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October 13, 2014
Karen Riggs, PE
Cochise County Highway & Floodplain
1415 Melody Lane
Bisbee, AZ 85603

RE: Proposal – Bella Vista Ranch Recharge Investigation

Dear Karen:

Per your request, JE Fuller/Hydrology & Geomorphology (JEF) is providing you with this proposal for the referenced services. This proposal is based on the Scope of Work (SOW) dated October 13, 2014 (Attachment A) and is intended to be part of the Cochise County Board of Supervisors submittal package for the October 28, 2014 meeting of the Board representing the Flood Control District Board. The following items are attached:

A. Cochise County, the Nature Conservancy and the City of Sierra Vista Site Investigation Scope of Work Outline, Bella Vista Ranch Properties, dated October 13, 2014 (hereafter referred to as the Bella Vista SOW);
B. Summary Cost Sheet for the Bella Vista SOW;
C. JE Fuller narrative discussion (refinement to supplement Attachment A) of the Bella Vista SOW and JE Fuller cost estimate;
D. GSA narrative discussion of the Bella Vista SOW and GSA cost estimate; and,
E. WestLand Resources proposal for Task 4 (narrative and cost estimate).

JEF appreciates the opportunity to provide you with this proposal. You may indicate your acceptance of this proposal and provide notice to proceed by forwarding the applicable Professional Services Agreement (PSA) for signature. As always, please feel free to contact me at 520-623-3112 if you have any questions regarding this proposal.

Sincerely,
JE Fuller/Hydrology & Geomorphology, Inc.

Cyrus D. Miller, P.E., CFM
Vice President

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ATTACHMENT A

Cochise County, the Nature Conservancy, and the City of Sierra Vista
Site Investigation Scope of Work Outline
Bella Vista Ranch Property
Dated October 13th, 2014

COCHISE COUNTY, THE NATURE CONSERVANCY
and THE CITY OF SIERRA VISTA
SITE INVESTIGATION SCOPE OF WORK OUTLINE
BELLA VISTA RANCH PROPERTY
Dated October 13, 2014

Introduction

Through hydrological, geological, hydrogeological, and geotechnical investigation, Cochise County ("County"), The Nature Conservancy ("TNC"), and the City of Sierra Vista ("City") will assess the feasibility of a recharge facility or facilities on the 2,984-acre Bella Vista Ranch property (Bella Vista) to increase base flow in the San Pedro River to the maximum extent possible. The project site is identified on the Cochise County Assessor's records as parcels 107-01-001B, 107-01-001D, and 107-01-220A. Refer to the attached map showing the project site location and boundaries.

The property is irregularly-shaped and located approximately three miles northeast of the City of Sierra Vista, within 2 miles of the San Pedro River, and shares its eastern boundary with the BLM San Pedro Riparian National Conservation Area (SPRNCA). Recent hydrogeological modeling scenarios indicate that recharge on Bella Vista may result in increased San Pedro River base flow as well as increased groundwater levels in the vicinity of the City Environmental Operations Park (EOP).

The goal is to identify potential locations for recharge facilities where urban enhanced runoff (UER), available stormwater runoff (stormwater), and treated effluent could be recharged to enhance the alluvial and/or the shallow regional aquifer of the San Pedro River. Based on our current understanding, UER and stormwater may be recharged together, while recharging treated effluent would require a separate facility if infiltration basins are used. Since recharge facilities may be developed as a phased project as various water sources are acquired for the site, recommendations for the appropriate facility type for each water source will also be included in the deliverable. These recommendations may include surface basins, vadose zone and/or saturated zone injection wells, discharge to existing drainages, or other new or emerging recharge technologies.

Project deliverables will include identified locations for potential recharge, based on the analyses and field work. Project deliverables will be provided to the County, TNC, and the City. Design tasks are not part of this scope of work; the following paragraphs discussing potential design focus areas are intended to guide this scope of work and development of future phases and budgets. If recharge proves to be feasible on Bella Vista, budgeting for future phases will include 100% design and bid package deliverables.

The first design focus will be on the capture and recharge of UER that flows through natural channels to Bella Vista. Careful attention will be paid to allowing natural flows to continue across the site, while slowing the flow and capturing and infiltrating UER. The Bella Vista site encompasses both the Coyote and Charleston (aka Woodcutter's) Washes which collectively drain the majority of the urbanized area of the City: the largest source for potential UER in the area.

The second design focus will be on recharge of treated effluent. Groundwater modeling scenarios show effluent sources to have tremendous potential recharge benefit to the river, given the potential for relatively large volumes over periods of time. Several options exist for effluent water sources, but negotiations with local municipalities and water companies have not yet commenced. To the extent that the conveyance systems from wastewater treatment plants (WWTPs) to the recharge site needs to be considered, the locations of existing and planned WWTPs are available. The design for any effluent recharge facility will need to include all requirements associated with obtaining and implementing an Aquifer Protection Permit (APP) as required by the Arizona Department of Environmental Quality (ADEQ) or Arizona Pollution Discharge Elimination System (AZPDES) under the Clean Water Act if discharge to a surface watercourse is desired. The deliverables include an alternatives analysis investigation into the potential benefits of distributing effluent recharge locations.

The third design focus will be on capturing UER (available stormwater) flowing directly off impervious surfaces in the upstream portions of the watersheds-UER that would otherwise infiltrate or evaporate before arriving naturally at Bella Vista-and collecting and conveying it via pipeline to Bella Vista for recharge. Stormwater would be collected and conveyed through a yet-to-be-determined conveyance system to Bella Vista for recharge closer to the river. Previous studies by the U.S. Bureau of Reclamation (BOR, 2007) will be reviewed and analyzed in the context of the current project. Depending on the availability of funding, the deliverable or an option will also include using the Cochise County GIS tool, Pipeline Feasibility Analysis, and other existing data to identify stormwater collection points, amount of stormwater generated, rights of way from collection to recharge facility, and concept level pipeline or other conveyance system costs.

The project team includes the County, TNC, and the City (collectively referred to as the Project Team) who will jointly fund the site investigation contract through either direct funding, cost sharing, or in-kind matching of funds. Consultants will perform the tasks listed in the SOW. The project team will meet monthly to provide guidance to the Consultants. Project management will be conducted by the County. Monthly conference calls will be held to update all team members on all recharge projects. The approach for this investigation will be phased and iterative and will involve other interested parties at key decision points. Lacher Hydrological Consulting will provide analysis of potential groundwater recharge effects to the project team as a Consultant to TNC, via modeling of the anticipated recharge volumes and the expected impacts to baseflow in the San Pedro River. Subsequent tasks will be formulated based on resulting data, and decisions made with the project team at key, pre-defined decision points.

Summary of Approach

Decisions on planning for stormwater capture and/or aquifer recharge can be informed through analysis and evaluation of existing publically-available information. Design of any type of aquifer recharge facility requires knowledge regarding available sources of water, along with locations on-site that would facilitate connection to the aquifer. Prior to performing field investigations on the Bella Vista site, the scope of work proposes efforts to inform the Project Team to the maximum extent through existing information.

The approach to field investigations will include decision points following each primary field task that may affect the type and/or extent of subsequent investigations due to the different recharge options being evaluated and their dependence on site-specific conditions. The goal is to maintain flexibility in the approach to ensure a cost-effective program for obtaining sufficient and critical data to evaluate feasibility of potential recharge methods to meet the project's recharge goals, while acknowledging that significant departure from scope could have substantial effects on cost and schedule.

Scope of Work Outline

The tasks listed below are the identified elements to this Phase 1 scope of work. During the performance of this scope, the Consultant may suggest to the Project Team modifications to this scope of work along with justification for those suggested modifications. Where needed tasks may be performed in the sequence shown below, concurrently, or out of the sequence indicated below.

Task 1: Project Management

The Consultant shall:

- Identify a project manager who will be responsible for managing the budget, schedule, and deliverables throughout the project, including the management of budget, schedule, and deliverables of any Subconsultants, as well as report directly to the County's project manager;
- Identify all Subconsultants who will be involved in the project;
- Participate in and/or lead as appropriate all monthly conference calls/meetings;
- Suggest modification of project scope details, including phasing, critical path items and decision points, as the project progresses;
- Suggest modifications to clarify and prioritize recharge goals/approaches, as the project progresses;
- Suggest additional milestones leading to ensure achievement of project goals, as the project progresses;
- Assign roles and communication system for Consultant and Subconsultant project team members;
- Share site investigation results obtained during the site-specific field investigation phases; and

- Identify key stakeholders groups, contacts for each group, and timing for project participation with assistance from the Project Team.

Deliverable 1: Monthly Reports and Invoices and Monthly Conference Calls/Meetings

NOTE: The Contract as awarded will serve as the Scope of Work Report that is required for TNC grant payment, due on or before October 31st, 2014.

