a Public Inspector orders such work uncovered for inspection, the Contractor shall immediately uncover such work. If such uncovered work is found to be in accordance with the Contract, an appropriate Change Order shall be issued to compensate the Contractor for the expense of uncovering and replacing the work. If such work is found to be not in compliance with the Contract, the Contractor shall pay such costs, unless the condition was caused by the County or a separate Contractor.

8.1.3 The County shall not be responsible for or bear the cost of any re-examination and replacement occasioned by defects in the work caused by subcontractors.

8.2 Correction of Work

8.2.1 Correction of Work Before Final Payment: The Contractor shall promptly remove from the site of the Work all materials and/or associated portions of the Work rejected by the County Contract Representative as failing to conform to the Contract, whether incorporated or not, and the Contractor shall promptly replace and re-execute the Work in accordance with the Contract, without expense to the County, and shall bear the expense of making good the work of other contractors destroyed or damaged by such removal or replacement. If the Contractor does not remove such rejected Work and/or materials within a reasonable time, fixed by written notice, the County may remove it and may store the materials at the expense of the Contractor.

8.2.2 Should the Contractor fail to repair such defective material and/or workmanship or to make replacements within five (5) calendar days after written notice by the County, it is agreed that the County may, at its sole discretion, make such repairs and replacements and the actual cost of the required labor and materials shall be chargeable to and payable by the Contractor or his surety.

8.3 Changes in the Work

8.3.1 The County Contract Representative may order extra work or make changes by altering, adding to or deducting from the Work, the Contract price being adjusted accordingly by Change Order without invalidating the Contract. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

8.3.2 The value of any extra work or change ordered under the Contract shall be determined in one or more of the following ways:

1. By estimate and acceptance in a lump sum.
2. By unit prices in the Contract or subsequently agreed upon prices.
3. By a fixed fee.

ARTICLE 9. SUSPENSION OR TERMINATION OF THE WORK

9.1 Suspension of the Work for Cause; County's Right to Perform the Work

9.1.1 If the Contractor fails to correct Work which is not in accordance with the Contract, or persistently fails to carry out the Work in accordance with the Contract, the Contract Officer, after consultation with the County Contract Representative, may order the Contractor in writing to stop the Work, or any portion of the Work, until the cause for such order has been eliminated.

9.1.2 If the Contractor fails to prosecute the Work properly or fails to perform any provision of this Contract, the County may, five (5) days after written notice to the Contractor, and without prejudice to any other
remedy the County may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor and its surety shall be liable to the County for such deficiency.

9.2 Termination by the County for Cause

9.2.1 The County, upon certification by the County Contract Representative, without prejudice to any other right or remedy of the County and after giving the Contractor seven (7) days written notice, may terminate this Contract as to all or any part of the Work for any of the following reasons:

1. If the Contractor abandons the work, or unnecessarily delays the work.
2. If the Contractor should consistently or repeatedly refuse or fail to supply enough properly skilled workers or proper materials or competent subcontractor.
3. If the Contractor fails to timely make payment to subcontractor for materials or labor in accordance with the respective agreements between the Contractor and the subcontractor or as expressly set forth herein.
4. If the Contractor persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction, or persistently violates the conditions or covenants of this Contract.
5. If the Contractor should be adjudged bankrupt.
6. If the Contractor should make a general assignment for the benefit of its creditors or if a receiver should be appointed on account of its insolvency.
7. If the Contractor is otherwise in substantial breach of a provision of the Contract as determined by the County.

9.2.2 Upon termination of the Contract for any of the above reasons, the County, subject to any prior rights of the surety, may:

1. Take possession of the Work and of all materials, equipment, tools, and construction equipment and machinery at the Work site or adjacent thereto belonging to the Contractor.

2. Accept assignments of subcontracts pursuant to Subsection 5.1.8 of Article 5 of these General Conditions.

3. Finish the Work by whatever reasonable method the County may deem expedient. In completing the Work by a new contractor or by doing the Work itself, the County may use such equipment, materials, supplies, machinery, implements, tools and plant of the Contractor in the County's possession and may make all necessary repairs and replacements thereto.

9.2.3 If the County terminates the Contract for one of the reasons stated in Subsection 9.2.1, the Contractor shall not be entitled to receive any further payment.

9.2.4 The cost of fully completing the Work provided for under any new contract shall include the sum or sums of money to be paid by the County to other Contractors, all costs of repairs and replacements of machinery, implements, tools and plant of the Contractor hereunder, and also all sums of money paid for additional management and administrative services, including but not limited to the cost of the County Contract Representative's additional services and added expenses made necessary by the termination of the Contract.

9.2.5 If the unpaid balance of the Contract price exceeds costs of finishing the Work, such excess may, at the County's discretion, be paid to the Contractor. If such costs exceed the unpaid balance, the County may sell all materials, supplies, machinery, implements, tools and plant of the Contractor's then on hand, at public sale, on giving the Contractor twenty (20) days notice of the time and place of such sale, and the net proceeds derived from the sale of said property shall be applied against such costs. Should the amount received from the sale be insufficient to pay such deficiency, the Contractor and its surety shall be liable to pay the amount of the deficiency.

9.3 <u>Suspension by the County for Convenience</u>

9.3.1 The County may, without cause, order the Contractor in writing to suspend or interrupt the Work in whole or in part for such period of time as the County may determine whenever such suspension or interruption would be in the best interest of the County.

9.3.2 If the County suspends the Work for convenience, an adjustment shall be made for substantiated increases in the cost of performance of the Contract, if any, including profit on the increased cost of performance, caused by suspension or interruption. No adjustment shall be made to the extent:

1. That performance is, was or would have been so suspended or interrupted by another cause for which the Contractor is responsible, or

2. That an equitable adjustment is made or denied by the County.

9.4 <u>Termination by the County for Convenience</u>

9.4.1 The performance of the Work under this Contract may be terminated by the County, in whole or in part, in accordance with this clause whenever the County reasonably determines that such termination is in the best interest of the County. Any such termination shall be effected by delivery to the Contractor of a written Notice of Termination specifying the extent to which performance of the Work is terminated, and the date upon which such termination becomes effective.

9.4.2 If the Contract is terminated by the County as provided herein, the Contractor shall receive compensation for any Work performed and accepted, together with profit in proportion to the Work performed and accepted. The compensation shall include payment for contractual obligations reasonably incurred prior to termination. No amount shall be allowed for anticipated profit on unperformed Work.

9.4.3 In the event the County terminates the Work, in whole or in part, for cause pursuant to Section 9.2 of this Article 9 and the termination is later deemed to be unjustified, then such termination shall be automatically deemed a termination for convenience and the provisions of this Section 9.4 shall apply.

9.4.4 Termination of the Contract or portion thereof by the County for convenience shall not relieve the Contractor of their contractual responsibilities for the Work completed, nor shall it relieve the surety of its obligation for and concerning any just claim arising out of the Work completed.

9.5 Contractor's Right to Terminate Contract

9.5.1 The Contractor may terminate the Contract for any of the following reasons:

1. If the Work should be stopped under an order of any court of competent jurisdiction or other public authority for a period in excess of one (1) month through no act or fault of the Contractor or of anyone directly or indirectly employed by him.

2. If the County has failed to pay the Contractor within sixty (60) days after the date when any sum is certified for payment by the County Contract Representative, or

3. If repeated suspensions or interruptions ordered by the County pursuant to Section 9.3 total in the aggregate more than one hundred percent (100%) of the total number of days scheduled for completion, or two hundred and ten (210) days in any three hundred sixty-five (365) day period, whichever is less.

9.5.2 If one of the above reasons exists, the Contractor may, upon seven (7) additional days, written notice to the County Contract Representative, stop Work and terminate the Contract and recover payment from the County for all Work executed and accepted by the County and any loss sustained upon any plant or materials and reasonable profit and damages.

ARTICLE 10. CLAIMS AND DISPUTES

10.1 County Contract Representative's Resolution of Claims and Disputes; Review by Procurement Director or Designee

10.1.1 This Article relates to claims for additional compensation and any other differences between the parties arising under and by virtue of the Contract. Such claims are to be resolved at the earliest possible time and at the first responsible level so as to increase the possibility that such matters will be resolved without the vexation of an administrative hearing process, arbitration or litigation.

10.1.2 All claims, including but not limited to, claims relating to adjustments or interpretations of the Contract, payments of money, or other relief with respect to the terms of the Contract, shall be referred initially in writing to the County Contract Representative for action. The responsibility to substantiate claims shall rest with the party making the claim.

10.1.3 Claims by either party must be made within twenty-one (21) days after the event giving rise to the claim or within twenty-one (21) days after the claimant first becomes aware of the condition giving rise to the claim, whichever is later.

10.1.4 Pending final resolution of a claim, the Contractor shall proceed diligently with performance of the Contract and the County shall continue to make payments in accordance with the Contract.

10.1.5 The County Contract Representative shall, within twenty-one (21) days of receipt of a claim, do one of the following:

(1) Issue a decision either rejecting or approving the claim.
(2) Suggest an equitable compromise of the claim.
(3) Provide a schedule to the parties indicating when they expect to be able to take action, which shall be within a reasonable time.

10.1.6 The County Contract Representative may require the submission of additional documentation from either party to facilitate a decision. In each case, the County Contract Representative will submit reasons and/or documentation supporting its action and the deadline shall be extended by the time it takes to obtain a response thereto.

10.1.7 The parties shall have ten (10) days from the date of the County Contract Representative's final decision rejecting or approving a claim, or suggesting a compromise, within which to accept or object to the decision. Failure of a party to accept or object to the decision in writing within such ten (10) day period shall be deemed an acceptance of the decision. If either party rejects the decision of the County Contract Representative in writing within such ten (10) day period, the matter shall be referred to the Procurement Director for *de novo* review.

10.1.8 The Procurement Director shall have sixty (60) days from receipt of a written objection by the Contractor to the County Contract Representative's final decision, or such longer period as the parties may stipulate in writing, to review the matter and issue a response in accordance with Article IX of the County of Cochise Procurement Code. During such period, the Procurement Director may require such additional documentation or testimony as deemed necessary to support his/her response.

ARTICLE 11. MISCELLANEOUS PROVISIONS

11.1 Governing Law

11.1.1 The Contract shall be governed and construed according to the laws of the State of Arizona.

11.2 Written Notice

11.2.1 Written notice shall be deemed to have been duly served if delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last known business address known to the party giving notice.

11.3 Conflict of Interest

This agreement is subject to cancellation pursuant to the provisions of A.R.S. § 38-501-511 regarding Conflict of Interest.

11.4 Notice to Proceed

11.4.1 It is agreed that the County Procurement Director or designee will issue the Notice to Proceed with the Work to commence under this Agreement within twenty (20) consecutive calendar days, or some other mutually agreed upon time period, after the date of the County's Purchase Order for this Agreement, except in job order contracts where a separate Notice to Proceed will be issued for each individual job order.

11.4.2 The Contractor agrees that the Work shall be prosecuted promptly, regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified.

11.5 Miscellaneous

11.5.1 Guarantee. The Contractor shall guarantee all work under this Agreement against defects of material and workmanship as referenced in the Scope of Work.

11.5.2 Assignment. Neither party to this Agreement shall assign the Agreement or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any monies due or to become due to him hereunder without the previous written consent of the County.

11.5.3 Contract Documents. The following listed documents constitute the Contract Documents and they are all as fully a part of this Agreement as if repeated herein:

1. This Agreement.
2. Construction Specifications, including any and all Standard, Special, Technical and Supplementary Specifications included herein.
3. The General Conditions of the Contract.
4. Any and all Amendments/Change Orders.

11.5.4 Precedence. In the event of any inconsistency between any of the terms of the documents enumerated above, such inconsistency shall be resolved by giving precedent to the terms of the above documents in the order listed.

- Special Terms and Conditions
- General Terms and Conditions
- Scope of Work
- Documents referenced in the solicitation
- General Instructions to Bidders/Offerors

Anything in these Contract Documents to the contrary notwithstanding, the provisions of all pertinent general public laws of the State of Arizona in effect at the time of the execution of this Agreement shall be a part of the Agreement between the parties and shall take precedence over all of the other Contract Documents.

This Section Left Intentionally Blank

CONTRACT FOR CONSTRUCTION SERVICES

No. IFB 17-32-BOS-03
SOUTHERN ARIZONA CHILDREN'S HAVEN ARSON REMEDIATION REPAIR

This Contract represents the entire contract between the COUNTY and the CONTRACTOR relating to this requirement and shall prevail over any and all previous verbal or written contracts.

CONTRACTOR:
B-R Contractors Inc.

Authorized Signature

Print Name and Title

APPROVED BY:
Cochise County Board of Supervisors

Ann English, Chairman
Board of Supervisors

ATTEST:

Arlethe Rios
Clerk of the Board

APPROVED AS TO FORM:

Britt Hanson
County Attorney

Regular Board of Supervisors Meeting **13.**

Meeting Date: 09/12/2017

Contract with SEAGO for technical assistance with a CDBG grant

Submitted By: Kim Lemons, Board of Supervisors

Department: Board of Supervisors

Presentation: No A/V Presentation

Recommendation: Approve

Document Signatures: BOS Signature Required

# of ORIGINALS Submitted for Signature: 2

NAME of PRESENTER: Ed Gilligan

TITLE of PRESENTER: County Administrator

Mandated Function?: Federal or State Mandate

Source of Mandate or Basis for Support?:

Docket Number (If applicable):

Information

Agenda Item Text:

Approve Contract between the SouthEastern Arizona Governments Organization (SEAGO) and Cochise County for technical assistance for the completion of the Southern Arizona Children's Haven Project, granted through the Community Development Block Grant (CDBG) in fiscal year 2016-17 in the amount of $16,831.

Background:

Due to a change in personnel/staffing in the middle of this grant cycle SEAGO is taking over administration duties on the construction project and all reporting requirements to AZ DOH. This includes managing the project, contractor, and federal labor laws through the end of the grant agreement. CDBG grant funds are a pass through from HUD, to AZDOH to SEAGO to the County and SEAGO has extensive knowledge to successfully manage these projects and does this as a service for other entities in the 4 county region. There is no additional cost to the County as admin fees are allowed under the grant and already encumbered until project completion.

Department's Next Steps (if approved):

See Document Disposition.

Impact of NOT Approving/Alternatives:

The County will not receive technical assistance for the completion of the project.

To BOS Staff: Document Disposition/Follow-Up:

Request 2 fully executed originals be returned to Cochise County: distribute one to SEAGO. One copy for the grants folder.

Budget Information

Information about available funds

Budgeted: ◉ **Funds Available:** ◉ **Amount Available:** 16,831.00

Unbudgeted: ○ **Funds NOT Available:** ○ **Amendment:** ☐

Account Code(s) for Available Funds

1: 115-2300-2400-470.103

Fund Transfers

Fiscal Year: 2016-2017

One-time Fixed Costs? ($$$): 16,831.00

Ongoing Costs? ($$$):

County Match Required? ($$$):

A-87 Overhead Amt? (Co. Cost Allocation $$$):

Source of Funding?:

Fiscal Impact & Funding Sources (if known):

Attachments

Contract

C O N T R A C T

COCHISE COUNTY
COMMUNITY DEVELOPMENT BLOCK GRANT
TECHNICAL ASSISTANCE
FOR COMPLETION OF THE SOUTHERN ARIZONA CHILDREN'S HAVEN PROJECT

THIS CONTRACT, made and entered into by and between the SouthEastern Arizona Governments Organization (SEAGO), 1403 W. Highway 92, Bisbee, Arizona 85603, hereinafter called the CONTRACTOR, and the COUNTY OF COCHISE, hereinafter called the COUNTY.

WITNESSETH:

WHEREAS, the COUNTY has applied for a Community Development Block Grant Contract from the State of Arizona, Department of Housing (ADOH) FY16 Regional Account CDBG Program for the completion of the Southern Arizona Children's Haven Improvement Project (the "Project") and

WHEREAS, the CONTRACTOR is agreeable to providing such assistance; and

WHEREAS, the COUNTY is agreeable to purchasing said technical assistance; and

NOW THEREFORE, the parties do mutually agree as follows:

ARTICLE I - SEAGO OFFICERS - LEGAL STATUS

A. The officers of the CONTRACTOR's Corporate Board of Directors are: Chairman; 1st Vice-Chairman 2nd Vice-Chairman and Treasurer.

B. The Chief Executive Officer of the CONTRACTOR is Randy Heiss, Executive Director.

C. The CONTRACTOR's legal status is that of an Arizona not-for-profit corporation in current compliance with the requirements of the Arizona Corporation Commission and doing business as the SouthEastern Arizona Governments Organization.

ARTICLE II - SCOPE OF WORK

A. The CONTRACTOR agrees that it will implement, in all respects, the program outlined in the attached Scope of Work (Attachment A to this Contract).

B. The CONTRACTOR agrees to make no changes in the Scope of Work herein described without first submitting a written request to the COUNTY and obtaining the COUNTY'S written approval of the requested change.

C. The CONTRACTOR shall provide all of the necessary qualified personnel, materials and facilities to implement the assistance program described herein.

ARTICLE III - PERSONNEL

The CONTRACTOR represents that it has, or will acquire, all of the qualified personnel required to perform this Contract; however, the COUNTY reserves the right to assign any individual to assist in implementing the program outlined in the Scope of Work.

ARTICLE IV - LENGTH OF CONTRACT

A. The term of this Contract shall be from the date of execution of this agreement by the COUNTY, through administrative closeout of the project. This does NOT include any post close-out reporting requirements specified in the ADOH contract as “special conditions”.

ARTICLE V - CONSIDERATION AND METHOD OF PAYMENT

A. In consideration of the CONTRACTOR's satisfactory completion of all work and services required to be performed under the terms of this Contract, and in compliance with other Contract requirements herein stated, the COUNTY **shall pay the CONTRACTOR THE SUM OF SIXTEEN THOUSAND EIGHT HUNDRED THIRTY ONE DOLLARS ($16,831.00).**

B. The COUNTY shall pay said monies to the CONTRACTOR in the manner set forth below:

1. **TWO THOUSAND, EIGHT HUNDRED THIRTY ONE DOLLARS ($2,831.00) upon signing this contract.**

2. **FIVE THOUSAND DOLLARS ($5,000.00) after completion of the pre-construction conference.**

3. **NINE THOUSAND DOLLARS ($9,000.00) upon completion of the construction.**

C. The funds specified in Paragraph A of this Article V shall constitute full and complete payment of monies to be received by the CONTRACTOR from the COUNTY for the purposes designated herein.

D. The COUNTY shall have the right to recapture of funds upon written notice to the CONTRACTOR, if the CONTRACTOR fails to comply with the terms of the Contract or conditions imposed by HUD provided that the recapture of funds shall not apply to work successfully completed by the Contract under the terms of the Contract and while in compliance with the conditions imposed by HUD.

ARTICLE VI - RETENTION OF RECORDS

A. The CONTRACTOR shall provide such records as will fully disclose the amount and disposition of the total funds for all sources budgeted for the contract period, the

purpose of undertaking for which such funds were used, the amount and nature of all contributions from other sources, and such other records as the Arizona Department of Housing shall prescribe. Such records shall be preserved by the COUNTY UNTIL NOTIFIED BY THE ARIZONA DEPARTMENT OF HOUSING THAT THE FUNDING YEAR HAS BEEN CLOSED OUT.

B. The CONTRACTOR and the COUNTY shall make available to each other all financial and administrative records with respect to matters covered by this agreement at any time during normal business hours and as often as necessary.

ARTICLE VII - AUDIT

A. The COUNTY and its duly authorized representative shall have access, for the purpose of audit and examination, to any books, documents, papers and records of the CONTRACTOR which are pertinent to this Contract and which will facilitate an effective audit.

B. The CONTRACTOR shall maintain a group of separate records for any and all monies paid to the CONTRACTOR by the COUNTY under the terms of this Contract.

ARTICLE VIII - INTERESTS OF THE CONTRACTOR

A. The CONTRACTOR covenants that it has no pecuniary interest, and shall not acquire any pecuniary interest direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Contract. The CONTRACTOR further covenants that in the performance of this Contract, no person having any such interest shall be employed.

B. Any program income generated by the CONTRACTOR and derived from the program shall be awarded to the COUNTY for its use in accordance with the conditions identified in 24CFR570.506.

ARTICLE IX - OFFICIAL NOT TO BENEFIT

No member of, or delegates to, the Congress of the United States of America, and no public official, shall be admitted to any share or part hereof, or to any pecuniary benefit to arise herefrom. The provisions of ARS 38-511 are incorporated herein by reference.

ARTICLE X - OTHER REQUIREMENTS

A. The CONTRACTOR will comply with all applicable state and federal rules and regulations concerning third party contracts in connection with the carrying out of this Contract.

B. The CONTRACTOR has a copy of the Arizona Department of Housing CDBG Program Grant Administration Handbook, Application Handbook, Labor Standards

Handbook, Procurement and Contracting Handbook and Environmental Review Handbook, and the CONTRACTOR shall comply with these existing regulations and provisions as well as future revisions.

C. The CONTRACTOR agrees to comply with applicable statutes, regulations and Executive Orders as required by the Arizona Department of Housing as described in the attached compliance requirements (Attachment B to this Contract).

D. The CONTRACTOR certifies that its indirect cost schedule is in accordance with the provisions of Federal Management Circular A-87.

E. The CONTRACTOR agrees to comply with certification requirements regarding lobbying as stated in Attachment C.

IN WITNESS WHEREOF, the CONTRACTOR and the COUNTY do hereby execute this Contract as of the date last signed:

ANN ENGLISH
CHAIR, COUNTY OF COCHISE

RANDY HEISS
EXECUTIVE DIRECTOR
SOUTHEASTERN ARIZONA GOVERNMENTS ORGANIZATION

DATE: _____

DATE: _____

ATTEST: _____
ARLETHE G. RIOS, CLERK OF THE BOARD

APPROVED AS TO FORM:

BRITT HANSON
CHIEF CIVIL DEPUTY COUNTY ATTORNEY

ATTACHMENT A

Scope of Work

The SouthEastern Arizona Governments Organization, hereinafter called the CONTRACTOR, agrees to implement the management program for the COUNTY OF COCHISE, hereinafter called the COUNTY, described as follows:

The CONTRACTOR will provide that level of management needed by the COUNTY for the development of its Community Development Block Grant Program as delineated within Arizona Department of Housing (ADOH) Contract. Such management will include the following specific work items that will be consistent with all ADOH CDBG Program requirements, as stated in Article XI, Section B. It is understood that the CONTRACTOR is not a construction "project manager".

A. The CONTRACTOR will provide compliance with all Labor Standards requirements for construction.

B. The CONTRACTOR shall maintain all project records and files on behalf of the COUNTY.

C. The CONTRACTOR shall provide financial management for the project to include submitting timely reports and reimbursements requests to ADOH on behalf of COUNTY.

D. The CONTRACTOR shall assume full responsibility for responding to all ADOH questions, concerns, findings and reports, if the COUNTY cooperates and provides any and all documents requested. The COUNTY agrees to do so in a timely manner.

E The CONTRACTOR shall assist the COUNTY in complying with any ADOH contract "special conditions", EXCEPT post-closeout reporting.

F. The CONTRACTOR will attend all monitoring visits by ADOH staff.

G. The CONTRACTOR shall assist in and identify all activities leading to and including project closeout. The COUNTY assumes full responsibility for meeting all ADOH requirements prior to project closeout.

ATTACHMENT B

Civil Rights Provision (3 pages)

Civil Rights Laws and Requirements

****

Civil Rights Act of 1964, Title VI

Title VI of the Civil Rights Act of 1964 provides that no person shall be:

- Excluded from participation
- Denied program benefits
- Subjected to discrimination on the basis of:
- Race
- Color
- National origin

Under any program or activity receiving Federal financial assistance.

****

Civil Rights Act of 1968, Title VIII

Title VIII of the Civil Rights Act of 1968, as amended, prohibits discrimination in housing on the basis of:

- Race
- Color
- Religion
- Sex
- National Origin

This law requires HUD to administer its programs in a manner that affirmatively promotes fair housing.

****

Rehabilitation Act of 1973, Section 504

Section 504 of the Rehabilitation Act of 1973, as amended, no otherwise qualified individual shall, solely by reason of his or her handicap, be:

- Excluded from participation (including employment)
- Denied program benefits
- Subjected to discrimination
  Under any program or activity receiving Federal funds.
  It also requires each local government receiving such federal funds to:
- Conduct a self-evaluation;
- Prepare a transition plan, if appropriate;
- Ensure that its communications are accessible;

- Ensure that its employment practices are non discriminatory; And if it has 15 or more full or part time employees, it must:
- Designate a 504 Coordinator
- Adopt a grievance procedure; and
- Comply with public notice requirements.

****

Age Discrimination Act of 1975	Age Discrimination Act of 1975, as amended, provides that no Discrimination person shall be excluded from participation, denied program Act of 1975 benefits, or subjected to discrimination on the basis of age - under any program or activity receiving Federal funds.

****

Americans with Disabilities Act of 1990	Americans with Disabilities Act of 1990 prohibits discrimination against individuals with disabilities for all state and local governments and requires them to undertake actions similar to those required by Section 504. It also contains a public accommodations portion and requires private employers not to discriminate against individuals with disabilities in terms of employment, services and accommodations.

****

Executive Order 11063: Equal Opportunity in Housing - Lending	Executive Order 11063 provides that no person shall, on the basis of race, color, religion, sex, or national origin, be discriminated against in housing (and related facilities) provided with Federal assistance practices with respect to residential property when such practices are connected with loans insured or guaranteed by the Federal Government.

****

Executive Order 11246: Employment Opportunity	Executive Order 11246, as amended, provides that no person shall be discriminated against, on the basis of race, color, religion, sex or national origin, in any phase of employment during the performance of Federal or Federally assisted construction contracts in excess of $10,000.

****

Fair Housing Act Amendment Title VIII	Fair Housing Act Amendments of 1988, extends the benefits of the Housing Act of 1968 to two previously unprotected groups, namely, families with children (i.e., anyone under 18) and individuals with disabilities.

****

Housing and Urban Urban Development Act of 1968, Section 3	Section 3 of the Housing and Urban Development Act of1968, as amended, provides that, to the greatest extent feasible, opportunities for: • Training • Employment that arise through HUD-financed projects shall be given to lower-income residents of the project area. Section also provides that contracts awarded in connection with such projects be awarded to: • Businesses located in the project area, - OR - • Businesses owned, in substantial part, by residents of the project area. (Note: The Housing and Community Development Act of 1980 defined Aproject area as the unit of local government or the metropolitan area or the non-metropolitan county in which the project is located.)

****

Housing and Community Development Act of 1974, Section 104	Section 104 of the Housing and Community Development Act of 1974, as amended, provides that the grantee will affirmatively further fair housing.

****

Housing and Community Development Act of 1974, Section 111	Section 111 of the Housing and Community Development Act of 1974, as amended, provides that no person shall be excluded from participation (including employment), denied program benefits, or Act subjected to discrimination on the basis of: • Race • Color • National Origin • Sex • Age • Handicap • Religion • under any program or activity funded in whole or in part under Title I (CDBG) of the Act.

ATTACHMENT C
Certification Regarding Lobbying

Certification for Contracts, Grants, Loans and Cooperative Agreements.

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan or cooperative agreement.

(2) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of congress, an officer or employee of Congress, or an employee of a member of Congress, in connection with this federal contract, grant, loan or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required Certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance.

The undersigned states, to the best of his or her knowledge and belief, that:

(1) If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form LLL, Disclosure Form to Report Lobbying, in accordance with its instructions.

(2) Submission of this statement is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required statements shall be subject to a civil penalty of less than $10,000 and not more than $100,000 for each such failure.

ANN ENGLISH, CHAIR
COUNTY OF COCHISE

DATE: _____

RANDY HEISS
EXECUTIVE DIRECTOR
SOUTHEASTERN ARIZONA
GOVERNMENTS ORGANIZATION

DATE: _____

			Action 14.
Regular Board of Supervisors Meeting		**Community Development**	
Meeting Date:	09/12/2017		
Approval of the Final Plat and Assurance Agreement for S-16-01 The Highlands at Inde			
Submitted By:	Paul Esparza, Community Development		
Department:	Community Development	**Division:**	Planning & Zoning
Presentation:	PowerPoint	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	2
NAME of PRESENTER:	Paul Esparza	**TITLE of PRESENTER:**	Planning Manager
Docket Number (If applicable):	S-16-01		
Mandated Function?:	Federal or State Mandate	**Source of Mandate or Basis for Support?:**	ARS 11-821,822,823

Information

Agenda Item Text:

Approve Final Plat and Assurance Agreement for completion of Subdivision Improvements, Docket S-16-01 for The Highlands at Inde Final Plat Lots 1-10, Tract 1, Common Area "A" with Pioneer Title Agency as trustee under trust number 70100206.

Background:

REQUEST AND DESCRIPTION OF SUBDIVISION
• Approval of a Minor Expedited Final Plat called The Highlands at Inde, Lots 1-10, Tract 1 and Common Area “A” with flexible lot sizes and no density bonus.
•The final plat is a 10 lot subdivision on 45.27 acres, with an average lot size of 3.6 acres.
•The subject parcels APN 209-86-022A and 209-86-024C are currently zoned RU-4. Growth Area: D Plan Designation: Rural
•The site is located approximately 8 miles west of the City of Willcox with access from Airport Road.

The Planning & Zoning Commission unanimously recommended approval of the Final Plat for The Highlands at Inde with staff conditions on August 9, 2017.
STAFF RECOMMENDATION AND FINAL PLAT CONDITIONS OF APPROVAL

Staff recommends approval of The Highlands at Inde Final Plat and Assurance Agreement with the following conditions:
•All private roads shall remain private and will be maintained by the HOA and will not be maintained by Cochise County in the future as noted on the final plat.
•Prior to construction, the ADEQ Certificate of Approval to Construct the water delivery system shall be submitted to the County Engineer.
•The developer has submitted a third party trust agreement to ensure completion of all subdivision improvements with a condition for the partial release of four lots for sale, however no building permits will be issued or reviewed prior to the completion of all subdivision improvements.
•Prior to building construction, each subdivision lot shall have a septic permit approval.
•Construction of improvements shall not begin until a completed Notice of Intent and authorization number, granted by ADEQ for the Stormwater Pollution Prevention Plan is received by the Community Development Department.
•The access easement for the well site shall be recorded.
•All County Fire Official and Willcox Rural Fire Department requirements regarding fire sprinkler systems and fire water storage shall be met.
•The entry code for any gated entry shall be provided to all emergency service providers and county building safety staff.

Department's Next Steps (if approved):

After approval of the Final Plat and Assurance Agreement, staff will provide the applicant with an AYAA letter notifying the applicant of the conditions of approval.

Impact of NOT Approving/Alternatives:

The County Subdivision Regulations, Section 304.02(B) states: B. Upon review of the final plat and the offers of dedication and agreements, and guarantees and securities for required improvements the Board of Supervisors may: 1. Find that the final plat and the offers of dedication and agreements, and guarantees and securities for required improvements are in substantial conformance with the tentative plat approval and comply with these Subdivision Regulations and other ordinances or requirements and approve the final plat as presented. 2. Approve the final plat with conditions, as specifically noted. 3. Deny the final plat, providing the applicant with a list of modifications, findings, and considerations that must be addressed for re-submittal to the Commission.

