

## WORK SESSION AGENDA

CITY COUNCIL WORK SESSION  
TUESDAY  
MAY 30, 2023

COUNCIL CHAMBERS  
211 WEST ASPEN AVENUE  
3:00 P.M.

All City Council Meetings are live streamed on the city's website  
(<https://www.flagstaff.az.gov/1461/Streaming-City-Council-Meetings>)

### **\*\*\*PUBLIC COMMENT\*\*\***

Verbal public comments may be given through a virtual public comment platform or in-person

If you want to provide a verbal comment during the Council Meeting, use the link below to join the virtual public comment room.

### **VIRTUAL PUBLIC COMMENT WAITING ROOM**

Written comments may be submitted to [publiccomment@flagstaffaz.gov](mailto:publiccomment@flagstaffaz.gov). All comments submitted via email will be considered written comments and will be documented into the record as such.

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#### 1. Call to Order

#### **NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION**

*Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this work session, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).*

#### 2. **ROLL CALL**

*NOTE: One or more Councilmembers may be in attendance through other technological means.*

MAYOR DAGGETT  
VICE MAYOR ASLAN  
COUNCILMEMBER HARRIS  
COUNCILMEMBER HOUSE

COUNCILMEMBER MATTHEWS  
COUNCILMEMBER MCCARTHY  
COUNCILMEMBER SWEET

#### 3. Pledge of Allegiance, Mission Statement, and Land Acknowledgement

#### **MISSION STATEMENT**

*The mission of the City of Flagstaff is to protect and enhance the quality of life for all.*

## LAND ACKNOWLEDGEMENT

*The Flagstaff City Council humbly acknowledges the ancestral homelands of this area's Indigenous nations and original stewards. These lands, still inhabited by Native descendants, border mountains sacred to Indigenous peoples. We honor them, their legacies, their traditions, and their continued contributions. We celebrate their past, present, and future generations who will forever know this place as home.*

### 4. **Public Participation**

*Public Participation enables the public to address the council about items that are not on the prepared agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the work session. You may speak at one or the other, but not both. Anyone wishing to comment at the meeting is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone to have an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.*

### 5. **Review of Draft Agenda for the June 6, 2023 City Council Meeting**

*Citizens wishing to speak on agenda items not specifically called out by the City Council may submit a speaker card for their items of interest to the recording clerk.*

### 6. **Proclamation:** Two Spirit Day

### 7. **Proclamation:** Gun Violence Awareness Day

### 8. **Proclamation:** LGBTQIA2S+ Month

### 9. **May Work Anniversaries**

Recognition of employees celebrating work anniversaries in the month of April

### 10. **Resource Planning for Electric Grid Reliability**

Informational discussion from APS on electric grid reliability.

### 11. **Annual Report for MOONSHOT at the Northern Arizona Center for Entrepreneurship and Technology (NACET) - 2023**

MOONSHOT is contracted with the City to provide business development and support as well as property management services. They provide an annual report to City Council. The desired outcome is for City Council and the public to be informed of the activities and results generated by the contract, as well as MOONSHOT's efforts in the region with the City of Flagstaff.

### 12. **J.W. Powell Specific Plan Study Update**

Provide a status update on the J.W. Powell Specific Plan Study.

**13. Wildland Fire Preparedness Briefing**

Presentation of Wildland Fire Management's objectives and initiatives in relation to wildfire preparedness for the City of Flagstaff, its residents, and resources.

**14. Public Participation**

**15. Informational Items To/From Mayor, Council, and City Manager; future agenda item requests**

**16. Adjournment**

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on \_\_\_\_\_, at \_\_\_\_\_ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

\_\_\_\_\_  
Stacy Saltzburg, MMC, City Clerk

**CITY OF FLAGSTAFF  
STAFF SUMMARY REPORT**

**To:** The Honorable Mayor and Council  
**From:** Stacy Saltzburg, City Clerk  
**Date:** 05/25/2023  
**Meeting Date:** 05/30/2023



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**TITLE:**

**May Work Anniversaries**

**DESIRED OUTCOME:**

Recognition of employees celebrating work anniversaries in the month of April

**EXECUTIVE SUMMARY:**

**INFORMATION:**

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**Attachments:** [Presentation](#)



# TEAM FLAGSTAFF



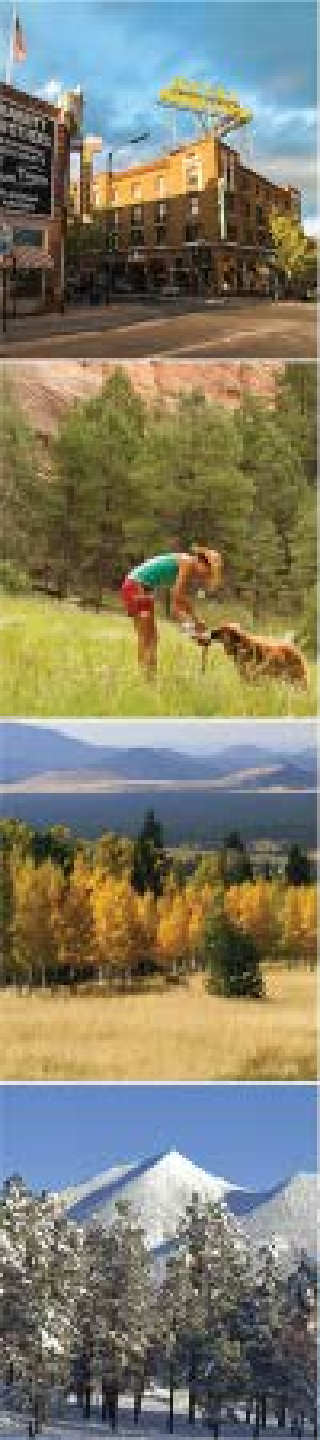
May Employee Work Anniversaries!



# Five Year Anniversaries



Robert Wallace  
Open Space Supervisor

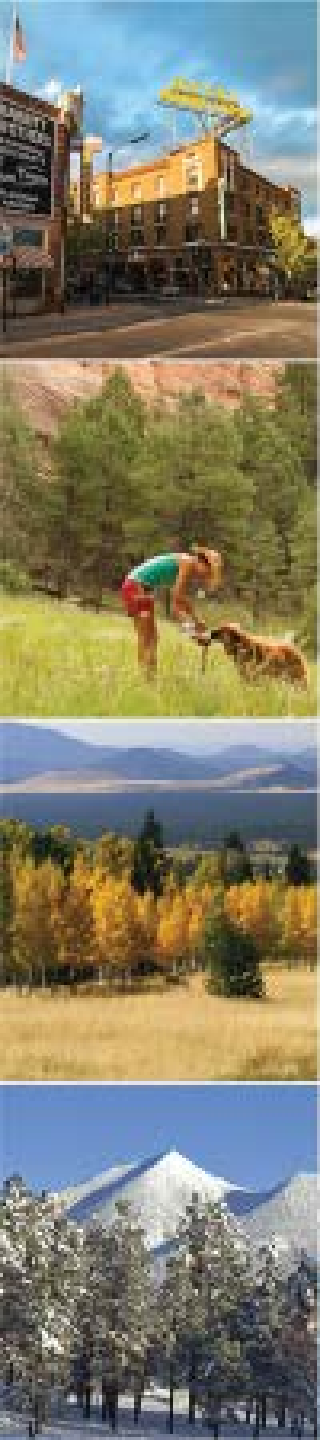


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# Five Year Anniversaries

Keith Chamberlain  
Grants & Contracts Specialist



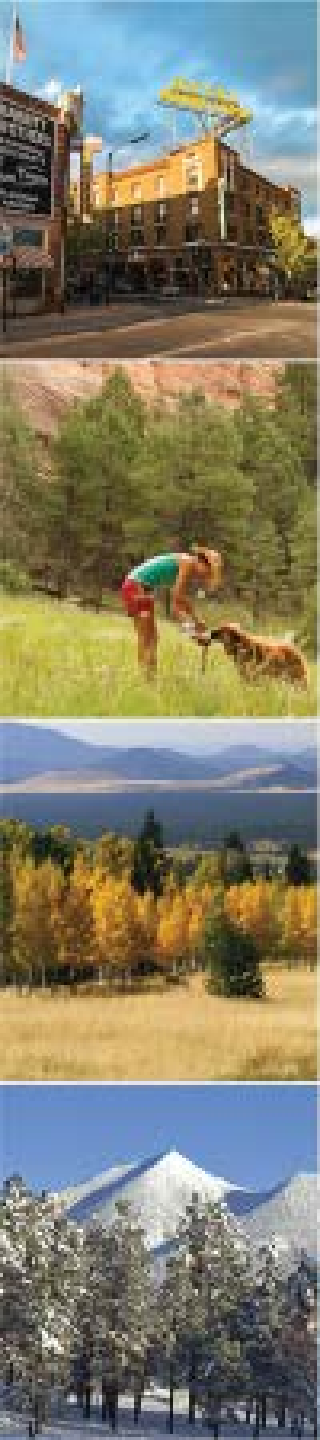
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# Five Year Anniversaries