Task 2: Application of Regulatory Review Report Relative to Task 7

The Consultant shall review the Revised Regulatory Review Report (Mulhern, 2014) and apply the requirements therein to provide an assessment of the expected regulations that may apply to the alternatives analysis for the EOP, given the Bella Vista site location and assumed facility modifications. The regulations include but are not necessarily limited to:

- the Clean Water Act;
- AZPDES permits;
- Arizona Aquifer Protection Permit;
- Arizona Reuse Permit;
- Arizona Water Rights; and,
- U.S. Army Corps of Engineers 404 permits.

The deliverable for this task will be represented in the Task 7 deliverable.

Task 3: Data Collection and Evaluation

The Consultant shall perform data collection and evaluation of existing documentation appropriate to the project and related to other aquifer recharge efforts, and build upon the 'living document' prepared during previous work on the Riverstone project by adding documents and references to that bibliography as appropriate. The Memorandum (JE Fuller, 2014) prepared during previous Riverstone data collection work will serve as the beginning point for the Bella Vista data collection and evaluation task, and that Memorandum will be revised to include (not necessarily limited to) the following:

- Reporting provided on the recharge facility monitoring at the Palominas Recharge and Flood Control facility;
- Upper San Pedro Partnership documents;
- Lacher Hydrological Consulting reports, including those generated during the performance of this scope of work;
- Documentation on existing groundwater wells in the vicinity of the project;
- Climate change effects on runoff;
- Documentation on recharge networks elsewhere/recharge benefits to stream flow; and,
- Water sources potentially available for use in this project.

Deliverable 2: Revised bibliography and electronic copies of all references collected during Task 3. This deliverable may be placed on the Consultant's FTP site for download by the project team.

Task 4: Perform Natural Resources Survey

The Consultant shall perform a natural resource survey to include sample surveys of archeological, biological, and paleontological resources to identify potential sites that would impact the locations of field investigation and/or construction activities. Documentation will be provided by the Consultant to inform decision making on potential Safe Harbor Agreements.

Deliverable 3: Draft Biological and Cultural Resource Report for the resources identified, that include but are not necessarily limited to site descriptions, geographic coordinates in UTM, photographs, and survey notes.
Deliverable 4: Final Biological and Cultural Resource Report with responses to comments on draft report attached.

Task 5: Preliminary Hydrologic Analysis

The Consultant will perform a preliminary hydrologic analysis including, but not necessarily limited to:

- Reviewing HEC-HMS modeling provided by the City of Sierra Vista for the watercourses contributory to the Bella Vista project site;
- Modifying City HEC-HMS models to add impervious areas in residential subdivisions that have detention basins. These models will be used to estimate total *volume* of available UER tributary to the Bella Vista site;
- Adaptation of the City HEC-HMS modeling (done only for 100-year frequency events) to determine 2-, 5-, 10-, 25-, and 50-year runoff peak discharges and volumes;
- Determining existing and future condition runoff peak discharges and volumes for watercourses contributory to Bella Vista, including watershed delineation and application of SCS rainfall runoff modeling for 2-, 5-, 10-, 25-, 50-, and 100-year events;
- Developing detailed estimates of potential available capture volumes of UER and stormwater using an the Coyote Wash Regression Model;
- Using the Cochise County GIS tool, Pipeline Feasibility Analysis, BOR Study (BOR, 2007), and other existing data to identify UER and stormwater collection points, rights of way from collection to recharge facility, and estimated costs;
- BOR Recharge Study Analysis;
- Using available existing information, outline expected future changes to rainfall patterns caused by climate change; and,
- Provide estimated UER and recharge volumes to Lacher Hydrological Consulting.

Deliverable 5: Draft Preliminary Hydrologic Analysis Report to summarize the results of the analyses as described above.
Deliverable 6: Final Preliminary Hydrologic Analysis Report with responses to comments on draft report attached.

Task 6: Screening Site Investigation for Recharge Feasibility

The Consultant shall perform a comprehensive preliminary site investigation (geologic, hydrogeologic, and geotechnical) regarding the feasibility of recharge on this site, including, but not necessarily limited to:

- Performing a site recharge screening level evaluation of potential alternative or complimentary sites using available information collected or presented in Task 3 above;
- Evaluating hydrogeologic, soil, and surface geology data to determine suitability for:
  - UER recharge,
  - Stormwater recharge, and
  - Treated effluent recharge;
- Identifying and incorporating site constraints (including, but not necessarily limited to, physical, biological, archaeological, legal, water delivery infrastructure access, etc.) to eliminate clearly unsuitable areas;
- Finalizing screening/ranking criteria for each of the water sources to focus shallow-subsurface site characterization; and,
- Provide proposed recharge locations to Lacher, which will be used to run recharge scenarios with estimated UER runoff and recharge volumes, and EOP volumes, in order to demonstrate resulting impacts on San Pedro River base flow and groundwater levels.

Deliverable 7: Preliminary Site Investigation Report of Recharge Feasibility summarizing the results of preliminary site investigation.

Task 7: Alternatives Analysis for City Environmental Operations Park

The Consultant shall perform an alternatives analysis relative to the City Environmental Operations Park (EOP) and its effluent discharge. The purpose of this task is to provide preliminary information to be used for potential future planning of the EOP. The EOP currently operates under an Aquifer Protection Permit (APP) from the Arizona Department of Environmental Quality (ADEQ). I nvestigations will be made into the potential for altering the EOP to discharge all or a portion of its volume directly to a surface stream near (and contributory to) the Bella Vista site, and delivering effluent to recharge basins on the Bella Vista site, as well as a future alternative for conveying effluent to the Riverstone site. The investigation will include:

- Development of conceptual alternatives for the EOP to release effluent to a surface watercourse at Bella Vista, including conveyance cost:
  1. Retire EOP recharge basins, including estimated approximate cost of obtaining an AZPDES permit to discharge effluent to a surface watercourse. The total volume of effluent treated at EOP would be conveyed via surface discharge and conveyed to Bella Vista.
  2. Maintain EOP recharge basins and add surface water discharge at Bella Vista, including estimated cost of maintaining APP plus the approximate feasibility and cost of obtaining an AZPDES permit to discharge effluent to a surface watercourse. In this scenario, half of total volume of effluent treated at EOP would be recharged at Bella Vista, and half would remain at the EOP recharge basins.
- Development of conceptual alternative for future EOP volume(balance of current and full capacity, based on current City projections) to be conveyed and recharged at Riverstone, including:
  1. Conveyance cost
  2. AZDPDES permit cost for recharge via ephemeral channels
  3. APP cost for recharge via basins or other vadose zone techniques
- A discussion of the potential impacts on the existing wetlands and riparian habitats of diverting 1) all and 2) half of its current water to a new recharge facility on Bella Vista. Also included in this task is developing an estimate of the existing annual evapotranspiration losses due to the current configuration of the EOP;
- Documentation relative to other examples of effluent-dependent riparian habitat;
- An estimate of the approximate capital costs of facility modifications to convey treated effluent to a surface watercourse and adding disinfection equipment, estimate annual operating costs over a 20-yr period
- Provide conceptual alternatives to Lacher Hydrological Consulting for groundwater recharge scenarios to show possible effects on groundwater levels, baseflows, and changes to Murray Springs from various options. Include Lacher report in Task 3 bibliography.

Deliverable 8: Alternatives Analysis Report for the conceptual EOP Discharge Alternatives summarizing the results of investigation.

Task 8: Coordination Meeting to Refine Plan for Field Investigations

The Consultant shall:

- Prepare a visual presentation summarizing the results to date and proposed recharge locations based on those results and recommendations for the Initial Recharge Feasibility Study and groundwater recharge scenarios (in task 9 below);
- Conduct a meeting with the Project Team (and any necessary Consultant and Subconsultant personnel) at their office or other appropriate location; and
- Prepare meeting notes of all discussions and decisions arrived at during the meeting.

Deliverable 9: Meeting Notes summarizing discussions and decisions arrived at during the meeting and any revisions required for scope modification for Task 9.

Task 9: Conduct Near Surface Recharge Feasibility Study

The Consultant will perform a recharge feasibility study with subtasks that may include, but are not necessarily limited to:

- Conducting shallow subsurface geologic, hydrogeologic, and geotechnical site characterization to determine recharge feasibility and to help develop options to maximize recharge effectiveness, including, but not necessarily limited to:
  - Conducting backhoe test pit/trenching investigations for lithologic characterization of sediments,
  - Collecting geotechnical soil samples for determination of geotechnical parameters as identified in Task 6 above, and
  - Performing infiltration testing for evaluation of infiltration rates pertaining to possible recharge methods, including but not necessarily limited to recharge basins, in-channel recharge, injection wells (vadose zone and/or saturated zone), and other emerging technologies;
- Developing estimates of "achievable" recharge volume (that the aquifer can accept) for possible recharge methods;
- Share results of site characterization with Project Team and Lacher Hydrologic Consulting.