To BOS Staff: Document Disposition/Follow-Up:

The BOS Clerk's office will transmit the signed Final Plat mylar and Assurance Agreement to the Planning and Zoning Department for recording.

Attachments

Assurance Agreement

BOS memo

Highlands at Inde FP

Highlands at Inde Location Map

Highlands at Inde BOS PPT

ASSURANCE AGREEMENT
FOR COMPLETION OF SUBDIVISION IMPROVEMENTS

THIS AGREEMENT made and entered as of this 25th day of July, 2017, between Pioneer Title Agency, Inc, as Trustee under Trust no 70100206., hereinafter referred to as "Trustee", Inde Motorsport Ranch, LLC, as Beneficiary(ies) of Trust no. 70100206, hereinafter referred to as "Beneficiary", and COCHISE COUNTY, Arizona, hereafter referred to as "County."

RECITALS:

1. Trustee is owner of a certain parcel of property located in Cochise County, Arizona, and described in paragraph 1 below.
2. Beneficiary has established Trust no. 70100206 for the purpose of developing a subdivision of Cochise County and has conveyed legal title to the Trustee.
3. The parties hereto wish to establish specific terms, conditions and guidelines for compliance with the provision of A.R.S. Section 11-821 and the Cochise County Subdivision Regulations.

AGREEMENT:

In consideration of the County approving a final plat for the property which is the subject matter of this Agreement, the parties mutually agree that:

1. Property Description. The property which is the subject matter of this agreement is described in that attached Exhibit "A".
2. Assurances. This Agreement is submitted as a means of assuring the completion of the subdivision improvements required by A.R.S. Section 11-821, the Cochise County Subdivision Regulations, all Plans and Specifications approved and on file with the County, and any special conditions, if applicable, on Exhibit "B" attached hereto and made a part hereof. These subdivision improvements include but are not limited to,

streets, water supply, water distribution lines, utilities, and drainage and flood control improvements, as applicable.

3. Conveyances and Transfers of Title. The Trustee shall not transfer title to or in any way convey, in whole or in part, any of the property described in paragraph 1 without obtaining prior written approval from the County, except as authorized in the Agreement. A Release of Assurances shall only be given by the County upon satisfactory completion as verified by County inspections of the required improvements.

4. Bulk Sales. Notwithstanding paragraph 3, the Trustee may sell or convey all of the property described in paragraph 1 in one transaction to a single successor to the beneficiary's interests, provided that such successor, prior to the conveyance, shall have entered into an appropriate agreement with the County to assure completion of the improvements, and the County has approved, in writing, the transfer.

5. Contracts for Sale. Trustee may enter into an agreement or deposit receipt agreement for the sale of the property or any portion of the Property if the contract or agreement clearly states that no portion of the property shall be conveyed until Trustee's obligations under this agreement are fully performed.

6. Conveyance Out of Trust for the Purpose of Encumbrance; Condition on Other Interests. Notwithstanding paragraph 3, the Trustee may convey the property described in paragraph 1 to the Beneficiary of the Trust for the limited purposes of allowing any obligations secured by the Trust, other than those which are the subject of this Agreement with Cochise County, to be subordinated to subsequent loans for the purpose of constructing improvements on the subject land or to create security for additional loans for the purchase or improvement of this land. In such event, the property shall immediately thereafter be reconveyed to the Trustee. This Agreement shall be deemed to be a condition on and restriction on the rights and

interests of any third party whose interest in the property arises after the date of this Agreement, however such interest is created, the same as if such party were included as a signatory of this Agreement.

7. Substitution of Assurances. Subdivider or Beneficiary may offer substitute assurances at any time during the term of this Agreement in accordance with the provisions of the Cochise County Subdivision Regulations. The Assurance shall be in a form and amount acceptable to the County, and shall to the extent applicable, partially or wholly replace the Assurances in this Agreement.

8. Completion of Improvements. The required improvements shall be completed by the Subdivider within three (3) years from the date of this Agreement. This date for completion of improvements may be extended by separate agreement of the parties where Subdivider or Beneficiary is prevented from completing the improvements by act of God, strike or similar event or circumstances beyond its control, or at the discretion of the County.

9. Inspection and Approval of Improvements. The Subdivider shall arrange for the inspection of all improvements required for this project, to ensure satisfactory completion. Satisfactory completion of all such improvements, in conformance with the required standards and specifications, shall be confirmed by a written statement, signed and sealed by the project engineer. Until these improvements have been satisfactorily completed, the County will not release the property

10. Payment of Applicable Property Taxes. The County shall not release, in whole or in part, any of the property described in paragraph 1 until all property taxes and assessments due and owing on the subject property have been paid in full.

11. Partial Release of Assurances.

11.1 Notwithstanding any other provision in this agreement, the County shall execute and provide to Trustee a Release of Assurances for up to four (4) Lots created by the subdivision plat described in paragraph 1 upon Beneficiary's request (copied to Trustee). Beneficiary acknowledges and agrees, however, that the partial release would not allow any party to obtain permits for the construction of any improvement on the released lots, nor shall any construction commence, other than the improvements listed on Exhibit B, until the assurances are released in accordance with Section 11.2 or 12.

11.2 The County, in its discretion, and upon receipt of a written request from Trustee, further may give the Trustee a Release of Assurances for a portion of the Lots created by the subdivision plat described in paragraph 1, provided that all of the improvements required in connection with such lots have been satisfactorily completed and accepted, and provided further that the lots released and improvements associated with such lots can function independently on a permanent basis in the event the remaining portion of the subdivision is never developed.

12. Release of Assurances. Upon completion of all improvements required under this Agreement or upon receipt of acceptable substitute assurances replacing this Agreement, the County shall release the Assurances in this Agreement.

13. Failure to Complete Improvements. Trustee and Beneficiary hereby agree that in the event that the required improvements are not completed within the time period provided by paragraph 7, the County may replat that portion of the property described in paragraph 1 for which a release of assurances has not been given. The purpose of the new plat will be to abandon the subdivision and return the property to approximately the same boundary configurations of record as existed before the subdivision plat was recorded. Prior to initiating any action to replat, the County shall provide

Trustee and Beneficiary with thirty (30) days written notice of the intent to replat.

The County, by this Agreement, is expressly authorized to replat this property after the required notice has been provided. All expenses by the County, including legal costs if applicable, in executing a replat shall be paid for by Beneficiary, and shall, if unpaid, become a lien on the property.

14. Effect on Trust Agreement. Trustee and Beneficiary agree that any provision of Trust no. 70100206 that is incompatible or inconsistent with this Agreement shall be null and void and not enforceable. The Trust shall not be revoked prior to a full Release of Assurances without prior written consent of Cochise County. Nor shall any amendment which would alter this Assurance Agreement be effective until the County has approved such amendment.

15. Incorporation or Annexation. In the event the property which is the subject matter of this Agreement is incorporated into or annexed by a city or town, the city or town shall automatically become the successor in interest to all of the County's rights and obligations under this Agreement.

16. Purpose of Agreement. The purpose and intent of this Agreement is to prohibit the sale of individual subdivision lots to the public prior to the completion of the subdivision improvements that are associated with such lots. The sale or conveyance of such lots without the necessary improvements is harmful to the public and places excessive burdens on the County. The terms and conditions of this Agreement shall be construed and interpreted as broadly as necessary to accomplish this purpose.

IN WITNESS WHEREOF, the parties have executed this Assurance Agreement this _____ day of _____, _____.

COCHISE COUNTY:

_____
Chairman, Cochise County Board of Supervisors

ATTEST:

_____
Clerk of the Board

APPROVED AS TO FORM:

_____
Deputy County Attorney

TRUSTEE:
PIONEER TITLE AGENCY INC.An Arizona corporation

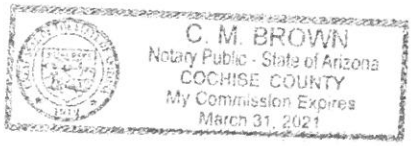
Susan K. Tawney
(Title Company)
An Arizona corporation, as Trustee under
Trust no. 70100206 only and not in its
Capacity.

By: See above
Trust Officer
STATE OF ARIZONA)
) ss.
COUNTY OF COCHISE)
On this the 30 day of August 2017, _____, before me, the undersigned officer, personally appeared Susan K. Tawney, who acknowledged himself/herself to be the Trust Officer of Pioneer Title Agency Inc., an Arizona corporation, and that he/she as such officer being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing the name of the corporation by himself/herself as such officer.

In witness whereof, I have hereunto set my hand and official seal.

_____
Notary Public

My Commission Expires: 3/31/2021



OWNER/BENEFICIARY

_____
Owner/Beneficiary

STATE OF ARIZONA)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, _____, by _____ as _____.

_____
Notary Public

My Commission Expires:

In witness whereof, I have hereunto set my hand and official seal.

_____
Notary Public

My Commission Expires:

OWNER/BENEFICIARY

_____
Owner/Beneficiary

STATE OF ARIZONA)
) ss.
COUNTY OF Pima)

The foregoing instrument was acknowledged before me this 30 day of August, 2017, by Christopher Dorland as owner/Beneficiary.

_____
Notary Public

My Commission Expires:

OFFICIAL SEAL
LISA DESIDERIO
NOTARY PUBLIC-ARIZONA
PIMA COUNTY
My Comm. Exp. Aug. 23, 2020

ALTA LAND SURVEY, INC.
Surveying ~ Drafting ~ Construction Staking
5930 E. Pima St., Suite 130, Tucson, AZ 85712 Ph. (520) 398-6651

JOB: 16-041
DATE: 9/16/2016

EXHIBIT "A"

LEGAL DESCRIPTION

THE HIGHLANDS AT INDE PROPERTY:

ALL THAT PORTION OF PARCELS 1 AND 3 AS SHOWN IN BOOK 3 OF SURVEY MAPS AT PAGE 6 IN THE RECORDS OF THE COCHISE COUNTY RECORDER, SITUATE IN SECTION 10, TOWNSHIP 14 SOUTH RANGE 23 EAST, GILA AND SALT RIVER MERIDIAN, COCHISE COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A G.L.O. BRASS CAP MONUMENTING THE NORTHWEST CORNER OF SECTION 10, FROM WHICH A G.L.O. BRASS CAP MONUMENTING THE NORTH QUARTER CORNER OF SECTION 10 BEARS SOUTH 89° 43' 47" EAST, 2637.82 FEET DISTANT;

THENCE SOUTH 00° 09' 01" WEST, A DISTANCE OF 40.07 FEET TO A ½" REBAR TAGGED "RLS 13187" ON THE SOUTH RIGHT OF WAY LINE OF AIRPORT ROAD AND THE **POINT OF BEGINNING**;

THENCE SOUTH 89° 45' 22" EAST UPON SAID SOUTH RIGHT OF WAY LINE, A DISTANCE OF 121.49 FEET TO A ½" REBAR TAGGED "RLS 13187";

THENCE SOUTH 00° 03' 08" EAST, A DISTANCE OF 118.46 FEET TO A ½" REBAR TAGGED "RLS 13187";

THENCE SOUTH 13° 26' 39" WEST, A DISTANCE OF 302.60 FEET TO A ½" REBAR TAGGED "RLS 13187";

THENCE SOUTH 07° 07' 22" WEST, A DISTANCE OF 208.76 FEET TO A ½" REBAR TAGGED "RLS 13187";

THENCE SOUTH 89° 43' 35" EAST, A DISTANCE OF 634.44 FEET TO A ½" REBAR TAGGED "RLS 13187";

THENCE NORTH 00° 02' 14" WEST, A DISTANCE OF 620.32 FEET TO A ½" REBAR TAGGED "RLS 13187" ON THE SOUTH RIGHT OF WAY LINE OF AIRPORT ROAD;

THENCE SOUTH 89° 44' 12" EAST UPON SAID SOUTH RIGHT OF WAY LINE, A DISTANCE OF 659.60 FEET TO A 1" PLASTIC CAP STAMPED "RLS 23379" AND THE EAST LINE OF SAID PARCEL 1;

THENCE SOUTH 00° 01' 51" EAST, A DISTANCE OF 1280.64 FEET TO A ½" REBAR TAGGED "RLS 13187" MONUMENTING THE SOUTHEAST CORNER OF SAID PARCEL 1 AND THE NORTHEAST CORNER OF SAID PARCEL 3;

THENCE SOUTH 00° 01' 09" EAST UPON THE EAST LINE OF SAID PARCEL3, A DISTANCE OF 330.75 FEET TO A ½" REBAR TAGGED "RLS 13187";

THENCE NORTH 89° 43' 21" WEST, A DISTANCE OF 849.98 FEET TO A ½" REBAR TAGGED "RLS 13187";

THENCE NORTH 00° 36' 08" EAST, A DISTANCE OF 30.18 FEET;

ALTA LAND SURVEY, INC.
Surveying ~ Drafting ~ Construction Staking
5930 E. Pima St., Suite 130, Tucson, AZ 85712 Ph. (520) 398-6651

JOB: 16-041
DATE: 9/16/2016

LEGAL DESCRIPTION

THENCE NORTH 89° 43' 55" WEST, A DISTANCE OF 469.36 FEET TO THE WEST LINE OF SAID PARCEL 3;

THENCE NORTH 00° 00' 30" WEST, A DISTANCE OF 300.49 FEET TO A ½" REBAR TAGGED "RLS 13187" MONUMENTING THE NORTHWEST CORNER OF SAID PARCEL 3 AND THE SOUTHWEST CORNER OF SAID PARCEL 1;

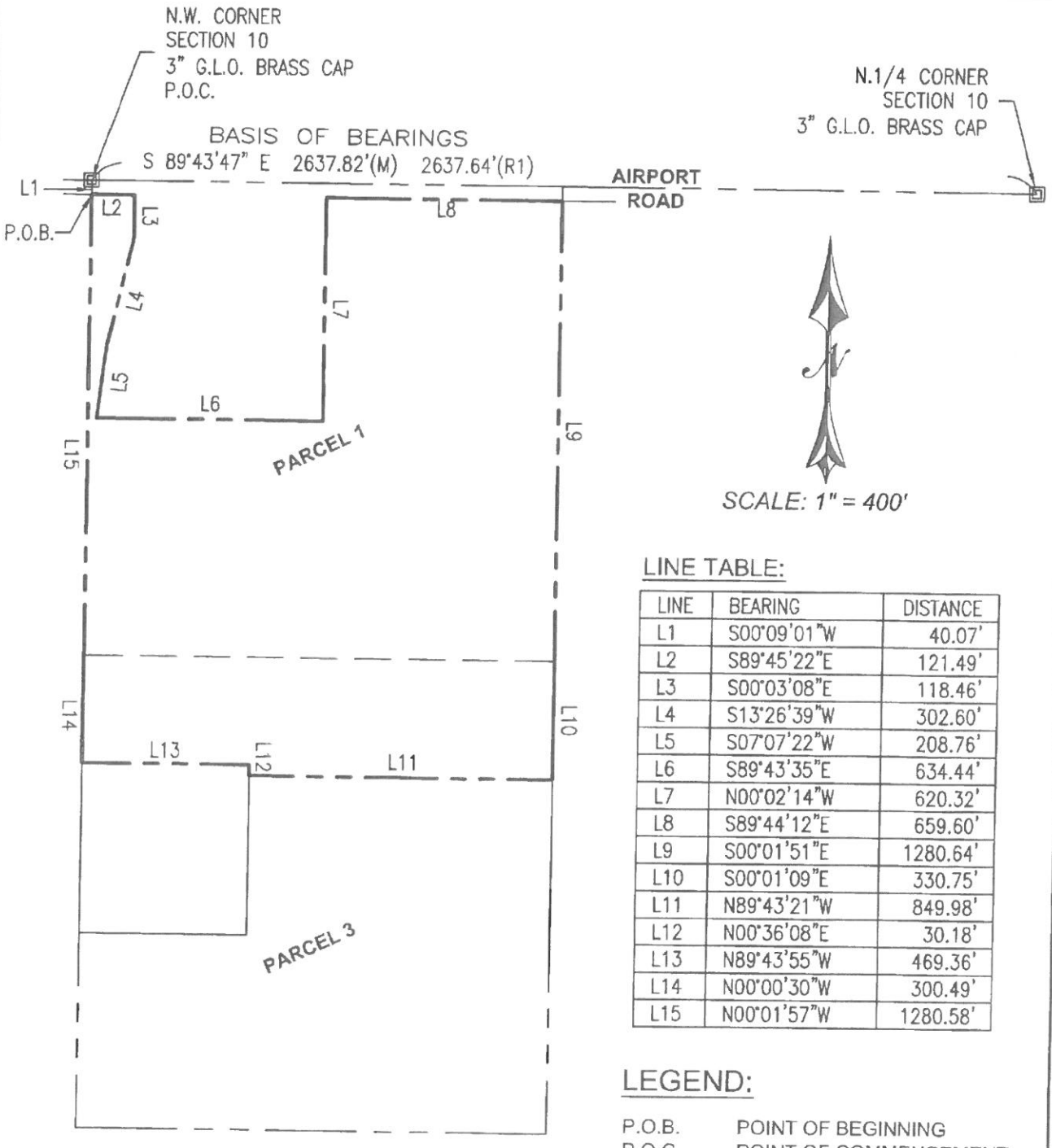
THENCE NORTH 00° 01' 57" WEST, A DISTANCE OF 1280.58 FEET TO THE **POINT OF BEGINNING**.

CONTAINING 1,749,685 SQUARE FEET, OR 40.17 ACRES MORE OR LESS.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
23379
DONALD J.
LOOSE
Date Signed 09/16/2016
ARIZONA U.S.A.

Donald J. Loose

EXP. 6/30/18



LINE TABLE:

LINE	BEARING	DISTANCE
L1	S00°09'01"W	40.07'
L2	S89°45'22"E	121.49'
L3	S00°03'08"E	118.46'
L4	S13°26'39"W	302.60'
L5	S07°07'22"W	208.76'
L6	S89°43'35"E	634.44'
L7	N00°02'14"W	620.32'
L8	S89°44'12"E	659.60'
L9	S00°01'51"E	1280.64'
L10	S00°01'09"E	330.75'
L11	N89°43'21"W	849.98'
L12	N00°36'08"E	30.18'
L13	N89°43'55"W	469.36'
L14	N00°00'30"W	300.49'
L15	N00°01'57"W	1280.58'

LEGEND:

P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
L1	LINE TABLE

ALTA LAND SURVEY, INC.

SURVEYING, CONSTRUCTION STAKING & DRAFTING
5930 E. PIMA STREET, SUITE 130
TUCSON, ARIZONA 85712
(520) 398-6651

THE HIGHLANDS AT INDE PROPERTY
PART OF PARCELS 1 & 3, BK. 3 PG. SURVEY MAPS
SEC. 10, T. 14S., R.23E., G.&S.R.M.
COCHISE COUNTY, ARIZONA

Project No.	Drawn By: GWM	Date: 9/16/16
16-041	Checked By: DL	Sheet: 3 of 3

EXHIBIT "B"

PERRY
ENGINEERING

August 29, 2017

Cochise County Community Development
1415 Melody Lane, Building E
Bisbee, Arizona 85603

RE: INFRASTRUCTURE ITEMS FOR THE INDE AT HIGHLANDS LOTS 1-10 AND COMMON AREA "A" SUBDIVISION

Items required for the infrastructure of the Highlands at Inde Subdivision which are to be covered by the Assurance Agreement include:

Water System – Four inch water main distribution from the well site through the private subdivision streets and easements. Each lot to receive a one inch service. Fenced well site which will include well, pump, booster tank, controls, etc. per the water plans once approved by the Arizona Dept. of Environmental Quality (ADEQ).

Roadways – Roadways serving the subdivision and providing legal access to the lots are to be improved with double shot chip seal and provided with concrete cut off walls for erosion protection at wash crossings. Roads are to be signed and striped, and constructed per the roadway plans approved by Cochise County. Roadways are within Common Area A and will be maintained by the Homeowners Association (HOA)

Electric Service – Electrical service is to be provided by Sulphur Springs Valley Electric Co-op (SSVEC). Service will originate from the existing overhead power lines that traverse the subdivision, and lines will be constructed through the subdivision culminating with service pedestals at each lot line. There will also be a service pedestal provided at the well site.

Sincerely,

Perry Engineering, LLC

Ken Perry, PE, LEED AP
Principal

Cochise County
Community Development
Planning, Zoning and Building Safety Division

Public Programs...Personal Service
www.cochise.az.gov

MEMORANDUM

TO: Cochise County Board of Supervisors
FROM: Paul Esparza, Planning Manager
FOR: Jerry Stabley, Interim Planning Director
SUBJECT: Docket S-16-01 (The Highlands at Inde Final Plat)
DATE: August 31, 2017 for the September 12, 2017 Meeting

I. REQUEST AND DESCRIPTION OF SUBDIVISION

This is a request for approval of a Minor Expedited Final Plat called The Highlands at Inde, Lots 1-10, Tract 1 and Common Area "A". The developer is Inde Motorsport Ranch LLC, represented by CJ Dorland. The project engineer is Perry Engineering. The subdivision consists of 10 lots on 45.27 acres with an average lot size of 3.6 acres. The subject parcels APN 209-86-022A and 209-86-024C are currently zoned RU-4. Growth Area: D and Plan Designation: Rural. The site is located approximately eight miles west of the city of Willcox with access from Airport Road.

The Planning and Zoning Commission unanimously recommended approval of the Final Plat for The Highlands at Inde with staff conditions on August 9, 2017.

II. SUBDIVISION OPTION USED: MINOR EXPEDITED

This is a minor expedited subdivision with flexible lot sizes and the tentative and final submittals combined into a single plat. For lots 1-10, the total acreage is 35.68 acres, Common Area "A" is 4.48 acres with the remaining 5.11 acres reserved as Tract 1.

All lots will be developed with single-family residential structures on individual septic systems. The plat identifies the buildable area within the lot that is not encumbered by the 100-year floodplain. The subdivision will be a served by a shared well.

III. SUBDIVISION REVIEW

The Tentative/Final Plat was reviewed by county departments and other interested agencies including the Willcox Rural Fire Department and Willcox-San Simon Natural Resource Conservation District. A summary of review comments follows.

Planning Comments:

Compliance with Subdivision Regulations: The Final Plat complies with applicable Subdivision Regulations or has received conditional approval as specifically noted.

Rural Addressing: Rural Addressing staff reviewed the Final Plat to ensure that street names are not duplicated within the county addressing grid. The street names are acceptable.

Water Conservation: The Final Plat includes general notes encouraging water conservation measures as outlined in Section 412 of the Subdivision Regulations. The developer intends to utilize low-flow plumbing

Planning, Zoning and Building Safety
1415 Melody Lane, Building E
Bisbee, Arizona 85603
520-432-9300
520-432-9278 fax
1-877-777-7958
planningandzoning@cochise.az.gov

Highway and Floodplain
1415 Melody Lane, Building F
Bisbee, Arizona 85603
520-432-9300
520-432-9337 fax
1-800-752-3745
highway@cochise.az.gov
floodplain@cochise.az.gov

fixtures and native landscaping. Water harvesting techniques will be encouraged on the individual lots and within the common areas.

Access: Access to the subdivision is from Airport Road which runs west of the City of Willcox and the nearest access to Interstate 10 is via Taylor Road. The subdivision will have two private internal roads. The internal roads will be built to Low Volume Design Standards. The HOA will be responsible for road maintenance as is noted on the Final Plat.

Drainage:

Highway & Floodplain have reviewed and approved the Drainage Report for The Highlands at Inde dated May 2016, Revised November 2016 and prepared by Perry Engineering.

Environmental Health: Each lot in the subdivision will have an individual sewage disposal system, with both conventional septic tank and leach field. A minimum 100-foot setback is required from all wells and 50-foot from all lot lines. The County Health Department has granted approval for use of individual onsite wastewater treatment systems for this subdivision.

Floodplain: This project lies within a Zone X as defined by the FEMA Flood Insurance Rate Map dated 08/28/08. The site has some relief with washes crossing the subject parcels which create a 100-year floodplain as determined by the Drainage Report. The floodplain is clearly delineated on the plat, along with the erosion hazard setback and buildable area within each lot.

Transportation: The applicant completed a basic traffic statement to address the planned development; this traffic statement is adequate for determining traffic volumes. The County Transportation Planner has reviewed and concurs with the engineer's analysis.

Water Adequacy: Water is to be provided by a shared well and a determination of water adequacy from the Arizona Department of Water Resources (ADWR) as required per Section 408.03 of the Subdivision Regulations was issued on March 31, 2017.

Review by Other Agencies

Willcox Rural Fire Department: The Willcox Rural Fire Department will provide fire suppression service to residents of this subdivision. The Final Plat notes that each residence shall have an automatic fire sprinkler system and additional fire water storage shall be optional and at the discretion of the individual lot owner.

Sulphur Springs Valley Electric Cooperative, Inc. (SSVEC)
SSVEC reviewed the Tentative/ Final Plat and Improvement Plans and has objections to the submitted plans.

IV. STAFF RECOMMENDATION

Financial Assurance for Subdivision Improvements: A third party trust agreement will be used to ensure that subdivision improvements including roads, electric and water service are completed. The assurance agreement or other form of financial assurance must be approved by the Board of Supervisors at the time of or before final plat approval. The third party trust agreement that is included with this final plat includes a condition for the partial release of four lots for sale, however no building permits will be issued or reviewed prior to the completion of all subdivision improvements.

Recommendation:
Staff recommends approval of The Highlands at Inde Final Plat and Assurance Agreement, subject to the following conditions:

1. All private roads shall remain private and will be maintained by the HOA and will not be maintained by Cochise County in the future as noted on the final plat.
2. Prior to construction, the ADEQ Certificate of Approval to Construct the water delivery system shall be submitted to the County Engineer.

3. The developer has submitted a third party trust agreement to ensure completion of all subdivision improvements with a condition for the partial release of four lots for sale, however no building permits will be issued or reviewed prior to the completion of all subdivision improvements.
4. Prior to building construction, each subdivision lot shall have a septic permit approval.
5. Construction of improvements shall not begin until a completed Notice of Intent and authorization number, granted by ADEQ for the Stormwater Pollution Prevention Plan is received by the Community Development Department.
6. The access easement for the well site shall be recorded.
7. All County Fire Official and Willcox Rural Fire Department requirements regarding fire sprinkler systems and fire water storage shall be met.
8. The entry code for any gated entry shall be provided to all emergency service providers and county building safety staff.

Attachments:

A. Aerial Location Map
B. Subdivision Final Plat
C. June 28, 2017 Interoffice Memo from Bradley Simmons, P.E.
D. June 28, 2017 Interoffice Memo from Karen Lamberton, AICP
E. ADWR Water Adequacy letter dated March 31, 2017

Cochise County
Community Development
Highway and Floodplain Division
Public Programs...Personal Service
www.cochise.az.gov

MEMORANDUM

Date: June 28, 2017

To: Paul Esparza, Planning Director

From: Karen L. Lamberton, AICP, County Transportation Planner

Subject: Highlands at Inde Minor Expedited Subdivision Plat/S-16-01/Parcel #209-86-022A/024C

This applicant has submitted a final plat for a standalone minor expedited subdivision totaling 10 residential lots on approximately 45.3 acres. This is the forth review of the final plat. *(First review July 2016; Second review October 2016, Third Review November 2016).*

The Transportation Planner previously concurred with the engineer's analysis of potential traffic that might be generated from this proposed subdivision: ranging from 63.7 to 95.7 average vehicle trips per day. Peak hour travel falls under the threshold requiring an assessment of off-site improvements, such as turning lanes. The submitted Traffic Statement is accepted, as revised.

Acceptance of Submitted Improvements Plans and Paving Plans
The required revisions for the Transportation Planning aspect of this proposed subdivision have been addressed in an adequate manner. Although a number of items cause concern for future traffic circulation in this area this proposal addresses proposed traffic impacts of a 10 lot residential subdivision under the current minor expedited subdivision regulations.

Requested revisions to Improvement and Paving Plans have been completed. We have no further comment on these design plans.

We have no objection to scheduling this subdivision for Planning and Zoning Commission consideration.

Highway and Floodplain
1415 Melody Lane, Building F
Bisbee, Arizona 85603
520-432-9300
520-432-9337 fax
1-800-752-3745
highway@cochise.az.gov
floodplain@cochise.az.gov

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planningandzoning@cochise.az.gov

Cochise County
Community Development
Highway and Floodplain Division

Public Programs...Personal Service
www.cochise.az.gov

MEMORANDUM

Date: June 28, 2017

To: Paul Esparza, Planning Director

From: Bradley Simmons, P.E. Civil Engineer II, Cochise County Highway & Floodplain Dept.

Subject: Highlands at Inde Minor Expedited Subdivision Plat/S-16-01/Parcel #209-86-022A/024C

The required revisions for the Floodplain aspect of this proposed subdivision have been found sufficient. We have no further comment on these design plans.

We have no objection to scheduling this subdivision for Planning and Zoning Commission consideration.

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Bisbee, Arizona 85603
520-432-9300
520-432-9337 fax
1-800-752-3745
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floodplain@cochise.az.gov

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Bisbee, Arizona 85603
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planningandzoning@cochise.az.gov

DOUGLAS A. DUCEY
Governor

THOMAS BUSCHATZKE
Director

ARIZONA DEPARTMENT of WATER RESOURCES
1110 West Washington Street, Suite 310
Phoenix, Arizona 85007
602.771.8500
azwater.gov

Via US Mail and electronic mail

March 31, 2017

CJ Dorland
Inde Motorsports Ranch, LLC
9301 W Airport Rd
Willcox, AZ 85643

Water Report 53-700894.0000
Subdivision Name: The Highlands at Inde
Owner: Inde Motorsports Ranch, LLC, an Arizona limited liability company

Number of lots: 10
County: Cochise
Township 14 South, Range 23 East, Section 10
Annual Water Demand: 20.7 acre-feet/year

Water provided by: Highlands at Inde, a not-for-public service association

Water Type: Groundwater
Current water depth: 358 ft. below land surface
Estimated 100-year depth: 478 ft. below land surface
Current decline rate: 1.2 ft. per year

Basin: Willcox

Dear Mr. Dorland,

Pursuant to A.R.S. § 45-108, the Department of Water Resources has reviewed the available information pertaining to the water supply for the above-referenced subdivision. This letter constitutes the Department's report on the subdivision's water supply as required by A.R.S. § 45-108(A).

Adequacy of the 100-year water supply was reviewed by the Department with regard to physical, legal and continuous availability, water quality, and financial capability. Information available to the Department indicates that the applicant has satisfied the adequate water supply requirements as set forth in A.A.C. R12-15-701 *et seq.* Therefore, the Department of Water Resources finds the water supply to be adequate to meet the subdivision's projected needs. Any material change to the subdivision plat or its water supply plans may invalidate this decision. See A.A.C. R12-15-708.

This letter is being forwarded to the Arizona Department of Real Estate as required by A.R.S. § 45-108. This law requires the developer to hold the recordation of the subdivision's plat until receipt of the Department's report on the subdivision's water supply. By copy of this report, the Cochise County Recorder is also being officially notified of the developer's compliance with the law.