Daniel Logan  
Public Works Manager

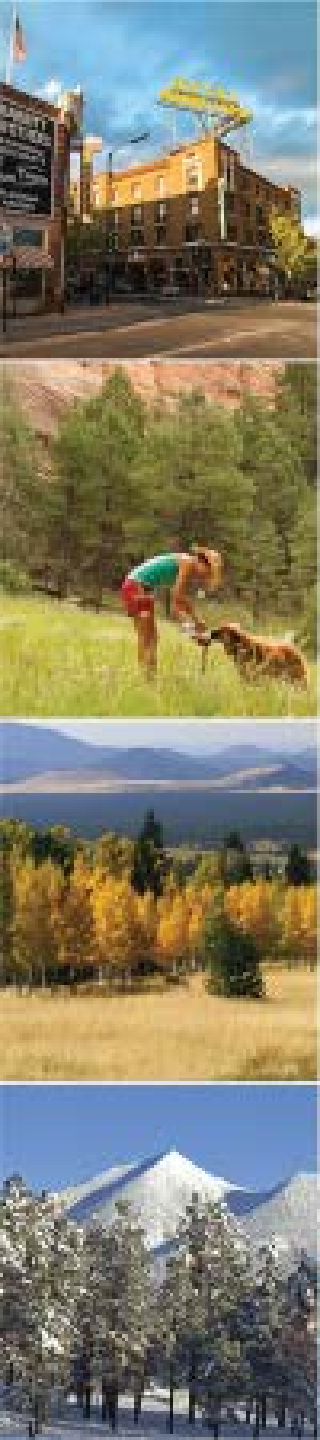


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# Ten Year Anniversaries

Kevin Sapp  
Police Sergeant



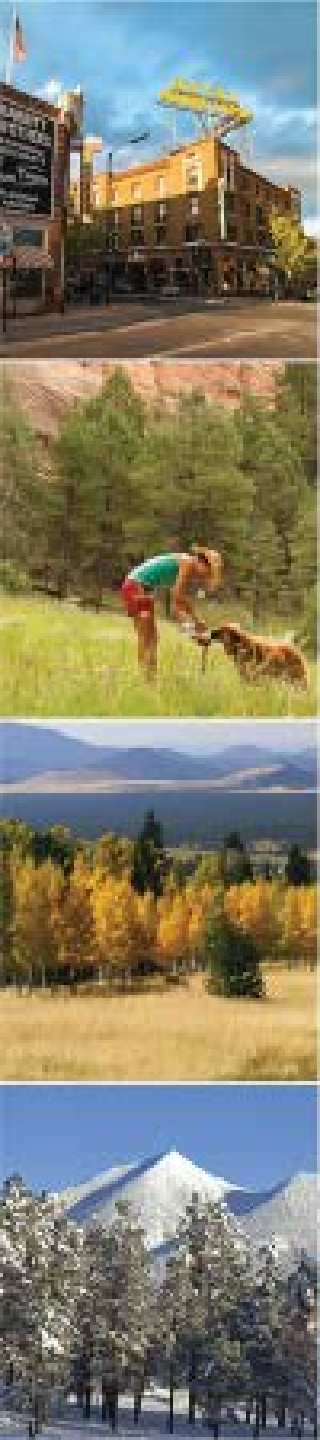
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# Ten Year Anniversaries



Marianne Sullivan  
Sr Assistant City Attorney III

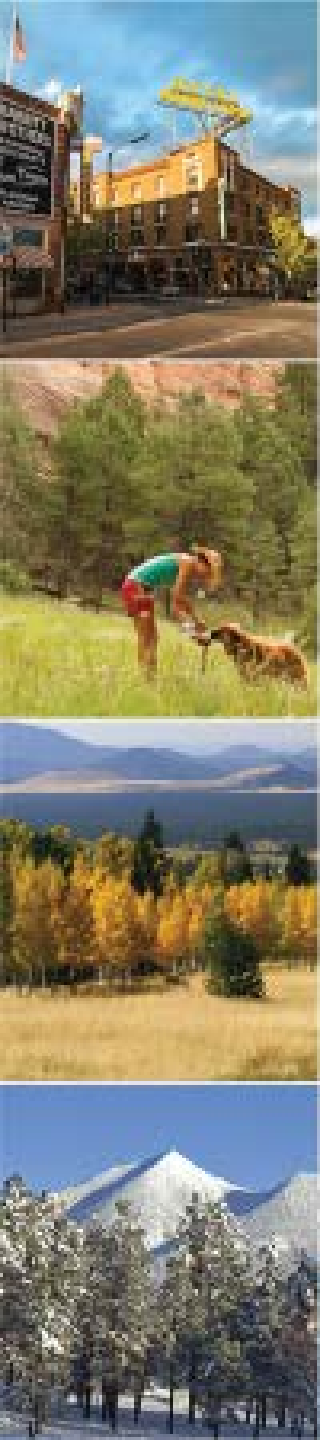


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# Twenty Year Anniversaries

Ryan Church  
Fire Engineer



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# 25 years plus!!!

For 28 years, **Marion Lee** has been a familiar face in Water Services. She was hired in customer service for Water needs and has been a part of the Team ever since. “Water is my business...and the people I work with are why I’m still here”.



Recently, Marion was instrumental in the development of a process to manage a massive reimbursement agreement with Coconino County. Executing the agreement was easy when compared to the work involved with answering customers questions, drafting form letters, recording documents with county clerk, and keeping Water Service’s staff on track. She has also been hard at work training a new administrative assist and Water Service Division Director. “Marion is the reason I am still here”, says Shannon Jones, Water Service Division Director. “If not for her, I would not know where my office is or even be able to get through front door security system.”

Thanks, Marion, for your 28 years of service to Water Services and the community.



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# 25 Years Plus!!!

Ggrant Kelly was hired by the Flagstaff Police Department in May 1995. He attended the ALEA Police Academy in Tucson AZ. He has worked the majority of his career in patrol with a few sabbaticals in the Criminal Investigations section. Ggrant served as a Field Training Officer and was instrumental in training many of our current supervisors when they were new officers.

Ggrant promoted to Sergeant in 2012. He has an excellent work ethic and is extremely passionate about Community Policing. He served as the Sunnyside Neighborhood Sergeant for several years. He was a certified Bomb Technician and served as a team leader for years. He spent many nights and weekends working as the on-call Bomb Technician. He always responded when he was needed to handle suspicious items.

Throughout his 28-year career, Ggrant has always offered a helping hand to patrol and detectives. Ggrant is a past recipient of our Lifesaving Award, City Managers Excellence Award, and Officer of the Year Award. He has dressed out and came in to work on his own when he learned of officer involved shootings, homicides, and other critical incidents. His file is full of commendations for outstanding customer service, conducting good investigations, ending a carjacking, and apprehending an armed and dangerous burglary suspect.



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**CITY OF FLAGSTAFF  
STAFF SUMMARY REPORT**

**To:** The Honorable Mayor and Council  
**From:** Nicole Antonopoulos, Sustainability Director  
**Date:** 05/09/2023  
**Meeting Date:** 05/30/2023



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**TITLE:**

**Resource Planning for Electric Grid Reliability**

**DESIRED OUTCOME:**

Informational discussion from APS on electric grid reliability.

**EXECUTIVE SUMMARY:**

This is an informational presentation from the electric utility on their resource planning efforts for grid reliability.

**INFORMATION:**

APS will provide a presentation to the City Council on their efforts.

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**Attachments:** APS Integrated Resource Planning  
Presentation



2023 IRP Stakeholder Meeting  
April 7th, 2023

# Meeting Agenda

- 01** Welcome/Meeting Objectives  
Matt Lind, 1898 & Co.
- 02** Keynote  
Jacob Tetlow, APS
- 03** IRP Process Overview  
Tara Beske, APS
- 04** Methodology  
Todd Komaromy, APS
- 05** Stakeholder Engagement  
Matt Lind, 1898 & Co.
- 06** Model Development  
Akhil Mandadi, APS
- 07** Load Forecast  
Ross Mohr, APS
- 08** IRP Assumptions and Case Development  
Michael Eugenis, APS
- 09** Closing Remarks  
Matt Lind, 1898 & Co.

# Meeting Guidelines



## Questions

Clarifying questions are welcome at any time. There will be time allotted following each presentation to answer.



## Meeting Materials

Meeting slides will be posted to the APS website along with meeting minutes.