Deliverable 10. Initial Recharge Feasibility Study Report that summarizes and analyzes the results and proposes any additional detailed recharge feasibility studies required and order of magnitude costs (broken down by the remaining task options described below). The report shall include, but is not necessarily limited to:

- the following attachments:
  - Engineering soil descriptions,
  - Graphic logs,
  - Cross sections, and
  - Contoured geophysical survey results.
- proposed additional requirements including, but not necessarily limited to:
  - number and selected locations for exploration deeper subsurface site characterization (to be performed in task 10 below),
  - Appropriate drilling method at selected locations for characterization of upper 50 to 100 feet of subsurface sediments, and
  - Appropriate testing methods (if necessary) such as down-borehole permeability tests to evaluate subsurface hydraulic properties.

Task 10: Coordination Meeting to Present Initial Feasibility Study Results and Recommendations for Detailed Recharge Feasibility Study for Field Investigations

The Consultant shall:

- Prepare a visual presentation summarizing the results of the Initial Feasibility Study and recommendations for the Detailed Recharge Feasibility Study (in tasks 11 and 12 below);
- Request attendance and a presentation of supporting information by Lacher Hydrological Consulting;
- Conduct a meeting with the Project Team, Lacher Hydrological Consulting, (and any necessary Consultant and Subconsultant personnel) at their office or other appropriate location; and
- Prepare meeting notes of all discussions and decisions arrived at during the meeting.

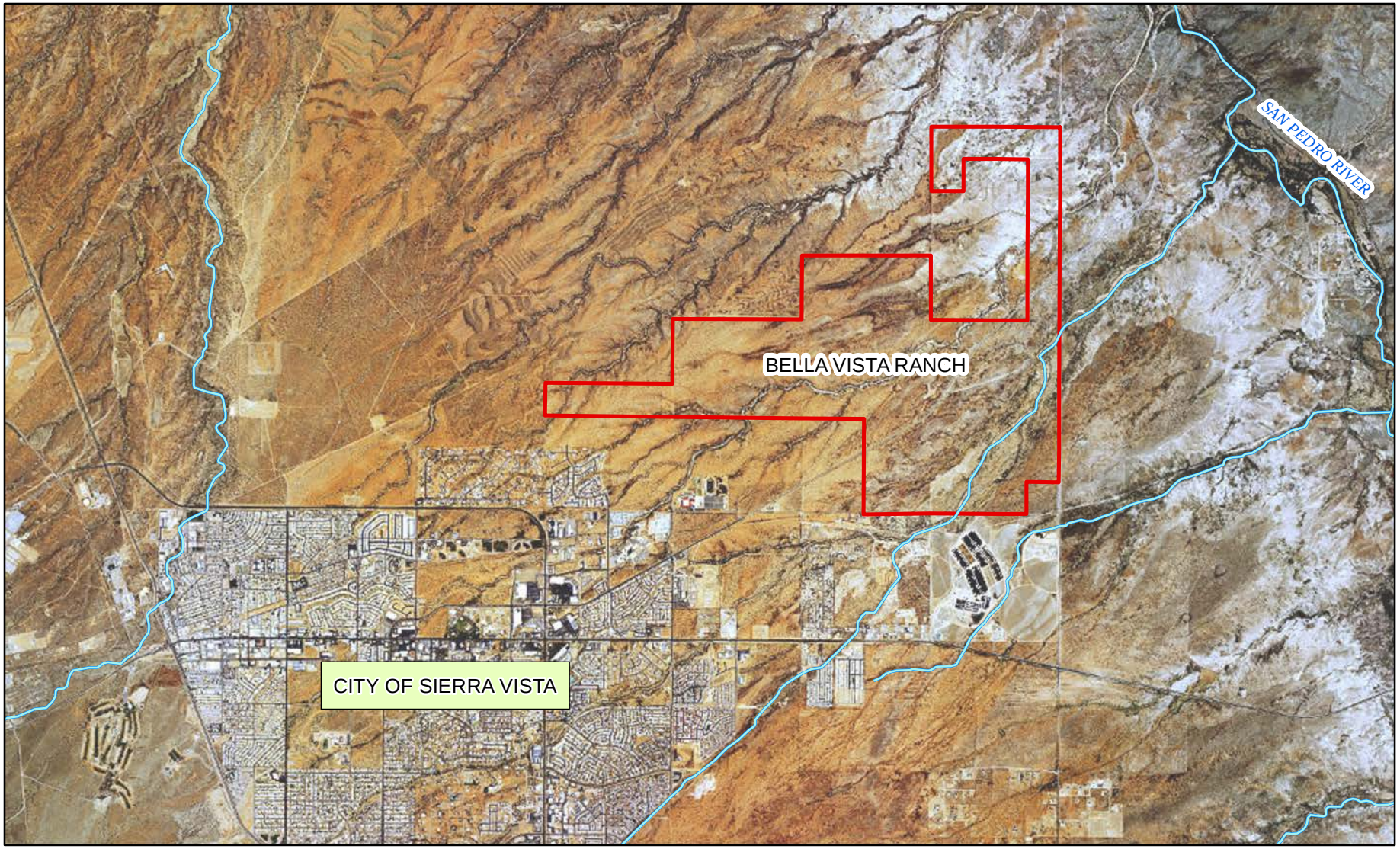
Deliverable 11: Meeting Notes summarizing discussions and decisions arrived at during the meeting and any revisions required for scope modification for Phase 2.

Schedule

It is anticipated that the contract will be awarded on or before October 31st, 2014. The Consultant shall work closely with the County's project manager to develop a schedule for review and approval by the Project Team within 10 days of contract award.

Funding

This scope of work identifies basic tasks plus optional tasks that are within scope but may not be able to be accomplished with available funding. This scope may be modified to award options if funding is sufficient for award or turn basic tasks into options if funding is insufficient for basic tasks. This will be accomplished during negotiations following receipt of the initial proposal from the Consultant.



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Feet

BELLA VISTA RANCH
RECHARGE INVESTIGATION
SITE LOCATION MAP

ATTACHMENT B
Summary Cost Sheet for the Bella Vista SOW

PROJ: Cochise County/Bella Vista Recharge Project
DETAIL: Total Project Cost Calculation
DATE: October 13, 2014
Prepared by: JE Fuller/Hydrology & Geomorphology (JEF)

ATTACHMENT B - Summary Cost Sheet for the Bella Vista SOW

Task	Title	Deliverable (see SOW for task details)	Costs			
			JE Fuller	GSA	WestLand	TOTAL
1	Project Management	Deliverable 1: Monthly Reports and Invoices and Monthly Conference Calls/Meetings	$20,035	$15,696	$0	$35,731
2	Application of Regulatory Review Report Relative to Task 7	The deliverable for this task will be represented in the Task 7 deliverable.	$4,360	$0	$0	$4,360
3	Data Collection & Evaluation	Deliverable 2: Revised bibliography and electronic copies of all references collected during Task 3.	$4,657	$9,132	$0	$13,789
4	Perform Natural Resources Survey	Deliverable 3: Draft Biological and Cultural Resource Report for the resources identified, that include but are not necessarily limited to site descriptions, geographic coordinates in UTM, photographs, and survey notes. Deliverable 4: Final Biological and Cultural Resource Report with responses to comments on draft report attached.	$1,500	$0	$30,000	$31,500
5	Preliminary Hydrologic Analysis	Deliverable 5: Draft Preliminary Hydrologic Analysis Report to summarize the results of the analyses. Deliverable 6: Final Preliminary Hydrologic Analysis Report with responses to comments on draft report attached.	$45,066	$16,319	$0	$61,385
6	Screening Site Investigation for Recharge Feasibility	Deliverable 7: Preliminary Site Investigation Report of Recharge Feasibility summarizing the results of preliminary site investigation.	$1,398	$27,963	$0	$29,361
7	Alternatives Analysis for City Environmental Operations Park	Deliverable 8: Alternatives Analysis Report for the conceptual EOP Discharge Alternatives summarizing the results of investigation.	$14,997	$3,940	$0	$18,937
8	Coordination Meeting to Refine Plan for Field Investigations	Deliverable 9: Meeting Notes summarizing discussions and decisions arrived at during the meeting and any revisions required for scope modification for Task 9.	$3,383	$3,260	$0	$6,643
9	Conduct Near Surface Recharge Feasibility Study	Deliverable 10. Initial Recharge Feasibility Study Report that summarizes and analyzes the results and proposes any additional detailed recharge feasibility studies required and order of magnitude costs (broken down by the remaining task options described below).	$3,997	$79,939	$0	$83,936
10	Coordination Meeting to Present Initial Feasibility Study Results and Recommendations for Detailed Recharge Feasibility Study for Field Investigations	Deliverable 11: Meeting Notes summarizing discussions and decisions arrived at during the meeting and any revisions required for scope modification for Phase 2.	$3,400	$3,600	$0	$7,000
		PHASE I TOTALS	**$102,792**	**$159,849**	**$30,000**	**$292,641**

Notes:
5.00% Subconsultant markup included in JEF Cost
All fee estimates are approximate.
The total fee is a not-to-exceed (NTE) amount and individual task fees may vary within the total NTE.
Where needed tasks may be performed concurrently or out of the sequence indicated above.