Because of the possibility that a future court proceeding could result in a legal determination that water withdrawn from wells in this area is surface water, the Department recommends that you include the following statement in all promotional material and contracts for sale of lots in the subdivision:

> **"Pursuant to A.R.S. § 45-108 and A.A.C. R12-15-701 *et seq.*, the Department has determined that the water supply for the The Highlands at Inde subdivision is adequate, *i.e.* that the water supply is physically, continuously and legally available to satisfy the subdivision's annual estimated water demand, that the water supply is of suitable water quality, and that the applicant has demonstrated the financial capability to construct adequate delivery, storage and treatment works. However, the legal availability of the water withdrawn from wells in this area may be the subject of court action in the future as part of a determination of surface water rights. Whether future court action will have an effect on the legal availability of the water supply for the proposed subdivision cannot be determined at this time."**

Pursuant to A.R.S. § 41-1092.03, the Department is notifying you that the Director's determination and decision to issue this Water Report is an appealable agency action. You are entitled to appeal this action. If you wish to appeal this action, you must file a written appeal within thirty (30) days from receipt of this letter. I am providing you with a summary of the appeal process and an appeal form, should you elect to pursue this option.

If you have any questions, please contact the Office of Assured & Adequate Water Supply at: 602-771-8599.

Sincerely,

David McKay
Manager, AAWS & Recharge Permitting

cc: Via Electronic Mail:
Carla Randolph, Arizona Department of Real Estate
David Dunaway, Arizona Department of Environmental Quality
Heide A. Kocsis, Az. State Land Department
Cochise County Planning and Zoning
Cochise County Recorder
Ken Perry, PE, Perry Engineering

GENERAL NOTES:

1. ACCESS TO MINOR SUBDIVISION IS FROM AIRPORT ROAD
2. PRIOR TO CONSTRUCTION EACH LOT MUST HAVE A SEWAGE DISPOSAL SITE INVESTIGATION AND SOIL EVALUATION THAT MEETS THE REQUIREMENTS OF THE ARIZONA ADMINISTRATIVE CODE TITLE 18, R1-9-A311. IF THE SAR IS LESS THAN 0.2 GALLONS PER DAY PER SQUARE FOOT OF SOIL OR LIMITING CONDITIONS ARE FOUND THEN THE LOT SHALL HAVE AN APPROPRIATE ALTERNATIVE SYSTEM DESIGNED FOR THAT LOT. COUNTY APPROVAL FOR ALL CONVENTIONAL SEPTIC SYSTEMS MUST BE OBTAINED PRIOR TO COMMENCEMENT OF CONSTRUCTION. ALL ALTERNATIVE SYSTEMS MAY REQUIRE ADEQ OR COUNTY PLAN REVIEW AND CONSTRUCTION APPROVAL. CONVENTIONAL LEACH FIELDS OR SUBSURFACE ELEMENTS OF ALTERNATIVE INDIVIDUAL SEWAGE TREATMENT SYSTEMS MAY BE INSTALLED. ANY LAND RESTORATION OF AREAS OVER SURROUNDING SEPTIC SYSTEMS MUST BE ACCOMPANIED IN SUCH A MANNER AS NOT TO DAMAGE SAID SYSTEMS. A MINIMUM 100-FOOT SETBACK IS REQUIRED FROM ALL WELLS AND FIVE (5) FEET FROM ALL LOT LINES.
3. DUST AND EROSION CONTROL MEASURES SHALL BE EMPLOYED DURING AND POST-CONSTRUCTION AND SHALL COMPLY WITH COCHISE COUNTY LAND CLEARING ORDINANCE AND ADEQ STORMWATER PERMIT REQUIREMENTS.
4. IT IS THE SUBDIVIDER'S RESPONSIBILITY TO OBTAIN ANY ADDITIONAL STATE OR FEDERAL PERMITS.
5. ZONING IS RURAL (RU-4) AND SHALL REMAIN. THIS IS AN EXPEDITED MINOR SUBDIVISION.
6. THE EXISTING USE IS VACANT. THE PROPOSED USE FOR THIS SITE IS SINGLE FAMILY DWELLINGS.
7. THIS PLAT IS DESIGNED IN CONFORMANCE WITH COCHISE COUNTY SUBDIVISION REGULATIONS.
8. THIS SUBDIVISION HAS PRIVATE STREETS THAT ARE NOT BUILT TO COUNTY DESIGN STANDARDS AND WILL NOT BE TAKEN INTO THE COUNTY MAINTENANCE SYSTEM AT ANY TIME IN THE FUTURE. MAINTENANCE OF THESE PRIVATE ROADS WILL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION. THE COUNTY IS HELD HARMLESS FOR SAFETY AND VEHICLE DAMAGE FROM PRIVATE STREETS/ROADS. THE LENGTH OF PRIVATE ROAD IS 0.27 MILES. THE LENGTH OF PUBLIC ROAD IS 0.0 MILES.
9. NO BUILDINGS \ STRUCTURES SHALL BE ALLOWED WITHIN THE BUILDING SETBACK LINE.
10. THE TOTAL NUMBER OF LOTS IS 10. PROPOSED USE IS SINGLE FAMILY RESIDENCES.
11. OUTSIDE LIGHTING SHALL NOT BE DIRECTED OR REFLECTED ONTO OTHER PARCELS. ALL OUTDOOR LIGHTING SHALL CONFORM WITH THE COCHISE COUNTY LIGHT POLLUTION CODE.
12. FIRE PROTECTION SHALL BE PROVIDED BY WILLCOX RURAL FIRE DEPARTMENT.
13. ALL EASEMENTS FOR PUBLIC UTILITIES, TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS AND THE USE OF THESE UTILITIES ARE FOR THE SOLE PURPOSES OF CONSTRUCTION, INSPECTION, REPAIR, REMOVAL, REPLACEMENT, AND MAINTENANCE OF PUBLIC UTILITIES AT WILL. NO CONSTRUCTION WITHIN THESE AREAS SHALL OCCUR, EXCEPT FOR IMPROVEMENTS FOR DRIVEWAY, PRIVATE UTILITY CROSSINGS, AND LANDSCAPING PURPOSES. SUCH IMPROVEMENTS SHALL NOT INTERFERE WITH THE PRIMARY USE BY PUBLIC UTILITY COMPANIES, WHO SHALL NOT BE LIABLE FOR ANY DAMAGES TO IMPROVEMENTS PLACED UPON THESE EASEMENTS DUE TO NECESSARY OPERATIONS USING REASONABLE CARE.
14. WATER SERVICE FOR THIS SUBDIVISION SHALL BE SERVED BY SHARED PRIVATE WELL AND DISTRIBUTION SYSTEMS MAINTAINED AND OWNED BY THE H.O.A.
15. THE DESIGN OF THE SUBDIVISION PROVIDES FOR CROSS LOT DRAINAGE AND THE CROSS LOT DRAINAGE WILL CONTINUE TO FLOW IN THE HISTORICAL PATTERN, ACROSS AND OVER THE DEVELOPED LOTS. THE NATURAL STORM WATER FLOW THAT CROSSES A LOT SHALL NOT BE DIVERTED ONTO ANOTHER LOT OR BLOCKED FROM CROSSING A LOT.
16. ALL PRIVATE LOTS, COMMON AREAS AND TRACTS SHALL NOT BE FURTHER SUBDIVIDED.
17. THE EXISTING PERIMETER FENCING SHALL REMAIN OR BE REPLACED WITH FENCING OF EQUAL OR BETTER CONDITION TO PROTECT SUBDIVISION FROM ROAMING LIVESTOCK.
18. RESIDENTIAL DRIP IRRIGATION SYSTEMS AND TURF IRRIGATION SYSTEMS, IF INSTALLED, SHALL BE ENCOURAGED TO HAVE SEASONAL AND RAIN ADJUSTMENT CAPABILITIES. ALL MUST COMPLY WITH WATER CONSERVATION MEASURES AS OUTLINED IN SECTION 412 OF THE SUBDIVISION REGULATIONS.
19. THE COUNTY WILL REVIEW AND APPROVE THE HYDROLOGY AND HYDRAULIC STUDY PRIOR TO ACCEPTANCE OF THIS FINAL PLAT.
20. ALL ACCESS DRIVEWAYS MUST COMPLY WITH THE SIGHT DISTANCE TRIANGLE STANDARDS REQUIREMENTS.
21. IN 100 YEAR (1%) CHANCE FLOODPLAINS, THE MINIMUM FINISHED FLOOR ELEVATIONS (INCLUDING BASEMENTS) SHALL BE TWELVE INCHES ABOVE THE CALCULATED 1% CHANCE WATER SURFACE ELEVATION AT THE BUILDING PAD. NO BUILDING SHALL BE ORIENTED IN SUCH A WAY AS TO BLOCK THE NATURAL STORM RUNOFF. ALL LOTS ARE SUBJECT TO THE REQUIREMENTS OF THE APPROVED HYDROLOGY AND HYDRAULIC STUDY PREPARED FOR THIS SUBDIVISION AND ON FILE WITH COCHISE COUNTY HIGHWAY AND FLOODPLAIN DEPARTMENT.
22. THE DEVELOPER, ANY SUCCESSORS AND ASSIGNS, WILL HOLD COCHISE COUNTY, ITS OFFICERS, EMPLOYEES, AND AGENTS HARMLESS FROM ANY AND ALL CLAIMS FOR DAMAGES RELATED TO THE USE OF THIS DEVELOPMENT AS SHOWN HEREON, NOW AND IN THE FUTURE, BY REASON OF FLOODING, FLOWAGE, EROSION, OR DAMAGE CAUSED BY WATER, WHETHER SURFACE FLOOD OR RAINFALL.
23. PARCEL LIES WITHIN FEMA ZONE X, AREAS OUTSIDE THE 100 YEAR FLOOD PLAIN, AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 04003C0700F, DATED 8/28/08.
24. ALL SLOPES STEEPER THAN 3:1(HORIZ:VERT) WILL BE STABILIZED WITH STONE RIP RAPPING OR SCULPTURED ROCK AND INSTALLED BY APPROVED METHODS.
25. A MINIMUM OF 50 FEET BETWEEN ACCESS POINTS FROM AIRPORT ROAD FOR LOTS 1 & 2 SHALL BE MAINTAINED.
26. A ROAD ACCESS EASEMENT DEDICATION ONTO AND ALONG THE INTERNAL PRIVATE ROADWAYS SHALL BE MADE FOR EACH LOT SOLD.
27. EACH FUTURE HOME SHALL INCLUDE AN AUTOMATIC FIRE SPRINKLER SYSTEM COMPLIANT WITH NFPA 13D AND SHALL BE CAPABLE OF PROVIDING SPRINKLER FLOW FOR A MINIMUM OF TEN MINUTES. ADDITIONAL FIRE WATER STORAGE ON EACH LOT SHALL BE OPTIONAL AND AT THE DISCRETION OF THE INDIVIDUAL LOT OWNER.

DEDICATION

WE THE UNDERSIGNED, OWNER AND THE ONLY PARTY HAVING ANY INTEREST IN THE LAND SHOWN ON THIS PLAT, DO HEREBY CONSENT TO THE SUBDIVISION OF SAID LAND AND PROPOSED EASEMENTS IN THE MANNER SHOWN HEREON. PRIVATE ROADWAY AND COMMON AREAS AS SHOWN HEREON ARE RESERVED FOR PUBLIC OR EMERGENCY VEHICLES, ALL OWNERS OF PROPERTY WITHIN THIS SUBDIVISION, PROPERTY OWNER GUESTS AND INVITEES, UTILITY PROVIDERS FOR THE PURPOSES OF ACCESS, INSTALLATION, AND MAINTENANCE OF UTILITY INFRASTRUCTURE, AND PERSONS LEGALLY CONDUCTING BUSINESS UPON THE LAND. TITLE TO THE LAND OF COMMON AREAS SHALL BE VESTED IN AN ASSOCIATION OF INDIVIDUAL LOT OWNERS AS ESTABLISHED BY COVENANTS, CONDITIONS, RESTRICTIONS RECORDED IN SEQUENCE # _____ IN THE COCHISE COUNTY RECORDER'S OFFICE. THE ASSOCIATION WILL ACCEPT RESPONSIBILITY FOR CONTROL, MAINTENANCE, AND LIABILITY FOR THE PRIVATE ROADWAYS AND COMMON AREAS WITHIN THIS SUBDIVISION.

SECURITY TITLE AGENCY, AN ARIZONA CORPORATION, AS TRUSTEE UNDER TRUST NO. _____ ONLY AND NOT OTHERWISE.

_____ _____
TRUST OFFICER DATE

ACKNOWLEDGMENT

ON THIS _____ DAY OF _____. 20_____, BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, PERSONALLY APPEARED _____ WHO ACKNOWLEDGED _____ (HIM/HERSELF) TO BE THE TRUST OFFICIAL OF SECURITY TITLE AGENCY OF ARIZONA AND BEING AUTHORIZED SO TO DO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED.

_____ _____
MY COMMISSION EXPIRES NOTARY PUBLIC

RECORDING DATA

STATE OF ARIZONA)
SS)
COUNTY OF COCHISE)

THIS INSTRUMENT WAS RECORD AT THE REQUEST OF COCHISE COUNTY ON THIS _____ DAY OF _____, 20____ AT _____ IN BOOK _____ OF MAPS AND PLATS AT PAGE _____.

FFE #_____

_____ _____
COCHISE COUNTY RECORDER DEPUTY RECORDER

ASSURANCES

THIS IS TO CERTIFY THAT ALL IMPROVEMENTS, SUCH AS STREETS, WATER AND UTILITY INSTALLATION, DRAINAGE AND FLOOD CONTROL FACILITIES, AND MONUMENTS, REQUIRED BY COCHISE COUNTY HAVE BEEN COMPLETED OR THE FUTURE COMPLETION OF SUCH IMPROVEMENTS HAS BEEN ASSURED BY A LAND TRUST FINANCIAL ASSURANCE AGREEMENT, THE POSTING OF PERFORMANCE BONDS, AN ESCROW ACCOUNT, LETTER OF CREDIT,OR OTHER SECURITY AS COCHISE COUNTY DEEMS NECESSARY AND PROPER. IN THE EVENT THAT ANY SUCH ASSURANCE EXPIRES, LAPSES OR IS OTHERWISE INADEQUATE TO ASSURE THE COMPLETION OF ASSURABLE INFRASTRUCTURE, COCHISE COUNTY MAY SUSPEND THE ISSUANCE OF BUILDING PERMITS OR CERTIFICATES OF OCCUPANCY.

_____
COCHISE COUNTY PLANNING AND DEVELOPMENT SERVICES DEPARTMENT DIRECTOR

_____
COCHISE COUNTY ENGINEERING ADMINISTRATOR

BASIS OF BEARING:

BEARINGS ARE BASED ON A LINE BETWEEN THE NORTH 1/4 CORNER OF SECTION 10 AND THE NORTHWEST CORNER OF SECTION 10, SAID BEARING BEING N 89° 43' 47" W PER BK 3 PG 6 OF SURVEY MAPS (R1).

WATER ADEQUACY NOTE

THE ARIZONA DEPARTMENT OF WATER RESOURCES ISSUED A DETERMINATION OF ADEQUATE WATER SUPPLY ON _____.

CERTIFICATION OF SURVEY

I HEREBY CERTIFY THAT THE BOUNDARY SURVEY AS SHOWN ON THIS PLAT WAS PERFORMED UNDER MY DIRECTION, AND THAT ALL EXISTING AND PROPOSED SURVEY MONUMENTS AND MARKERS SHOWN ARE CORRECTLY DESCRIBED. I FURTHER CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY DIRECTION.

REGISTERED LAND SURVEYOR — CERTIFICATE NO. 23379 — DONALD J. LOOSE — Date Signed — ARIZONA, U.S.A.

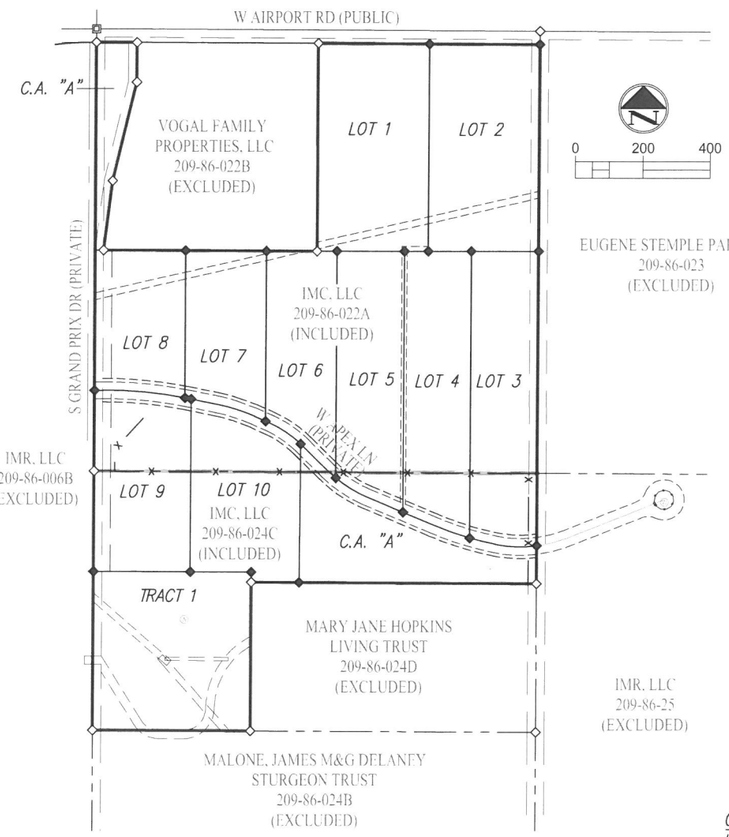
_____ DATE:
DONALD J. LOOSE R.L.S. # 23379
EXPIRES: 06-30-2018

APPROVALS

_____ DATE
CHAIRMAN OF THE BOARD OF SUPERVISORS

_____ DATE
CLERK OF THE BOARD OF SUPERVISORS

_____ DATE
COUNTY ENGINEER



BENEFICIARY

THE BENEFICIARY OF SECURITY TITLE AGENCY TRUST NO. _____ IS GRAHAM E. DORLAND AND VIRGINIA A. DORLAND, HUSBAND AND WIFE.

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THE FLOODPLAIN AND EROSION HAZARD SETBACK LINE AS SHOWN ON THIS PLAT WAS PERFORMED UNDER MY DIRECTION.

Registered Professional Engineer — 34010 — KENNETH D. PERRY — Date Signed — ARIZONA, U.S.A.

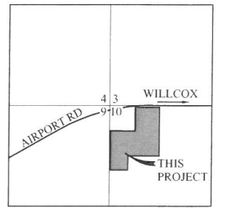
Expires: 9/30/16

KENNETH D. PERRY
REGISTERED PROFESSIONAL ENGINEER
P.E. NUMBER 34010

SHEET INDEX

SHEET 1: FINAL PLAT COVER SHEET
SHEET 2: FINAL PLAT
SHEET 3: TENTATIVE PLAT

PERRY ENGINEERING
505 WEST WETMORE ROAD
TUCSON, AZ 85705
CONTACT: KEN PERRY, P.E.
PHONE: 520.620.9870



LOCATION MAP
SECTION 10
TOWNSHIP 14 SOUTH, RANGE 23 EAST
GILA & SALT RIVER MERIDIAN
COCHISE COUNTY, AZ
SCALE: 3"=1 MILE

LEGEND

- FOUND G.L.O. BRASS CAP MONUMENT MARKED AS SHOWN
- FOUND 1/2" REBAR TAGGED "LS 13187"
- LOT CORNER TO BE SET BY R.L.S.
- (M) MEASURED DATA
- (R) RECORD PER REPORT OF TITLE BOOK 42, PAGE 44
- (R1) RECORD PER BK 3 PG 6 OF SURVEY MAPS
- N.F.P.A NON FLOOD PRONE AREA
- BOUNDARY LINE
- SUBJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE
- EXISTING EASEMENT LINE
- —OHU— OVERHEAD UTILITY
- BARBED WIRE FENCE
- 100YR FLOOD PRONE LIMIT (LOTS 1-10) AND EROSION HAZARD SETBACK LINE (LOTS 2-10)
- 47.78 WSE 100-YEAR WATER SURFACE ELEVATION
- EROSION HAZARD SETBACK LINE (LOT 2 ONLY)
- POINT OF LOT ACCESS
- EX. POWER POLE
- WELL SITE
- NEW DOUBLESHOT CHIPSEAL
- EXISTING PAVEMENT
- 100YR FLOOD PRONE AREA

OWNER/DEVELOPER

INDE MOTORSPORTS RANCH
9301 W. AIRPORT RD
WILLCOX, AZ 85643
CONTACT: CJ DORLAND
818.620.3938

ENGINEER

PERRY ENGINEERING, LLC
505 W WETMORE ROAD
TUCSON, AZ 85705
CONTACT: KEN PERRY, P.E.
PHONE: 520.620.9870

FINAL PLAT
FOR
THE HIGHLANDS AT INDE

LOTS 1-10, COMMON AREA "A" AND TRACT 1

LOCATED IN A PORTION OF
SECTION 10, T-14-S, R-23-E,
GILA & SALT RIVER MERIDIAN
COCHISE COUNTY, ARIZONA

ADMINISTRATIVE SITE ADDRESS:
9301 W. AIRPORT ROAD, WILLCOX, ARIZONA

F:\Perry Engineering\15028 - IMR East Subdivision\Tentative Plat\FP1.dwg Plotted: Jun 21, 2017 - 1:53pm Cole

LEGAL DESCRIPTION:

PARCEL I:

PARCEL 1, ACCORDING TO BOOK 3 OF SURVEYS, PAGE 6, RECORDS OF COCHISE COUNTY, ARIZONA, LYING WITHIN THE NORTHWEST QUARTER OF SECTION 10, TOWNSHIP 14 SOUTH, RANGE 23 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, COCHISE COUNTY, ARIZONA;

EXCEPT ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCELS A AND B:

A) A 40.00 FOOT WIDE STRIP WITHIN SECTIONS 9 AND 10, TOWNSHIP 14 SOUTH, RANGE 23 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, COCHISE COUNTY, ARIZONA, THE NORTHERLY LINE OF WHICH IS DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTH QUARTER CORNER OF SAID SECTION 10, TOWNSHIP 14 SOUTH, RANGE 23 EAST, BEING A G.L.O. BRASS CAPPED PIPE;

THENCE NORTH 89°43'51" WEST 1,318.86 FEET ALONG THE NORTH LINE OF SAID SECTION 10 TO A #4 REBAR TAGGED LS 13187 AND THE POINT OF BEGINNING;

THENCE CONTINUE NORTH 89°43'51" WEST 1,318.86 FEET ALONG THE NORTH LINE OF SAID SECTION 10 TO A G.L.O. BRASS CAPPED PIPE AT THE CORNER OF SECTIONS 3, 4, 9 AND 10, TOWNSHIP 14 SOUTH, RANGE 23 EAST;

THENCE CONTINUE NORTH 89°43'51" WEST 6.65 FEET TO A POINT OF CURVATURE OF A TANGENT CURVE CONCAVE TO THE SOUTHEAST;

THENCE ALONG SAID CURVE, TO THE LEFT, HAVING A RADIUS OF 967.00 FEET, A CENTRAL ANGLE OF 39°04'40", AN ARC DISTANCE OF 659.53 FEET TO A POINT OF TANGENCY;

THENCE SOUTH 51°11'29" WEST 308.41 FEET TO A POINT OF CURVATURE OF A TANGENT CURVE CONCAVE TO THE NORTHWEST;

THENCE ALONG SAID CURVE, TO THE RIGHT, HAVING A RADIUS OF 1,683.00 FEET, A CENTRAL ANGLE OF 18°23'11", AN ARC DISTANCE OF 540.08 FEET TO A POINT OF TANGENCY;

THENCE SOUTH 69°34'40" WEST 1,061.08 FEET TO A POINT OF CURVATURE OF A TANGENT CURVE CONCAVE TO THE SOUTHEAST;

THENCE ALONG SAID CURVE, TO THE LEFT, HAVING A RADIUS OF 1,117.00 FEET, A CENTRAL ANGLE OF 07°25'48", AN ARC DISTANCE OF 144.85 FEET TO A POINT OF TANGENCY;

THENCE SOUTH 62°08'52" WEST 509.51 FEET TO A POINT OF CURVATURE OF A TANGENT CURVE CONCAVE TO THE SOUTHEAST;

THENCE ALONG SAID CURVE, TO THE LEFT, HAVING A RADIUS OF 2,417.00 FEET, A CENTRAL ANGLE OF 10°06'56", AN ARC DISTANCE OF 426.72 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE, TO THE RIGHT, HAVING A RADIUS OF 5, 033.00 FEET, A CENTRAL ANGLE OF 07°02'54", AN ARC DISTANCE OF 619.15 FEET TO A POINT OF TANGENCY;

THENCE SOUTH 59°04'50" WEST 1,761,22 FEET TO A POINT ON THE WEST LINE OF SECTION 9, FROM WHICH THE WEST QUARTER CORNER OF SAID SECTION 9 BEARS NORTH 00°01'26" WEST 213.23 FEET;

THENCE SOUTHERLY LINE OF SAID 40.00 FOOT WIDE STRIP BEING EXTENDED TO INTERSECT THE WEST LINE OF SAID SECTION 9.

B) COMMENCING AT THE NORTHWEST CORNER OF SECTION 10, TOWNSHIP 14 SOUTH, RANGE 23 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, COCHISE COUNTY, ARIZONA;

THENCE ALONG THE LINE BETWEEN SAID SECTION 10 AND SECTION 9, SOUTH 00°01'16" EAST 40.00 FEET TO A #4 REBAR TAGGED LS 13187 ON THE SOUTH RIGHT-OF-WAY LINE OF AIRPORT ROAD AS RECORDED IN DOCUMENT NO. 2010-03900;

THENCE ALONG SAID SOUTH RIGHT-OF-WAY LINE OF AIRPORT ROAD, SOUTH 89°43'53" EAST 121.40 FEET TO A #4 REBAR TAGGED LS 13187 AND THE POINT OF BEGINNING;

THENCE CONTINUING SOUTH 89°43'53" EAST 537.83 FEET;

THENCE SOUTH 00°02'35" EAST 620.31 FEET;

THENCE NORTH 89°43'47" WEST 634.47 FEET;

THENCE NORTH 07°07'04" EAST 208.76 FEET;

THENCE NORTH 13°26'37" EAST 302.58 FEET;

THENCE NORTH 00°01'16" WEST 118.40 FEET TO THE POINT OF BEGINNING.

PARCEL II:

PARCEL 3, ACCORDING TO BOOK 3 OF SURVEYS, PAGE 6, RECORDS OF COCHISE COUNTY, ARIZONA, LYING WITHIN THE NORTHWEST QUARTER OF SECTION 10, TOWNSHIP 14 SOUTH, RANGE 23 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, COCHISE COUNTY, ARIZONA;

EXCEPT ANY PORTION LYING WITHIN THE FOLLOWING DESCRIBED PARCELS A AND B:

A) BEGINNING AT A BRASS CAPPED GENERAL LAND OFFICE MONUMENT AT THE WEST QUARTER CORNER OF SAID SECTION 10;

THENCE ALONG THE SOUTH LINE OF SAID NORTHWEST QUARTER, SOUTH 89°43'34" EAST 1319.07 FEET TO A #4 REBAR TAGGED LS 13187;

THENCE NORTH 00°01'55" WEST 545.00 FEET TO A #4 REBAR TAGGED LS 13187;

THENCE NORTH 89°43'34" WEST 1319.02 FEET TO A #4 REBAR ON THE WEST LINE OF SAID NORTHWEST QUARTER;

THENCE ALONG SAID WEST LINE, SOUTH 00°01'35" EAST 545.00 FEET TO THE POINT OF BEGINNING.

THE BASIS OF BEARING FOR THIS DESCRIPTION IS THE LINE BETWEEN A FOUND #4 REBAR AT THE SOUTH QUARTER CORNER OF SAID SECTION 10 AND A GLO BRASS CAPPED PIPE AT THE NORTH QUARTER CORNER OF SAID SECTION 10. SAID BEARING BEING NORTH 00°02'01" WEST AS SHOWN ON RECORD OF SURVEY RECORDED IN BOOK 3 OF SURVEYS, PAGE 6, RECORDS OF COCHISE COUNTY, ARIZONA.

B) COMMENCING AT A BRASS CAPPED GENERAL LAND OFFICE MONUMENT AT THE WEST QUARTER OF SAID SECTION 10;

THENCE NORTH 00°01'35" WEST, ALONG THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 10, A DISTANCE OF 545.00 FEET TO

A #4 REBAR TAGGED RLS 13187;

THENCE SOUTH 89°43'34" EAST, A DISTANCE OF 469.26 FEET TO A #4 REBAR TAGGED RLS 13187 AND THE POINT OF BEGINNING;

THENCE CONTINUING SOUTH 89°43'34" EAST, A DISTANCE OF 850.00 FEET TO A #4 REBAR TAGGED RLS 13187;

THENCE NORTH 00°01'55" WEST, A DISTANCE OF 445.00 FEET TO A #4 REBAR TAGGED RLS 13187;

THENCE NORTH 89°43'34" WEST, A DISTANCE OF 850.00 FEET TO A #4 REBAR TAGGED RLS 13187;

THENCE SOUTH 00°01'55" EAST, A DISTANCE OF 445.00 FEET TO A #4 REBAR TAGGED RLS 13187 AND POINT OF BEGINNING.