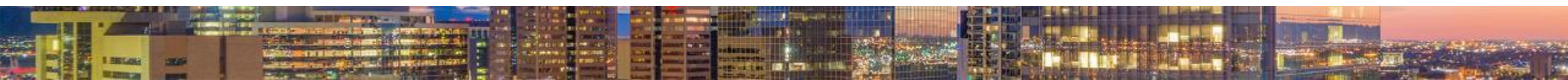
## Following Up

We will attempt to answer all questions today. Some questions may require additional information and follow up after the meeting.



## Discussion Purposes

Meetings and content are preliminary in nature and prepared for stakeholder discussion purposes only. Litigating attorneys are not expected to participate.





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Keynote  
Jacob Tetlow, APS

# Keynote Introduction



APS understands the importance of stakeholder engagement in planning process



Economic development is driving load growth in Arizona that APS must reliably serve



APS remains committed to a reliable, affordable, and clean future



**Jacob Tetlow**

Executive Vice President, Operations





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# Integrated Resource Plan Process Overview

Tara Beske, APS



# An Introduction to Integrated Resource Plans



Integrated Resource Plans are **comprehensive studies** conducted by electric utilities to identify **energy needs** and how to meet them through a combination of supply and demand side resources, while considering factors such as economics, regulatory requirements, and impact to the environment.



# Key Components of an IRP



# Regulatory Requirements and Stakeholder Engagement



An Integrated Resource Plan must also comply with various regulatory requirements, including Arizona Corporation Commission (ACC) mandated timing and content of filings.

- **Frequency: Typically filed every 3 years**
- **ACC Rules: Resource Planning and Procurement Rules (14-2-701 to 14-2-704)**
- **ACC Decisions: Primarily No. 78499 (March 2, 2022)**



The Integrated Resource Plan includes a robust public outreach process to solicit input from customers, community groups, environmental organizations, and other interested parties.

- **Resource Planning Advisory Council (RPAC)**
- **Public Stakeholder Meetings**
- **ACC Workshops**
- **[aps.com/resources](https://aps.com/resources)**



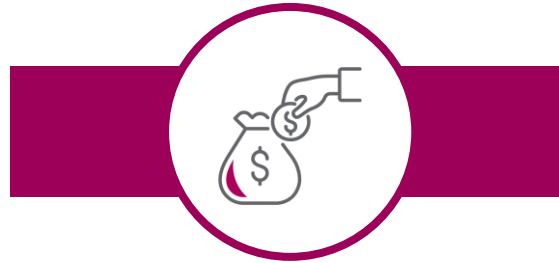


# APS 2023 IRP Planning Principles



## Reliability

Providing safe and reliable power to our customers is a top priority for APS. Energy resource adequacy and grid security are cornerstones of reliability.



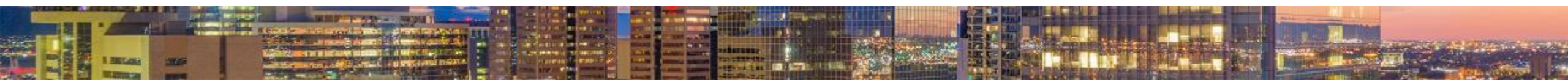
## Affordability

The goal of the 2023 Integrated Resource Plan is to provide reliable electric service to customers at the lowest reasonable cost. The long-term capacity expansion planning model optimizes the selection of supply and demand side resources to system cost.



## Sustainability

The 2023 Integrated Resource Plan resource options represent a clean, balanced supply, including energy efficiency programs, distributed generation, battery storage, and utility-scale solar and wind resources.



# Consultant Engagement



- Stakeholder Engagement
- All-Source RFP Support
- Resource Planning Support

A business, technology and security solutions consultancy part of Burns & McDonnell.

1898 & Co. is a nationwide network of consulting professionals supporting:

- Business optimization
- Digital transformation
- Cyber security/risk management



- Stakeholder Engagement
- Resource Planning Support
- Reliability Planning Studies

E3 works extensively with utilities, developers, government agencies, and environmental groups to inform strategy and key decisions.

E3 experts lead rigorous technical analyses, develop innovative methods to study new problems, and provide critical thought leadership to the industry

E3's practice areas provide a comprehensive view of the industry including supply, delivery, demand, and investment.



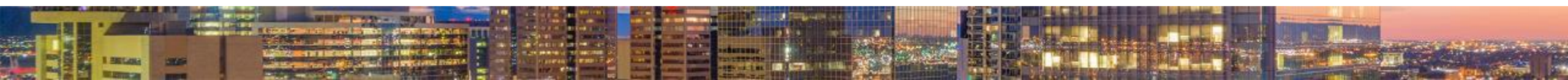
- Reliability Planning Studies
- Planning Reserve Margin – Loss of Load Expectation (LOLE)
- Effective Load Carrying Capability (ELCC)

Owner and Exclusive Licensor of SERVIM

- Nation's leading resource adequacy model
- Full hourly economic commitment and dispatch for thousands of weather, unit performance, fuel, regulatory, economic growth scenarios can be performed in hours

Resource Adequacy Studies

- Renewable Integration, Expansion Planning, Energy and Capacity Resource Valuations





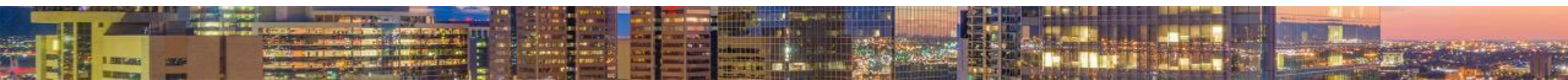
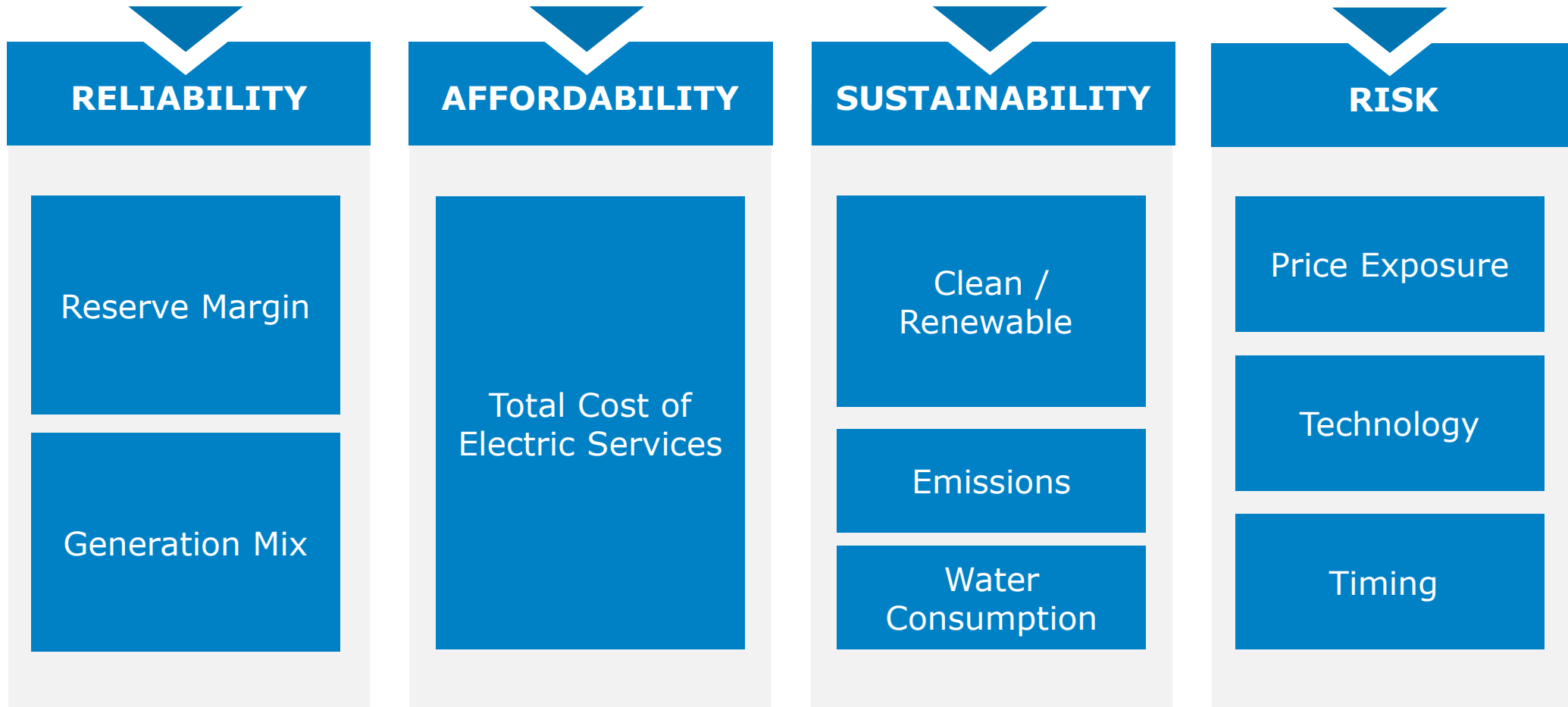
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# IRP Methodology