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ATTACHMENT C
JE Fuller Scope of Work & Fee Estimate

Task 1: Project Management

JE Fuller will provide project management services in coordination with subconsultants Geosystems Analysis (GSA) and WestLand Resources (WestLand) as needed. Cyrus Miller, PE, CFM, will serve as the project manager for JE Fuller. John Wallace, PE, CFM will provide technical oversight and assistance as needed. JE Fuller will provide the monthly reports and invoices called for under this task.

Task 2: Application of Regulatory Review Report

Provided with the final version of the Revised Regulatory Review Report (Mulhern, 2014), JE Fuller will assess and summarize the regulatory requirements associated with the conceptual alternatives investigated for the EOP in Task 7.

Task 3: Data Collection and Evaluation

JE Fuller will work in concert with GSA to perform data collection and evaluation of the data sources referenced in the Bella Vista SOW. This will also include review of USGS Reports published for the vicinity, predicted climate change on precipitation patterns, water sources potentially available for use in this project, and a review of stormwater recharge projects in the region which are similar in intended nature to the Bella Vista project. JE Fuller, in coordination with GSA, will prepare Deliverable 4 for this task.

Task 4: Perform Natural Resources Survey

WestLand Resources will perform the natural resource surveys called for under this task item. JE Fuller will coordinate with WestLand as needed to provide any needed guidance from Cochise County and administer their contract (see Attachment E). The following assumptions were made in scoping Task 4:

- This is intended to be a “high altitude” level survey. No in-depth field work is anticipated beyond what is proposed on Attachment E.
- Identification of areas to avoid and work times (seasons) to avoid will be provided.
- The Murray Springs mammoth site prompted inclusion of the “paleontological” component of this task.

Deliverables 5 & 6 (Draft and Final reports) will be prepared by WestLand Resources.

Task 5: Preliminary Hydrologic Analysis

JE Fuller will perform the analysis envisioned under this task. GSA will assist by developing detailed estimates of potentially available capture volumes of urban-enhanced runoff (UER) and stormwater from the watersheds contributing to the Bella Vista Ranch Property.

The existing HEC-HMS modeling done by the City of Sierra Vista will be used to extent possible. JE Fuller will also review the City's modeling and work directly with City staff to communicate the results of reviewing the HEC-HMS modeling relative to modeling fundamentals, as well as consistency with separate supporting information such as map layers/data and spreadsheet calculations.

JE Fuller, in coordination with GSA, will prepare Deliverables 7 and 8 (Draft and Final Preliminary Hydrologic Analysis Reports) for this task.

Task 6: Screening Site Investigation for Recharge Facility

GSA will perform the work called for under this task (see Attachment D). JE Fuller will coordinate with GSA as needed to facilitate performance of this task and administer their contract. GSA will prepare Deliverable 9 (Preliminary Site Investigation Report of Recharge Feasibility) for this task.

Task 7: Alternatives Analysis for City Environmental Operations Park

JE Fuller will work in concert with GSA to perform the tasks listed under Task 7 on the SOW. The work under this task emanates from the August 27, 2014 scoping meeting. JE Fuller, in coordination with GSA, will prepare Deliverable 10 (Alternatives Analysis Report) for this task.

Task 8: Coordination Meeting to Refine Plan for Field Investigations

JE Fuller, in coordination with GSA, will prepare a visual presentation summarizing the results to date and proposed recharge locations based on those results and recommendations for the Initial Recharge Feasibility Study in Task 9. The presentation will be provided at a meeting with the Project Team (and any necessary contractor and subcontractor personnel) at their office or other appropriate location. JE Fuller, in coordination with GSA, will prepare meeting notes (Deliverable 11) of the discussions and decisions arrived at during the meeting and any scope revisions required for Task 9.

Task 9: Conduct Near Surface Recharge Feasibility Study

GSA will perform the work called for under this task (see Attachment D). JE Fuller will coordinate with GSA as needed to facilitate performance of this task and administer their contract. GSA will prepare Deliverable 12 (Initial Recharge Feasibility Study Report) for this task.

Task 10: Coordination Meeting to Present Initial Feasibility Study Results and Recommendations for Detailed Recharge Feasibility Study for Field Investigations

JE Fuller, in coordination with GSA, will prepare a visual presentation summarizing the results of the Initial Feasibility Study and recommendations for the Phase 2 (beginning with the Detailed Recharge Feasibility Study). The presentation will be provided at a meeting with the Project Team at their office or other appropriate location. JE Fuller, in coordination with GSA, will prepare meeting notes (Deliverable 13) of the discussions and decisions arrived at during the meeting and any scope recommendations for Phase 2.

The page which follows provides an estimate of the work effort by JE Fuller (only) to provide the foregoing services. A separate cost estimate for the entire project is provided separately in Attachment B.

PROJ: Cochise County/Bella Vista Recharge Project
DETAIL: JEF Cost Calculation
DATE: October 13, 2014
Prepared by: JE Fuller/Hydrology & Geomorphology (JEF)

Task	Title	Deliverable (see SOW for task details)	JEF Hours		JEF Labor Cost	JEF Direct Costs	JEF Total Cost
			PM II	PE II			
			$125.00	$105.00			
1	Project Management	Deliverable 1: Monthly Reports and Invoices and Monthly Conference Calls/Meetings	30	140	$18,450	$800	$19,250
2	Application of Regulatory Review Report Relative to Task 7	The deliverable for this task will be represented in the Task 7 deliverable.	8	32	$4,360	$0	$4,360
3	Data Collection & Evaluation	Deliverable 2: Revised bibliography and electronic copies of all references collected during Task 3.	0	40	$4,200	$0	$4,200
4	Perform Natural Resources Survey	Deliverable 3: Draft Biological and Cultural Resource Report for the resources identified, that include but are not necessarily limited to site descriptions, geographic coordinates in UTM, photographs, and survey notes. Deliverable 4: Final Biological and Cultural Resource Report with responses to comments on draft report attached.	0	0	$0	$0	$0
5	Preliminary Hydrologic Analysis	Deliverable 5: Draft Preliminary Hydrologic Analysis Report to summarize the results of the analyses. Deliverable 6: Final Preliminary Hydrologic Analysis Report with responses to comments on draft report attached.	30	380	$43,650	$600	$44,250
6	Screening Site Investigation for Recharge Feasibility	Deliverable 7: Preliminary Site Investigation Report of Recharge Feasibility summarizing the results of preliminary site investigation.	0	0	$0	$0	$0
7	Alternatives Analysis for City Environmental Operations Park	Deliverable 8: Alternatives Analysis Report for the conceptual EOP Discharge Alternatives summarizing the results of investigation.	16	120	$14,600	$200	$14,800
8	Coordination Meeting to Refine Plan for Field Investigations	Deliverable 9: Meeting Notes summarizing discussions and decisions arrived at during the meeting and any revisions required for scope modification for Task 9.	4	24	$3,020	$200	$3,220
9	Conduct Near Surface Recharge Feasibility Study	Deliverable 10. Initial Recharge Feasibility Study Report that summarizes and analyzes the results and proposes any additional detailed recharge feasibility studies required and order of magnitude costs (broken down by the remaining task options described below).	0	0	$0	$0	$0
10	Coordination Meeting to Present Initial Feasibility Study Results and Recommendations for Detailed Recharge Feasibility Study for Field Investigations	Deliverable 11: Meeting Notes summarizing discussions and decisions arrived at during the meeting and any revisions required for scope modification for Phase 2.	4	24	$3,020	$200	$3,220
		TOTALS	**92**	**760**	**$91,300**	**$2,000**	**$93,300**

Notes:
All fee estimates are approximate.
The total fee is a not-to-exceed (NTE) amount and individual task fees may vary within the total NTE.
Where needed tasks may be performed concurrently or out of the sequence indicated above.

ATTACHMENT D
GSA Scope of Work & Fee Estimate

Proposed Scope of Work for Site Investigation of the Bella Vista Property

The Section headings in this Scope of Work (SOW) are consistent with the task numbers used in the JE Fuller Site Investigation Scope of Work Outline Bella Vista Ranch Property (Bella Vista SOW) up through Task 10. Only the tasks requiring work by GSA are included in this document, thus Tasks 2 and 4 are excluded.