KEY NOTES:

1. EXISTING DIRT ROAD
2. 20' ELECTRIC EASEMENT TO BE DEDICATED TO SULPHUR SPRINGS VALLEY ELECTRIC CO-OP (S.S.V.E.C) BY FINAL PLAT
3. EXISTING FENCE TO BE REMOVED
4. 15' PRIVATE WATER EASEMENT
5. NEW 1" WATER SERVICE
6. EXISTING EASEMENT FOR WELL ACCESS BY SEPARATE INSTRUMENT
7. 25' OR 50' WIDE PRIVATE INGRESS/EGRESS, GENERAL UTILITY AND EMERGENCY ACCESS EASEMENT AS SHOWN DEDICATED BY THIS PLAT.
8. FAR SIDE SIGHT VISIBILITY TRIANGLE (15' X 145')
9. NEAR SIGHT VISIBILITY TRIANGLE (15' X 220')
10. FAR SIDE SIGHT VISIBILITY TRIANGLE (15' X 220')
11. NEAR SIGHT VISIBILITY TRIANGLE (15' X 340')
12. 10' ELECTRIC EASEMENT TO BE DEDICATED TO SULPHUR SPRINGS VALLEY ELECTRIC CO-OP (S.S.V.E.C) BY FINAL PLAT
13. EXISTING GATE TO BE REPLACED WITH A NEW GATE IN THE SAME LOCATION
14. ROADWAY ACCESS APRON PER SECTION C-2C OF COCHISE COUNTY ROAD DESIGN & CONSTRUCTION MANUAL

FINAL PLAT
FOR
THE HIGHLANDS AT INDE

LOTS 1-10, COMMON AREA "A" AND TRACT 1

LOCATED IN A PORTION OF SECTION 10, T-14-S, R-23-E, GILA & SALT RIVER MERIDIAN COCHISE COUNTY, ARIZONA

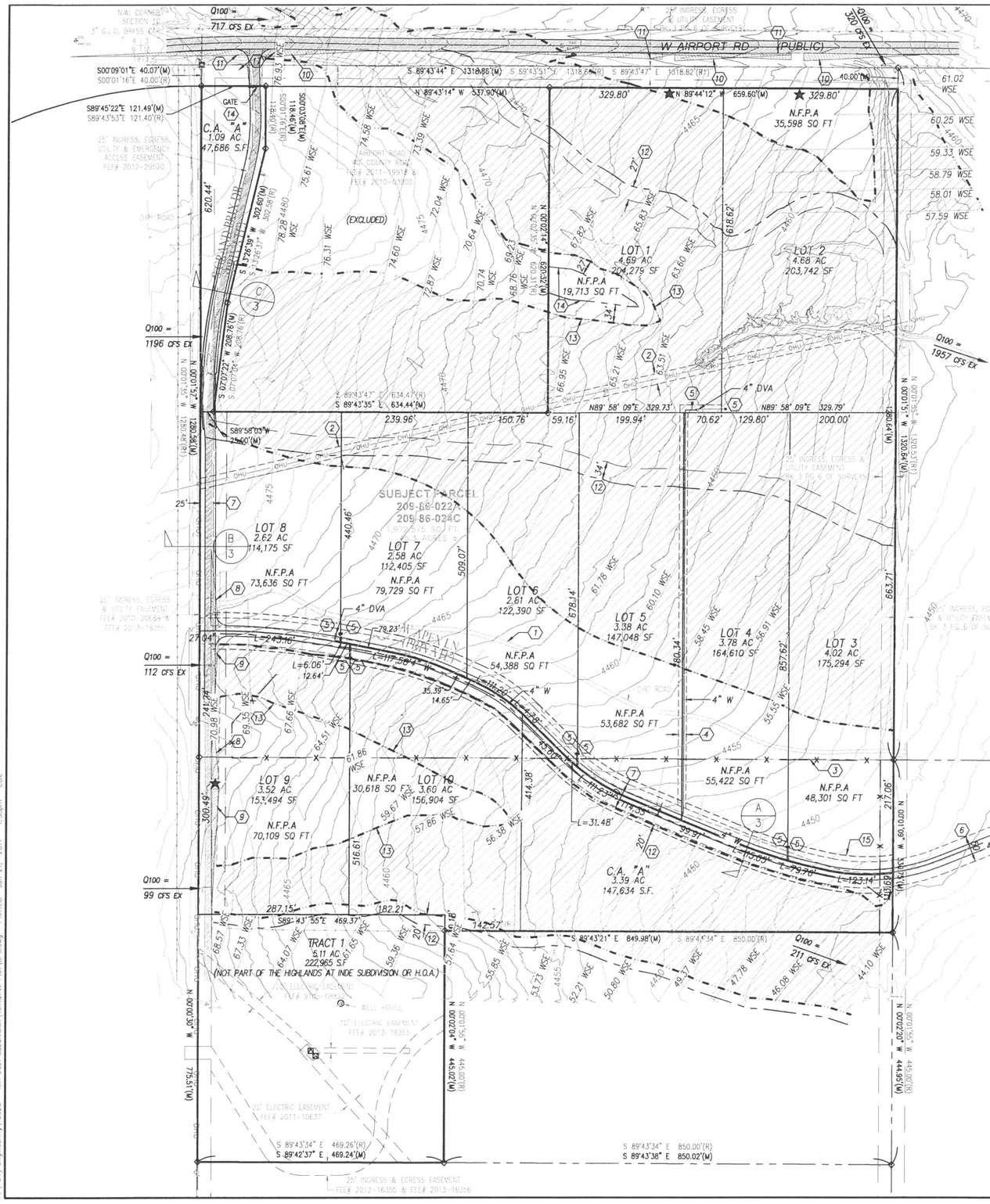
ADMINISTRATIVE SITE ADDRESS: 9301 W. AIRPORT ROAD, WILLCOX, ARIZONA

Registered Professional Engineer 34010 KENNETH D. PERRY Date signed 09/30/16 ARIZONA, U.S.A.

Expires: 9/30/17

PERRY ENGINEERING
505 WEST WETMORE ROAD
TUCSON, AZ 85705
CONTACT: KEN PERRY, P.E.
PHONE: 520.620.9870

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10' ELECTRIC EASEMENT — 50' PRIVATE ACCESS EASEMENT — 10' ELECTRIC EASEMENT

5' SHLDR | 10' MIN TRAVEL LANE 3% | 10' MIN TRAVEL LANE 3% | 5' SHLDR

4:1 — 4:1

6" COMPACTED SUBGRADE — 4" WATER — DOUBLESHOT CHIPSEAL

(A) ROAD SECTION – W. APEX LANE NTS

25' PRIVATE ACCESS EASEMENT

10' MIN TRAVEL LANE 3% | 10' MIN TRAVEL LANE

DOUBLESHOT CHIPSEAL — 6" COMPACTED SUBGRADE

(B) ROAD SECTION – S. GRAND PRIX DR. NTS

25' PRIVATE ACCESS EASEMENT — 25' ADDL. PRIVATE EASEMENT BY FINAL PLAT

2.5'–4' (SEE PLAN) — 10' TRAVEL LANE | 10' TRAVEL LANE 3% — 2.5'–4' (SEE PLAN)

4:1 — 4:1

DOUBLESHOT CHIPSEAL — 6" COMPACTED SUBGRADE

(C) ROAD SECTION – S. GRAND PRIX DR. * SLOPE VARIES ON EXISTING ROAD NTS

KEY NOTES:

1. EXISTING DIRT ROAD
2. 20' ELECTRIC EASEMENT TO BE DEDICATED TO SULPHUR SPRINGS VALLEY ELECTRIC CO-OP (S.S.V.E.C) BY FINAL PLAT
3. EXISTING FENCE TO BE REMOVED
4. 15' PRIVATE WATER EASEMENT
5. NEW 1" WATER SERVICE
6. EXISTING EASEMENT FOR WELL ACCESS BY SEPARATE INSTRUMENT
7. 25' OR 50' WIDE PRIVATE AND EMERGENCY INGRESS/EGRESS, AND PUBLIC UTILITY EASEMENT AS SHOWN DEDICATED BY THIS PLAT.
8. FAR SIDE SIGHT VISIBILITY TRIANGLE (15' X 145')
9. NEAR SIGHT VISIBILITY TRIANGLE (15' X 220')
10. FAR SIDE SIGHT VISIBILITY TRIANGLE (15' X 220')
11. NEAR SIGHT VISIBILITY TRIANGLE (15' X 340')
12. SEPTIC SETBACK DISTANCE
13. SEPTIC SETBACK COINCIDES WITH FLOODPLAIN LIMIT LINE ON LOT 1, 9 AND 10.
14. EROSION HAZARD SETBACK LINE, LOT 1 ONLY.
15. 10' ELECTRIC EASEMENT TO BE DEDICATED TO SULPHUR SPRINGS VALLEY ELECTRIC CO-OP (S.S.V.E.C) BY FINAL PLAT
16. EXISTING GATE TO BE REPLACED WITH A NEW GATE IN THE SAME LOCATION
17. ROADWAY ACCESS APRON PER SECTION C-2C OF COCHISE COUNTY ROAD DESIGN & CONSTRUCTION MANUAL.
18. 0.5' x 1.6' CONCRETE HEADER

LEGEND – THIS SHEET ONLY FOR SEPTIC COMPONENT LOCATION (SEPTIC TANKS AND LEACH FIELDS)

——— ——— TOP OF BANK

— — — — SEPTIC SETBACK LINE

NOTE:
INDICATED WATER SURFACE ELEVATIONS ARE LOCALLY CALCULATED, AND DO NOT REPRESENT A FEMA SPECIAL FLOOD HAZARD AREA.

TENTATIVE PLAT
FOR
THE HIGHLANDS AT INDE

LOTS 1–10, COMMON AREA "A" AND TRACT 1

LOCATED IN A PORTION OF SECTION 10, T-14-S, R-23-E, GILA & SALT RIVER MERIDIAN COCHISE COUNTY, ARIZONA

ADMINISTRATIVE SITE ADDRESS:
9301 W. AIRPORT ROAD, WILLCOX, ARIZONA

Arizona Blue Stake, Inc. 811 — 1-800-782-5348 — 1-800-STAKE-IT — Blue Stake Center

REGISTERED LAND SURVEYOR — 34010 KENNETH D. PERRY — Date signed 9/30/17 — ARIZONA, U.S.A.

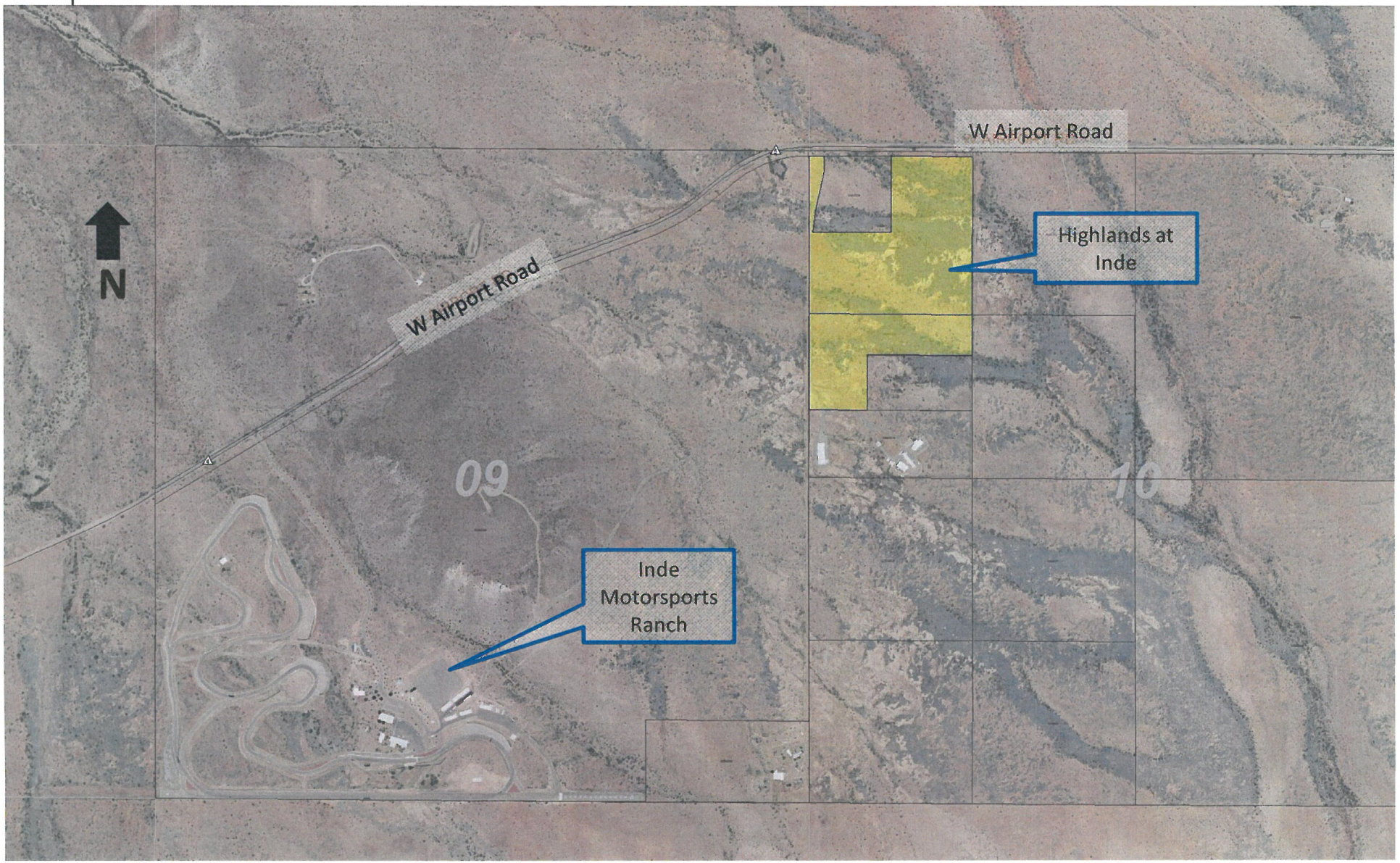
Expires: 9/30/17

PERRY ENGINEERING
505 WEST WETMORE ROAD
TUCSON, AZ 85705
CONTACT: KEN PERRY, P.E.
PHONE: 520.620.9870

F:\Perry Engineering\15028 - IMR East Subdivision\Tentative Plat\SP3.dwg Plot Date: Jun 21, 2017 - 1:55pm Cole

COCHISE COUNTY

Location Map



COCHISE COUNTY

Docket S-16-01
(The Highlands at Inde Lots 1-10)

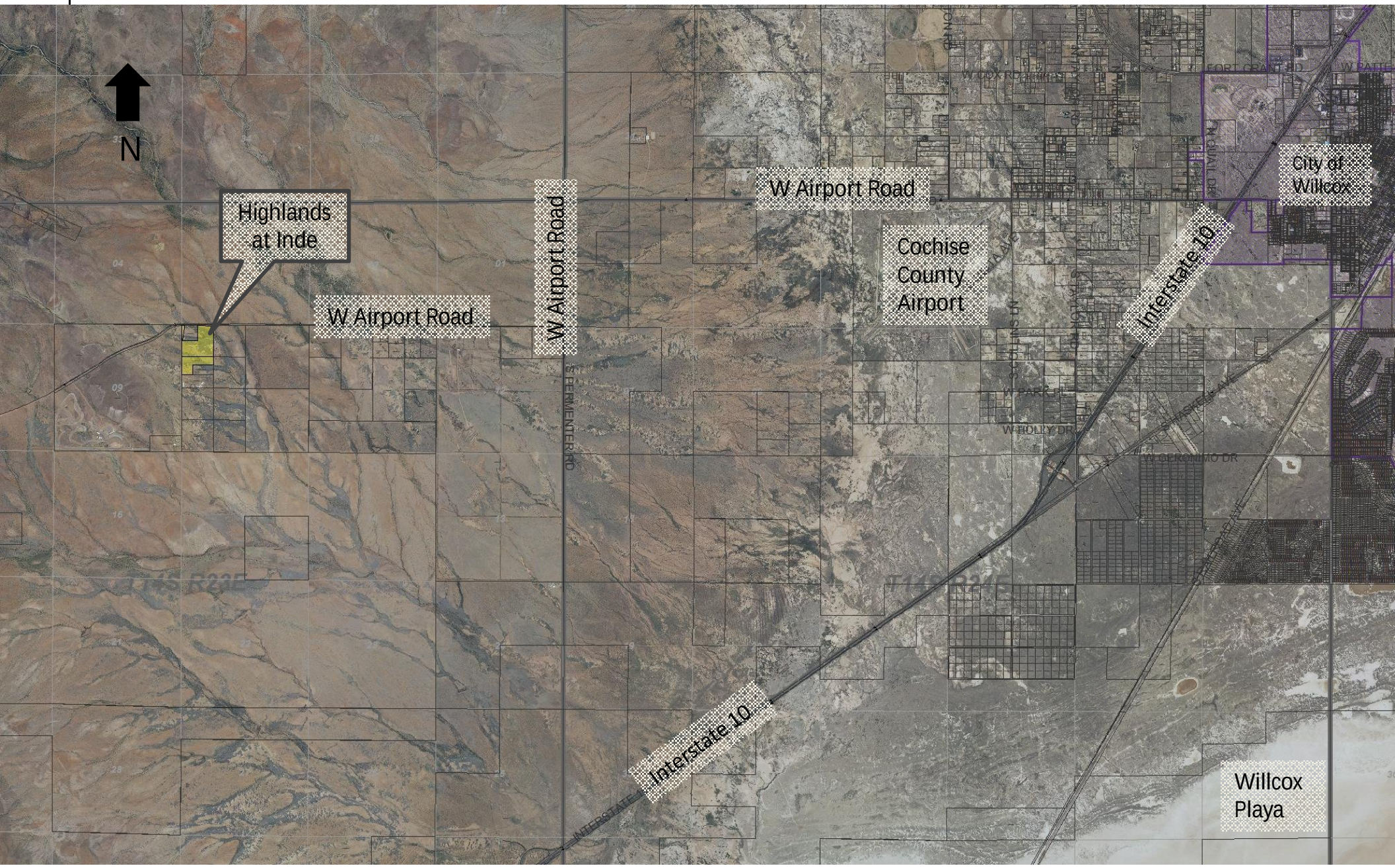
Request to approve
a Minor Expedited Subdivision
Final Plat

Board of Supervisors
September 12, 2017

Public Programs…Personal Service

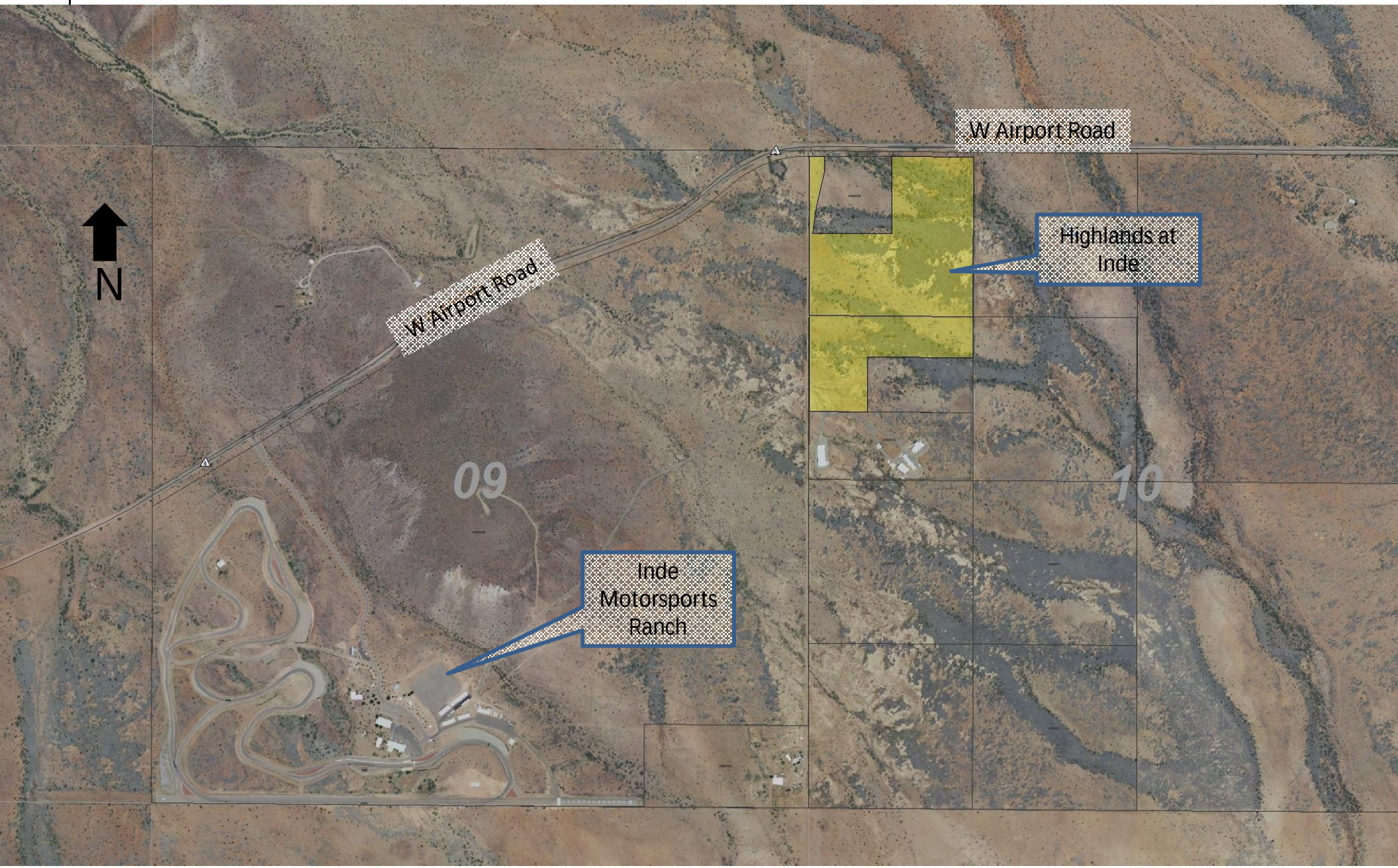
COCHISE COUNTY

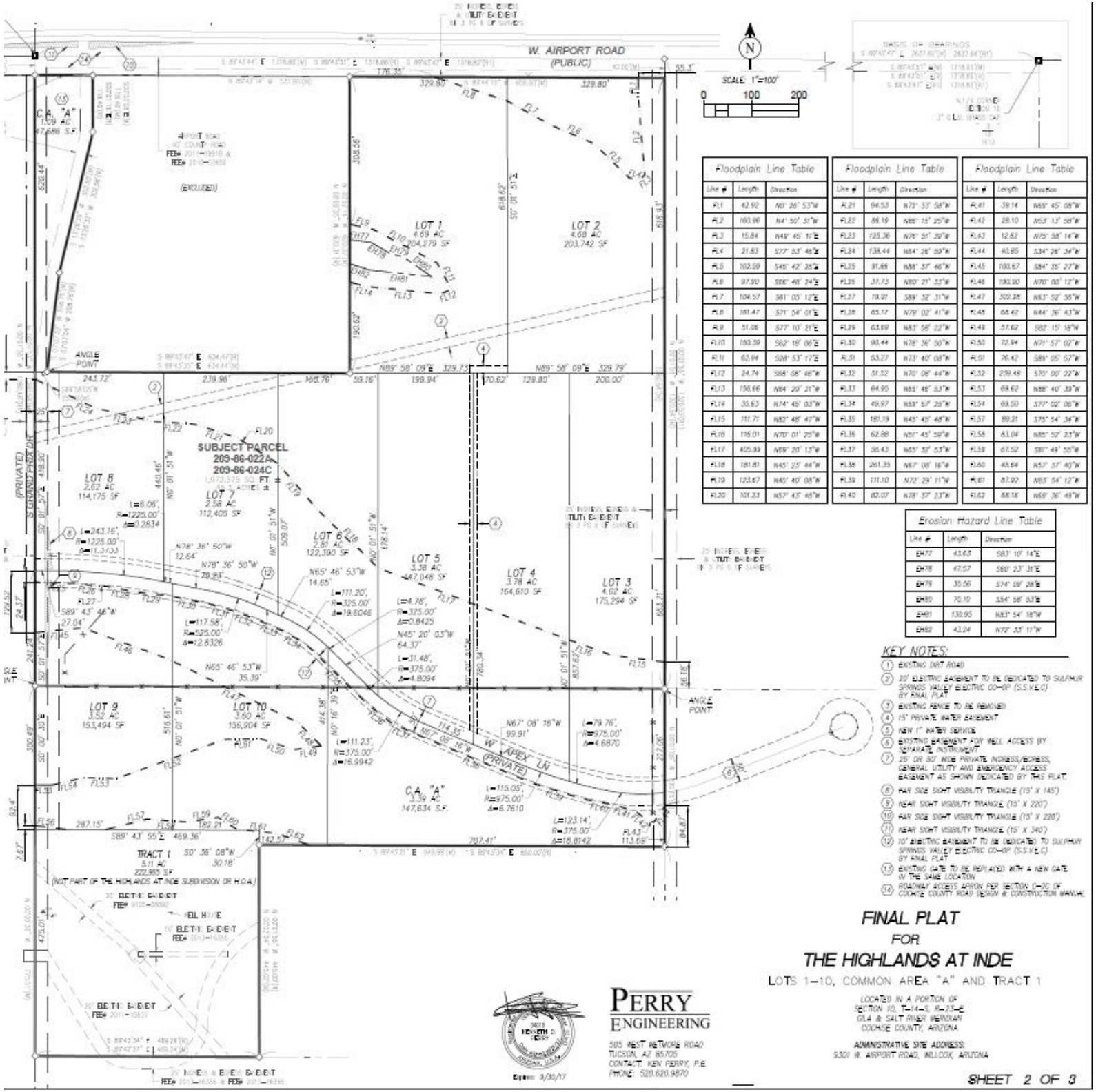
Area Map



COCHISE COUNTY

Location Map





Floodplain Line Table		
Line #	Length	Direction
FL1	42.92	N0° 26' 53"W
FL2	160.96	N4° 50' 31"W
FL3	15.84	N49° 45' 17"E
FL4	21.83	S77° 33' 46"E
FL5	102.59	S45° 42' 35"E
FL6	97.90	S66° 48' 24"E
FL7	104.57	S61° 05' 12"E
FL8	161.47	S71° 54' 01"E
FL9	51.06	S77° 10' 31"E
FL10	150.39	S82° 18' 06"E
FL11	62.94	S28° 53' 17"E
FL12	24.74	S66° 08' 46"W
FL13	156.66	N84° 29' 21"W
FL14	35.63	N74° 45' 03"W
FL15	111.71	N82° 48' 47"W
FL16	116.01	N70° 01' 25"W
FL17	405.39	N69° 20' 13"W
FL18	181.81	N45° 23' 44"W
FL19	123.67	N40° 40' 08"W
FL20	101.33	N57° 43' 48"W

Floodplain Line Table		
Line #	Length	Direction
FL21	94.53	N72° 33' 58"W
FL22	88.19	N88° 15' 25"W
FL23	125.36	N76° 31' 39"W
FL24	138.44	N84° 26' 59"W
FL25	91.65	N86° 37' 46"W
FL26	37.75	N80° 21' 53"W
FL27	79.91	S89° 32' 31"W
FL28	65.17	N79° 02' 41"W
FL29	63.69	N83° 56' 22"W
FL30	90.44	N78° 36' 50"W
FL31	53.27	N73° 40' 08"W
FL32	51.52	N70° 06' 44"W
FL33	64.95	N65° 48' 53"W
FL34	49.97	N53° 57' 29"W
FL35	180.19	N45° 45' 48"W
FL36	62.88	N51° 45' 59"W
FL37	36.43	N65° 32' 53"W
FL38	261.35	N67° 08' 16"W
FL39	111.10	N72° 28' 11"W
FL40	82.07	N78° 37' 23"W

Floodplain Line Table		
Line #	Length	Direction
FL41	39.14	N69° 45' 08"W
FL42	28.10	N55° 13' 56"W
FL43	12.62	N75° 58' 14"W
FL44	40.85	S34° 26' 34"W
FL45	100.67	S84° 35' 27"W
FL46	192.90	N70° 00' 12"W
FL47	302.25	N63° 52' 56"W
FL48	68.42	N44° 36' 43"W
FL49	57.62	S82° 15' 18"W
FL50	72.94	N71° 57' 02"W
FL51	76.42	S89° 05' 57"W
FL52	239.49	S70° 00' 22"W
FL53	69.62	N88° 40' 39"W
FL54	69.50	S77° 02' 06"W
FL57	89.21	S75° 54' 34"W
FL58	83.04	N85° 52' 23"W
FL59	67.52	S81° 49' 56"W
FL60	45.84	N57° 37' 40"W
FL61	87.92	N83° 54' 12"W
FL62	58.18	N69° 36' 49"W

Erosion Hazard Line Table		
Line #	Length	Direction
EH77	43.63	S83° 10' 14"E
EH78	47.57	S80° 23' 31"E
EH79	35.06	S74° 09' 28"E
EH80	70.10	S54° 58' 53"E
EH81	130.95	N83° 54' 18"W
EH82	43.24	N72° 33' 17"W

KEY NOTES:

1. EXISTING DIRT ROAD
2. 20' ELECTRIC EASEMENT TO BE DEDICATED TO SULPHUR SPRINGS VALLEY ELECTRIC CO-OP (S.S.V.E.C) BY FINAL PLAT
3. EXISTING FENCE TO BE REMOVED
4. 15' PRIVATE WATER EASEMENT
5. NEW 1" WATER SERVICE
6. EXISTING EASEMENT FOR WELL ACCESS BY SEPARATE INSTRUMENT
7. 25' OR 50' WIDE PRIVATE INGRESS/EGRESS, GENERAL UTILITY AND EMERGENCY ACCESS EASEMENT AS SHOWN DEDICATED BY THIS PLAT.
8. FAR SIDE SIGHT VISIBILITY TRIANGLE (15' X 145')
9. NEAR SIGHT VISIBILITY TRIANGLE (15' X 220')
10. FAR SIDE SIGHT VISIBILITY TRIANGLE (15' X 220')
11. NEAR SIGHT VISIBILITY TRIANGLE (15' X 340')
12. 10' ELECTRIC EASEMENT TO BE DEDICATED TO SULPHUR SPRINGS VALLEY ELECTRIC CO-OP (S.S.V.E.C) BY FINAL PLAT
13. EXISTING GATE TO BE REPLACED WITH A NEW GATE IN THE SAME LOCATION
14. ROADWAY ACCESS APRON PER SECTION C-10.01 OF COCHISE COUNTY ROAD DESIGN & CONSTRUCTION MANUAL

FINAL PLAT
FOR
THE HIGHLANDS AT INDE

LOTS 1-10, COMMON AREA "A" AND TRACT 1

LOCATED IN A PORTION OF
SECTION 10, T-14-S, R-23-E
GILA & SALT RIVER MERIDIAN
COCHISE COUNTY, ARIZONA

ADMINISTRATIVE SITE ADDRESS:
9301 W. AIRPORT ROAD, WILCOX, ARIZONA

PERRY ENGINEERING
505 WEST NETWORK ROAD
TUCSON, AZ 85705
CONTACT: KEN PERRY, P.E.
PHONE: 520.620.9870

KENNETH D. PERRY
ARIZONA U.S.A.
Expires: 9/30/17

COCHISE COUNTY

Docket S-16-01 (The Highlands at Inde Lots 1-10)

- This request is for approval of a Minor Expedited Final Plat for The Highlands at Inde, Lots 1-10, Tract 1 and Common Area "A" with flexible lot sizes and no density bonus.
- This final plat is a 10 lot subdivision on 45.27 acres, with an average lot size of 3.6 acres.
- The subject parcels APN 209-86-022A and 209-86-024C are currently zoned RU-4. Growth Area: D Plan Designation: Rural
- The site is located approximately 8 miles west of the City of Willcox.
- The P&Z Commission unanimously recommended approval of the Final Plat with staff conditions on August 9, 2017.

COCHISE COUNTY

Docket S-16-01 (The Highlands at Inde Lots 1-10)

- The developer will record CC&Rs for the subdivision.
- Access to the subdivision will be from Airport Road, the nearest access to Interstate 10 is via Taylor Road.
- The subdivision will have private internal roads. The roads will be built to low volume design standards and will be maintained by the HOA.
- The Drainage Report has been approved with the floodplain delineated on the final plat.
- Each lot will have an individual sewage disposal system, with a conventional septic tank and leach field.
- Water to the subdivision lots will be provided by a shared well.

Factors in Favor of Approval

1. The proposed Final Plat does comply with the subdivision submittal requirements.

Factors Against Approval

None

COCHISE COUNTY

Staff Recommendation:

Final Plat and Assurance Agreement approval subject to the staff conditions.

Public Programs…Personal Service

COCHISE COUNTY

Final Plat conditions of approval

- All private roads shall remain private and will be maintained by the HOA and will not be maintained by Cochise County in the future as noted on the final plat.

- Prior to construction, the ADEQ Certificate of Approval to Construct the water delivery system shall be submitted to the County Engineer.

- The developer has submitted a third party trust agreement to ensure completion of all subdivision improvements with a condition for the partial release of four lots for sale, however no building permits will be issued or reviewed prior to the completion of all subdivision improvements.

- Prior to building construction, each subdivision lot shall have a septic permit approval.

COCHISE COUNTY

Final Plat conditions of approval

- Construction of improvements shall not begin until a completed Notice of Intent and authorization number, granted by ADEQ for the Stormwater Pollution Prevention Plan is received by the Community Development Department.

- The access easement for the well site shall be recorded.