Todd Komaromy, APS



# IRP Objectives



# Managing Risk And Uncertainty



## KEY CASE INPUTS





# Considerations Informing the 2023 IRP

| Requirements* |                             |   |
|---------------|-----------------------------|---|
| 1             | <b>Technology Agnostic</b>  | Least-cost method without regard for emissions reduction goal or renewable energy standards.                            |
| 2             | <b>Coal</b>                 | No restrictions on the economic cycling and economic retirement.  |
| 3             |                             | Eliminate coal units must-run designations.   |
| 4             | <b>Energy Efficiency</b>    | No limit on the amount of energy efficiency.  |
| 5             |                             | Achieve an annual minimum of 1.5 percent energy savings   |
| 6             | <b>DSM</b>                  | Demand side resource capacity equal to at least 35 percent of 2020 peak demand.   |
| 7             | <b>Emissions Reductions</b> | Minimum of 10 resource portfolios that are designed to achieve the emissions reductions goals specified in the 2020 IRP |

\*Based on ACC Decisions, including No. 78499 (March 2, 2022)





# Considerations Informing the 2023 IRP

| Requirements                          |   |
|---------------------------------------|---|
| <b>Power system resiliency</b>        | <ul style="list-style-type: none"><li>• Extreme weather, correlated risks to both the power and gas systems</li></ul>   |
| <b>Natural gas price assumptions</b>  | <ul style="list-style-type: none"><li>• Impact on short- and long-term resource procurement decisions.</li><li>• Implications of declining natural gas usage to achieve emissions reductions.</li></ul> |
| <b>Regional markets</b>               | <ul style="list-style-type: none"><li>• Effects of participation on near- and long-term resource procurement actions.</li></ul>   |
| <b>Retirement analyses</b>            | <ul style="list-style-type: none"><li>• Estimated retirement dates.</li><li>• Economic impact to ratepayers</li></ul>   |
| <b>Grid-connected resources</b>       | <ul style="list-style-type: none"><li>• Value of distribution grid-connected resources as compared to transmission-connected.</li></ul>   |
| <b>Emissions reduction commitment</b> | <ul style="list-style-type: none"><li>• Costs and benefits of emissions reduction commitments.</li></ul>  |
| <b>Resource adequacy</b>              | <ul style="list-style-type: none"><li>• Increasing variability on the bulk electric system.</li></ul>   |
| <b>Hydrogen</b>                       | <ul style="list-style-type: none"><li>• Sources, costs and any associated capital expenditures.</li></ul>   |







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Stakeholder Engagement  
Matt Lind, 1898 & Co.


# Key Considerations for Stakeholder Communications



Monthly RPAC meetings allow APS an opportunity to provide planning progress updates. This also allows stakeholders to provide input and feedback that can inform the development of the IRP plan.



Meeting minutes and presentation slide decks are publicly available on the APS website at [aps.com/resources](https://aps.com/resources)



APS provides opportunities for stakeholder feedback, such as workshops, public comment periods, and online surveys.

# Resource Planning Advisory Council (RPAC) Meeting Topics


- RPAC Load Forecast
- Southwest Resource Adequacy Study
- All-Source Request for Proposal (ASRFP) Workshops
- Regulatory Updates
- Industry Trend Overviews
- Climate Change Scenario Analysis
- Western Markets Developments
- IRP overview and feedback

Meeting material available to the public on the APS website:  
[aps.com/resources](https://aps.com/resources)


# Impact of Resource Planning Advisory Council (RPAC) Feedback



RPAC Load Forecast will be utilized and evaluated in IRP case.



Feedback on scoring criteria and evaluation metrics incorporated into 2022 All-Source Request for Proposal (ASRFP).



Monthly meeting cadence allows APS to hear what stakeholders prioritize and actively incorporate feedback into its planning processes.



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Model Development

Akhil Mandadi, APS

# Questions to answer – Breaking down the complex problem



What is our need?  
And, When?



What are we building  
or utilizing? And,  
When?



What is it going to  
cost us?



Will it be reliable?



What will be the  
environmental  
impact?

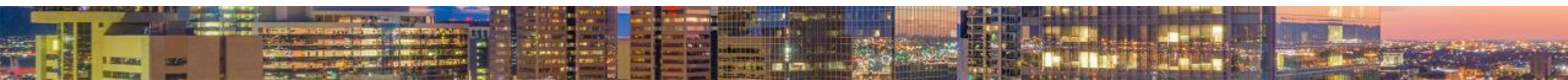
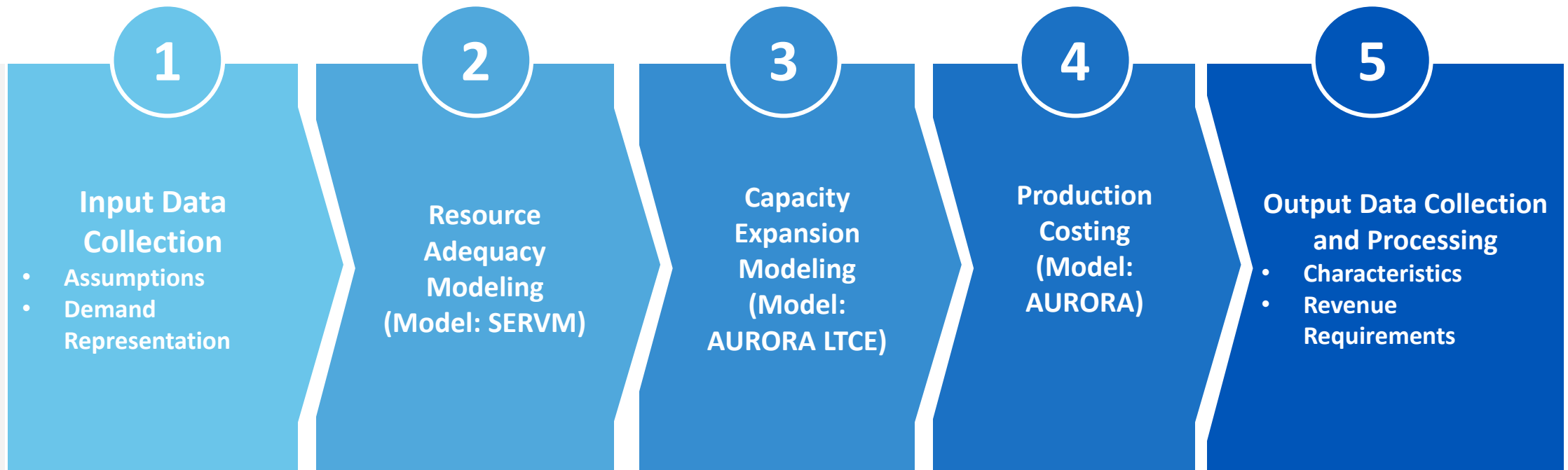
## Balancing Act – Optimization Problem (Multiple trade-offs)



“All Models are wrong, some are useful” - George Box



# APS Model Development Process

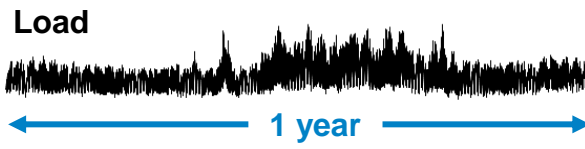


# Resource Adequacy Model



APS loads and resources represented in SERVUM

SERVUM performs resource adequacy across all hours of the year under a broad range of weather conditions, producing statistical measures of the risk of loss of load (considers both supply and demand side uncertainty)



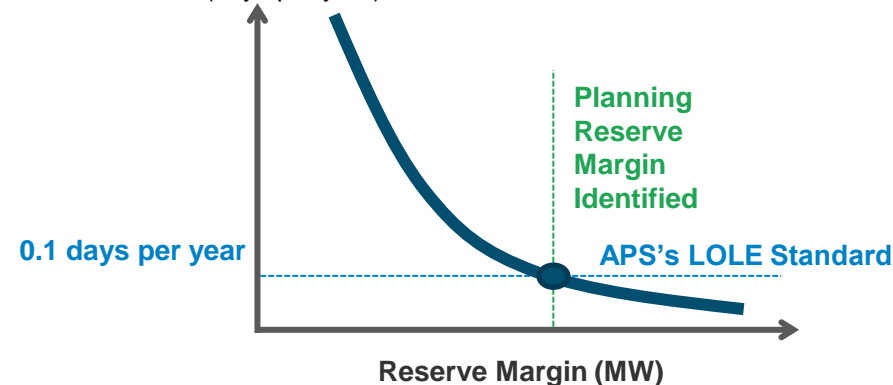
Identify the amount of Planning Reserve Margin needed to achieve the desired level of reliability