1.0 PROJECT MANAGEMENT

GSA will work closely with JEF and the Project Team to manage the budget, schedule, and deliverables and to report to the County's project manager. Mike Milczarek, the GSA project manager will prepare and provide monthly reports and invoices to JEF, and participate in monthly conference calls and meetings (Deliverable 1). In addition, Mike Milczarek will provide technical oversight and be available to assist as needed.

3.0 DATA COLLECTION AND EVALUATION

GSA will work with JEF to collect data and evaluate existing documentation appropriate to the project.

5.0 PRELIMINARY HYDROLOGIC ANALYSIS

In support of Task 5, GSA will develop detailed estimates of potentially available capture volumes of urban-enhanced runoff (UER) and stormwater from the watersheds contributing to the Bella Vista Property (Bella Vista) at selected locations within the property. Historical precipitation records from nearby gauges and estimated watershed areas and impervious surface percentage estimates from JEF will be used to conduct the analyses. GSA will assist JEF in preparation of the Preliminary Hydrologic Analysis Report (Deliverable 5).

6.0 SCREENING SITE INVESTIGATION FOR RECHARGE FEASIBILITY

GSA will conduct a comprehensive screening-level study on the feasibility of recharge on the Bella Vista property, including those aspects listed under Task 6 in the Bella Vista SOW . This screening level evaluation will be conducted for the full 2,984 acres of Bella Vista. Existing publicly-available data will be used to identify and evaluate locations within Bella Vista that may be favorable to spreading basin-type recharge operations.

All potential locations will be ranked for consideration by the Project Team (Task 8). GSA will prepare and submit a Preliminary Site Investigation Report of Recharge Feasibility (Deliverable 7) summarizing the results of the preliminary investigation.

7.0 ALTERNATIVES ANALYSIS FOR CITY OF SIERRA VISTA'S ENVIRONMENTAL OPERATIONS PARK

GSA will support JEF in the alternatives analysis with evaluations of potential recharge rates at different locations and within ephemeral washes. This will include estimates of potential recharge volumes that are achievable within the washes to determine maximum discharge rates.

8.0 COORDINATION MEETING TO PLAN FOR FIELD INVESTIGATIONS

GSA will work with JEF to prepare a presentation summarizing the results of Tasks 5 through 7, and the recommendations regarding potential recharge locations based on the results. This presentation will include the rankings for all evaluated locations, as documented in Deliverable 8. Based on discussions with the Project Team, approximately up to five sites will be identified for further study. Initial recommendations for field investigations for the top ranked sites will be included in the presentation. GSA will work with JEF to prepare meeting notes from the Coordination Meeting (Deliverable 9).

9.0 CONDUCT NEAR-SURFACE FIELD RECHARGE FEASIBILITY STUDY

GSA will conduct a field recharge feasibility study pending the results of the previous work phase. For purposes of the cost estimate, the following work will be completed:

- Backhoe and test pit investigations will be conducted at selected sites, including up to 12 days of fieldwork. Soil samples will be collected and a maximum of 24 samples analyzed in the GSA laboratory for Particle Size Distribution (Wet Sieve) and Atterberg Limits.
- Cylinder infiltrometer tests will be conducted at selected sites, with a maximum of 12 days of fieldwork.

Based on results of the fieldwork and laboratory results and Task 5, GSA will develop estimates of "achievable" recharge volumes. GSA will prepare the Initial Recharge Feasibility Study Report (Deliverable 10).

10.0 COORDINATION MEETING TO PRESENT INITIAL FEASIBILITY STUDY RESULTS AND RECOMMENDATIONS FOR DETAILED RECHARGE FEASIBILITY STUDY

GSA will prepare a presentation summarizing the results of the Initial Feasibility Study. GSA will work with JEF to conduct a meeting with the Project Team and assist in preparing meeting notes of all discussions and decisions arrived at during the meeting (Deliverable 11).

11.0 OPTIONAL TASK CONTINGENCY

No contingency is assumed for Optional Tasks.

12.0 ESTIMATED BUDGET

The estimated budget for Tasks 1 through 10 is summarized in Table 1; detailed estimated costs are provided in Table 2.

Bella Vista Site Investigation

1329 - JE Fuller/Cochise County & TNC

September 27, 2014

Table 1 - Cost Summary By Task

	Total Costs
01 - Project Management	**$15,696**
01a - Coordination and Management	$8,682
01b - Monthly Reports (Deliverable 1) and Project Meetings (1 year)	$7,014
03 - Data Collection and Evaluation	**$9,132**
3a - Data Compilation	$6,274
3b - Submittal of Compiled Data (Deliverable 2)	$2,858
05 - Preliminary Hydrologic Analysis	**$16,319**
5a - Landscape and Impervious surface analysis	$5,750
5b - Conduct surface water modeling	$4,560
5c - Preliminary Hydrologic Analysis Report (Deliverable 5 and 6)	$6,009
06 – Screening Site Investigation for Recharge Feasibility	**$27,963**
6a - Review of soil, geologic, and hydrogeologic data	$12,442
6b – Recharge screening level evaluation	$7,394
6c - Develop recharge investigation recommendations	$924
6d - Preliminary Site Investigation Report of Recharge Feasibility (Deliverable 7)	$7,203
07 Alternatives Analysis for COSV EOP	**$3,940**
No Subtask	$3,940
08 - Coordination Meeting to Refine Plan for Field Investigations	**$3,260**
8a - Prepare for and conduct meeting (Sierra Vista)	$3,260

Table 1 - Cost Summary By Task

	Total Costs
09 – Conduct Near-Surface Recharge Feasibility Study	**$79,939**
9a – Conduct backhoe test pit investigations at proposed (5) sites	$34,753
9b – Conduct cylinder infiltrometer tests at proposed (5) sites	$32,571
9c – Initial Recharge Feasibility Study Report (Deliverable 10)	$12,615
10 - Coordination Meeting to Present Initial Feasibility Study Results and Phase II Recommendations	**$3,600**
10a - Prepare for and conduct meeting (Sierra Vista)	$3,600
Proposal Grand Total	**$159,848**

Bella Vista Site Investigation
Table 2 - Detailed Costs

Task: 01 - Project Management

		Quantity	Unit Cost	Shipping	Total Cost
Personnel Costs					
Subtask: 01a - Coordination and Management					
Project Manager	Milczarek	48	$145	NA	6960
Clerical Staff	Torres	24	$65	NA	1560
			Subtask Total:		*$8,520*
Subtask: 01b - Monthly Reports (Deliverable 1) and Project Meetings (1 year)					
Project Manager	Milczarek	48	$145	NA	6960
			Subtask Total:		*$6,960*
Other Direct Costs					
Subtask: 01a - Coordination and Management					
Miscellaneous		2	$50	NA	100
Communications		1	$50	NA	50
			Subtask Total:		*$162*
Subtask: 01b - Monthly Reports (Deliverable 1) and Project Meetings (1 year)					
Communications		1	$50	NA	50
			Subtask Total:		*$54*
	8.00% Overhead: $16.00		**Task Total**		**$15,696**

Bella Vista Site Investigation
Table 2 - Detailed Costs

Task: 03 - Data Collection and Evaluation

		Quantity	Unit Cost	Shipping	Total Cost
Personnel Costs					
Subtask: 3a - Data Compilation					
Project Manager	Milczarek	4	$145	NA	580
Staff Hydrologist	Buchanan	64	$85	NA	5440
Clerical Staff	Torres	1	$65	NA	65
			Subtask Total:		*$6,085*
Subtask: 3b - Submittal of Compiled Data (Deliverable 2)					
Project Manager	Milczarek	4	$145	NA	580
Staff Hydrologist	Buchanan	24	$85	NA	2040
Clerical Staff	Torres	2	$65	NA	130
			Subtask Total:		*$2,750*
Other Direct Costs					
Subtask: 3a - Data Compilation					
Reproduction		3	$50	NA	150
Communications		0.5	$50	NA	25
			Subtask Total:		*$189*
Subtask: 3b - Submittal of Compiled Data (Deliverable 2)					
Reproduction		2	$50	NA	100
			Subtask Total:		*$108*
	8.00% Overhead: $22.00		**Task Total**		**$9,132**

Bella Vista Site Investigation
Table 2 - Detailed Costs

Task: 05 - Preliminary Hydrologic Analysis

		Quantity	Unit Cost	Shipping	Total Cost
Personnel Costs					
Subtask: 5a - Landscape and Impervious surface analysis					
Project Manager	Milczarek	4	$145	NA	580
Staff Hydrologist	Buchanan	24	$85	NA	2040
AutoCAD/GIS	Osorio	40	$75	NA	3000
Clerical Staff	Torres	2	$65	NA	130
			Subtask Total:		*$5,750*
Subtask: 5b - Conduct surface water modeling					
Project Manager	Milczarek	8	$145	NA	1160
Staff Hydrologist	Buchanan	40	$85	NA	3400
			Subtask Total:		*$4,560*
Subtask: 5c - Preliminary Hydrologic Analysis Report (Deliverable 5 and 6)					
Project Manager	Milczarek	16	$145	NA	2320
Staff Hydrologist	Buchanan	24	$85	NA	2040
AutoCAD/GIS	Osorio	16	$75	NA	1200
Clerical Staff	Torres	4	$65	NA	260
			Subtask Total:		*$5,820*
Other Direct Costs					
Subtask: 5c - Preliminary Hydrologic Analysis Report (Deliverable 5 and 6)					
Communications		1	$50	NA	50
Shipping		0.5	$50	NA	25
Reproduction		2	$50	NA	100
			Subtask Total:		*$189*
	8.00% Overhead: $14.00		**Task Total**		**$16,319**