- All County Fire Official and Willcox Rural Fire Department requirements regarding fire sprinkler systems and fire water storage shall be met.

- The entry code for any gated entry shall be provided to all emergency service providers and county building safety staff.

COCHISE COUNTY

Docket S-16-01 (The Highlands at Inde Lots 1-10)

Discussion and Questions

Public Programs…Personal Service

Action 15.

Regular Board of Supervisors Meeting **County Sheriff**

Meeting Date: 09/12/2017

ACJC, Drug, Gang, and ViolentCrime Control Grant

Submitted By: Sean Gijanto, County Sheriff

Department: County Sheriff

Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	2
NAME of PRESENTER:	Sean Gijanto	**TITLE of PRESENTER:**	Lieutenant
Mandated Function?:	Federal or State Mandate	**Source of Mandate or Basis for Support?:**	ARS 11-441

You will use this Agenda Item template if your item involves a Grant (whether a new or renewal grant). You also must attach the Grant Approval Form to the item before Finance will approve it. Select the SPECIAL LINKS on your left-hand menu and Click on "Grant Approval Form". Then complete the form, save it and attach it to your item (on the Attachments tab).

Information

Agenda Item Text:

Approve Grant Agreement HT-17-2727 for the Drug, Gang, and Violent Crime Control funding with the Arizona Criminal Justice Commission in the amount of $157,700 for overtime salaries and fringe benefits (ERE) effective January 1, 2017 through December 31, 2018.

Background:

The Sheriff's Office has a contract (re-occurring) for funding by the Arizona Criminal Justice Commission. This grant is a funding source the Cochise County Sheriff’s Office has applied for, and has been approved to utilize as a source of funding for several of the Special Operation Division units to use to assist in combating illegal drug using, selling and smuggling; along with combating illegal immigrant smuggling within the communities of Cochise County. The funding source allows CCSO to pay overtime, when necessary, to those who work in these units.

Department's Next Steps (if approved):

If approved, the Sheriff’s Office will continue to deploy deputies trained in detecting capturing drug smugglers and those who use and sale illicit drugs in our communities.

Impact of NOT Approving/Alternatives:

If not approved, it will severely impact the Sheriff’s Office ability to deploy assets into areas where illegal drugs and/or human smuggling and drugs sales are occurring. Our current fiscal budget cannot provide compensation for the extra hours these types of units work to combat the above mentioned crimes that occur in our communities.

To BOS Staff: Document Disposition/Follow-Up:

Please return contract(s) with a signed copy of the Board of Supervisors approved agenda item or resolution listing the grant agreement.

Budget Information

Information about available funds

Budgeted: ◯ **Funds Available:** ◯ **Amount Available:**

Unbudgeted: ◯ **Funds NOT Available:** ◯ **Amendment:** ☐

Account Code(s) for Available Funds

1:

Fund Transfers

Attachments

Contract

CITY OF TUCSON
HIGH INTENSITY DRUG TRAFFICKING AREAS (HIDTA) PROGRAM
GRANT AGREEMENT **CFDA NUMBER: 95.001**

AWARD NUMBER (FAIN): G17SA0007A COT Grant Number ***HT-17-2727***

This Grant Agreement is made this 1ST day of January 2017 by and between the CITY OF TUCSON hereinafter called "CITY" and **GOVERNING BODY**, through **Cochise County Sheriff's Office** hereinafter called "GRANTEE". The CITY enters into this Agreement pursuant to its authority under the provisions of A.R.S. § 11-951, et seq., and the City of Tucson's Resolution number 21460, having satisfied itself as to the qualification of GRANTEE.

NOW, THEREFORE, it is agreed between the parties as follows:

1. This Agreement will commence on **January 1, 2017** and terminate on **December 31, 2018**. This Agreement expires at the end of the award period unless prior written approval for an extension has been obtained from the CITY. A request for extension must be received by the CITY sixty (60) days prior to the end of the award period. The CITY may approve an extension that further the goals and objectives of the program and shall determine the length of any extension within Office of National Drug Control Policy (ONDCP) guidelines.

2. The GRANTEE agrees that grant funds will be used for the **Southern Arizona Major Investigative Team (SAMIT).**

3. The CITY will monitor the performance of the GRANTEE against goals and performance standards outlined in the grant application. Sub-standard performance as determined by the CITY will constitute non-compliance with this Agreement. The GRANTEE shall operate in a manner consistent with and in compliance with the provisions and stipulations of the approved grant application and this Agreement. If the CITY finds non-compliance, the GRANTEE will receive a written notice that identifies the area of non-compliance, and the appropriate corrective action to be taken. If the GRANTEE does not respond within thirty calendar days to this notice, and does not provide sufficient information concerning the steps that are being taken to correct the problem, the CITY may suspend funding; permanently terminate this Agreement and/or revoke the grant; Any deviation or failure to comply with the purpose and/or conditions of this Agreement without prior written CITY approval may constitute sufficient reason for the CITY to terminate this Agreement; revoke the grant; require the return of all unspent funds, perform an audit of expended funds; and require the return of any previously spent funds which are deemed to have been spent in violation of the purpose or conditions of this grant.

4. This Agreement may be modified only by a written amendment signed by the parties. Any notice given pursuant to this Agreement shall be in writing and shall be considered to have been given when actually received by the following addressee or their agents or employees:

   A. If to the City of Tucson:

City of Tucson Police Department
HIDTA FIDUCIARY SECTION
270 S. Stone
Tucson, Arizona 85701
Attn: HIDTA Lead Management Analyst

B. If to the GRANTEE:

Cochise County Sheriff's Office
205 North Judd Drive
Bisbee, AZ 85603
Attn: Sheriff Mark J. Dannels

5. The GRANTEE may make budget adjustments only after written notification with signature approval from Arizona HIDTA Director is provided to the CITY. A grant adjustment notice (GAN) will be issued to the GRANTEE notifying the GRANTEE of the approval. Adjustments or reprogramming of the grantee's budget in an initiative or any reprogramming between initiative and/or agencies; in any amount, require the approval of the Board, the AZ HIDTA Director, and/or the ONDCP in accordance with HIDTA Program Policy and Budget Guidance.

APPROVED LINE ITEM PROGRAM BUDGET	
Personnel:	
Salaries	**$104,000.00**
Fringe Benefits	**$20,800.00**
Overtime	**$20,000.00**
Travel	**$0.00**
Facilities	**$0.00**
Services	**$900.00**
Operating Expenses:	
Supplies	**$12,000.00**
Other	**$0.00**
Equipment (listed below)	**$0.00**
TOTAL	**$157,700.00**
See attached for budget detail.	

6. The GRANTEE understands that financial reports are required for reimbursement of expenditures.

7. Every payment obligation of the CITY under this Agreement is conditioned upon the availability of funds appropriated or allocated for the payment of such obligation. If funds are not allocated and available for the continuance of this Agreement, this Agreement may be terminated by the CITY. No liability shall accrue to the CITY in the event this provision is exercised, and the CITY shall not be obligated or liable for any future payments or for any damages as a result of termination under this paragraph.

8. The GRANTEE understands that prior to the expenditure of confidential funds; an authorized official of the GRANTEE shall sign a certification indicating that he or she has read, understands, and agrees to abide by all of the conditions pertaining to confidential fund expenditures as set forth in *ONDCP Financial and Administrative Guide for Cooperative Agreements Guidelines and Exhibit B.*

9. The GRANTEE certifies that it will comply with Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards 2 CFR 200 as codified in 2 CFR Part 3603 and HIDTA Program Policy & Budget Guidance - October 1, 2016.

   Link: Electronic Code of Federal Regulations*:* http://www.ecfr.gov
   HIDTA Program Policy & Budget Guidance - October 1, 2016.
   http://www.nhac.org/hidta_guidance/guidance2012.pdf

10. The GRANTEE agrees to account for interest earned on Federal grant funds and shall remit interest earned in excess of the allowable amount as indicated in the *ONDCP Financial and Administrative Guide for Cooperative Agreements* and all unexpended grant funds to the CITY within 30 days after receipt of a written request from the CITY. The GRANTEE agrees to expend all encumbered funds within 90 days of expiration of this award.

11. The GRANTEE agrees to retain all books, account reports, files and other records, (paper and/or electronic) relating to this Agreement and the performance of this Agreement for no less than five (5) years from the last financial report submitted to the CITY. All such documents shall be subject to inspection and audit at reasonable times.

12. For the purpose of this grant, a capital expenditure is $1,000 or above. If the GRANTEE'S policy defines a capital expenditure as less than $1,000, the GRANTEE will use its own policy.

    The GRANTEE shall maintain a tracking system, in accordance with ONDCP HIDTA Program Policy & Budget Guidance Section – October 1, 2016, 8.4.1, to account for all HIDTA purchased equipment, vehicles, and other items valued at $ 5000 or more at the time of purchase. This also includes lower cost, high-risk items, electronic devices and software, such as but not limited to digital cameras, palm pilots, and GPS devices.

    The GRANTEE agrees to abide by Section 8.6 that those using HIDTA funds to purchase equipment must maintain a current inventory of HIDTA-purchased equipment and must provide that inventory to the HIDTA Director or an ONDCP employee, and/or the CITY upon request. A 100-percent physical inventory of HIDTA-purchased equipment must be conducted at least every two years.

13. The GRANTEE agrees to follow equipment disposition policies outlined in Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards 2 CFR 200 Subpart D- Post Federal Award Requirements, §§ 310-316- Property Standards when the equipment is no longer needed for the grant program. When no longer needed for the original program, the equipment may be used in other activities supported by the Office of National Drug Control Policy.

    Link: *Electronic Code of Federal Regulations* http://www.ecfr.gov

    The GRANTEE agrees that the purchasing agency shall comply with ONDCP HIDTA Program Policy & Budget Guidance, October 1, 2016, Section 8.8 in determining the end of the useful life and disposition of HIDTA purchased equipment. Purchasing agencies must retain documentation of the disposition and provide to the HIDTA Director and the CITY.

14. The GRANTEE agrees to keep time and attendance sheets signed by the employee and supervisory official having first hand knowledge of the work performed by the grant funded employees. The GRANTEE agrees to track overtime expenses in accordance with ONDCP HIDTA Program Policy & Budget Guidance – October 1, 2016.

15. The GRANTEE will comply with the audit requirements of Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 CFR 200 Subpart F- Audit Requirements and provide the CITY with the audit report and any findings within 90 days of receipt of such finding. If the report contains no findings, the GRANTEE must provide notification that the audit was completed.

    Link: *Electronic Code of Federal Regulations* http://www.ecfr.gov

16. The GRANTEE agrees that it will submit financial reports and supporting documentation to the CITY through the AZ HIDTA Finance Manager on forms/format provided by the CITY, documenting the activities supported by these grant funds. In the event reports are not received on or before the indicated date(s), funding will be suspended until such time as delinquent report(s) are received. These reports are submitted according to the following schedule:

Report Period Month of:	**Due Date:**	**Report Period Month of:**	**Due Date:**
January 1 - 31	February 25	July 1 – 31	August 25
February 1 - 29	March 25	August 1 - 31	September 25
March 1 – 30	April 25	September 1 – 30	October 25
October 1 - 31	November 25	April 1 - 30	May 25
November 1 - 30	December 25	May 1 - 31	June 25
December 1 - 31	January 25	June 1 - 30	July 25

More frequent reports may be required for GRANTEES who are considered high risk.

17. All goods and services purchased with grant funds must be received by the GRANTEE within 60 days of the expiration of this award.

18. The GRANTEE agrees to obtain ONDCP approval through the Arizona HIDTA Director for all sole-source procurements in excess of $150,000, and provide written notification to the CITY, as indicated in 2 CFR 200.317 et al.

19. The GRANTEE agrees to check the U.S. General Service Administration (GSA) Excluded Parties Listing Service as required by Executive Order 12549, as defined in 2 CFR 2867.10 et. seq. for individuals, agencies, companies and corporations debarred or suspended from doing business with recipients receiving Federal funds. The GRANTEE agrees not to do business with any individual, agency, company or corporation listed in the Excluded Parties Listing Service.
    Link: *Excluded Parties Listing System* http://sam.gov

20. No funds shall be used to supplant federal, state, county or local funds that would otherwise be made available for such purposes. Supplanting means the deliberate reduction of State or local funds because of the existence of Federal funds.

21. The GRANTEE assigns to the CITY any claim for overcharges resulting from antitrust violations to the extent that such violations concern materials or services applied by third parties to the GRANTEE in exchange for grant funds provided under this Agreement.

22. The parties agree to use arbitration in the event of disputes in accordance with the provisions of A.R.S. § 12-1501 et seq.

23. The laws of the State of Arizona apply to questions arising under this Agreement and any litigation regarding this Agreement must be maintained in Arizona courts, except as provided in paragraph 25 of this Agreement pertaining to disputes, which are subject to arbitration.

24. The GRANTEE understands that grant funds will not be released until all required reports and reversion of funds from the prior year grant are submitted to the CITY.

25. The GRANTEE (as "Indemnitor") agrees to indemnify, defend and hold harmless the CITY (as "Indemnitee") from and against any and all claims, losses, liability, costs, or expenses, (including reasonable attorney's fees) (hereinafter collectively referred to as "Claims") arising out of bodily injury of any person (including death) or property damage, but only to the extent that such Claims which result in vicarious/derivative liability to the Indemnitee are caused by the act, omission, negligence, misconduct, or other fault of the Indeminitor, its officers, officials, agents, employees, or volunteers. If the GRANTEE is a State agency this paragraph does not apply.

26. Unless GRANTEE is a State agency, GRANTEE shall cause its contractor(s) and subcontractors, if any to indemnify defend, save and hold harmless the City of Tucson, any jurisdictions or agency issuing any permits for any work arising out of this Agreement, and their respective directors, officers, officials, agents, and employees from and against any and all claims, actions, liabilities, damages, losses or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of GRANTEE'S contractor or any of the directors, officers, agents, or employees or subcontractors of such contractor. This indemnity includes any claim or amount arising out of or recovered under the Worker's Compensation Law or arising out of the failure of such contractor to conform to any federal, state, or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligence or willful acts or omissions of the Imdemnitee, be indemnified by such contractor from and against any and all claims. It is agreed that such contractor will be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. Insurance requirements for any contractor used by GRANTEE are incorporated herein by this reference and attached to this Agreement as Exhibit "A".

27. If the GRANTEE is a governmental political subdivision, the GRANTEE will, to the extent possible and practical share criminal justice information with other authorized criminal justice agencies. The process control number (PCN) shall be used in accordance with A.R.S. § 41-1750 when sharing data with other criminal justice agencies as electronic data systems are developed or improved.

28. The GRANTEE agrees to comply with the non-discrimination requirements of the Omnibus Crime Control and Safe Streets Act of 1968, as amended; 42 USC 3789(d); Title VI of the Civil Rights Act of 1964, as amended; Section 504, Rehabilitation Act of 1973, as amended; Subtitle A, Title II of the Americans with Disabilities Act (ADA) (1990); Title IX of the Education Amendments of 1972 and the Department of Justice regulations 28 CFR Part 54; The Age Discrimination Act of 1975; Department of Justice Non-Discrimination Regulations, 28 CFR Part 42, Subparts C, D, E, G and I; Department of Justice regulations on disability discrimination 28 CFR Part 35; all applicable state laws of A.R.S. § 41-1463; and Executive Orders 1999-4 and 2000-4. These laws prohibit discrimination on the basis of race, color, religion, sex and national origin including Limited English Proficiency (LEP) in the delivery of service. In the event that a Federal or State court or Federal or State administrative agency makes a finding of discrimination after a due process hearing against the GRANTEE, the GRANTEE will forward a copy of the findings to the Office for Civil Rights, Office of Justice Programs and the CITY.

29. The GRANTEE agrees to formulate and keep on file an Equal Employment Opportunity Plan (EEOP) (if grantee is required pursuant to 2 CFR 1401.300). The GRANTEE certifies that they have forwarded to the Office for Civil Rights, Office of Justice Programs the EEOP, or certifications that they have prepared and have on file an EEOP, or that they are exempt from EEOP requirements. Failure to comply may result in suspension of the receipt of grant funds. Copies of all submissions such as certifications to or correspondence with the Office for Civil Rights, Office of Justice Programs regarding this requirement must be provided to the CITY by the GRANTEE.

30. The GRANTEE certifies to comply with the Drug-Free Workplace Act of 1988, and implemented in 28 CFR Part 67, Subpart F, for grantees, as defined in 28 CFR, Part 67 Sections 67.615 and 67.620.

31. The GRANTEE agrees to complete and keep on file, as appropriate, Immigration and Naturalization Form (I-9). This form is to be used by recipients to verify that persons are eligible to work in the United States. Additionally the GRANTEE ensures compliance with Executive Order 2005-30 federal immigration laws by state employers and contractors.

32. The GRANTEE agrees to notify the Arizona HIDTA Director and provide written notification to the CITY within ten (10) days in the event that the project official is replaced during the award period.

33. No rights or interest in this Agreement shall be assigned by GRANTEE without prior written approval of the CITY.

34. The GRANTEE agrees that no funds provided, or personnel employed under this Agreement shall be in any way or to any extent engaged in conduct of political activities in violation of U.S.C. Title 5, Part II, Chapter 15, Section 1502.

35. The GRANTEE certifies that it presently has no financial interest and shall not acquire any financial interest, direct or indirect, which would conflict in any manner or degree with the performance of services required under this Agreement.

36. **T**he Grantee certifies that no federal funds will be paid, by or on behalf of, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and for the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement. If any funds other than Federal funds are paid or will be paid to any person for influencing or attempting to influence an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal award, grant loan, or cooperative agreement, the GRANTEE will complete and submit to the CITY Standard Form-LLL, "Disclosure Form to Report Lobbying" in accordance with its instructions

37. This Agreement is subject to cancellation pursuant to the provision of A.R.S. § 38-511.

38. This Agreement may be cancelled at the CITY's discretion if not returned with authorized signatures to the CITY within 90 days of commencement of the award.

39. If any provision of this Agreement is held invalid the remainder of the Agreement shall not be affected thereby and all other parts of this Agreement shall be in full force and effect.

40. Pursuant to resolution number 21460, adopted by Mayor and Council December 15, 2009, the Tucson Police Chief is authorized to enter into contracts and grant agreements for HIDTA operations.

41. In accordance with A.R.S. §41-4401, GRANTEE warrants compliance with E-Verify and all federal immigration laws and regulations relating to employees and warrants compliance with A.R.S. § 23-214A.

IN WITNESS WHEREOF, the parties have made and executed the Agreement the day and year first above written.

FOR GRANTEE:

Signature Date

Printed Name and Title

Note: If applicable, the Agreement must be approved by the appropriate county supervisory board or municipal council and appropriate local counsel (i.e. county or city attorney). Furthermore, if applicable, resolutions and meeting minutes must be forwarded to the CITY with the signed Agreement.

Approved as to form and authority to enter into Agreement:



08 23 17

Legal counsel for GRANTEE Date

Britt Hanson, Chief Civil Deputy, Cochise County Attorney

Printed Name and Title

Statutory or other legal authority to enter into Agreement:

ARS 11-251, 11-441

Appropriate A.R.S., ordinance, or charter reference

FOR CITY OF TUCSON:

Chris Magnus, Chief of Police Date
City of Tucson Police Department

Lisa Judge, Principal Assistant City Attorney Date
City of Tucson Police Department
Approved as to form

CITY OF TUCSON
GRANT AGREEMENT

Insurance Requirements
Exhibit "A"

***Insurance Requirements* for Governmental Parties to a Grant Agreement:**

None.

***Insurance Requirements* for Any Contractors Used by a Party to the Grant Agreement:**

(Note: this applies only to Contractors used by a governmental entity, not to the governmental entity itself.) The *insurance requirements* herein are minimum requirements and in no way limit the indemnity covenants contained in the Intergovernmental Agreement. The City of Tucson in no way warrants that the minimum limits contained herein are sufficient to protect the governmental entity or Contractor from liabilities that might arise out of the performance of the work under this Contract by the Contractor, his agents, representatives, employees or subcontractors, and Contractor and the governmental entity are free to purchase additional insurance.

A. **MINIMUM SCOPE AND LIMITS OF INSURANCE:** Contractor shall provide coverage with limits of liability not less than those stated below.

1. **Commercial General Liability – Occurrence Form**
   Policy shall include bodily injury, property damage, personal injury and broad form contractual liability.

• General Aggregate	$2,000,000
• Products – Completed Operations Aggregate	$1,000,000
• Personal and Advertising Injury	$1,000,000
• Blanket Contractual Liability – Written and Oral	$1,000,000
• Fire Legal Liability	$50,000
• Each Occurrence	$1,000,000

   a. The policy shall be endorsed to include the following additional insured language: ***"The City of Tucson, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees shall be named as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor".***

      (Note that the other governmental entity(ies) is/are also required to be additional insured(s) and they should supply the Contractor with their own list of persons to be insured.)

   b. Policy shall contain a waiver of subrogation against the City of Tucson, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

2. **Automobile Liability**
   Bodily Injury and Property Damage for any owned, hired, and/or non-owned vehicles used in the performance of this Contract.

   Combined Single Limit (CSL) $1,000,000

   a. The policy shall be endorsed to include the following additional insured language: ***"The City of Tucson, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees shall be named as additional insured with respect to liability arising out of the activities performed by or on behalf of the Contractor, involving automobiles owned, leased, hired or borrowed by the Contractor".***

      (Note that the other governmental entity(ies) is/are also required to be additional insured(s) and they should supply the Contractor with their own list of persons to be insured.)

3. **Worker's Compensation and Employers' Liability**

Workers' Compensation	Statutory
Employers' Liability	
Each Accident	$500,000
Disease – Each Employee	$500,000
Disease – Policy Limit	$1,000,000

   a. Policy shall contain a waiver of subrogation against the City of Tucson, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

   b. This requirement shall not apply to: Separately, EACH contractor or subcontractor exempt under A.R.S. 23-901, AND when such contractor or subcontractor executes the appropriate waiver (Sole Proprietor/Independent Contractor) form.

B. **ADDITIONAL INSURANCE REQUIREMENTS:** The policies are to contain, or be endorsed to contain, the following provisions:

1. The City of Tucson, its departments, agencies, boards, commissions, universities and its officers, officials, agents, and employees *and the other governmental entity* shall be additional insureds to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by the Contract.
2. The Contractor's insurance coverage shall be primary insurance with respect to all other available sources.
3. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. Coverage provided by the Contractor shall not be limited to the liability assumed under the indemnification provisions of its Contract with the other governmental entity(ies) party to the Grant Agreement.

C. **NOTICE OF CANCELLATION:** Each insurance policy required by the insurance provisions of this Contract shall not be suspended, voided, cancelled, reduced in coverage or in limits except after thirty (30) days prior written notice has been given the City of Tucson. Such notice shall be sent directly to the GRANTEE and shall be sent by certified mail, return receipt requested.

D. **ACCEPTABILITY OF INSURERS:** Insurance is to be placed with duly licensed or approved non-admitted insurers in the State of Arizona with an "A.M. Best" rating of not less than A- VII. The City of Tucson in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

E. **VERIFICATION OF COVERAGE:** Contractor shall furnish the GRANTEE with certificates of insurance (ACORD form or equivalent approved by the State of Arizona) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

All certificates and endorsements are to be received and approved before work commences. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract, or to provide evidence of renewal, is a material breach of contract.

All certificates required by this Contract shall be sent directly to the GRANTEE. The City of Tucson's project/contract number and project description are to be noted on the certificate of insurance. The City of Tucson reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time**. DO NOT SEND CERTIFICATES OF INSURANCE TO THE CITY OF TUCSON'S RISK MANAGEMENT SECTION.**

F. **SUBCONTRACTORS:** Contractor's certificate(s) shall include all subcontractors as insureds under its policies or Contractor shall furnish to the county or local government agency responsible separate certificates for each subcontractor. All coverage's for subcontractors shall be subject to the minimum requirements identified above.

G. **APPROVAL:** Any modification or variation from the *insurance requirements* must have prior approval from the City of Tucson, Risk Management Section, whose decision shall be final. Such action will not require a formal contract amendment, but may be made by administrative action.

H. **EXCEPTIONS:** In the event the Contractor or sub-contractor(s) is/are a public entity, then the Insurance Requirements shall not apply. Such public entity shall provide a Certificate of Self-Insurance. If the contractor or sub-contractor(s) is/are a City of Tucson agency, board, commission, or university then none of the above shall apply.

CITY OF TUCSON
HIGH INTENSITY DRUG TRAFFICKING AREA (HIDTA)
GRANT AGREEMENT

Confidential Funds Certification
Exhibit "B"

CONFIDENTIAL FUNDS CERTIFICATION

This is to certify that I have read, understand, and agree to abide by all of the conditions for confidential funds as set forth in the effective edition of the Office of National Drug Control Policy Financial and Administrative Guide.

Grant Number: HT-17-2727

Date: _____ Signature: _____
Authorized Official

PROCEDURES
Each project agency authorized to disburse confidential funds must develop and follow internal procedures, which incorporate the following elements:

Deviations from these elements must receive prior approval of the ONDCP.

1. Imprest Fund. The funds authorized will be established in an imprest fund, which is controlled by a bonded cashier.

2. Advance of Funds: The supervisor of the unit to which the imprest funds is assigned must authorize all advances of funds for the P/I. Such authorization must specify the information to be received, the amount of expenditures, and assumed name of the informant.

3. Informant Files: Informant files are confidential files of the true names, assumed names, and signature of all informants to whom payments of confidential expenditures have been made. To the extent possible, pictures and/or fingerprints of the informant payee should also be maintained. Refer to Informant Files "Documentation" (2) for a list of required documents for the informant files.

4. Cash Receipts.
   a. The cashier shall receive from the agent or officer authorized to make a confidential payment, receipt for cash advanced to him/her for such purposes.

   b. The agent or officer shall receive from the informant payee a receipt for cash paid to him/her.

5. Receipts for Purchase of Information. An Informant Payee Receipt shall identify the exact amount paid to and received by the informant payee on the date executed. Cumulative or anticipatory receipts are not permitted. Once the receipt has been completed no alteration is allowed. The agent shall prepare an Informant Payee Receipt containing the following information:

   a. The jurisdiction initiating the payment.
   b. A description of the information/evidence received.
   c. The amount of payment, both in numeral and word form.
   d. The date on which the payment was made.
   e. The signature of the informant payee.
   f. The signature of the case agent or officer making payment.
   g. The signature of at least one other officer witnessing the payment.
   h. The signature of the first-line supervisor authorizing and certifying the payment.

6. Review and Certification. The signed Informant Payee Receipt with a memorandum detailing the information received shall be forwarded to the agent or officer in charge. The agent or officer in charge shall compare the signatures. He/she shall also evaluate the information received in relation to the expense incurred, and add his/her evaluation remarks to the report of the agent or officer who made the expenditure from the imprest funds. The certification will be witnessed by the agent or officer in charge on the basis of the report and Informant Payee's Receipt.

7. Reporting of Funds. Each project shall prepare a reconciliation report on the imprest funds on a quarterly basis. Information to be included in the reconciliation report will be the assumed name of the informant payee, the amount received, the nature of the information given, and to what extent this information contributed to the investigation. Recipients/subrecipients shall retain the reconciliation report in their files and shall be available for review unless the State agency requests that the report be submitted to them on a quarterly basis.

8. Record and Audit Provisions. Each project and member agency must maintain specific records of each confidential fund transaction. At a minimum, these records must consist of all documentation concerning the request for funds, processing (to include the review and approve/disapprove), modifications, closure or impact material, and receipts and/or other documentation necessary to justify and track all expenditures. Refer to Informant Files Documentation (2) for a list of documents, which should be in an informant's file. In projects where funds are used for confidential expenditures, it will be understood that all of the above records, except the true name of the informant, are subject to the record and audit provision of grantor agency legislation.

INFORMANT FILES

1. Security. A separate file should be established for each informant for accounting purposes. Informant files should be kept in a separate and secure storage facility, segregated from any other files, and under the exclusive control of the supervisor or an employee designated by him/her. The facility should be locked at all times when unattended. Access to these files should be limited to those employees who have a necessary legitimate need. An informant file should not leave the immediate area except for review by a management official or the handling agent, and should be returned prior to the close of business hours. Sign-out logs should be kept indicating the date, informant number, time in and out, and the signature of the person reviewing the file.

2. Documentation. Each file should include the following information:

   a. Informant Payment Record - kept on top of the file. This record provides a summary of informant payments.
   b. Informant Establishment Record - including complete identifying and location data, plus any other documents connected with the informant's establishment.
   c. Current photograph and fingerprint card (or FBI/State Criminal Identification Number).
   d. Agreement with cooperating individual.
   e. Receipt for P/I.
   f. Copies of all debriefing reports (except for the Headquarters case file).
   g. Copies of case initiation reports bearing on the utilization of the informant (except for the Headquarters case file).
   h. Copies of statements signed by the informant (unsigned copies will be placed in appropriate investigative files).
   i. Any administrative correspondence pertaining to the informant, including documentation of any representations made on his behalf or any other nonmonetary considerations furnished.
   j. Any deactivation report or declaration of any unsatisfactory informant.

INFORMANT MANAGEMENT AND UTILIZATION

All persons who will be utilized as informants should be established as such. The specific procedures required in establishing a person as an informant may vary from jurisdiction to jurisdiction but, at a minimum, should include the following:

1. Assignment of an informant code name to protect the informant's identity.

2. An informant code book controlled by the supervisor or his/her designee containing:
   a. Informant's code number.
   b. Type of information (i.e. informant, defendant/informant, restricted use/informant).
   c. Informant's true name.
   d. Name of establishing law enforcement officer.
   e. Date the establishment is approved.
   f. Date of deactivation.

3. Establish each informant file in accordance with Informant File Documentation (2).

4. For each informant in an active status, the agent should review the informant file on a quarterly basis to assure it contains all relevant and current information. Where a MATERIAL face that was earlier reported on the Establishment Record is no longer correct (e.g. a change in criminal status, means of locating him/her, etc.), a supplemental establishing report should be submitted with the correct entry.

5. All informants being established should be checked in all available criminal indices. If verified FBI number is available, request a copy of the criminal records from the FBI. Where a verified FBI number is not available, the informant should be fingerprinted with a copy sent to the FBI and appropriate State authorities for analysis. The informant may be utilized on a provisional basis while awaiting a response from the FBI.

PAYMENTS TO INFORMANTS

1. Any person who is to receive payments charged against PE/PI funds should be established as an informant. This includes a person who may otherwise be categorized as sources of information or informants under the control of another agency. The amount of payment should be commensurate with the value of services and/or information provided and should be based on the following factors:

   a. The level of the targeted individual, organization or operation.
   b. The amount of the actual or potential seizure.
   c. The significance of the contribution made by the informant to the desired objectives.

2. There are various circumstances in which payments to informants may be made.

   a. Payments for Information and/or Active Participation. When an informant assists in developing an investigation, either through supplying information or actively participating in it, he/she may be paid for his/her service either in a lump sum or in staggered payments. Payments for information leading to a seizure, with no defendants, should be held to a minimum.

b. Payment for Informant Protection. When an informant needs protection, law enforcement agencies may absorb the expenses of relocation. These expenses may include travel for the informant and his/her immediate family, movement and/or storage of household goods, and living expense at the new location for a specific period of time (not to exceed 6 months). Payments should not exceed the amounts authorized by law enforcement employees for these activities.

c. Payments to Informants of Another Agency. To use or pay another agency's informant, he/she should be established as an informant. These payments should not be a duplication of a payment from another agency; however, sharing a payment is acceptable.