Factors that impact the amount of perfect capacity needed include load & weather variability, operating reserve needs

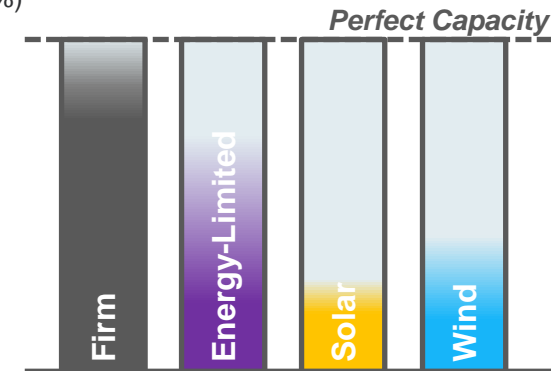
Calculate capacity contributions of different resources

ELCC measures a resource's contribution to the system's needs relative to perfect capacity, accounting for its limitations and constraints

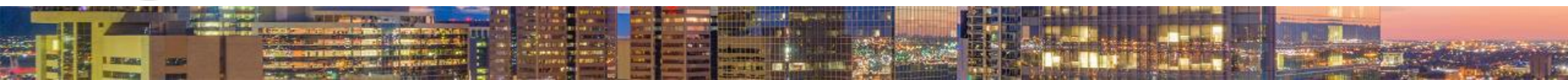
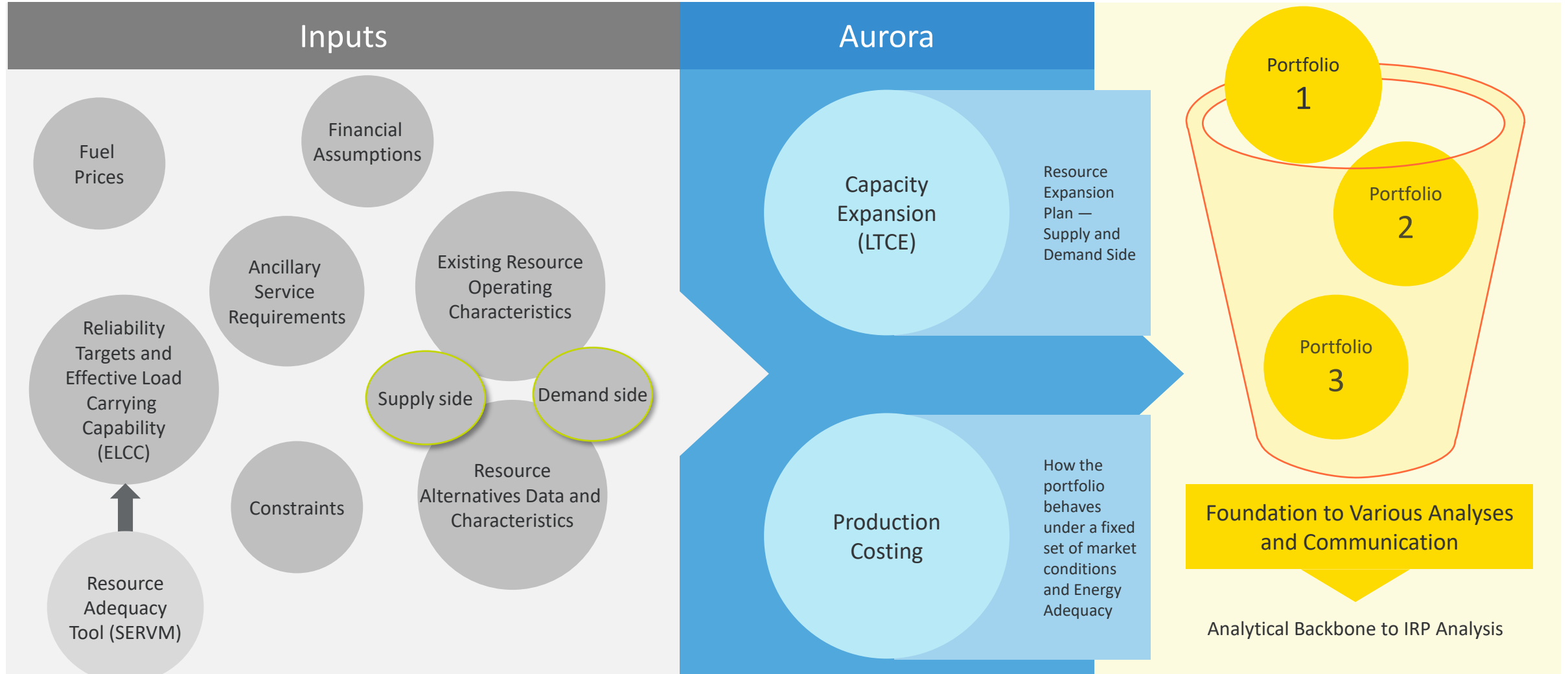
**Loss of Load Expectation**  
(days per year)



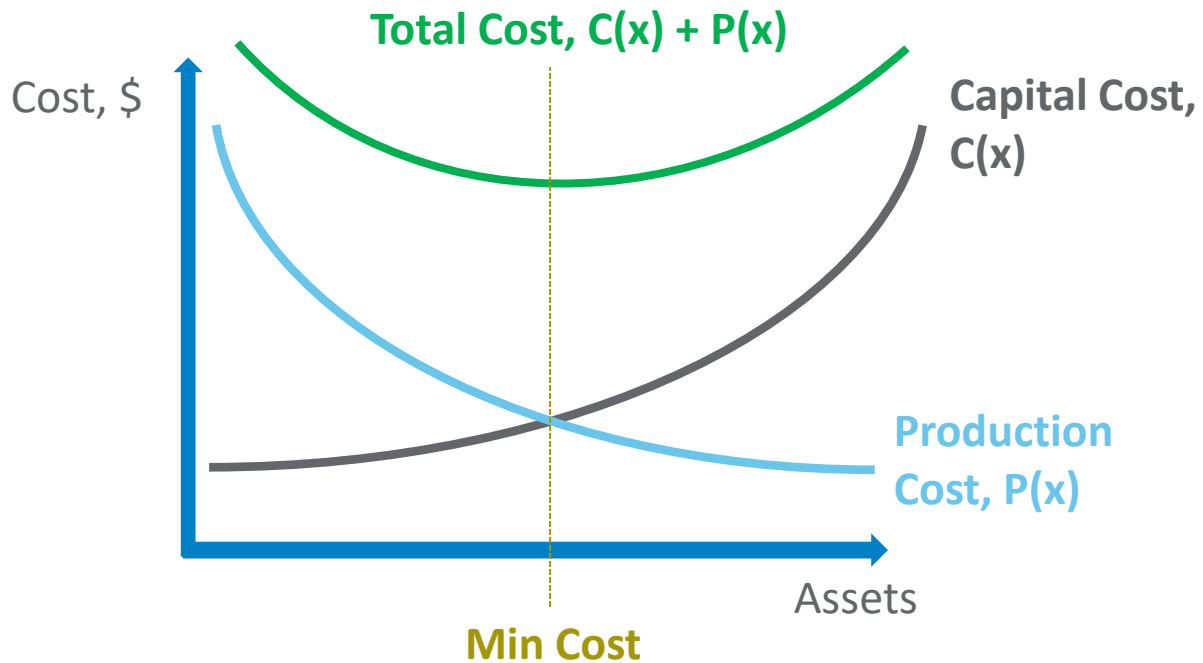
**Marginal Effective Load Carrying Capacity**  
(%)



# Capacity Expansion and Production Costing Models



# Capacity Expansion and Production Costing Models



## Capacity Expansion

- Optimal resource mix to serve future needs
- Simulation of new builds (answers where, when, how much and what type of assets to pick)
- Higher Resolution and Scope

## Production Costing

- Minimizes Operational Costs and thereby provides expected operational plan for the resources picked
- Detailed Simulation of specified resource mix (answers how the picked resources would be used and thereby their impact to the environment, etc.)
- Finer Resolution and Scope





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Break



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Load Forecast

Ross Mohr, APS



# 2023 IRP Load Forecast Summary

- Datacenter and large manufacturing customers (Extra High Load Factor – “XHLF”) are expected to be the major source of load growth during 2023-2038
  - XHLF share of total energy sales (MWh) increasing from 3% to 34%
  - XHLF share of summer peak demand (MW) increasing from 2% to 21%
- Slower projected “core” load growth compared to 2020 IRP due to declining usage, increased solar generation, energy efficiency, and DSM savings, and forecasting model improvements
  - “Core” load includes residential and non-XHLF commercial and industrial (C&I) customers
- Electric vehicle (EV) charging also expected to drive sales and peak growth:
  - EV share of total energy sales (MWh) increasing from 0% to 6%
  - EV share of summer peak demand (MW) increasing from 0% to 4%