Bella Vista Site Investigation
Table 2 - Detailed Costs

Task: 06 – Screening Site Investigation for Recharge Feasibility

		Quantity	Unit Cost	Shipping	Total Cost
Personnel Costs					
Subtask: 6a - Review of soil, geologic, and hydrogeologic data					
Project Manager	Milczarek	12	$145	NA	1740
Project Hydrologist	Banerjee, PhD	16	$105	NA	1680
Staff Hydrologist	Buchanan	80	$85	NA	6800
AutoCAD/GIS	Osorio	24	$75	NA	1800
Clerical Staff	Torres	4	$65	NA	260
			Subtask Total:		*$12,280*
Subtask: 6b – Recharge screening level evaluation					
Project Manager	Milczarek	12	$145	NA	1740
Staff Hydrologist	Buchanan	40	$85	NA	3400
AutoCAD/GIS	Osorio	24	$75	NA	1800
Clerical Staff	Torres	4	$65	NA	260
			Subtask Total:		*$7,200*
Subtask: 6c - Develop recharge investigation recommendations					
Project Manager	Milczarek	6	$145	NA	870
			Subtask Total:		*$870*
Subtask: 6d - Preliminary Site Investigation Report of Recharge Feasibility (Deliverable 7)					
Project Manager	Milczarek	16	$145	NA	2320
Project Hydrologist	Banerjee, PhD	6	$105	NA	630
Staff Hydrologist	Buchanan	32	$85	NA	2720
AutoCAD/GIS	Osorio	12	$75	NA	900
Clerical Staff	Torres	6	$65	NA	390
			Subtask Total:		*$6,960*
Other Direct Costs					
Subtask: 6a - Review of soil, geologic, and hydrogeologic data					
Communications		1	$50	NA	50
Reproduction		2	$50	NA	100
			Subtask Total:		*$162*
Subtask: 6b – Recharge screening level evaluation					
Miscellaneous		1	$50	NA	50
4WD Truck		200	$1	NA	130
			Subtask Total:		*$194*
Subtask: 6c - Develop recharge investigation recommendations					
Reproduction		1	$50	NA	50
			Subtask Total:		*$54*
Subtask: 6d - Preliminary Site Investigation Report of Recharge Feasibility (Deliverable 7)					
Reproduction		3	$50	NA	150

Bella Vista Site Investigation
Table 2 - Detailed Costs

Miscellaneous Items		1	$50	NA	50
Shipping		0.5	$50	NA	25
				Subtask Total:	*$243*
	8.00% Overhead: $48.40			**Task Total**	**$27,963**

Bella Vista Site Investigation
Table 2 - Detailed Costs

Task: 07 Alternatives Analysis for COSV EOP

		Quantity	Unit Cost	Shipping	Total Cost
Personnel Costs					
Subtask: No Subtask					
Project Manager	Milczarek	16	$145	NA	2320
Staff Hydrologist	Buchanan	12	$85	NA	1020
AutoCAD/GIS	Osorio	8	$75	NA	600
			Subtask Total:		*$3,940*
	8.00% Overhead: NA		**Task Total**		**$3,940**

Bella Vista Site Investigation
Table 2 - Detailed Costs

Task: 08 - Coordination Meeting to Refine Plan for Field Investigations

		Quantity	Unit Cost	Shipping	Total Cost
Personnel Costs					
Subtask: 8a - Prepare for and conduct meeting (Sierra Vista)					
Project Manager	Milczarek	16	$145	NA	2320
Staff Hydrologist	Buchanan	8	$85	NA	680
Clerical Staff	Torres	2	$65	NA	130
			Subtask Total:		*$3,130*
Other Direct Costs					
Subtask: 8a - Prepare for and conduct meeting (Sierra Vista)					
2WD car rental		0.2	$350	NA	70
Reproduction		1	$50	NA	50
			Subtask Total:		*$130*
	8.00% Overhead: $9.60		**Task Total**		**$3,260**

Bella Vista Site Investigation
Table 2 - Detailed Costs

Task: 09 – Conduct Near-Surface Recharge Feasibility Study

		Quantity	Unit Cost	Shipping	Total Cost
Personnel Costs					
Subtask: 9a – Conduct backhoe test pit investigations at proposed (5) sites					
Project Manager	Milczarek	12	$145	NA	1740
Senior Hydrologist	Rice	164	$95	NA	15580
Hydrologist 1	Calabrese	24	$75	NA	1800
			Subtask Total:		*$19,120*
Subtask: 9b – Conduct cylinder infiltrometer tests at proposed (5) sites					
Project Manager	Milczarek	8	$145	NA	1160
Senior Hydrologist	Rice	16	$95	NA	1520
Environmental Scientist	Hovland	164	$80	NA	13120
Hydrologist 1	Calabrese	156	$75	NA	11700
			Subtask Total:		*$27,500*
Subtask: 9c – Initial Recharge Feasibility Study Report (Deliverable 10)					
Project Manager	Milczarek	16	$145	NA	2320
Senior Hydrologist	Rice	16	$95	NA	1520
Staff Hydrologist	Buchanan	32	$85	NA	2720
AutoCAD/GIS	Osorio	32	$75	NA	2400
Hydrologist 1	Calabrese	40	$75	NA	3000
Clerical Staff	Torres	8	$65	NA	520
			Subtask Total:		*$12,480*
Lab Costs					
Subtask: 9a – Conduct backhoe test pit investigations at proposed (5) sites					
GSA - Particle Size Analysis-Wet Sieve and Hydrometer		24	$165	NA	3960
GSA - Atterberg Limits		8	$100	NA	800
			Subtask Total:		*$5,141*
Rental Costs					
Subtask: 9a – Conduct backhoe test pit investigations at proposed (5) sites					
Backhoe		80	$85	NA	6800
			Subtask Total:		*$7,344*
Subtask: 9b – Conduct cylinder infiltrometer tests at proposed (5) sites					
Infiltration cylinders		1	$125	NA	125
Water trailer		4	$75	NA	300
			Subtask Total:		*$459*
Other Direct Costs					
Subtask: 9a – Conduct backhoe test pit investigations at proposed (5) sites					
Lodging		12	$85	NA	1020
Miscellaneous Items		4	$50	NA	200
Subsistence		15	$35	NA	525

Bella Vista Site Investigation
Table 2 - Detailed Costs

	4WD Truck	1800	$1	NA	1170
			Subtask Total:		*$3,148*
Subtask: 9b – Conduct cylinder infiltrometer tests at proposed (5) sites					
	2WD car rental	2	$350	NA	700
	Lodging	20	$85	NA	1700
	Miscellaneous Items	5	$50	NA	250
	Subsistence	24	$35	NA	840
	4WD Truck	1200	$1	NA	780
			Subtask Total:		*$4,612*
Subtask: 9c – Initial Recharge Feasibility Study Report (Deliverable 10)					
	Reproduction	2	$50	NA	100
	Shipping	0.5	$50	NA	25
			Subtask Total:		*$135*
	8.00% Overhead: $1543.60		**Task Total**		**$79,939**

Bella Vista Site Investigation
Table 2 - Detailed Costs

Task: 10 - Coordination Meeting to Present Initial Feasibility Study Results and Phase II Recommendations

		Quantity	Unit Cost	Shipping	Total Cost
Personnel Costs					
Subtask: 10a - Prepare for and conduct meeting (Sierra Vista)					
Project Manager	Milczarek	16	$145	NA	2320
Staff Hydrologist	Buchanan	12	$85	NA	1020
Clerical Staff	Torres	2	$65	NA	130
			Subtask Total:		*$3,470*
Other Direct Costs					
Subtask: 10a - Prepare for and conduct meeting (Sierra Vista)					
2WD car rental		0.2	$350	NA	70
Reproduction		1	$50	NA	50
			Subtask Total:		*$130*
	8.00% Overhead: $9.60		**Task Total**		**$3,600**
			PROPOSAL GRAND TOTAL:		**$159,848**

ATTACHMENT E
WestLand Scope of Work & Fee Estimate

WestLand Resources, Inc.
Engineering and Environmental Consultants

October 10, 2014

Mr. Cy Miller
JE FULLER/HYDROLOGY & GEOMORPHOLOGY
40 East Helen Street
Tucson, Arizona 85705

RE: REVISED PROPOSAL FOR BIOLOGICAL, CULTURAL, AND PALEONTOLOGICAL ANALYSES AT THE BELLA VISTA PARCELS
WESTLAND PROPOSAL NO. P8288.14

Dear Mr. Miller:

WestLand Resources, Inc. (WestLand), is pleased to submit this proposal for environmental services in support of the Cochise County and the Nature Conservancy site investigation at the Bella Vista Property in Arizona. The proposal described herein consists of services and an estimated budget for work associated with biological, cultural, and paleontological analyses. Our understanding from the legal descriptions provided to WestLand is that the Bella Vista Property includes lands owned by the Nature Conservancy totaling approximately 3,000 acres located northeast of Sierra Vista, Arizona (the Property; ***Attachments 1, 2***).