3. Documentation of payments to informants is critical and should be accomplished on a Informant Payee Receipt. Payment should be made and witnessed by two law enforcement officers and authorized payment amounts should be established and reviewed by at least the first line supervisory level. In unusual circumstances, a non-officer employee or an officer of another law enforcement agency may serve as witness. In all instances, the original signed receipt must be submitted to the project director for review and record keeping.

ACCOUNTING AND CONTROL PROCEDURES

Special accounting and control procedures should govern the use and handling of confidential expenditures, as described below:

1. It is important that expenditures which conceptually should be charged to PE/PI/PS are so charged. It is only in this manner that these funds may be properly managed at all levels, and accurate forecasts of projected needs be made.

2. Each law enforcement entity should apportion its PE/PI/PS allowance throughout its jurisdiction and delegate authority to approve PE/PI/PS expenditures to those offices, as it deems appropriate.

3. Headquarters management should establish guidelines authorizing offices to spend up to a predetermined limit of their total allowance on any buy or investigation.

4. In exercising his/her authority to approve these expenditures, the supervisor should consider:
   a. The significance of the investigation.
   b. The need for this expenditure to further the investigation.
   c. Anticipated expenditures in other investigations.

Funds for PE/PI/PS expenditures should be advanced to the officer for a specific purpose. If they are not expended for that purpose, they should be returned to the cashier. They should not be used for another purpose without first returning them and repeating the authorization and advance process based on the new purpose.

5. Funds for PE/PI/PS expenditure should be advanced to the officer on suitable receipt form. Informant Payee Receipt or a voucher for P/E should be completed to document funds used in the purchase of evidence or funds paid or advanced to an informant.

6. For security purposes there should be a 48-hour limit on the amount of time funds advanced for PE/PI/PS expenditure may be held outstanding. If it becomes apparent at any point within the 48-hour period that the expenditure will not materialize, the funds should be returned to the cashier as soon as possible. An extension of the 48-hour limit may be granted by the level of management that approved the advance. Factors to consider in granting such an extension are:
   a. The amount of funds involved.
   b. The degree of security under which the funds are being held.
   c. How long an extension is required.
   d. The significance of the expenditure.

   Such extensions should be limited to 48 hours. Beyond this, the funds should be returned and readvanced, if necessary. Regardless of circumstances, within 48 hours of the advance, the cashier should be presented with either the unexpended funds, an executed Informant Payee Receipt or purchase of evidence or written notification by management that an extension has been granted.

7. P/S expenditures, when not endangering the safety of the officer or informant, need to be supported by canceled tickets, receipts, lease agreements, etc. If not available, the supervisor, or his immediate subordinate, must certify that the expenditures were necessary and justify why supporting documents were not obtained.

Action 16.

Regular Board of Supervisors Meeting **Court Administration**

Meeting Date:	09/12/2017		
Appointment of Justice of the Peace Pro Tempore for Precinct 5			
Submitted By:	Shawneen Serrano, Court Administration		
Department:	Court Administration		
Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	0
NAME of PRESENTER:	Niltza Flores	**TITLE of PRESENTER:**	Court Division Director
Docket Number (If applicable):			
Mandated Function?:	Federal or State Mandate	**Source of Mandate or Basis for Support?:**	A.R.S. §22-121; A.R.S. §8-323.

Information

Agenda Item Text:

Approve appointment of Gary W. Ramaeker to serve as Justice of the Peace Pro Tempore for Justice Court Precinct 5 as authorized under A.R.S. §22-121 for a term commencing on September 12, 2017 to and including June 30, 2018, and approve his appointment as Juvenile Hearing Officer as authorized under A.R.S. §8-323.

Background:

This appointment is requested to fill the Justice of the Peace Pro Tempore slot left vacant by the retirement of Justice of the Peace Leslie Sansone. Judge Sansone served the court since January, 2003. Occasionally, this position will provide coverage for matters that may arise in other Cochise County justice courts.

The court may only appoint Justices of the Peace Pro Tempore with the approval of the Board of Supervisors. This request to approve the appointment of Gary W. Ramaeker follows the conclusion of a competitive recruitment process in compliance with Arizona Code of Judicial Administration Chapter 3 Section 1-305 and Administrative Order 2014-003.

Department's Next Steps (if approved):

Appointment as Justice of the Peace Pro Tempore by the Presiding Judge of Cochise County.

Appointment as Juvenile Hearing Officer by the Presiding Judge of Cochise County and Presiding Juvenile Judge of Cochise County.

Impact of NOT Approving/Alternatives:

As Juvenile Hearing Officer, traffic citations could not be heard in the precinct where the citation was issued.
As Justice of the Peace Pro Tempore, court calendars would become backlogged leading to long delays in securing hearings.

To BOS Staff: Document Disposition/Follow-Up:

Notify court administration of approval of agenda item.

Attachments

No file(s) attached.

Action 17. Facilities

Regular Board of Supervisors Meeting

Meeting Date:	09/12/2017		
Award of Contract - Improvements to BDI Airport - Reconstruct Taxiway A			
Submitted By:	Maria Morales, Procurement		
Department:	Procurement		
Presentation:	No A/V Presentation	**Recommendation:**	Approve
Document Signatures:	BOS Signature Required	**# of ORIGINALS Submitted for Signature:**	2
NAME of PRESENTER:	Jay Howe	**TITLE of PRESENTER:**	Facilities Director
Mandated Function?:	Federal or State Mandate	**Source of Mandate or Basis for Support?:**	

Docket Number (If applicable):

Information

Agenda Item Text:

Approve the award of Invitation for Bid (IFB) No. 17-26-FAC-04 for Improvements to the Bisbee Douglas International Airport Reconstruct Taxiway A for the Facilities Management Department to Pavex Corporation in the amount of $673,025.

Background:

IFB 17-26-FAC-04 Bisbee Douglas International Airport Schedule I Taxiway A Reconstruct was prepared and released on May 30, 2017 via the PublicPurchase.com website. The bid was advertised in the San Pedro Valley News-Sun May 31 - June 7, 2017 and was posted on the County Procurement website. Bid was accessed by 78 agencies registered in the PublicPurchase.com database. Nine(9) sets of documents were purchased by potential bidders and subcontractors. An on-site job walk/pre-bid meeting was held on June 20, 2017 at 11:00a.m., seven (7) potential contractors attended. Three (3) bids were received by the IFB closing date and time of June 29, 2017 at 4:00p.m. Bids were reviewed and evaluated, a copy of the bid tabulation and recommendation from the County's contracted airport engineer, Armstrong Consultants is attached.

Department's Next Steps (if approved):

Execute Contract. Obtain required bonds and certificates of insurance. Issue Notice to Proceed. Schedule pre-construction meeting. Monitor contractor's performance.

Impact of NOT Approving/Alternatives:

Taxiway A rehabilitation and construction will not occur, resulting in further deterioration of the taxiway until another alternative is programmed into the Airport Improvement Program(AIP). Grant funding will also be lost.

To BOS Staff: Document Disposition/Follow-Up:

Notice of Award and Contract for construction services is attached. Two copies are required with original signatures. Forward signed copies to the procurement department.

Budget Information

Information about available funds

Budgeted: ☐ **Funds Available:** ☐ **Amount Available:**

Unbudgeted: ☐ **Funds NOT Available:** ☐ **Amendment:** ☐

Account Code(s) for Available Funds

1:

Fund Transfers

Fiscal Year: 18

One-time Fixed Costs? ($$$):

Ongoing Costs? ($$$):

County Match Required? ($$$): 37075.00

A-87 Overhead Amt? (Co. Cost Allocation $$$):

Source of Funding?:

Fiscal Impact & Funding Sources (if known):

Airport Improvement Plan Grant# 3-04-0013-011-2017 from the Federal Aviation Administration(FAA) is the amount of $741,497 with a local match share of $37,075 for this project was approved by the Cochise Count Board of Supervisors on August 22, 2017. Funding should be made available upon signing of agreement, and will be disbursed on an as-needed-bases during the course of the project.

Attachments

IFB 17-26-FAC-04-Bid Eval/Recommend

IFB 17-26-FAC-04 Contract

ARMSTRONG

July 5, 2017

Mr. Jay Howe
Facilities Director
Cochise County
1415 Melody Lane, Building C
Bisbee, AZ 85603

Re: Recommendation of Award
Bisbee-Douglas International Airport
Schedule I – Reconstruct Taxiway A
A.I.P. No. 3-04-0013-010-2016 (Design)
A.I.P. No. 3-04-0013-011-2017 (Construction)

Dear Mr. Howe,

As you are aware, bids were received on the above noted project on June 29, 2017. Three (3) bids were received on the project. A bid tabulation is attached reflecting the bids along with the Engineer's Cost Estimate.

The bids were reviewed for conformance to the requirements. The review included a check of the math, evidence of unbalancing, bid bond, and appropriate signatures. The bids generally appear to be responsive.

Pavex Corporation is the low bidder for the project. The low bidder has been determined based upon the lowest amount for Schedule I construction items.

The following table shows the relationship of the bids to each other and the Engineer's estimate:

2305 Renard Place SE, Suite 210 Albuquerque, NM 87106
T: 505.508.2192 | F: 505.508.2795
Grand Junction, CO | Denver, CO | Phoenix, AZ | Albuquerque, NM
www.armstrongconsultants.com

CONTRACTOR	SCHEDULE I	Total
Pavex Corp.	$673,025.00	$673,025.00
KE & G	$998,866.00	$998,866.00
S.J. Anderson	$1,091,656.00	$1,091,656.00
Engineer's Estimate	$889,267.50	$889,267.50

The project was advertised twice over four weeks in the San Pedro Valley News – Sun Arizona Range News and posted to PublicPurchase.com as required by Cochise County. Faxes and/or emails of the bid advertisement were sent to fifteen (15) potential bidders. There were nine (9) sets of documents purchased by potential bidders and subcontractors. At the Pre-bid meeting held on June 20, 2017 there was seven (7) potential contractors that attended the meeting and site visit.

Based upon our review, we recommend that Schedule I to be awarded to Pavex Corporation in the amount of $673,025.00. Pavex was contacted to discuss the cost disparity between bidders. Pavex is confident their proposed bid cost is correct and sufficient to provide a product meeting the project plan and specifications.

Armstrong recommends the following budgets be developed for the project:

COST SUMMARY - A.I.P. No. 3-04-0013-011-2017	
ENGINEERING AND CONSTRUCTION ADMINISTRATION COST	$136,270.00
SPONSOR ADMINISTRATION	$5,000.00
CONSTRUCTION COST	$673,025.00
TOTAL ESTIMATED PROJECT COST	**$814,295.00**
FAA GRANT REQUEST	$741,497.00
ADOT GRANT REQUEST	$36,398.99
LOCAL SHARE BASED ON GRANT	$36,399.01

Should you have any questions, please call me at (602) 803-7079 or email me at jason@armstrongconsultants.com.

Sincerely,
ARMSTRONG CONSULTANTS, INC.

COLIN STEARNS, P.E.

FOR Jason Musselman, P.E.
Director of Aviation Services

Enclosures: Bid Tabulation

ARMSTRONG

BID TABULATION

Bisbee Douglas International Airport
Douglas, Arizona
AIP No. 3-04-0013-010-2016
ACI No. 166352
Bid Opening: June 29, 2017 at 4:00 p.m.

					Engineer's Estimate		Pavex		KE & G Construction, Inc.	
Item No.	Spec No.	Description	Qty	Unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
SCHEDULE I - RECONSTRUCT TAXIWAY A										
1	Section 105	Mobilization	1	LS	$ 100,000.00	$ 100,000.00	$ 21,000.00	$ 21,000.00	$ 211,503.00	$ 211,503.00
2	Special-2a	Remove Concrete Pavement	20,250	SY	$ 10.00	$ 202,500.00	$ 5.00	$ 101,250.00	$ 12.00	$ 243,000.00
3	Special-2b	Remove Sign Panel	4	Each	$ 200.00	$ 800.00	$ 30.00	$ 120.00	$ 255.00	$ 1,020.00
4	Special - 2c	Remove Asphalt Pavement (Full Depth)	950	SY	$ 5.00	$ 4,750.00	$ 2.00	$ 1,900.00	$ 15.50	$ 14,725.00
5	Special-6	Watering	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental
6	P-152	Embankment In Place	3,500	CY	$ 15.00	$ 52,500.00	$ 7.00	$ 24,500.00	$ 13.00	$ 45,500.00
7	P-155	Lime-Treated Subgrade	7,900	SY	$ 12.00	$ 94,800.00	$ 10.00	$ 79,000.00	$ 12.50	$ 98,750.00
8	P-208	Aggregate Base Course (7 Inches Thick)	7,350	SY	$ 25.00	$ 183,750.00	$ 40.00	$ 294,000.00	$ 15.00	$ 110,250.00
9	P-401	Bituminous Surface Course (3 Inches Thick)	1,483	Ton	$ 135.00	$ 200,205.00	$ 80.00	$ 118,640.00	$ 152.00	$ 225,416.00
10	P-603	Bituminous Tack Coat	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental
11	P-620a	Temporary Markings	1,375	SF	$ 2.00	$ 2,750.00	$ 4.00	$ 5,500.00	$ 1.40	$ 1,925.00
12	P-620b	Taxiway Markings	1,375	SF	$ 1.50	$ 2,062.50	$ 4.00	$ 5,500.00	$ 1.40	$ 1,925.00
13	P-620c	Reflective Media	1	LS	$ 500.00	$ 500.00	$ 240.00	$ 240.00	$ 285.00	$ 285.00
14	P-620d	Pavement Marking Removal	310	SF	$ 15.00	$ 4,650.00	$ 2.50	$ 775.00	$ 5.70	$ 1,767.00
15	T-901	Seeding	6	Acres	$ 3,500.00	$ 21,000.00	$ 1,900.00	$ 11,400.00	$ 2,250.00	$ 13,500.00
16	T-908	Mulching	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental
17	L-125a	Lighted Guidance Sign Panel	2	Each	$ 500.00	$ 1,000.00	$ 400.00	$ 800.00	$ 700.00	$ 1,400.00
18	L-125b	Unlighted Guidance Sign Panel	2	Each	$ 1,500.00	$ 3,000.00	$ 700.00	$ 1,400.00	$ 3,600.00	$ 7,200.00
19	CSPP	General Construction Safety and Phasing	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental	Incidental
20	CSPP	Taxi Bypass Route	1	LS	$ 15,000.00	$ 15,000.00	$ 7,000.00	$ 7,000.00	$ 20,700.00	$ 20,700.00
TOTAL SCHEDULE I						**$ 889,267.50**		**$ 673,025.00**		**$ 998,866.00**

ARMSTRONG

BID TABULATION

Bisbee Douglas International Airport
Douglas, Arizona
AIP No. 3-04-0013-010-2016
ACI No. 166352
Bid Opening: June 29, 2017 at 4:00 p.m.

Item No.	Spec No.	Description	Qty	Unit	S.J. Anderson Unit Price	S.J. Anderson Amount
SCHEDULE I - RECONSTRUCT Taxiway A (continued)						
1	Section 105	Mobilization	1	LS	$ 200,000.00	$ 200,000.00
2	Special-2a	Remove Concrete Pavement	20,250	SY	$ 13.59	$ 275,197.50
3	Special-2b	Remove Sign Panel	4	Each	$ 200.00	$ 800.00
4	Special - 2c	Remove Asphalt Pavement (Full Depth)	950	SY	$ 12.00	$ 11,400.00
5	Special-6	Watering	Incidental	Incidental	Incidental	Incidental
6	P-152	Embankment In Place	3,500	CY	$ 20.00	$ 70,000.00
7	P-155	Lime-Treated Subgrade	7,900	SY	$ 18.00	$ 142,200.00
8	P-208	Aggregate Base Course (7 Inches Thick)	7,350	SY	$ 19.91	$ 146,338.50
9	P-401	Bituminous Surface Course (3 Inches Thick)	1,483	Ton	$ 140.00	$ 207,620.00
10	P-603	Bituminous Tack Coat	Incidental	Incidental	Incidental	Incidental
11	P-620a	Temporary Markings	1,375	SF	$ 1.00	$ 1,375.00
12	P-620b	Taxiway Markings	1,375	SF	$ 1.00	$ 1,375.00
13	P-620c	Reflective Media	1	LS	$ 3,000.00	$ 3,000.00
14	P-620d	Pavement Marking Removal	310	SF	$ 5.00	$ 1,550.00
15	T-901	Seeding	6	Acres	$ 2,600.00	$ 15,600.00
16	T-908	Mulching	Incidental	Incidental	Incidental	Incidental
17	L-125a	Lighted Guidance Sign Panel	2	Each	$ 800.00	$ 1,600.00
18	L-125b	Unlighted Guidance Sign Panel	2	Each	$ 800.00	$ 1,600.00
19	CSPP	General Construction Safety and Phasing	Incidental	Incidental	Incidental	Incidental
20	CSPP	Taxi Bypass Route	1	LS	$ 12,000.00	$ 12,000.00
TOTAL SCHEDULE I					**$**	**1,091,656.00**

ARMSTRONG

BID TABULATION

Bisbee Douglas International Airport
Douglas, Arizona
AIP No. 3-04-0013-010-2016
ACI No. 166352
Bid Opening: June 29, 2017 at 4:00 p.m.

	Engineer's Estimate	Pavex	KE & G Construction, Inc.
BID TOTAL - SCHEDULE I	$ 889,267.50	$ 673,025.00	$ 998,866.00

S.J. Anderson
$ 1,091,656.00

Highlighting denotes correction by Engineer due to Contractor's math error.

NOTICE OF AWARD

FOR IFB 17-26-FAC-04

AIP PROJECT NO. 3-04-0013-010-2016

BISBEE DOUGLAS INTERNATIONAL AIRPORT SCHEDULE I - TAXIWAY A

TO: Siamak Samsam
Pavex Corp
401 East Michigan Street
Tucson, AZ 85714

The OWNER has considered the Bid submitted by you for the above described work in response to Invitation for Bid 17-26-FAC-04 and Instructions to Bidders.

You are hereby notified that your Bid has been accepted in the amount of Six Hundred and Seventy-Three Thousand, Twenty-Five Dollars ($673,025.00).

You are required by the Instructions to Bidders to execute the Agreement and furnish the required Contractor's Performance, Payment and Maintenance Bonds and Proofs of Insurance within fifteen (15) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said Bonds and Proofs of Insurance within fifteen (15) days from the date of this Notice, said Owner will be entitled to consider your Bid abandoned, to annul this Notice of Award and to declare your Bid Security forfeited.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the Owner.

Dated this _____day of _____, 2017.

COCHISE COUNTY
(Owner)

By _____, Chairman, Board of Supervisors
Ann English

Address: 1415 W. Melody Lane
Bisbee, Arizona 85603
Telephone: (520) 432-9200

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by:

_____, Contractor

Name: _____ Date: _____

Title: _____ Telephone: _____

COCHISE COUNTY PROCUREMENT DEPARTMENT

1415 Melody Lane, Building C, Bisbee, AZ 85603
Phone: (520) 432-8392 Fax: (520) 432-8397
Website: www.cochise.az.gov

CONTRACT FOR CONSTRUCTION SERVICES
AGREEMENT NO. IFB 17-26-FAC-04
AIP PROJECT NO. 3-04-0013-010-2016

BISBEE DOUGLAS INTERNATIONAL AIRPORT
SCHEDULE I - TAXIWAY A

This Contract is made and entered into this _____ day of _____, 2017, by and between the County of Cochise, hereinafter referred to as the COUNTY, and PAVEX CORP**,** hereinafter referred to as the "Contractor".

I. SCOPE OF WORK

This Contract is for services described in **contract documents, construction plans and specifications** prepared by Armstrong Consultants for the project.

II. COMPENSATION AND METHOD OF PAYMENT

In consideration of the performance of the services described in the Scope of Work, the County shall pay the Contractor the total sum of Six Hundred and Seventy-Three Thousand, Twenty-Five Dollars ($673,025.00). This Contract sum is subject to modifications only in the manner specified in the Contract.

The County will pay the Contractor following the submission of itemized invoices(s) for the services rendered. No payment shall be issued prior to receipt of material or service and correct invoice. Each itemized invoice must bear a written certification by an authorized County representative confirming the services for which payment is requested have been performed.

III. DURATION, TERMINATION, AND RENEWAL

Upon receipt of the County's Notice to Proceed, the Contractor shall have fifty (50) consecutive calendar days to complete the services included in the Scope of Work, unless terminated, cancelled or extended as provided herein. The Contractor shall commence work only after receiving Notice to Proceed from an authorized County representative. The Contractor shall complete all work to the satisfaction of the County in accordance with the Scope of Services.

The County reserves the right to immediately terminate, with or without cause, the whole or any part of this Agreement due to failure of Contractor to carry out any term, promise, or condition of this Agreement. If this Agreement is terminated, the County shall be liable only for payment for services rendered and accepted material received by the County before the effective date of termination.

The County may, by written notice to the Contractor, cancel this agreement if it is found that gratuities, in the form of entertainment, gifts or otherwise, were offered or given by the Contractor or any agent or representative of the Contractor, to any officer or employee of the County.

IV. ENFORCEMENT, LAWS AND ORDINANCES

This agreement shall be enforced under the laws of the State of Arizona. Contractor must comply with all applicable federal, state, and local laws, ordinances, and regulations. Contractor shall ensure payment of all taxes, licenses, permits, and other expenses of any nature associated with the provision of services herein.

Contractor shall maintain in current status all Federal, State and Local licenses and permits required for the operation of the business conducted by the Contractor.

V. INDEPENDENT CONTRACTOR

It is clearly understood that each party shall act in its individual capacity and not as an agent, employer, partner, joint venture, or associate of the other. An employee or agent of one party shall not be deemed or construed to be the employee or agent of the other party for any purpose whatsoever. The Contractor is advised that taxes or social security payments shall not be withheld from a County payment issued hereunder and that Contractor should make arrangements to directly pay such expenses, if any.

The County will not provide any insurance coverage to the Contractor including Workmen's Compensation coverage.

VI. MODIFICATIONS

This Agreement may only be modified by a written amendment signed by persons duly authorized to enter into contracts on behalf of the County and the Contractor.

VII. WAIVER

The failure of either party of this Agreement to take affirmative action with respect to any conduct of the other which is in violation of the terms of this contract shall not be construed as a waiver thereof, or of any future breach or subsequent wrongful conduct.

VIII. INDEMNIFICATION

To the fullest extent permitted by law, Contractor agrees to indemnify, defend, and hold harmless Cochise County, a body politic and corporate of the State of Arizona, its board members, officers, employees, agents and other officials from all claims, damages, losses, and expenses, including but not limited to attorney's fees, court costs, or other alternative dispute resolution costs arising out of, resulting from, or otherwise but for the performance or furnishing of work or services under this Agreement, provided that any such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease, death, or personal injury, or property damage, including the loss of use or diminution in value resulting there from; but only to the extent caused in whole or in part by the actual or alleged negligent acts, errors, or omissions of Contractor, or anyone for whose acts Contractor may be liable. The County of Cochise reserves the right, but not the obligation, to participate in defense without relieving Contractor of any obligation hereunder.

The amount and type of insurance required shall not in any way be construed as limiting the scope of the indemnification set forth above.

To the fullest extent permitted by law, Contractor, its successors, assigns and guarantors, shall pay, defend, indemnify and hold harmless County of Cochise, its agents, representatives, officers, directors, officials and employees from and against all allegations, demands, proceedings, suits, actions, claims, damages, losses, expenses, including but not limited to, attorney fees, court costs, and the cost of appellate proceedings, and all claim adjusting and handling expense, related to, arising from or out of or resulting from any actions, acts, errors, mistakes or omissions caused in whole or part by Contractor relating to work or services in the performance of this Contract, including but not limited to, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable and any injury or damages claimed by any of Contractor's and Subcontractor's employees.

IX. MISCELLANEOUS PROVISIONS

A. No assignment of this Agreement or subcontract shall be made by the Contractor with any other party for furnishing any of the services herein contracted for without the advance written approval of the Procurement Department. All subcontracts shall comply with Federal and State laws and regulations which are applicable to the services covered by the subcontract and shall include all the terms and conditions set forth herein which shall apply with equal force to the subcontract, as if the subcontractor were the contractor referred to herein. The Contractor is responsible for contract performance whether or not subcontractors are used.

B. The Contractor shall establish and maintain procedures and controls that are acceptable to the County for the purpose of assuring that no information contained in its records or obtained from the County or from others in carrying out its functions under the contract shall be used by or disclosed by it, its agents, officers, or employees, except as required to efficiently perform duties under the contract. Persons requesting such information must be referred to the County.

C. All services, information, computer program elements, reports, and other deliverables which may have a potential patent or copyright value and which are created under this Agreement shall be the property of the County and shall not be used by the Contractor or any other person except with the prior written permission of the County.

D. This Agreement is subject to the provisions of A.R.S. Sec. 38-511. The Contractor shall comply with all applicable provisions of the Americans with Disabilities Act (Public Law 101-336, 42 U.S.C. 12101-12213) and applicable federal regulations under the Act.

E. Contractor shall maintain an acceptable cost accounting system. The Contractor agrees to provide the Sponsor, the Federal Aviation Administration and the Comptroller General of the United States or any of their duly authorized representatives' access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

GENERAL CONDITIONS OF THE AGREEMENT

ARTICLE 1. DEFINITIONS

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2.3 Execution
2.4 Ownership of the Contract Documents

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4.1 Contractor's Review of Contract Documents and Site Conditions
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4.4 Construction Schedules and Submittals
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ARTICLE 10. CLAIMS AND DISPUTES
10.1 County Contract Representative's Resolution of Claims and Disputes; Review by Procurement Director

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11.1 Governing Law
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11.3 Conflict of Interest
11.4 Notice to Proceed
11.5 Civil Rights Act of 1964
11.6 Miscellaneous
11.7 Distracted Driving
11.8 Davis Bacon Requirements
11.9 Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion

ARTICLE 1. DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

Architect/Engineer – the person licensed to practice architecture/engineering by the State of Arizona and who is identified as the Architect/Engineer of Record by affixing his/her seal upon the Contract plans, drawings, specifications and related documents. May be utilized to provide construction administration services.

Bonds – bid, performance and payment bonds and other instruments of security.

Change Order – a document approved by the County Contract Representative and which is signed by the Contractor and the County's Procurement Director or duly authorized designee and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the effective date of the Contract.

County – means the County of Cochise, Arizona, a body politic and corporate of the State of Arizona.

County Contract Representative – is the County official administering the Contract for the County of Cochise.

Completion Time – the number of calendar days agreed to by the County and Contractor for completion of the Work, which may be revised by written Change Order.

Construction – is defined as the process of building, altering, repairing, improving or demolishing any public structure or building or other public improvements of any kind to any real public property.

Construction-Manager-At-Risk – is a project delivery method in which there is a separate contract for design services and a separate contract for construction services, with design and construction taking place in sequential or concurrent phases, and in which finance services, maintenance services, operations services and preconstruction services may be included.

Construction Services – means either of the following for construction-manager-at-risk, design-build and job–order-contracting project delivery methods:

a) construction, excluding services, through the construction-manager-at-risk or job-order-contracting project delivery methods;
b) a combination of construction and, as elected by the County, one or more related services, such as finance services, maintenance services, operations services, design services and preconstruction services.

Contract – the written agreement and all associated attachments, drawings, addenda and change orders executed between the County and the Contractor covering the Work to be performed.

Contract Price – the amount payable by the County to the Contractor for satisfactory completion of the Work, and as specified in the Contract as may be amended by written Change Order, or, in the case of a job-order contract, in the Notice to Proceed.

Contractor – the person, firm or corporation with whom the County has entered into the Contract.

Design-Build – the process of entering into and managing a contract between the County and a contractor in which the Contractor agrees to both design and build a structure and in which design and construction services may be in sequential or concurrent phases, and which may include finance services, maintenance services, operations services, design services and preconstruction services.
Design Services – is defined as architect services, engineer services or landscape architect services.

Procurement Director – the person acting as Director of the County's Procurement Department and who has authority to award and revise County solicitations and contracts for construction, construction services, and construction-related services below $50,000.00 as necessary.

Drawings – the graphic and pictorial portions of the contract, wherever located and whenever issued, showing the configuration, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

Estimate for Payment – a form furnished by the County or an approved form submitted by the Contractor in lieu of County furnished form, and is required to be used when submitting requests for payments for work actually performed and materials supplied during a an agreed-to preceding period of time.

Field Order – a written order or directive issued by the County Contract Representative that orders minor changes in the Work.

Final Completion Date – the calendar date when the Work is one hundred percent (100%) complete as determined by the County.

Finance Services – is defined as financing services for the Work.

Guaranteed Maximum Price or GMP – means the sum of the maximum cost of the Work; the CM@Risk's Construction fee; general conditions fee; taxes, bonds, insurances costs; and bid contingency as proposed and approved pursuant to this Agreement. The approved GMP will be made part of this Agreement by executing an amendment or additional amendments for phased construction.

Job-Order-Contracting – a project delivery method in which the contract is a requirements contract for indefinite quantities of construction and in which specified job orders are issued during the contract and may include finance services, maintenance services, operations services, preconstruction services and design services.

Liquidated Damages – a sum set forth in the Contract documents that will be deducted from any monies due to the Contractor, not as a penalty, but as damages incurred by the County.

Maintenance Services – is defined as routine maintenance, repair an replacement of existing facilities, structures, buildings or real property.

Notice to Proceed – a written notice given by the County to the Contractor fixing the date on which the Contract Time will commence to run and on which the Contractor shall start to perform the Contractor's obligations under the Contract. In the case of a job order, it may also contain the specifications exclusive to the job order as well as consideration for the Contractor.

Operations Services – is defined as routine operation of existing facilities, structures, buildings or real property.

Preconstruction Services – is defined as advice during the design stage of the Work.

Price Proposal – a form on which the County requires estimates or price proposals to be prepared and submitted for the Work or portions of the Work.

Procurement Officer – is the County official who conducts the solicitation process to secure a Contractor for the Work and who acts under the authority and direction of the County's Procurement Director and in accordance with the County of Cochise Procurement Code.

Public Inspector(s) – that person or persons provided by the public authorities having code jurisdiction and who perform day-to-day inspections of the Work for compliance with applicable codes.

Schedule of Values – a schedule submitted by the Contractor setting forth the values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the County Contract Representative may require. This schedule must be submitted before the Contractor submits its first application for progress payment and shall be used as a basis for reviewing and approving payments to the Contractor.

Shop Drawings – drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for the Contractor to illustrate, in detail, how some portion of the Work shall be fabricated and/or installed, and all illustrations,

brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a supplier and submitted by the Contractor to illustrate material or equipment for some portion of the Work.

Specifications – those portions of the Contract, or Notice to Proceed if a Job Order, consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Substantial Completion – a written declaration of the date upon which the County, in its sole discretion, determines the Work is substantially complete such that the County has beneficial use and/or occupancy. Upon substantial completion, the right of the County to assess liquidated damages for time after the date of substantial completion ceases, except as allowed for failure to meet final completion within thirty (30) days of substantial completion.

The County of Cochise Procurement Policy – in addition to applicable State statutes and applicable Federal regulations and requirements, the County ordinance that governs the construction services contracting process as well as contract administration processes including the resolution of contract claims, disputes and controversies.