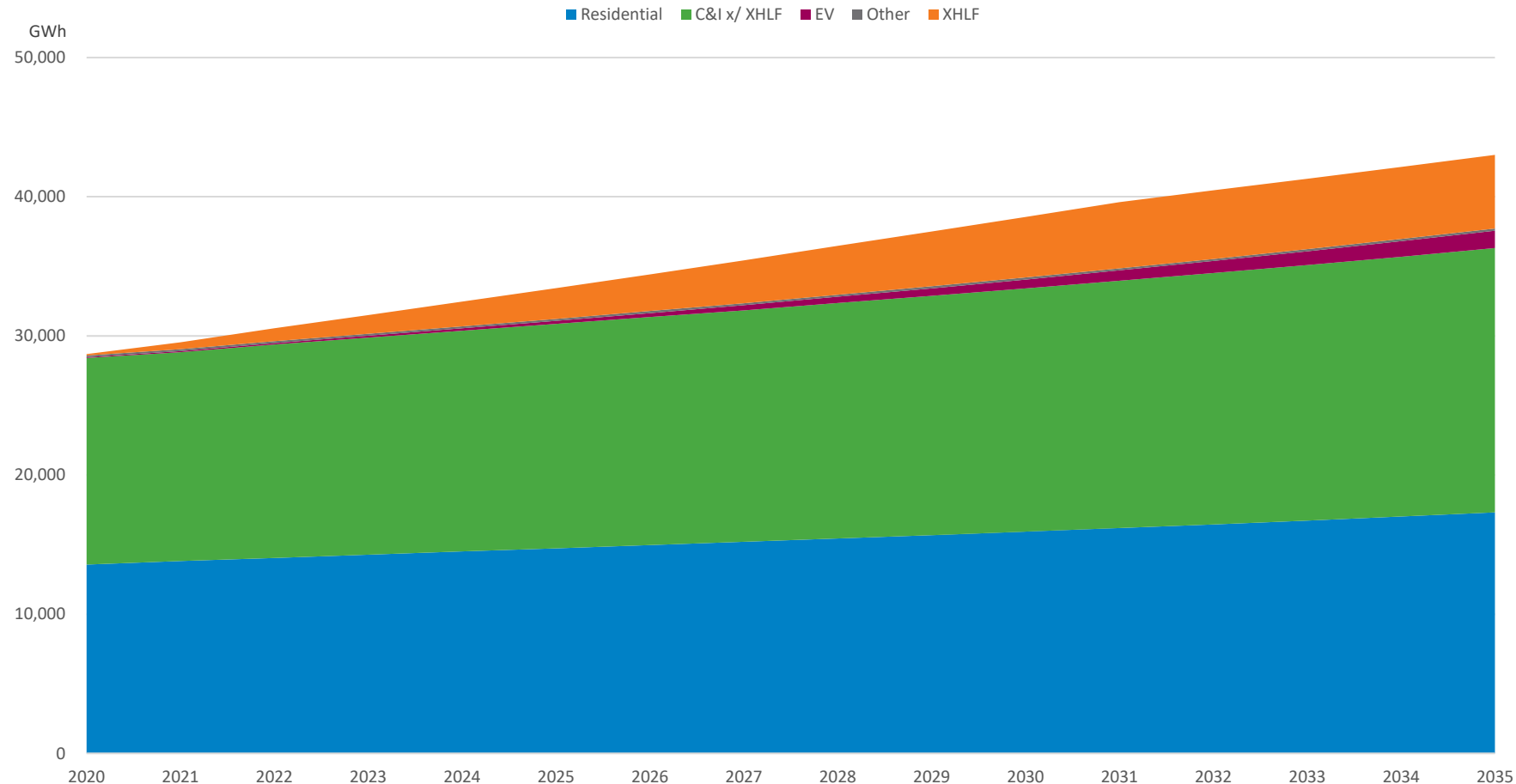
| Average Annual Growth Rates<br>For the 15-Year Planning Period | Customers   | Retail Sales<br>(MWh) | Peak<br>Demand<br>(MW) |
|--|-------------|-----------------------|------------------------|
| 2020 IRP (2020-2035)   | 1.6%        | 2.7%                  | 2.0%                   |
| <b>2023 IRP (2023-2038)</b>                                    | <b>1.5%</b> | <b>4.0%</b>           | <b>2.4%</b>            |





# 2020 IRP Sales Forecast

2020 IRP Sales Forecast (GWh)

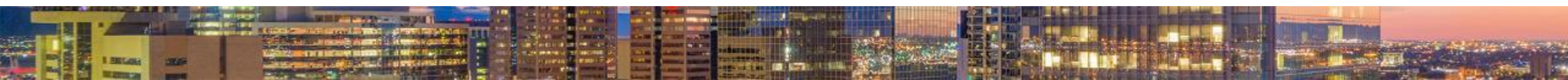


## Key Forecast Drivers

New **data center customers** are the major source of forecast growth

**C&I:** increased floor space and large customer growth, including anticipated supply chains for other large customers

**Residential:** increased home size, increased “other” uses





Datacenters and large manufacturing customers are expected to be the major source of load growth

**Biden to visit TSMC plant under construction in north Phoenix**

**\$600 million gas plant planned to support Phoenix semiconductor manufacturing facility**

**KORE Power poised to break ground on Valley battery manufacturing plant by end of 2022**

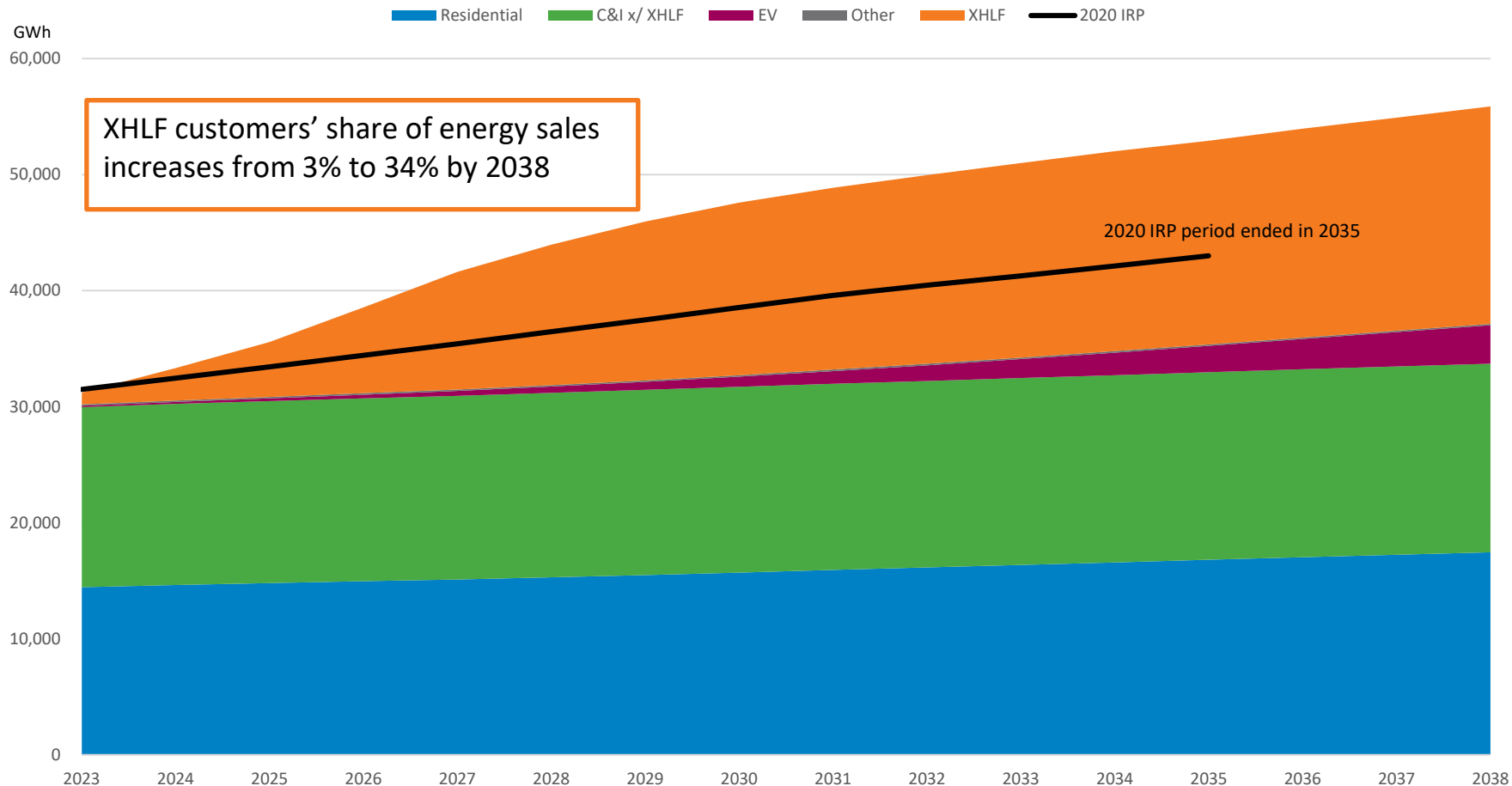
**Behind the deal: Why Nestle picked Arizona for its manufacturing plant**