We envision this work to entail three tasks: 1) Analysis of Biological Resources, 2) Analyses of Cultural and Paleontological Resources, and 3) Client/Agency Coordination. Below, we discuss the work proposed to fulfill these tasks and the estimated budget for each task.

This revised proposal incorporates language that specifies information to be included into the biological resource report to inform decision making on potential Safe Harbor Agreements, as is identified in the October 10, 2014, Scope of Work for the Bella Vista Recharge Investigation.

TASK 1. ANALYSIS OF BIOLOGICAL RESOURCES

The biological resources analysis will entail a one-day site visit by a WestLand biologist to the Property and the development of a written Biological Evaluation (BE). The BE will include a description of the biological resources on the property and a screening analysis to evaluate the potential for species listed as threatened or endangered under the Endangered Species Act to occur on the property. No species-specific surveys will be completed under this scope. WestLand will prepare a Draft BE for review by the Project Team and a Final BE that addresses comments from the Project Team. The BE will also include a discussion of how its results inform decision making on potential Safe Harbor Agreements. This task will not entail surveys, further analyses, development, or coordination for the development of a Safe Harbor Agreement. The budget associated with this task ***(see Table 1)*** assumes that one hard-copy and one digital copy of the Draft and Final BEs will be delivered to the Project Team and that only minor edits and responses to comments on the Draft BE will be required. The Final Report will include formal responses to comments from the Project Team. The budget for this task also assumes that the Nature Conservancy will provide unfettered legal and physical access to the Property.

4001 E. Paradise Falls Drive • Tucson, AZ 85712 • 520•206•9585 Fax 520•206•9518
2020 N. Central Avenue • Suite 695 • Phoenix, AZ 85004 • 602•888•7000 Fax 866•457•2838
1750 S. Woodlands Village Blvd. • Suite 150 • Flagstaff, AZ 86001 • 928•225•2218 Fax 866•457•2838

TASK 2. ANALYSES OF CULTURAL AND PALEONTOLOGICAL RESOURCES

Under this task, WestLand will conduct cultural and paleontological analyses of the Property. WestLand will conduct a 5 to 6 percent sample survey to assess the potential that the Property contains significant cultural resources. To accomplish this goal, up to 18 (10-acre) survey blocks will be surveyed for cultural resources. The majority of the survey blocks will be placed along the two main drainages that cross the property. The remainder of the survey blocks will be placed away from the drainages in an attempt to locate small plant processing sites that would have been used intermittently. In addition to the block surveys, WestLand archaeologists will walk the two main water courses in the Property to look for the appropriate geological settings in which paleontological specimens are likely to occur. The cultural resources task will include the following services:

- Conduct a Class I records search of the Property to determine if any portion of the Property has been previously surveyed and if there are any previously recorded archaeological sites within the Property. WestLand will consult with the AZSITE online database, WestLand internal site location database, historic GLO and topographic maps of the area, and the published archaeological literature.
- Conduct a 5 to 6 percent sample survey of the Property.
- Walk the two main drainages across the site to locate geological strata that may contain paleontological resources.
- Record all newly discovered archaeological site to the Arizona State Museum (ASM) and State Historic Preservation Office (SHPO) standards.
- Provide a draft cultural and paleontological resources report for client review.
- Respond to one round of comments on the draft report.
- Produce a final cultural and paleontological resources report that incorporates responses to the draft report.

WestLand will not assign ASM site numbers to the newly recorded sites and will not register the sites with ASM. The budget associated with this task assumes that unfettered legal and physical access to the Property will be provided by the Nature Conservancy, and only minor revisions to the draft cultural and paleontological resources report will be required.

TASK 3. CLIENT/AGENCY COORDINATION

Under this task, WestLand will participate in up to 4 monthly meetings with the Project Team regarding preliminary investigations of the Bella Vista Property. The budget associated with this task assumes 2-hour meetings to be conducted in Tucson, AZ, or through a web-based meeting platform, with the exception of one meeting to take place in Sierra Vista, Arizona.

COST

The estimate of the total budget to complete this work is **$30,000** ***(see Table 1)*** to be billed at WestLand's current billing rates against a not-to-exceed budget. The costs associated with specific tasks may be more or less than the estimates provided, but WestLand will not exceed the total project budget without authorization from JE Fuller.

Table 1. Cost Summary by Task

Task	Cost
Task 1 – Analysis of Biological Resources	$ 10,500
Task 2 – Analyses of Cultural and Paleontological Resources	$ 15,000
Task 3 – Client/Agency Coordination	$ 4,500
Total	**$ 30,000**

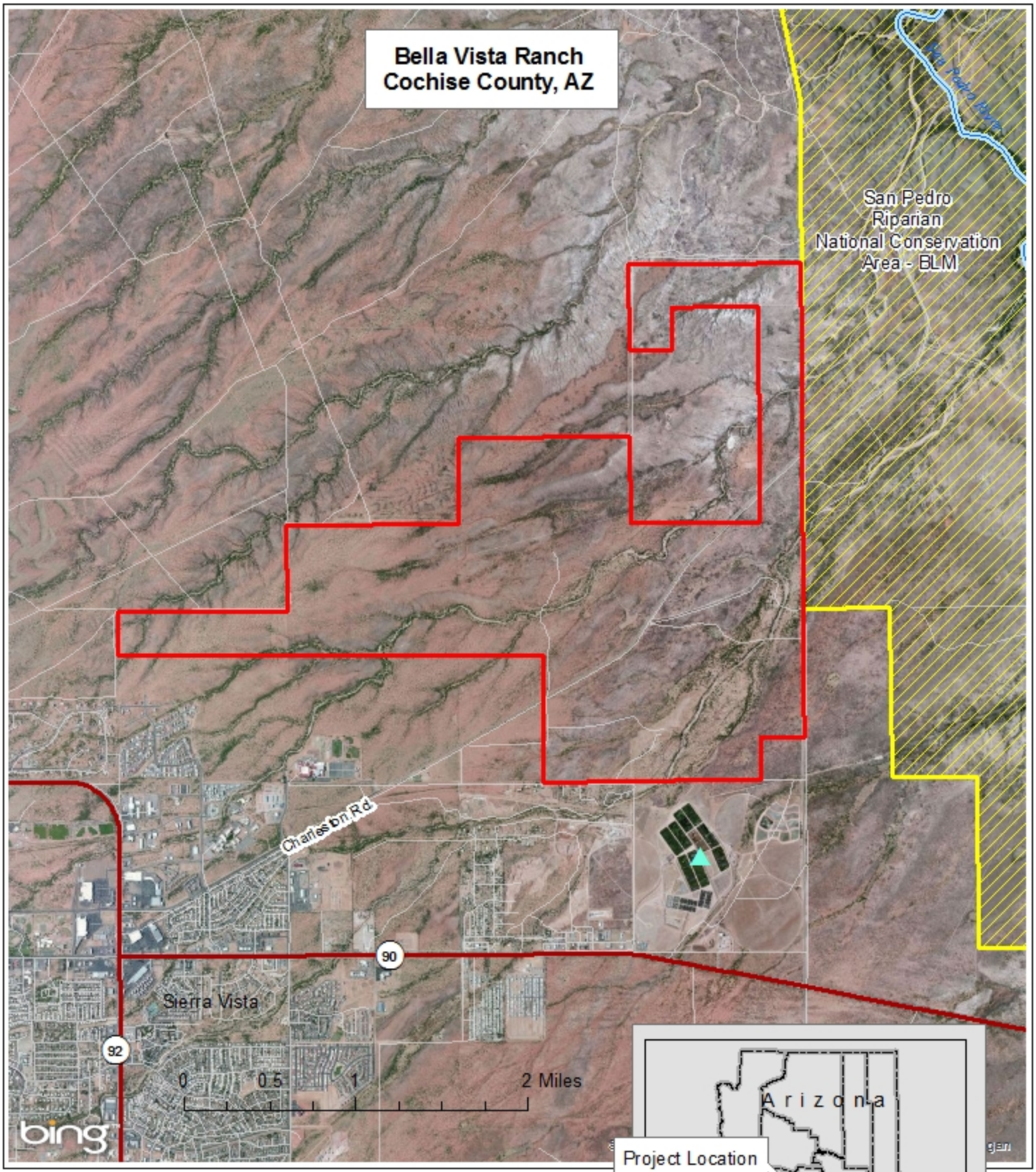
If you find this proposal to be acceptable, we understand that you will be providing us with a subcontracting agreement. Should you have any questions or require additional information, please do not hesitate to call. We look forward to the opportunity to work with you on this project.