The Work – the entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract, or, in the case of a job-order contract, within individual Notices to Proceed. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract. And/or Notice to Proceed, as appropriate.

ARTICLE 2. THE CONTRACT ITS EXECUTION AND INTENT

2.1 The Contract

2.1.1 The documents in the Contract include but are not limited to the solicitation contents and any addenda, drawings, change orders and approved Contractor submittals.

2.1.2 The Contract comprises the entire agreement between the County and the Contractor concerning the Work and supersedes any prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by an instrument in writing and fully executed by the authorized parties to the Contract.

2.2 Intent of the Contract

2.2.1 The intent of the Contract is to include all labor, materials, equipment, transportation and all other costs and expenses necessary for the proper execution and completion of the Work by the Contractor.

2.2.2 The Contract shall be construed in accordance with the laws of the State of Arizona, and all such laws regulating the construction of Public Works by the County are hereby incorporated herein by reference and made a part hereof.

2.2.3 Materials or work described in words, which have a well-known technical or trade meaning, shall be held to refer to such recognized standards.

2.2.4 The organization of the Contract into divisions, sections or articles is merely for the purpose of convenient reference, and neither the headings nor divisions shall have any legal or Contractual significance and shall not control the division of the Work by the Contractor among the various subcontractor or trades.

2.2.5 The Contractor shall obtain all required County permits in addition to any and all ADOT required permits and pay any taxes or other costs associated with permitting. There will be no reimbursement for the cost of any ADOT or County permits.

2.3 Execution

2.3.1 Execution of the Contract by the Contractor is a representation that the Contractor has thoroughly examined the Contract.

2.4 Ownership of the Contract

2.4.1 The Contract, including, but not limited to, the drawings and specifications, is the property of the County and is not to be used by the Contractor or any subcontractor on other projects outside the scope of the Work without the express written consent of the County.

ARTICLE 3. ADMINISTRATION OF THE CONTRACT

3.1 Lines of Authority and Communications

3.1.1 The County's Procurement Director is the County official with overall authority and responsibility for the award and administration of County contracts below the adopted formal bid threshold. The Procurement Director or his designated Procurement Department representative after consultation with the County Contract Representative has the ultimate authority to resolve disputes concerning Contract performance and to stop the Work whenever such stoppage may be necessary to ensure the proper execution of the Work.

3.1.2 The County Contract Representative is the designated representative of the particular County department for which the Work is being constructed (the "user department") or the County department which is responsible for the oversight of the Work.

3.1.3 Day-to-day administration of the Contract is the responsibility of the County Contract Representative. The County Contract Representative is the County's representative during the prosecution of the Work and shall act as surveillance and technical advisor for the County. The County Contract Representative duties are more fully described in Section 3.2 of this Article.

3.1.4 The Contractor shall supervise and direct the Work and shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work, unless the Contract gives other specific instructions concerning these matters. The Contractor's duties and responsibilities are more fully described in Article 4 of these Contract conditions.

3.1.5 Except where the Contract otherwise provides or where direct communication has been specifically authorized, the Contractor shall initially communicate with the County Contract Representative.

3.2 **County Contract Representative's General Authority and Responsibilities**

Unless the Contractor is responsible for the design of the Work, the County Contract Representative shall furnish to the Contractor, free of charge unless it is provided otherwise in the Contract, copies of drawings, specifications and instructions available for the execution of the Work. The County Contract Representative may furnish additional clarifications or interpretations in writing or by drawings as may be necessary for the proper progress and execution of the Work. Such additional clarifications and interpretations shall be furnished with reasonable promptness, and the Contractor shall not do work without drawings or written clarifications where needed. All drawings, specifications and copies thereof furnished by the County Contract Representative are County property. They are not to be used on other work and, with the exception of the signed Contract, and are to be returned to the County Contract Representative at the completion of the Work.

3.2.2 The County Contract Representative shall provide general surveillance of the Work. By making sufficient periodic visits to the site of the Work, the County Contract Representative will become thoroughly familiar with the progress and quality of completed portions of the Work, and will assess if the Work is being performed in a manner indicating that the Work, when completed, will be in accordance with the Contract.

3.2.3 The County Contract Representative will decide all questions which may arise as to the quality and acceptability of materials furnished and Work performed and as to the rate of progress of the Work, and all questions which may arise as to the interpretation of the drawings and specifications.

3.2.4 The County Contract Representative shall have the authority to reject work that is not in conformity with the Contract and to order additional inspections and testing of the Work.

3.2.5 The County Contract Representative shall conduct an initial review of, and approve or deny, written Change Orders submitted by the Contractor, and may prepare Change Orders and provide field clarifications and corrections. All Change Orders shall be approved by the Procurement Director or appointed designee prior to any work being done. However, in emergencies endangering life or property, the County Contract Representative may take action and issue orders which are deemed necessary to avert the loss of life or property.

3.2.6 The County Contract Representative, pursuant to Article 10 of these General Conditions, shall make recommendations to the Contract Officer as to all claims of the Contractor.

3.2.7 The County Contract Representative will review and process the Contractor's monthly Estimates for Payment, as more fully set forth in Article 7 of these General Conditions.

3.2.8 The County Contract Representative will conduct inspections to determine the dates of Substantial Completion and Final Completion and will certify such dates to the Contract Officer.

3.2.9 The County Contract Representative will not have control over or charge of, and will not be responsible for, construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility.

3.3 Public Inspections

3.3.1 Unless otherwise specifically provided in the Contract, Public Inspectors who perform day-to-day inspections of the Work for compliance with applicable codes will have authority to require compliance with drawings, specifications and applicable codes, and may provide clarification of any unspecified or unclear item or situation.

3.3.2 If the drawings or specifications, laws, ordinances, or any public authority requires any work to be specially tested or approved, the Contractor shall give the County Contract Representative timely notice of its readiness for inspection. If the inspection is by an individual, authority or entity other than the County Contract Representative or the Public Inspectors, the Contractor shall advise the County Contract Representative of the date fixed for such inspection.

3.3.3 All tests, inspections or approvals required to be performed by the County Contract Representative, Public Inspectors, or other authorities or entities shall not relieve the Contractor of their obligation to perform the Work in accordance with the Contract.

3.4 Special Inspections and Testing of Materials

3.4.1 All equipment and materials used in the construction of the Work, especially those upon which the strength and durability of the structure may depend, shall be subject to adequate inspection and testing in accordance with accepted standards, to establish conformance with specifications and suitability for the use intended, as determined by the County Contract Representative.

3.4.2 The performance of tests and the engagement of testing laboratories or agencies must have the prior approval of the County Contract Representative. Except as provided in subsection 3.4.3, the County will pay for approved quality acceptance tests and services rendered by the approved laboratory or agency in addition to the Contract price for construction. Quality control tests will be the responsibility of the Contractor and the price for such testing shall be included in the contract unit price for the item being tested.

3.4.3 When initial tests indicate that any portion of the Work is not in conformance with the Contract because of faulty workmanship, the Contractor shall be required to pay for necessary quality acceptance re-tests. When initial tests indicate that the work is in conformance with the Contract, any re-testing that's ordered by the County shall be paid for by the County.

ARTICLE 4. THE CONTRACTOR'S DUTIES AND RESPONSIBILITIES

4.1 Contractor's Review of Contract Documents and Site Conditions

4.1.1 It shall be the duty of the Contractor to carefully study and compare all drawings, specifications and instructions. If any discrepancies, errors, omissions or inconsistencies are discovered in the drawings or specifications, or between the drawings and specifications, or there are any conflicts between existing site conditions and the requirements of the drawings and specifications, the Contractor shall immediately call all such discrepancies to the attention of the County Contract Representative.

4.1.2 The Contractor shall be required to use, for data and dimensions, figures marked on the drawings in preference to what the drawings may measure to scale; but in the absence of figured dimensions, scale dimensions may be used with the prior written concurrence of the County Contract Representative. The Contractor shall verify all dimensions shown and check all measurements in connection with any present building or buildings, level or grades, walks, driveways or other existing conditions before executing any work. Errors or inconsistencies shall be reported to the County Contract Representative immediately. ***It is the responsibility of the Contractor to provide BLUESTAKE verification of underground utilities on and off the construction site.***

4.1.3 Change orders will not be issued to cover any cost, loss or expense for additional labor or materials required to rectify any error or inconsistency in the drawings and specifications unless prior notification is given by the Contractor to the County Contract Representative.

4.1.4 The Contractor shall perform the Work in accordance with the Contract and with shop drawings, product data and samples that have been approved by the County Contract Representative.

4.1.5 Notwithstanding the above provisions, if the Contractor is responsible for the design of the Work, the Contractor shall ensure the accuracy and completeness of the drawings, specifications and instructions. If any discrepancies, errors, omissions or inconsistencies are discovered in the drawings or specifications, or between the drawings and specifications, or there are any conflicts between existing site conditions and the requirements of the drawings and specifications, the Contractor shall immediately call all such discrepancies to the attention of the County Contract Representative and shall be responsible for any required corrective action.

4.2 Contractor's Supervision

4.2.1 The Contractor shall efficiently and continuously supervise and direct the Work, using its best skill and attention. Unless the Contract specifically provides otherwise, the Contractor shall be solely responsible for and shall exercise control over construction means, methods, techniques and procedures and shall coordinate the sequences of all portions of the Work.

4.2.2 The Contractor shall ensure that the key personnel submitted in response to the Invitation for Bids and assigned to this Contract are available throughout the term of the Contract. In the event that the Contractor requests substitution of key personnel, the Contractor shall obtain prior approval from the County for key personnel substitution. The Contractor shall ensure that substituted personnel are equally qualified and capable. Information on the qualifications of proposed substitutes shall be provided to the County for its consideration and approval prior to substitution taking place.

1) The Contractor agrees that it is as fully responsible to the County for the acts and omissions of its subcontractors and of persons, either directly or indirectly employed by the Contractor, as it is for the acts and omissions of persons directly employed by the Contractor.

2) The contractor agrees to comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163)

4.3 Materials and Labor; Warranty

4.3.1 Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, equipment, tools, construction equipment and machinery, water, gas, heat, utilities, transportation, and other facilities and services necessary for the execution, completion and delivery of the Work within the specified Completion Time.

4.3.2 The Buy American Preferences under 49 U.S.C. § 50101 require that all steel and manufactured goods used in Airport Improvement Program (AIP) funded projects be produced in the United States.

4.3.3 The Contractor shall pay all applicable taxes associated with the Work.

4.3.4 The Contractor warrants to the County that all materials and equipment furnished under the Contract shall be new unless otherwise specified, and that all of the Work shall be of good quality, free from faults and defects and in conformance with the Contract. All Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective.

4.3.5 The Contractor shall be held to furnish all work as specified in the Contract. After a price proposal for the Work has been accepted by the County, changes of brand named, trade named, trade marked, patented articles, or any other substitutions shall be allowed only by written order signed by the County Contract Representative. Unless otherwise agreed to via Change Order, the County shall receive all benefits of the difference in costs.

4.4 Construction Schedules and Submittals

4.4.1 Before commencing the Work, the Contractor shall provide the County Contract Representative with a construction schedule for the Work, fixing the dates at which various pre-determined events shall occur in order to promote a timely completion of the various parts of the Work in accordance with the Contract. The schedule may be revised from time to time as may be required by conditions of the Work, but shall not exceed time limits, or any extensions thereof, set forth in the Contract or in the individual job order, as appropriate.

4.4.2 The Contractor shall prepare and keep current for the County Contract Representative's review, a schedule of submittals which shall be coordinated with the Contractor's construction schedule and allow the County Contract Representative reasonable time to review such submittals.

4.4.3 After review, the County Contract Representative, with reasonable promptness, shall comment on these shop or setting drawings, product data, samples and sequences for conformance with the design concept of the project, the approved construction schedule, and other requirements of the Contract.

4.4.4 The Contractor shall make any corrections required by the County Contract Representative and re-submit such corrected materials to the County Contract Representative for review and comment. Any correction or change that will result in a design or function change or in an increase or decrease in the Contract price must also receive the prior approval of the County's Director of Procurement or his designee.

4.4.5 The Contractor shall perform no portion of the Work requiring submittal and review of shop drawings, product data, samples or schedules until the respective submittals have no further comment by the County Contract Representative, and shall not deviate from such submittals after final comments by the County Contract Representative.

4.4.6 As-built documents must be provided to the County by the Contractor prior to final acceptance of electrical equipment. The County reserves the right to withhold final payment until complete as-built drawings have been received in good order by the County Contract Representative.

4.5 Documents and Samples at the Work Site

4.5.1 Unless otherwise directed by the County's Contract Representative, the Contractor shall maintain at the Work site a complete file of the drawings, specifications, addenda, change orders and other approved modifications, in good order and marked to reflect changes and selections made during construction, together with all approved shop drawings, product data, samples and similar required submittals. Such files shall be made available to the County Contract Representative and Public Inspectors upon request.

4.6 Protection and Use of Site - (Signs, Utilities, Water, Sanitation, Traffic, etc.)

4.6.1 The County will provide land, rights-of-way and easements for all work specified in the Contract.

4.6.2 Contractor shall prevent any damage to pipes, sewers, computer and phone lines, conduits or other structures, including public and/or private lawns, gardens, shrubbery and trees encountered in the Work, and shall hold the County harmless from damages for any injury done to such pipes, structures or property during the course of the Work. The Contractor shall also repair, at the Contractor's expense any damages that result from the Contractor's operations.

4.6.3 Work shall be accomplished so that there will be a minimum of traffic interruption and inconvenience, discomfort or damage to the public.

4.6.4 The Contractor shall supply safe drinking water for all Contractor employees at the Work site. Water from existing fire hydrants may be made available to the Contractor upon his request to the City's local Water Department. In such cases where the City elects to provide hydrant water, the Contractor will be provided a meter for the fire hydrant and will be charged the City's current rate for all water used. A deposit for the meter will be required by the City's Water Department.

4.6.5 If archaeological, historical or paleontological features are encountered or discovered during any activity related to the Work, the Contractor shall stop work immediately at that location and shall take all reasonable steps to secure the preservation of those features. The County Contract Representative will make arrangements for the proper treatment of the affected portion of the Work site. The Contractor shall not resume work in the affected portion without the prior approval of the County Contract Representative. Extensions in the Contract time for delays resulting from the discovery of archaeological, historical or paleontological features, if such discovery results in a delay to the progress of the Work, may be claimed by the Contractor in accordance with Article 10 of these General Conditions.

4.7 Cleaning Up

4.7.1 The Contractor shall at all time keep the construction site and surrounding area free from accumulations of waste material or rubbish caused by operations under the Contract. Upon completion of the Work, the Contractor shall remove all rubbish, tools, equipment, scaffolding and surplus materials from the site and surrounding areas and leave the area "broom clean" or its equivalent, unless otherwise instructed by the County Contract Representative.

4.7.2 If the Contractor fails to clean up as provided in the Contract, the County may do so and the cost thereof shall be charged against the Contractor.

4.8 Emergencies

4.8.1 In an emergency affecting the safety of life or property, the Contractor, without special instruction or authorization from the County Contract Representative, is hereby permitted, authorized and directed to act at its own discretion to prevent threatened loss or injury.

4.8.4 Except in the case of an emergency requiring immediate remedial work, any work performed after regular working hours, on Saturdays, Sundays or legal holidays, shall be performed without additional expense to the County unless such work has been specifically requested and approved by the County Contract Representative.

4.8.5 The Contractor shall file with the County Contract Representative the names, addresses and telephone numbers of their company who can be contacted at any time in case of emergency. These Contractor representatives must be fully authorized and equipped to correct unsafe or excessively inconvenient conditions on short notice by the County or the Public Inspectors.

4.9 Permits, Fees and Notices

4.9.1 The Contractor shall, at its expense, obtain all necessary permits and licenses for work performed under the Contract, and shall give all necessary notices required by laws, ordinances, rules, regulations and lawful orders of public authorities pertaining to performance of the Work, public health and safety.

4.9.2 If the Contractor knowingly performs work which is not in compliance with such laws, ordinances, rules, regulations or orders, without such notice to the County Contract Representative**,** the Contractor shall assume full responsibility for such Work and shall bear all costs attributable thereto.

4.10 Royalties, Patents, and Rights to Inventions

4.10.1 The Contractor shall pay all royalties and license fees.

4.10.2 The Contractor and the surety shall defend any suit or proceeding brought against the procuring agency, during the prosecution or after the completion of the work, based on a claim that manufacture, sale, or use of any method, process, machine, technique, design, living thing, genetic material, or composition of matter, or any part thereof, furnished or used under this Contract constitutes an infringement of any patent, trademark, or copyright, and the Contractor shall pay all damages and costs awarded therein, against the procuring agency and any affected third party or political subdivision. If manufacture, sale, or use of said method, process, machine, technique, design, living thing, genetic material, or composition of matter, or any part thereof, is in such suit held to constitute infringement and if manufacture, sale, or use of said method, process, machine, technique, design, living thing, genetic material, or composition of matter, or part thereof, is enjoined, the Contractor shall, at its own expense, either procure for the procuring agency the right to continue manufacture, sale, or use of said method, process, machine, technique, design, living thing, genetic material, or composition of matter, or part thereof, or, subject to Engineer's approval, replace same with no infringing method, process, machine, technique, design, living thing, genetic material, or composition of matter, or part, or modify it so it becomes no infringing.

4.10.3 If appropriate, the Contractor shall furnish the County Contract Representative satisfactory evidence of patent licenses or patent releases covering County-specified proprietary materials, equipment, devices or processes, as the case may be.

4.10.4 All rights to inventions and materials generated under this contract are subject to regulations issued by the FAA and the Sponsor of the Federal grant under which this contract is executed.

4.11 Protection of Persons and Property

4.11.1 The Contractor shall be responsible for initiating, maintaining, supervising and directing all safety precautions and programs in connection with the performance of the Contract.

4.11.2 The Contractor shall be responsible for the protection of all Work until completion and final payment is made, including any material or equipment to be incorporated whether in storage on or off the Work site.

4.11.3 The Contractor shall, at their own expense, replace damaged or lost material, or repair damaged parts of the Work or of other property at the work site or adjacent thereto, and the Contractor and their sureties shall be liable therefore.

4.11.4 The Contractor shall assume all risks from floods and casualties and shall make no claim for damages for delay from such causes. However, a reasonable extension of time on account of such delays may be allowed, subject to the conditions contained in Article 6 of these General Conditions.

4.11.5 In the event the Contractor encounters on the work site material reasonably believed to be a hazardous material, such as asbestos or polychlorinated biphenyl (PCB), the Contractor shall immediately stop work in the area affected and report the condition to the County Contract Representative.

4.11.6 The Contractor shall take all necessary precautions for the safety of employees on the work site and other persons who may be affected thereby, and shall comply with all applicable provisions of Federal, State and Municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the Work is being performed.

The Contractor shall erect and properly maintain at all times, as required by the condition and progress of the Work, all necessary safeguards for the protection of workmen and the public and shall post danger signs warning against the hazards created by such features of construction as protruding nails, hood hoists, well holes, elevator hatchways, scaffolding, window openings, stairways and falling materials.

4.11.7 The Contractor warrants it is fully familiar and shall comply with all of the safety requirements of the Occupational Safety and Health Act (29 U.S.C. Sections 641-678, or as amended or re-codified from time to time). Also the Hazard Communication Act relating to the use of hazardous materials (29 C.F.R. 1910-1200, or as amended or re-codified from time to time), as promulgated by the Federal Government and as implemented by the State of Arizona, and that it will be solely responsible for all fines and penalties provided for by law for any violation of such Act and, furthermore, shall require all subcontractors to comply with such Acts and with the provisions of this section. Any claims arising out of alleged violations of such Acts are covered by the indemnification set forth in Section 4.12.

4.12 INSURANCE REQUIREMENTS

The County requires a complete and valid Certificate of Insurance prior to the commencement of any service or activity as specified in this Contract for Construction Services. The Contractor must submit an original copy of the Certificate of Insurance maintaining the coverage limits as specified in the original solicitation document, **Section 6.0 Special Terms and Conditions, paragraph 6.14 titled Insurance Requirements.** The coverage's shall be maintained in full force and in effect during the term of the Contract for Construction Services and shall not serve to limit any liabilities or any other Contractor obligations.

ARTICLE 5. SUBCONTRACTS AND SEPARATE CONTRACTS

5.1 Subcontracts

5.1.1 The Contractor shall ensure that the subcontractors submitted in response to the Invitation for Bid and assigned to this Contract are available throughout the term of the Contract. In the event that the Contractor requests substitution of subcontractors, the Contractor shall obtain prior approval from the County for subcontractor substitution. The Contractor shall ensure that substituted subcontractors are equally qualified and capable. Information on the qualifications of proposed substitutes shall be provided to the County for its consideration and approval prior to substitution taking place.

5.1.3 In job-order-contracting, by appropriate written agreement, the Contractor agrees that each subcontractor has been notified in writing of the negotiated amount or coefficient agreed to for billing purposes. Furthermore, by appropriate written agreement, the Contractor agrees that each subcontractor shall be bound to the Contractor by the terms of the Contract. In the event of a conflict between the substance of a written subcontract and the language of this Contract, the language of this Contract shall prevail.

5.1.4 Contractor shall ensure that each subcontract shall preserve and protect the rights of the County under the Contract with respect to the work to be performed by the subcontractor. Where appropriate, the Contractor shall require each subcontractor to enter into similar agreements with sub-subcontractors. In this connection, the Contractor shall make available to each subcontractor, prior to execution of any subcontract, copies of the Contract provisions to which the subcontractor shall be bound. Subcontractors shall also make copies of applicable portions of the Contract available to their respective subcontractors.

5.1.5 Each subcontract shall require the subcontractor to submit to the Contractor applications for payment in such reasonable time as to enable the Contractor to apply for payment to the County in a timely manner, including any claims for extras, extensions of time, and damages for delays or otherwise to the Contractor in the manner provided in the Contract for like claims by the Contractor upon the County.

5.1.6 The Contractor further agrees:

1. To be bound to the subcontractor with respect to obligations under the contract in the same manner and to the same extent that the County assumes obligations under this Contract, including provisions of the contract that afford remedies and redress to the Contractor from the County.

2. To promptly pay the subcontractor in accordance with applicable State statute.

3. That, at all times, the subcontractors' total payments shall be proportionate to the value of the labor and materials provided by them.
   Payment may be preconditioned upon the subcontractors providing the Contractor with requested significant partial or final lien waivers.

4. To pay the subcontractor to such extent as may be provided by the Contract or the subcontract, if either of these provides for earlier or larger payments than the above.

5. To ensure timely payment to subcontractors for their work as performed and for materials fixed in place, less any applicable retention, despite any delay by the County in making payments to the Contractor for any cause not the fault of the subcontractor.

6. To share or forward, as appropriate, with its subcontractors or, as appropriate, with the County, any fire insurance proceeds received by the Contractor under the insurance provisions of the Contract.

7. That no claim for services rendered or materials furnished by the Contractor to the subcontractor shall be valid unless written notice thereof is given by the Contractor to the subcontractor during the first ten (10) days of the calendar month following the month in which the claim originated.

8. To give the subcontractor an opportunity to be present and to submit evidence in any Contractual claim, controversy or dispute.

5.1.7 Nothing in this Article shall create any obligation on the part of the County to pay to, or to see to the payment of, any sums to any subcontractor, except as may otherwise be required by law.

5.1.8 Each subcontract agreement for a portion of the Work is hereby assignable by the Contractor to the County provided that:

1. Assignment is effective at the sole option of the County and only upon termination of the Contract for cause pursuant to Article 9 of these General Conditions, and only for those subcontract agreements which the County determines to accept by notifying the subcontractor in writing, and

2. Assignments are subject to the prior rights of the surety obligated under the Bonds relating to the Contract.

5.2 <u>Separate Contracts</u>

5.2.1 The County reserves the right to perform construction or operations related to the Work with the County's own forces and to let separate Contracts in connection with other portions of the Work or other construction or operations on the Work site.

5.2.2 The Contractor shall afford other Contractors on the Work site reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate its work with theirs.

5.2.3 The County Contract Representative shall coordinate the activities of the County's own forces and of each separate Contractor with the work of the Contractor. The Contractor and all other Contractors on the Work site shall be required to review their construction schedules and cooperate with the County Contract Representative in coordinating the various portions of the Work with the schedules of such separate contractors.

5.2.4 If any part of the Contractor's work depends, for proper execution or results, upon the work of any other contractor, the Contractor shall inspect and promptly report to the County Contract Representative any defects in such work that render it unsuitable for continuance of the Contractor's Work. Failure to inspect and report may constitute an acceptance of the other contractor's work as fit and proper for the reception of the Contractor's Work, except as to defects not then reasonably discoverable.

5.2.5 Costs caused by the Contractor because of delays or by improperly timed activities or defective construction shall be borne solely by the Contractor.

5.2.6 If the Contractor causes damage to any separate contractor on the site, the Contractor, upon due notice, agrees to settle with such separate contractor by agreement or arbitration, if he will so settle. If such separate contractor sues the County on account of any damage alleged to have been so sustained, the County shall notify the Contractor, who shall defend such proceedings and, if any judgment against the County arises there from, the Contractor shall pay or satisfy it.

5.2.7 Should separate contractors on the Work cause any damage, cost or loss to the Contractor, the County shall not be held responsible or liable therefore in any way other than extensions of completion time in accordance with Article 6 of these General Conditions.

5.3 Lobbying and influencing Federal Employees

1. No Federal appropriated funds shall be paid, by or on behalf of the contractor, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making of any Federal grant and the amendment or modification of any Federal grant.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any Federal grant, the contractor shall complete and submit Standard Form-LLL, "Disclosure of Lobby Activities," in accordance with its instructions.

5.4 Disadvantaged Business Enterprise

1. Policy. It is policy of the Department of Transportation (D.O.T.) that Disadvantaged Business Enterprises (DBE's), as defined in 49 CFR Part 26, shall have the maximum opportunity to participate in the performance of Contracts financed in whole or in part with Federal funds under this Agreement. Consequently, the DBE requirements of 49 CFR Part 26 apply to this Agreement.
2. DBE Obligation. The Contractor or Subcontractor shall not discriminate on basis of race, color, national origin, or sex in the performance of this Contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in award and administration of D.O.T.-assisted Contracts. Failure by Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the Sponsor deems appropriate.
3. Prompt Payment. The Prime Contractor agrees to pay each Subcontractor under this Prime Contract for satisfactory performance of its Contract no later than 10 days from receipt of each payment the Prime Contractor receives from the Sponsor. The Prime Contractor further agrees to return retainage payments to each Subcontractor within 10 days after the Subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Sponsor. This clause applies to both DBE and non-DBE Subcontractors.
4. Contract Goals. The Bidder shall Subcontract 1.96% of the dollar value (subject to final approval by FAA) of the total amount of a D.O.T.-assisted Contract to qualified DBE Contractors. Based on the 9th Circuit Court Decision in Western States Paving Company v. Washington State Department of Transportation, Cochise County has determined that it is appropriate to use a race/gender neutral goal. Cochise County encourages all bidders to take active race gender/neutral steps to include DBE's in this and other airport contracts. Race/gender neutral steps include: unbundling large contract, subcontract work the prime contractor may self-perform, provide bonding or financing assistance, provide technical assistance, etc. This contract can be awarded without the lowest responsive bidder meeting the goal or demonstrating good faith effort to meet the goal.
5. DBE Contractors or Subcontractors. At the time of bid, the Bidder shall submit:
   A. The names and addresses of DBE firms that will participate in the contract;
   B. A description of work that each DBE will perform;
   C. The dollar amount of the participation of each DBE firm;
   D. Written and signed documentation of commitment to use the DBE Subcontractor whose participation it submits to meet a Contract goal;
   E. Written and signed confirmation from the DBE that it is participating in the Contract as provided in the Prime Contractor's commitment;
6. Good Faith Efforts. (DELETED)
7. Bidders List. The bidder shall submit the name, address, DBE status, age and gross receipts of all firms bidding or quoting subcontractors on D.O.T.-assisted projects.

ARTICLE 6. TIME FACTORS; LIQUIDATED DAMAGES

6.1 Time

6.1.1 Unless otherwise provided in the Contract, the Completion Time is the number of calendar days, including authorized time extensions, specified for completion of the Work.

6.1.2 Completion Time shall commence on the day specified in the Notice to Proceed. The date shall not be postponed on account of the failure of the Contractor, or of any of its subcontractors to take any action required to commence the Work.

6.1.3 The date of Substantial Completion is the date certified by the County Contract Representative pursuant to Subsection 7.4.1 of Article 7 of these General Conditions.

6.1.4 The term "day" as used in the Contract shall mean calendar day.

6.1.5 By execution of the Contract documents, or by concurrence with the Notice to Proceed in the case of a job order, the Contractor acknowledges that the time described is a reasonable period for a competent Contractor to complete the Work.

6.1.6 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the agreed upon time frame. If the Contractor is delayed on any portion of the Work for any reason whatsoever, it shall expeditiously proceed on other portions of the Work which are not affected by such delay.

6.2 Liquidated Damages

6.2.1 The amount of liquidated damages shall be as specified in the Contract documents, or, in the case of a job-order, in the Notice to Proceed.

6.2.2 The Contractor has been put on notice that the County shall enforce the liquidated damages set forth in the Contract documents or Notice to Proceed.

6.2.3 The Contractor agrees that the County will incur damages if the Contractor fails to complete the Work within the Completion Time or any approved extensions thereof and that the liquidated damages specified in the Contractor, in the case of a job-order, in the Notice to Proceed, represents a fair and equitable approximation of the County's damages.

Each calendar day that the Contractor shall fail to achieve Substantial Completion after the calendar date agreed to for the completion of the Work provided for in the Contract, the sum set forth in the Contract documents will be deducted from any monies due the Contractor, not as penalty, but as liquidated damages; provided however, that due account will be taken of any adjustments of the Contract time for the completion of the work allowed under the Contract.

Permission allowing the Contractor to continue and finish any part of the Work after the time fixed for its completion or after the date to which the time for completion may have been extended shall in no way operate as a waiver on the part of the County of any of its rights under the Contract.

Once substantial completion is granted, the Contractor shall achieve final completion within thirty (30) calendar days, unless otherwise agreed upon. If final completion does not occur within the agreed upon number of days, liquidated damages will commence on the first day after the agreed days, until final completion occurs.

6.3 Delays and Time Extensions

6.3.1 It is agreed that the County's only liability for any delay from any cause shall be limited to granting a time extension to the Contractor and that no extended general conditions for any delay will be applicable unless agreed to by the County. There is no other obligation, express or implied, on the part of the County to the Contractor for delay from any cause.

6.3.2 The completion time shall be extended when delay in completion of the Work by either the Contractor or the subcontractors is due to any preference, priority or allocation order duly issued by the Federal Government.

6.3.3 Should a dispute arise between the Contractor and the County regarding a delay or time extension, the Contractor shall continue progress on the Work until the dispute is resolved.

ARTICLE 7. PAYMENTS TO THE CONTRACTOR

7.1 Contract Price; Request for Payment; Schedule of Values

7.1.1 The Contract amount or coefficient stated in the Contract documents or, in the case of a job order, in the Notice to Proceed, plus or minus any authorized adjustments is the amount payable by the County to the Contractor for performance of the Work under the Contract or for a specific job order.