Headlines from the Phoenix Business Journal



# Sales Forecast Update

2023 IRP Sales Forecast (GWh)



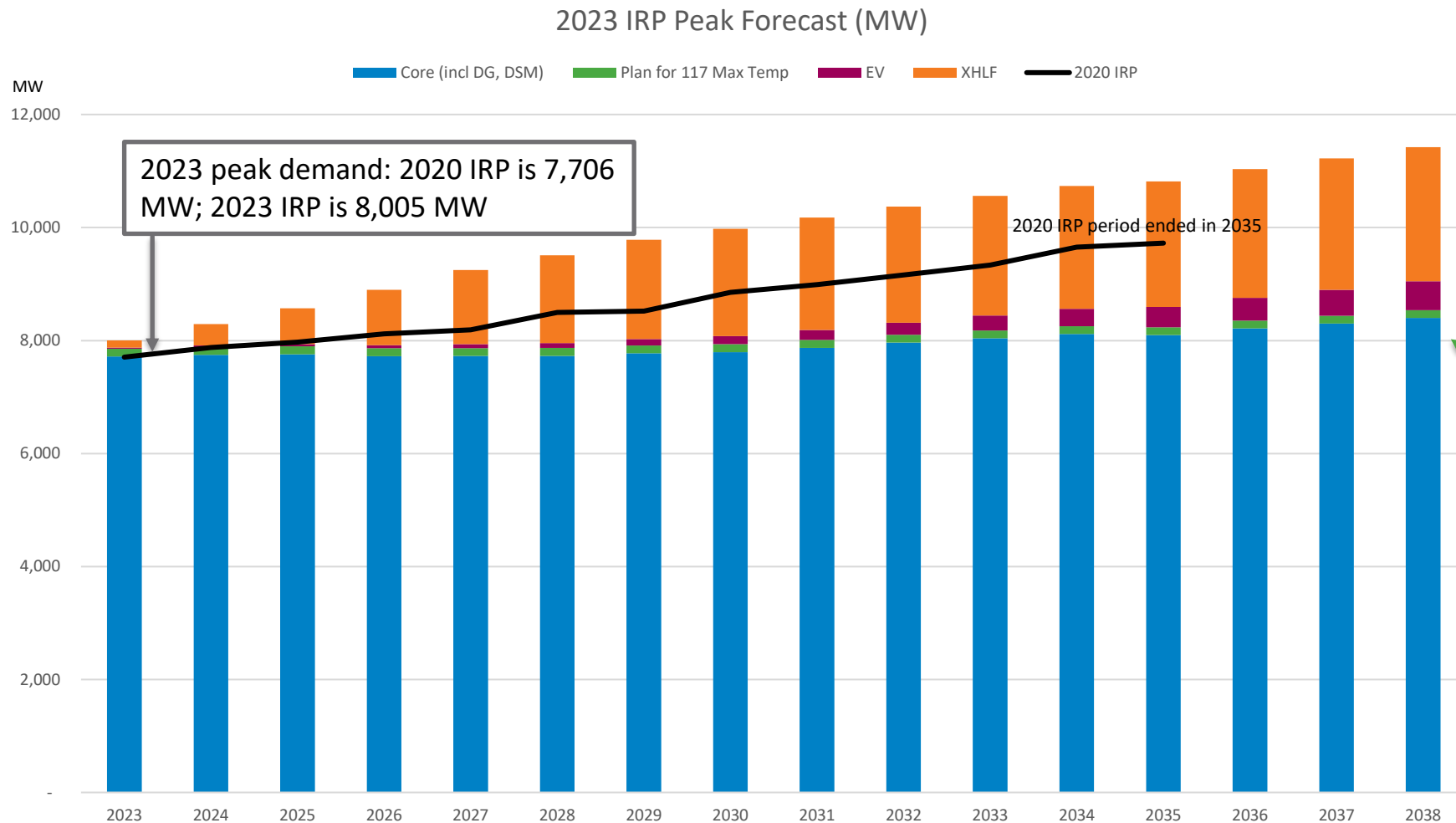
Large projected load increase due to datacenters and large manufacturing customers

**XHLF**

- Now projected at more than triple the amount of sales growth vs the 2020 IRP forecast
- 2020 IRP forecast had XHLF share of sales increasing to 12% in 2035

Net decrease among residential and C&I compared to 2020 IRP

# Peak Demand Forecast Update



In 2035, peak demand forecast is now 1,100 MW higher than 2020 IRP

**XHLF:** Almost all peak demand growth compared to 2020 IRP forecast is due to datacenters and large manufacturing

Planning for max temps of 117 degrees adds 139 MW to the peak forecast

Decrease in peak demand among residential and C&I compared to 2020 IRP





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# IRP Assumptions and Case Development

Mike Eugenis, APS



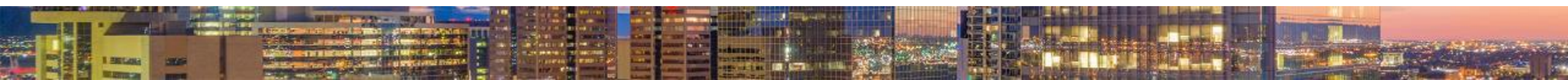
# IRP Cases are being developed around a reference case set of assumptions

## External environment

|   |  |
|---|--|
| <b>Load growth</b>  | <b>Capital costs</b>   |
| Peak load growth of ~3.5% p.a. from 2023-2032<br><i>(23Q1 w/ probability-weighting)</i> | Reflect 2022 ASRFP baseline pricing & utilize NREL ATB for future price curves                       |
| <b>Natural gas prices</b>   | <b>Market prices</b>   |
| 2023: ~\$3.98-8.22 / MMBtu<br>Future: \$4.38-5.32 / MMBtu                               | E3 revised 2023 prices<br><i>(reflects updated clean and renewable technologies throughout WECC)</i> |

## APS-specific assumptions

|  |   |  |
|--|---|--|
| <b>Financial</b>   | <b>EE and DSM deployment</b>                                  | <b>Four Corners replacement</b>  |
| 2.5 % Inflation<br>6.74% Weighted Average Cost of Capital (WACC) | In accordance with most recent DSM Implementation Plan        | Retire in 2031<br>Additional cases include retire in 2027, 2028, 2029, 2030, and 2031 with natural gas replacement |
|  | <b>Internal carbon price</b>                                  | <b>Clean Energy Commitment</b>   |
|  | \$20.72/ton CO <sub>2</sub> e<br><i>(internal assumption)</i> | 45% Renewable / 65% Clean by 2030  |

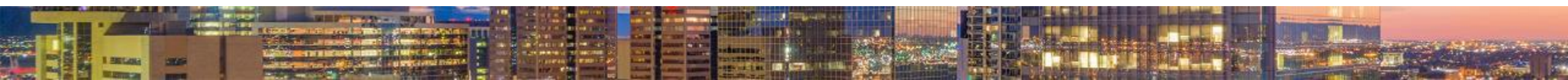




# APS has developed cases to evaluate uncertain assumptions.




| Case Name                   | Load Forecast | Gas Prices | Carbon Tax | Technology Cost | APS CEC and RPS Targets Included | Coal Dispatch | Four Corners Retirement | Storage Constraint                             | New Natural Gas | EE Constraint | Demand-Side Resource Constraint |
|-----------------------------|---------------|------------|------------|-----------------|----------------------------------|---------------|-------------------------|--|-----------------|---------------|---------------------------------|
| <b>Reference</b>            | Base          | Base       | Base       | Base            | Yes                              | Base          | 2031                    | <=25% of Peak Load + Peak Reserves though 2027 | Yes             | N/A           | N/A                             |
| <b>Low Gas Price</b>        | -             | ↓          | -          | -               | -                                | -             | -                       | -  | -               | -             | -                               |
| <b>High Gas Price</b>       | -             | ↑          | -          | -               | -                                | -             | -                       | -  | -               | -             | -                               |
| <b>Low Technology Cost</b>  | -             | -          | -          | ↓               | -                                | -             | -                       | -  | -               | -             | -                               |
| <b>High Technology Cost</b> | -             | -          | -          | ↑               | -                                | -             | -                       | -  | -               | -             | -                               |
| <b>High load Growth</b>     | ↑             | -          | -          | -               | -                                | -             | -                       | -  | -               | -             | -                               |
| <b>High Carbon Tax</b>      | -             | -          | ↑          | -               | -                                | -             | -                       | -  | -               | -             | -                               |
| <b>No New Natural Gas</b>   | -             | -          | -          | -               | -                                | -             | -                       | -  | ⊘               | -             | -                               |




| Key |                        |   |                           |   |                            |   |              |
|-----|------------------------|---|---------------------------|---|----------------------------|---|--------------|
| -   | Same as Reference Case | ↓ | Lower Than Reference Case | ↑ | Higher than Reference Case | ⊘ | Not Included |