Respectfully,
WestLand Resources, Inc.

David Cerasale, PhD
Project Manager

BSL:emr
Attachment: Bella Vista Ranch Aerial
Legal Description of Parcel

cc: Brian Lindenlaub, WestLand Resources, Inc.


Bella Vista Ranch
Cochise County, AZ
San Pedro
Riparian
National Conservation
Area - BLM
Charleston Rd
90
92
Sierra Vista
0
0.5
1
2 Miles
bing
Arizona
Project Location
N
Bella Vista Ranch - TNC property
Sierra Vista Environmental Operations Park
Bella Vista Ranch:
T21S R21E
Part sec. 15, 20, 21, 22,
27, 28, 29, 30
Date Saved: 11/13/2013 3:25:21 PM
Path: K:\projects\Protection\mxd\Upper San Pedro\bella_vista_ranch_aerial.mxd

RBF Consulting, A Company of Michael Baker Corporation
2929 N. Central Avenue, Suite 800
Phoenix, AZ 85012

Exhibit "A"
Legal Description

Proposed Sale Parcel

A parcel of land situated in Sections 15, 20, 21, 22, 27, 28, 29 and 30, Township 21 South, Range 21 East of the Gila and Salt River Base and Meridian, Cochise County, Arizona, more particularly described as follows:

The east half of the east half, the northwest quarter of the northeast quarter, the northeast quarter of the northwest quarter, and the west half of the northwest quarter of said Section 15;
The south half of said Section 20;
All of said Section 21;
The east half of the northeast quarter and the south half of said Section 22;
The north half, the north half of the southeast quarter, the southwest quarter of the southeast quarter, and the southwest quarter of said Section 27;
The north half of the northwest quarter and the east half of said Section 28;
The north half of the north half of said Section 29;
The north half of the north half of said Section 30;

Excepting therefrom any portion lying within the following described property:

A strip of land 100.00 feet in width located in Sections 22, 27, 28 and 29, Township 21 South, Range 21 East of the Gila and Salt River Base and Meridian, Cochise County, Arizona, the center line being more particularly described as follows:

Beginning at the southeast corner of the northeast quarter of Section 31, Township 21 South, Range 21 East, Gila and Salt River Base and Meridian, Cochise County, Arizona;

Thence North 00°05'33" West a distance of 804.21 feet to a point on the center line of the existing Charleston Road;

Thence North 60°57'46" East a distance of 2,137.30 feet along said center line to an angle point;

Thence North 60°56'55" East a distance of 1,643.06 feet along said center line to an angle point;

Thence North 60°54'27" East a distance of 2,235.68 feet along said center line to an angle point;

Thence North 60°57'23" East a distance of 3,337.89 feet along said center line to an angle point;

Thence North 61°03'02" East a distance of 2,282.04 feet along said center line to the beginning of a curve concave to the northwest having a radius of 1,448.18 feet;

Thence northeasterly a distance of 676.68 feet along said curve through a central angle of 26°46'36" to a point of tangency;

Thence North 34°16'26" East a distance of 868.80 feet along said center line to an angle point;

Thence North 34°11'52" East a distance of 1,856.12 feet along said center line to the beginning of a curve concave to the southeast having a radius of 2,201.32 feet;

Thence northeasterly a distance of 477.48 feet along said curve through a central angle of 12°25'51" to a point of tangency;

Thence North 46°37'43" East a distance of 2,556.50 feet along said center line to an angle point;

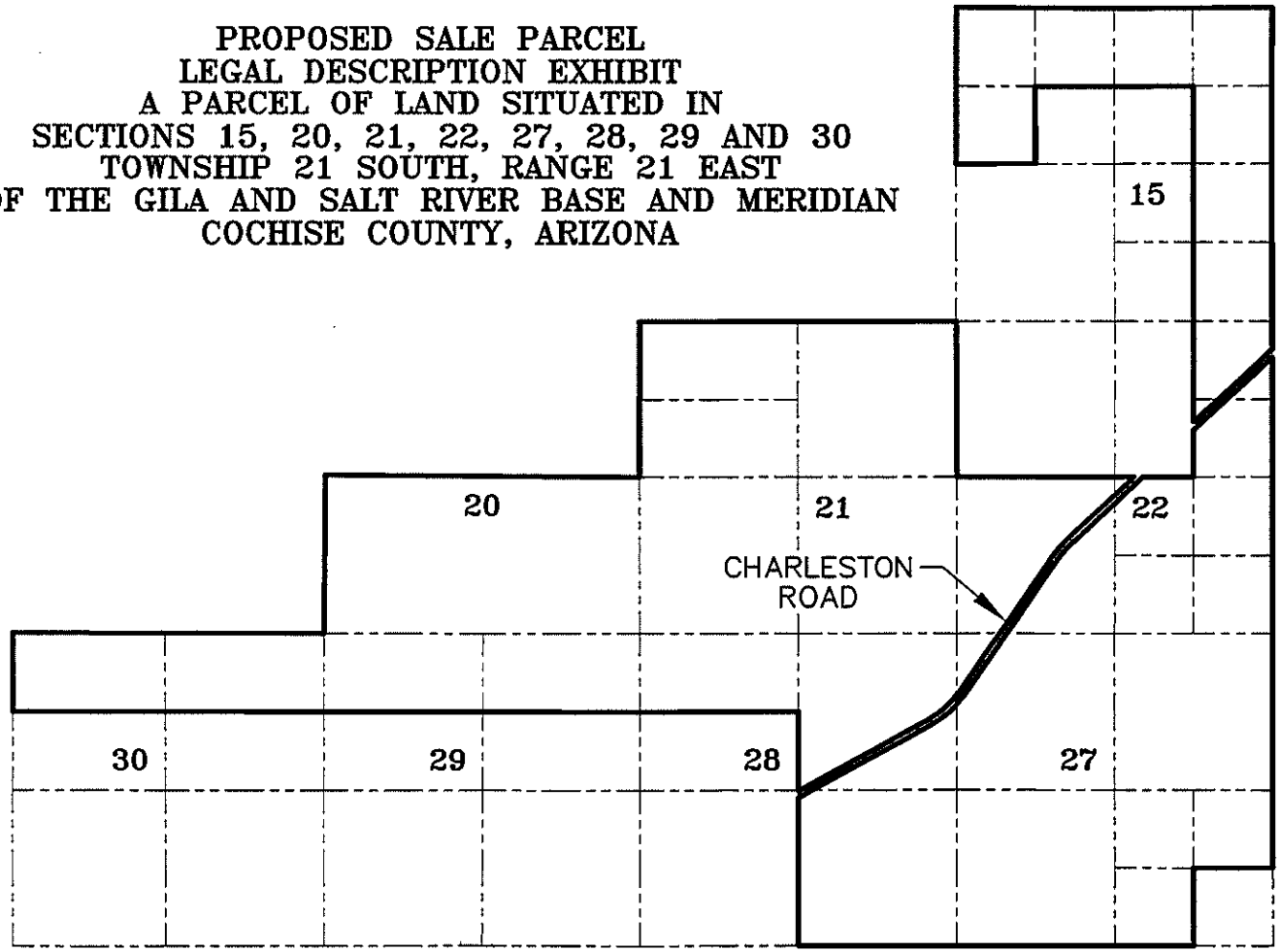
Thence North 46°40'14" East a distance of 2,063.51 feet along said center line to a point on the east section line of said Section 22 that bears North 00°00'52" East a distance of 4,752.11 feet from the southeast corner of said Section 22, said point also being the end of description.

The above described parcel contains 129,995,510 square feet or 2,984.2863 acres, more or less.

Subject to all covenants, rights of way and easements of record.

EXPIRES 9-30-15

PROPOSED SALE PARCEL
LEGAL DESCRIPTION EXHIBIT
A PARCEL OF LAND SITUATED IN
SECTIONS 15, 20, 21, 22, 27, 28, 29 AND 30
TOWNSHIP 21 SOUTH, RANGE 21 EAST
OF THE GILA AND SALT RIVER BASE AND MERIDIAN
COCHISE COUNTY, ARIZONA



NOT TO SCALE

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
21782
SCOTT A.
NELSON
Date Signed 5/30/13
ARIZONA, U.S.A.
Expires: 09/30/15

RBF
CONSULTING

PLANNING
DESIGN
CONSTRUCTION