7.1.2 During the course of construction, the Contractor shall request payment for work actually performed during the preceding month or some other time period as mutually agreed to, using “ESTIMATE FOR PAYMENT” forms, which are furnished by the County or a County approved form submitted by the Contractor. Completed forms shall be submitted to the County Contract Representative. A schedule of values and an updated project schedule shall accompany the request for payment.

7.2 Certification and Payment; Retainage; Substitute Securities

7.2.1 The County by mutual agreement may make progress payments on Contracts of less than ninety (90) days and shall make monthly progress payments on all other Contracts as provided for in this paragraph. Payment to the Contractor on the basis of a duly certified and approved estimate for payment of the work performed during the preceding calendar month under the Contract may include payment for material and equipment, but to ensure the proper performance of the Contract, the County shall retain ten per cent of the amount of each estimate until final completion and acceptance of all material, equipment and work covered by the Contract. An estimate of the work submitted shall be deemed approved and certified for payment after seven (7) days from the date of submission unless before that time the County or the County's designee prepares and issues a specific written finding setting forth those items in detail in the estimate of the work that are not approved for payment under the Contract. The County may withhold an amount from the progress payment sufficient to pay the expenses the County reasonably expects to incur in correcting the deficiency set forth in the written finding. The progress payments shall be paid on or before fourteen (14) days after the estimate of the work is certified and approved. The estimate of the work shall be deemed received by the County on submission to any person designated by the County for the submission, review or approval of the estimate of the work.

7.2.2 When the Contract is fifty per cent complete, one-half of the amounts retained including any securities substituted under paragraph 7.2.4 shall be paid to the Contractor on the Contractor's request provided the Contractor is making satisfactory progress on the Contract and there is no specific cause or claim requiring a greater amount to be retained. After the Contract is fifty per cent complete, no more than five per cent of the amount of any subsequent progress payments made under the Contract may be retained providing the Contractor is making satisfactory progress on the project, except that if at any time the County determines satisfactory progress is not being made ten per cent retention shall be reinstated for all progress payments made under the Contract after the determination.

7.2.3 On completion and acceptance of each separate building, public work or other division of the Contract on which the price is stated separately in the Contract, except as qualified in paragraph 7.2.5, payment may be made in full, including retained percentages, less authorized deductions. In preparing estimates, the material and equipment delivered on the site to be incorporated in the job shall be taken into consideration in determining the estimated value by the architect, engineer or other person, as specified in the Contract.

7.2.4 Ten per cent of all estimates shall be retained by the County as a guarantee for complete performance of the Contract, to be paid to the Contractor within sixty (60) days after completion or filing notice of completion of the Contract. Retention of payments by the County longer than sixty (60) days after final completion and acceptance requires a specific written finding by the County of the reasons justifying the delay in payment. The County may not retain any monies after sixty (60) days that are in excess of the amount necessary to pay the expenses the County reasonably expects to incur in order to pay or discharge the expenses determined by the County in the finding justifying the retention of monies. In lieu of the retention provided in this section, the County, at the option of the Contractor, shall accept as a substitute an assignment of time certificates of deposit of banks licensed by this state, securities of or guaranteed by the United States of America, securities of this state, securities of counties, municipalities and school districts within this state or shares of savings and loan institutions authorized to transact business in this state, in an amount equal to ten per cent of the bid amount that will be retained by the County as a guarantee for complete performance of the Contract. If the County accepts substitute securities, as described in this paragraph, for the ten per cent retention, the Contractor is entitled to receive all interest or income earned by this security as it accrues and all such security in lieu of retention shall be returned to the Contractor by the County within sixty (60) days after final completion and acceptance of all material, equipment and work covered by the Contract if the Contractor has furnished the County satisfactory receipts for all labor and material billed and waivers of liens from any and all persons holding claims against the work. In no event shall the County accept a time certificate of deposit of a bank or shares of a savings and loan institution in lieu of the retention specified unless accompanied by a signed and acknowledged waiver of the bank or savings and loan association of any right or power to setoff against either the County or the Contractor in relationship to the certificates or shares assigned.

7.2.5 In any instance where the County has accepted substitute security as provided in paragraph 7.2.4, any subcontractor undertaking to perform any part of this public work is entitled to provide substitute security to the Contractor on terms and conditions similar to those described in paragraph 7.2.4, and this security is in lieu of any retention under the subcontract.

7.2.6 Notwithstanding paragraphs 7.2.1 through 7.2.5, retention is not required for job-order-contracting construction services contracts, except that the County may elect to require retention for a job-order-contracting construction services contract. If the County elects to require retention, paragraphs 7.2.1 through 7.2.5 apply to the job-order-contracting construction services Contract, except that:

1. Contract, or failure to reasonably account for the application or use of those payments, constitutes grounds for disciplinary action by the Registrar of Contractors. The subcontractor or material supplier shall notify the Registrar of Contractors and the County in writing of any payment less than the amount or retention shall be five per cent of each payment instead of ten per cent reducing to five per cent.
2. Retention applicable to each job order shall be released within sixty (60) days after final completion of the job order and acceptance of the work under the job order.
3. No retention on the job order may be released until that time.
4. The retention percentage shall not be increased.

7.2.7 The Contractor shall pay to the Contractor's subcontractors or material suppliers and each subcontractor shall pay to the subcontractor's subcontractor or material supplier, within seven (7) days of receipt of each progress payment, unless otherwise agreed in writing by the parties, the respective amounts allowed the Contractor or subcontractor on account of the work performed by the subcontractors, to the extent of each subcontractor's interest, except that no Contract for construction services may materially alter the rights of any Contractor, subcontractor or material supplier to receive prompt and timely payment as provided under this section.

The payments to subcontractors or material suppliers shall be based on payments received pursuant to this section. Any diversion by the Contractor or subcontractor of payments received for work performed on a percentage approved for the class or item of work as set forth in this section.

7.2.8 A subcontractor may notify the County in writing requesting that the subcontractor be notified by the County in writing within five (5) days from payment of each progress payment made to the Contractor. The subcontractor's request remains in effect for the duration of the subcontractor's work on the project.

7.2.9 Nothing in this section prevents the Contractor or subcontractor, at the time of application and certification to the County or Contractor, from withholding the application and certification to the County or Contractor for payment to the subcontractor or material supplier for unsatisfactory job progress, defective construction work or materials not remedied, disputed work or materials, third party claims filed or reasonable evidence that a claim will be filed, failure of a subcontractor to make timely payments for labor, equipment and materials, damage to the Contractor or another subcontractor, reasonable evidence that the subcontract cannot be completed for the unpaid balance of the subcontract sum or a reasonable amount for retention that does not exceed the actual percentage retained by the County.

7.2.10 If any payment to a Contractor is delayed after the date due interest shall be paid at the rate of one per cent per month or fraction of a month on the unpaid balance as may be due.

7.2.11 If any periodic or final payment to a subcontractor is delayed by more than seven (7) days after receipt of the periodic or final payment by the Contractor or subcontractor, the Contractor or subcontractor shall pay the subcontractor or material supplier interest, beginning on the eighth day, at the rate of one per cent per month or fraction of a month on the unpaid balance as may be due.

7.2.12 Notwithstanding anything to the contrary in this section, this section applies only to amounts payable in a construction services Contract for construction and does not apply to amounts payable in a construction services Contract for design services, preconstruction services, finance services, maintenance services, operations services and other related services.

7.2.13 The County Contract Representative, with reasonable dispatch, will review the contents of the ESTIMATE FOR PAYMENT submitted by the Contractor, determine the sufficiency of the estimate, satisfy himself that the County has received full value, certify the estimate and submit it through normal channels for payment.

7.2.14 Neither the certification nor payment made to the Contractor, nor partial or entire use or occupancy of the Work by the County shall constitute an acceptance of any portion of the Work.

7.3 <u>Payment Withheld</u>

7.3.1 If the County Contract Representative is unable to certify a request for payment in whole or in part because, after observing the Work and the data comprising the ESTIMATE FOR PAYMENT, the County Contract Representative determines that the Work has not progressed or the quality of the Work is not in accordance with the Contract, the County Contract Representative shall promptly notify the Contractor. If the County Contract Representative and the Contractor cannot agree on a revised amount, the County Contract Representative will promptly issue a certificate for payment in an amount he determines is justified.

7.3.2 The County Contract Representative or other County official, as a result of subsequently discovered evidence, may also withhold or nullify the whole or a part of any certification to such extent as may be necessary to protect the County from loss on account of:

1. Defective work not remedied.

2. Third-party claims filed or reasonable evidence indicating probable filing of such claims.

3. Failure of the Contractor to make payments properly to subcontractors or for labor, materials, or equipment.

4. Reasonable doubt that the Work can be completed for the unpaid balance of the Contract amount, or reasonable evidence that the Work will not be completed within the Contract Time and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay.

5. Damage to another contractor or to the County.

6. Damage to the real or personal property of another and failure to repair or replace the same.

7. Persistent failures to carry out the Work in accordance with the Contract.

7.3.3 When the grounds for withholding payment have been corrected to the satisfaction of the County Contract Representative or other County official concerned, the County shall proceed to process any amounts due.

7.4 Substantial Completion

7.4.1 When the Contractor considers that the Work, or a portion thereof which the County has agreed to accept separately, is ready for its intended use, it shall notify the County Contract Representative in writing that the work or the agreed upon portion thereof, is substantially complete and request the County Contract Representative to issue a Certificate of Substantial Completion. Within a reasonable time thereafter, the County Contract Representative shall make an inspection of the Work, or the designated portion thereof, to determine the status of completion. If the inspection discloses any item that is not in accordance with the Contract, the Contractor shall, before issuance of the Certificate of

Substantial Completion, complete or correct such item. The Contractor shall then submit a request for a re-inspection by the County Contract Representative. When the Work or designated portion thereof is determined to be substantially complete, the County Contract Representative shall prepare a Certificate of Substantial Completion for signature of the parties, fixing therein the date of Substantial Completion and establishing the responsibilities of the County and Contractor, pending final payment by the County, for security, maintenance, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall finish all items on the punch list attached to the certificate.

7.4.2 Warranties required by the Contract shall commence on the date of Final Completion for a period of two years, except where a specific provision of the Contract provides otherwise.

7.5 Final Completion and Final Payment

7.5.1 Upon receipt of notice from the Contractor that the Work is ready for final inspection and upon receipt of a request for final payment, the County Contract Representative will determine that all items on the punch list have been completed or corrected and the County will make payment reflecting adjustments in retainage, if any, for such work or portion thereof as provided for in the Contract.

7.6 Consent of Surety/ Lien Waivers and As-Built Drawings

7.6.1 Neither the final payment nor any part of the retained percentage shall become due until the Contractor provides to the Contract Officer a Consent of Surety Certificate from their bonding company, or lien waivers, at the Contract Officer's discretion and all completed as-built drawings.

7.7 Partial Utilization

7.7.1 The County may occupy or use any portion of the Work which the County and the Contractor agree constitutes a separately functioning and usable part of the Work that can be used by the County without significant interference with the Contractor's performance of the remainder of the Work. Such use or occupancy may commence whether or not the portion is substantially complete, provided the County and the Contractor have accepted in writing their mutual responsibilities regarding the used portion, including but not limited to insurance coverage, maintenance and utilities.

7.7.2 Partial use or occupancy of the Work by the County shall not constitute acceptance of Work not complying with the requirements of the Contract.

ARTICLE 8. UNCOVERING AND CORRECTION OF WORK; CHANGES IN THE WORK

8.1 Uncovering of Work

8.1.1 Piping, wiring, ducts, etc., shall not be covered up before proper inspection, approval and certificates, if required, are issued. Should any work that is designated for inspection by the County Contract Representative or the Contract before covering is covered before such inspection, it must be uncovered by the Contractor at their expense when examination is ordered by the County Contract Representative.

8.1.2 If a portion of the Work not designated by the County Contract Representative or the Contract for inspection has been covered and the County Contract Representative or a Public Inspector orders such work uncovered for inspection, the Contractor shall immediately uncover such work. If such uncovered work is found to be in accordance with the Contract, an appropriate Change Order shall be issued to compensate the Contractor for the expense of uncovering and replacing the work. If such work is found to be not in compliance with the Contract, the Contractor shall pay such costs, unless the condition was caused by the County or a separate Contractor.

8.1.3 The County shall not be responsible for or bear the cost of any re-examination and replacement occasioned by defects in the work caused by subcontractors.

8.2 Correction of Work

8.2.1 Correction of Work Before Final Payment: The Contractor shall promptly remove from the site of the Work all materials and/or associated portions of the Work rejected by the County Contract Representative as failing to conform to the Contract, whether incorporated or not, and the Contractor shall promptly replace and re-execute the Work in accordance with the Contract, without expense to the County, and shall bear the expense of making good the work of other contractors destroyed or damaged by such removal or replacement.

If the Contractor does not remove such rejected Work and/or materials within a reasonable time, fixed by written notice, the County may remove it and may store the materials at the expense of the Contractor.

8.2.2 Should the Contractor fail to repair such defective material and/or workmanship or to make replacements within five (5) calendar days after written notice by the County, it is agreed that the County may, at its sole discretion, make such repairs and replacements and the actual cost of the required labor and materials shall be chargeable to and payable by the Contractor or his surety.

8.3 Changes in the Work

8.3.1 The County Contract Representative may order extra work or make changes by altering, adding to or deducting from the Work, the Contract price being adjusted accordingly by Change Order without invalidating the Contract. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

Any changes in the work must be approved by the Federal Aviation Administration and the Arizona Department of Transportation-MPD Aeronautics Group prior to the performance of the work.

8.3.2 The value of any extra work or change ordered under the Contract shall be determined in one or more of the following ways:

1. By estimate and acceptance in a lump sum.

2. By unit prices in the Contract or subsequently agreed upon prices.

3. By a fixed fee.

ARTICLE 9. SUSPENSION OR TERMINATION OF THE WORK

9.1 Suspension of the Work for Cause; County's Right to Perform the Work

9.1.1 If the Contractor fails to correct Work which is not in accordance with the Contract, or persistently fails to carry out the Work in accordance with the Contract, the Contract Officer, after consultation with the County Contract Representative, may order the Contractor in writing to stop the Work, or any portion of the Work, until the cause for such order has been eliminated.

9.1.2 If the Contractor fails to prosecute the Work properly or fails to perform any provision of this Contract, the County may, five (5) days after written notice to the Contractor, and without prejudice to any other remedy the County may have, make good such deficiencies and may deduct the cost thereof from the payment then

or thereafter due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor and its surety shall be liable to the County for such deficiency.

9.2 TERMINATION OF CONTRACT

The Sponsor may, by written notice, terminate this contract in whole or in part at any time, either for the Sponsor's convenience or because of failure to fulfill the contract obligations. Upon receipt of such notice services shall be immediately discontinued (unless the notice directs otherwise) and all materials as may have been accumulated in performing this contract, whether completed or in progress, delivered to the Sponsor.

1. If the termination is for the convenience of the Sponsor, an equitable adjustment in the contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services.

2. If the termination is due to failure to fulfill the contractor's obligations, the Sponsor may take over the work and prosecute the same to completion by contract or otherwise. In such case, the contractor shall be liable to the Sponsor for any additional cost occasioned to the Sponsor thereby.

3. If, after notice of termination for failure to fulfill contract obligations, it is determined that the contractor had not so failed, the termination shall be deemed to have been effected for the convenience of the Sponsor. In such event, adjustment in the contract price shall be made as provided in paragraph 2 of this clause.

4. The rights and remedies of the sponsor provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

9.3 <u>Termination by the County for Cause</u>

9.3.1 The County, upon certification by the County Contract Representative, without prejudice to any other right or remedy of the County and after giving the Contractor seven (7) days written notice, may terminate this Contract as to all or any part of the Work for any of the following reasons:

1. If the Contractor abandons the work, or unnecessarily delays the work.

2. If the Contractor should consistently or repeatedly refuse or fail to supply enough properly skilled workers or proper materials or competent subcontractor.

3. If the Contractor fails to timely make payment to subcontractor for materials or labor in accordance with the respective agreements between the Contractor and the subcontractor or as expressly set forth herein.

4. If the Contractor persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction, or persistently violates the conditions or covenants of this Contract.

5. If the Contractor should be adjudged bankrupt.

6. If the Contractor should make a general assignment for the benefit of its creditors or if a receiver should be appointed on account of its insolvency.

7. If the Contractor is otherwise in substantial breach of a provision of the Contract as determined by the County.

9.3.2 Upon termination of the Contract for any of the above reasons, the County, subject to any prior rights of the surety, may:

1. Take possession of the Work and of all materials, equipment, tools, and construction equipment and machinery at the Work site or adjacent thereto belonging to the Contractor.

2. Accept assignments of subcontracts pursuant to Subsection 5.1.8 of Article 5 of these General Conditions.

3. Finish the Work by whatever reasonable method the County may deem expedient. In completing the Work by a new contractor or by doing the Work itself, the County may use such equipment, materials, supplies, machinery, implements, tools and plant of the Contractor in the County's possession and may make all necessary repairs and replacements thereto.

9.3.3 If the County terminates the Contract for one of the reasons stated in Subsection 9.2.1, the Contractor shall not be entitled to receive any further payment.

9.3.4 The cost of fully completing the Work provided for under any new contract shall include the sum or sums of money to be paid by the County to other Contractors, all costs of repairs and replacements of machinery, implements, tools and plant of the Contractor hereunder, and also all sums of money paid for additional management and administrative services, including but not limited to the cost of the County Contract Representative's additional services and added expenses made necessary by the termination of the Contract.

9.3.5 If the unpaid balance of the Contract price exceeds costs of finishing the Work, such excess may, at the County's discretion, be paid to the Contractor. If such costs exceed the unpaid balance, the County may sell all materials, supplies, machinery, implements, tools and plant of the Contractor's then on hand, at public sale, on giving the Contractor twenty (20) days notice of the time and place of such sale, and the net proceeds derived from the sale of said property shall be applied against such costs. Should the amount received from the sale be insufficient to pay such deficiency, the Contractor and its surety shall be liable to pay the amount of the deficiency.

9.4 Suspension by the County for Convenience

9.4.1 The County may, without cause, order the Contractor in writing to suspend or interrupt the Work in whole or in part for such period of time as the County may determine whenever such suspension or interruption would be in the best interest of the County.

9.4.2 If the County suspends the Work for convenience, an adjustment shall be made for substantiated increases in the cost of performance of the Contract, if any, including profit on the increased cost of performance, caused by suspension or interruption. No adjustment shall be made to the extent:

1. That performance is, was or would have been so suspended or interrupted by another cause for which the Contractor is responsible, or

2. That an equitable adjustment is made or denied by the County.

9.5 Termination by the County for Convenience

9.5.1 The performance of the Work under this Contract may be terminated by the County, in whole or in part, in accordance with this clause whenever the County reasonably determines that such termination is in the best interest of the County. Any such termination shall be effected by delivery to the Contractor of a written Notice of Termination specifying the extent to which performance of the Work is terminated, and the date upon which such termination becomes effective.

9.5.2 If the Contract is terminated by the County as provided herein, the Contractor shall receive compensation for any Work performed and accepted, together with profit in proportion to the Work performed and accepted. The compensation shall include payment for contractual obligations reasonably incurred prior to termination. No amount shall be allowed for anticipated profit on unperformed Work.

9.5.3 In the event the County terminates the Work, in whole or in part, for cause pursuant to Section 9.2 of this Article 9 and the termination is later deemed to be unjustified, then such termination shall be automatically deemed a termination for convenience and the provisions of this Section 9.4 shall apply.

9.5.4 Termination of the Contract or portion thereof by the County for convenience shall not relieve the Contractor of their contractual responsibilities for the Work completed, nor shall it relieve the surety of its obligation for and concerning any just claim arising out of the Work completed.

9.6 Contractor's Right to Terminate Contract

9.6.1 The Contractor may terminate the Contract for any of the following reasons:

1. If the Work should be stopped under an order of any court of competent jurisdiction or other public authority for a period in excess of one (1) month through no act or fault of the Contractor or of anyone directly or indirectly employed by him.

2. If the County has failed to pay the Contractor within sixty (60) days after the date when any sum is certified for payment by the County Contract Representative, or

3. If repeated suspensions or interruptions ordered by the County pursuant to Section 9.3 total in the aggregate more than one hundred percent (100%) of the total number of days scheduled for completion, or one hundred twenty (120) days in any three hundred sixty-five (365) day period, whichever is less.

9.6.2 If one of the above reasons exists, the Contractor may, upon seven (7) additional days, written notice to the County Contract Representative, stop Work and terminate the Contract and recover payment from the County for all Work executed and accepted by the County and any loss sustained upon any plant or materials and reasonable profit and damages.

ARTICLE 10. CLAIMS AND DISPUTES

10.1 County Contract Representative's Resolution of Claims and Disputes; Review by Procurement Director

10.1.1 This Article relates to claims for additional compensation and any other differences between the parties arising under and by virtue of the Contract. Such claims are to be resolved at the earliest possible time and at the first responsible level so as to increase the possibility that such matters will be resolved without the vexation of an administrative hearing process, arbitration or litigation.

10.1.2 All claims, including but not limited to, claims relating to adjustments or interpretations of the Contract, payments of money, or other relief with respect to the terms of the Contract, shall be referred initially in writing to the County Contract Representative for action. The responsibility to substantiate claims shall rest with the party making the claim.

10.1.3 Claims by either party must be made within twenty-one (21) days after the event giving rise to the claim or within twenty-one (21) days after the claimant first becomes aware of the condition giving rise to the claim, whichever is later.

10.1.4 Pending final resolution of a claim, the Contractor shall proceed diligently with performance of the Contract and the County shall continue to make payments in accordance with the Contract.

10.1.5 The County Contract Representative shall, within twenty-one (21) days of receipt of a claim, do one of the following:

(1) Issue a decision either rejecting or approving the claim.
(2) Suggest an equitable compromise of the claim.
(3) Provide a schedule to the parties indicating when they expect to be able to take action, which shall be within a reasonable time.

10.1.6 The County Contract Representative may require the submission of additional documentation from either party to facilitate a decision. In each case, the County Contract Representative will submit reasons and/or documentation supporting its action and the deadline shall be extended by the time it takes to obtain a response thereto.

10.1.7 The parties shall have ten (10) days from the date of the County Contract Representative's final decision rejecting or approving a claim, or suggesting a compromise, within which to accept or object to the decision. Failure of a party to accept or object to the decision in writing within such ten (10) day period shall be deemed an acceptance of the decision. If either party rejects the decision of the County Contract Representative in writing within such ten (10) day period, the matter shall be referred to the Procurement Director for *de novo* review.

10.1.8 The Procurement Director shall have sixty (**60**) days from receipt of a written objection by the Contractor to the County Contract Representative's final decision, or such longer period as the parties may stipulate in writing, to review the matter and issue a response in accordance with Article IX of the County of Cochise Procurement Code. During such period, the Procurement Director may require such additional documentation or testimony as deemed necessary to support his/her response.

ARTICLE 11. MISCELLANEOUS PROVISIONS

11.1 Governing Law

11.1.1 The Contract shall be governed and construed according to the laws of the State of Arizona.

11.2 Written Notice

11.2.1 Written notice shall be deemed to have been duly served if delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last known business address known to the party giving notice.

11.3 Conflict of Interest

11.3.1 The County shall also have the right to terminate this Contract pursuant to the conflict-of-interest provisions of A.R.S. Sec. 38-511 and to exercise any and all remedies provided in such statute. The County may cancel this Contract if any person significantly involved in negotiating, drafting, securing or obtaining this Contract for or on behalf of the County of Cochise becomes an employee in any capacity of any other party or a consultant to any other party with reference to the subject matter of this Contract.

11.4 Notice to Proceed

11.4.1 It is agreed that the County Procurement Director will issue the Notice to Proceed on a mutually agreed upon time date with the Contractor after the date of the County's Purchase Order for this Agreement, except in job order contracts where a separate Notice to Proceed will be issued for each individual job order.

11.4.2 The Contractor agrees that the Work shall be prosecuted promptly, regularly, diligently and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified.

11.5 Civil Rights Act of 1964 – Contractor Contractual Requirements

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

11.5.1 **Compliance with Regulations.** The contractor shall comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

11.5.2 **Nondiscrimination.** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

11.5.3 **Solicitations for Subcontracts, Including Procurements of Materials and Equipment.** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

11.5.4 **Information and Reports.** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Sponsor or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the sponsor or the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information.

11.5.5 **Sanctions for Noncompliance.** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the sponsor shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:

a. Withholding of payments to the contractor under the contract until the contractor complies,

and/or

b. Cancellation, termination, or suspension of the contract, in whole or in part.

11.5.6 **Incorporation of Provisions.** The contractor shall include the provisions of paragraphs 1 through 5 in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the sponsor or the FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Sponsor to enter into such litigation to protect the interests of the sponsor and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

11.5.7 AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, SECTION 520 - GENERAL CIVIL RIGHTS PROVISIONS

The contractor assures that it will comply with pertinent statutes, Executive orders and such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport a program, except where Federal assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon. In these cases the provision obligates the party or any transferee for the longer of the following periods: (a) the period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits or (b) the period during which the airport sponsor or any transferee retains ownership or possession of the property. In the case of contractors, this provision binds the contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

11.5.8 Veteran's Preference

In the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Veterans of the Vietnam era and disabled veterans as defined in Section 515(c)(1) and (2) of the Airport and Airway Improvement Act of 1982. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

11.6 Miscellaneous

11.6.1 Guarantee. The Contractor shall guarantee all work under this Agreement against defects of material and workmanship as referenced in the Scope of Work.

11.6.2 Assignment. Neither party to this Agreement shall assign the Agreement or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any monies due or to become due to him hereunder without the previous written consent of the County.

11.6.3 Contract Documents. The following listed documents constitute the Contract Documents and they are all as fully a part of this Agreement as if repeated herein:

1. This Agreement.
2. Construction Specifications, including any and all Standard, Special, Technical and Supplementary Specifications included herein.
3. The General Conditions of the Contract.
4. Any and all Amendments.

11.6.4 Precedence. In the event of any inconsistency between any of the terms of the documents enumerated above, such inconsistency shall be resolved by giving precedent to the terms of the above documents in the order listed. Anything in these Contract Documents to the contrary notwithstanding, the provisions of all pertinent general public laws of the State of Arizona in effect at the time of the execution of this Agreement shall be a part of the Agreement between the parties and shall take precedence over all of the other Contract Documents.

11.7 Distracted Driving

11.7.1 Texting when driving. In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), the FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or sub-grant.

In support of this initiative, the Owner encourages the Contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles while performing work activities associated with the project. The Contractor must include the substance of this clause in all sub-tier contracts exceeding $3,500 and involve driving a motor vehicle in performance of work activities associated with the project.

11.8 Davis Bacon Requirements

1. Minimum Wages

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the Classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can easily be seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona

fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding.

The Federal Aviation Administration or the Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of work, all or part of the wages required by the contract, the Federal Aviation Administration may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency). The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (*e.g.* , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at *http://www.dol.gov/esa/whd/forms/wh347instr.htm* or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5(a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information

is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer and mechanic (including each helper, apprentice and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying or transcription by authorized representatives of the Sponsor, the Federal Aviation Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate

specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal Employment Opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance With Copeland Act Requirements.

The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

6. Subcontracts.

The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 1 through 10 of this section may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance With Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of Eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

11.9 Certification Regarding Debarement, Suspension, Ineligibility and Voluntary Exclusion

The bidder/offeror certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the bidder/offeror/contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/proposal.

General Decision Number: AZ170009 01/27/2017 AZ9

Superseded General Decision Number: AZ20160009

State: Arizona

Construction Type: Highway

Counties: Apache, Cochise, Gila, Graham, Greenlee, La Paz, Navajo and Santa Cruz Counties in Arizona.

HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	01/27/2017

CARP0408-007 07/01/2016

APACHE, COCHISE & SANTA CRUZ COUNTIES

	Rates	Fringes
CARPENTER (Including Cement Form Work)	$25.48	$11.54

ENGI0428-004 09/01/2016

POWER EQUIPMENT OPERATOR		
Oiler Driver	$26.61	$9.68

IRON0075-006 08/01/2015

Apache, Cochise, Gila, Graham, Greenlee, La Paz, Navajo Counties

Ironworker, Rebar	$26.00	$21.77

Zone 1: 0 to 50 miles from City Hall in Phoenix or Tucson
Zone 2: 050 to 100 miles - Add $4.00
Zone 3: 100 to 150 miles - Add $5.00
Zone 4: 150 miles & over - Add $6.50

SUAZ2009-002 04/23/2009

CARPENTER		
Gila, Graham, Greenlee, La Paz & Navajo	$21.71	$3.82

	Rates	Fringes
CEMENT MASON	$17.74	$3.59
ELECTRICIAN	$24.43	$5.38
IRONWORKER, Rebar		
Santa Cruz county	$21.75	$13.59
LABORER		
Asphalt Raker	$14.97	$5.88
Concrete Worker	$13.38	$4.50
Fence Builder	$12.20	$3.84
Flagger	$12.31	$3.96
General/Cleanup	$12.78	$2.50
Guard Rail Installer	$12.20	$3.84
Landscape Laborer	$11.02	
Water Blaster	$14.90	$2.90
OPERATOR: Power Equipment		
Backhoe < 1 cu yd	$17.76	$3.89
Compactor Self Propelled (with blade-grade operation	$22.53	$6.57
Compactor Small Self Propelled (with blade-backfill, ditch operation)	$22.29	$6.31
Concrete Pump	$20.31	$6.48
Crane (under 15 tons)	$22.98	$4.26
Drilling Machine (including wells)	$21.79	$4.10
Grade Checker	$23.41	$6.54
Hydrographic Seeder	$19.73	$5.40
Mass Excavator	$23.33	$6.98
Milling Machine/Rotomill	$21.87	$6.84
Power Sweeper	$19.33	$4.85
Roller (all types asphalt)	$17.46	$5.58
Roller (excluding asphalt)	$19.23	$5.09
Scraper (pneumatic tire)	$22.41	$6.90
Screed	$20.90	$6.72
Skip Loader (all types 3 < 6 cu yd)	$20.91	$7.35
Skip Loader (all types 6 < 0 cu yd)	$22.24	$6.83
Skip Loader < 3 cu yd	$17.97	$6.60
Tractor (dozer, pusher-all)	$22.53	$6.47
Tractor (wheel type)	$24.62	$7.57
PAINTER	$13.94	$2.56
TRUCK DRIVER		
2 or 3 axle Dump or Flatrack	$16.17	$4.24
Oil Tanker Bootman	$21.94	
Pickup	$12.88	$1.73
Water Truck < 2500 gal	$19.59	$5.90
Water Truck > 3900 gal	$18.70	$4.79
Water Truck 2500 < 3900 gal	$17.13	

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average

rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- an existing published wage determination
- a survey underlying a wage determination
- a Wage and Hour Division letter setting forth a position on a wage determination matter
- a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

CONTRACT FOR CONSTRUCTION SERVICES
AGREEMENT NO. IFB 17-26-FAC-04
AIP PROJECT NO. 3-04-0013-010-2016

BISBEE DOUGLAS INTERNATIONAL AIRPORT
SCHEDULE I - TAXIWAY A

CONTRACTOR:
Pavex Corporation

_____
Authorized Signature

_____
Print Name and Title

APPROVED BY:
Cochise County Board of Supervisors

_____
Ann English, Chairman
Board of Supervisors

ATTEST:

_____
Arlethe Rios
Clerk of the Board

APPROVED AS TO FORM:

_____
Britt Hanson
County Attorney