# Additional cases required by the commission will be included in the IRP evaluation.

| Case Name                     | Load Forecast   | Gas Prices | Carbon Tax | Technology Cost | APS CEC and RPS Targets Included   | Coal Dispatch | Four Corners Retirement | Storage Constraint                             | New Natural Gas | EE Constraint            | Demand-Side Resource Constraint |
|-------------------------------|---|------------|------------|-----------------|--|---------------|-------------------------|--|-----------------|--------------------------|---------------------------------|
| <b>Reference</b>              | Base  | Base       | Base       | Base            | Yes  | Base          | 2031                    | <=25% of Peak Load + Peak Reserves though 2027 | Yes             | N/A                      | N/A                             |
| <b>High Demand Side Tech</b>  | -   | -          | -          | -               | -  | -             | -                       | -  | -               | >=1.5%/year for 10 years | >=35% of 2020 load by 2030      |
| <b>Technology Neutral</b>     | -   | -          | -          | -               |  | -             | -                       | -  | -               | -                        | -                               |
| <b>Low Load Growth</b>        | <1%  | -          | -          | -               | -  | -             | -                       | -  | -               | -                        | -                               |
| <b>No Load Growth</b>         | 0%   | -          | -          | -               | -  | -             | -                       | -  | -               | -                        | -                               |
| <b>Economic Coal Dispatch</b> | -   | -          | -          | -               | -  | No Must Run   | -                       | -  | -               | -                        | -                               |

| Key |                        |   |                           |   |                            |   |              |
|-----|------------------------|---|---------------------------|---|----------------------------|---|--------------|
| -   | Same as Reference Case |  | Lower Than Reference Case |  | Higher than Reference Case |  | Not Included |





# Four Corners coal operation retirement date sensitivities will be analyzed in the 2023 IRP.

Commission Required

| Case Name                                    | Load Forecast | Gas Prices | Carbon Tax | Technology Cost | APS CEC and RPS Targets Included | Coal Dispatch | Four Corners Retirement           | Storage Constraint                             | New Natural Gas | EE Constraint | Demand-Side Resource Constraint |
|--|---------------|------------|------------|-----------------|----------------------------------|---------------|-----------------------------------|--|-----------------|---------------|---------------------------------|
| Reference                                    | Base          | Base       | Base       | Base            | Yes                              | Base          | 2031                              | <=25% of Peak Load + Peak Reserves though 2027 | Yes             | N/A           | N/A                             |
| Four Corners Retire 2027                     | -             | -          | -          | -               | -                                | -             | ↓ 2027                            | -  | -               | -             | -                               |
| Four Corners Retire 2028                     | -             | -          | -          | -               | -                                | -             | ↓ 2028                            | -  | -               | -             | -                               |
| Four Corners Retire 2029                     | -             | -          | -          | -               | -                                | -             | ↓ 2029                            | -  | -               | -             | -                               |
| Four Corners Retire 2030                     | -             | -          | -          | -               | -                                | -             | ↓ 2030                            | -  | -               | -             | -                               |
| Four Corners Retire 2031 Replace w/ Nat. Gas | -             | -          | -          | -               | -                                | -             | 2031 with Natural Gas Replacement | -  | -               | -             | -                               |

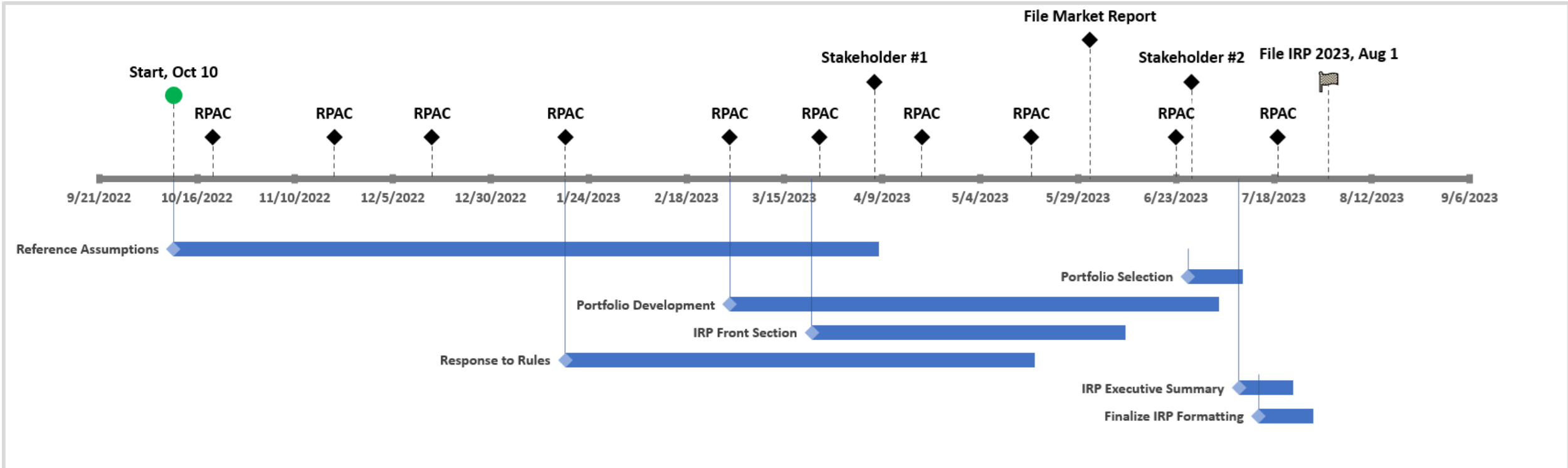
| Key |                        |   |                           |   |                            |   |              |
|-----|------------------------|---|---------------------------|---|----------------------------|---|--------------|
| -   | Same as Reference Case | ↓ | Lower Than Reference Case | ↑ | Higher than Reference Case | ⊘ | Not Included |





Closing Remarks  
Matt Lind, 1898 & Co.

# IRP Timeline



## Key Milestones

Market Report: Early June

Public Meeting #2:  
Tentatively June 27

IRP Filing: August 1



# APS Integrated Resource Plan

Mike Eugenis, Manager, Resource Planning



# COMMITTED TO A **CLEAN ENERGY FUTURE**



Palo Verde Generating Station, the nation's largest clean-energy producer, is the foundation for our carbon-free energy future.

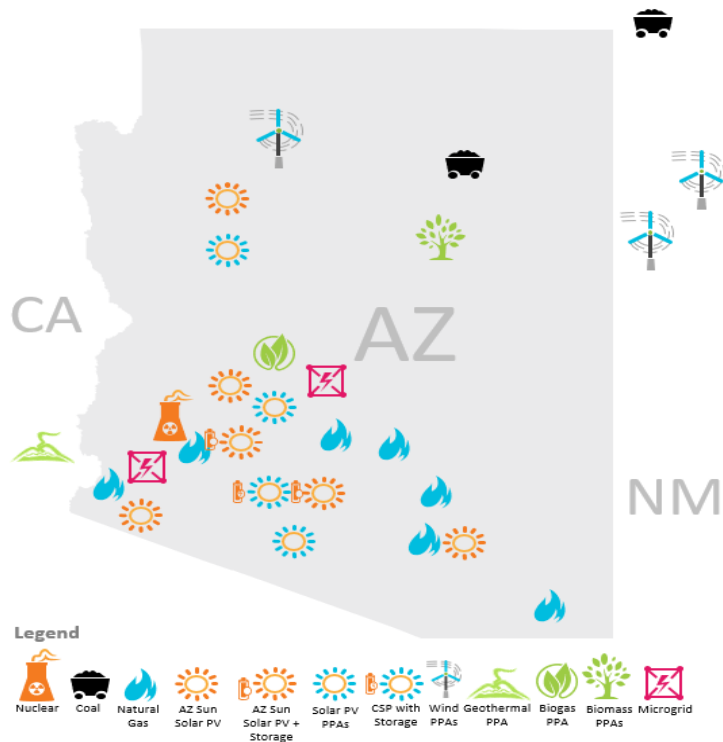


Investments in solar, wind and energy storage are vital—as are continued advances in energy technology and efficiency.



Collaboration with customers, regulators and other stakeholders is key to our plan's ultimate success.

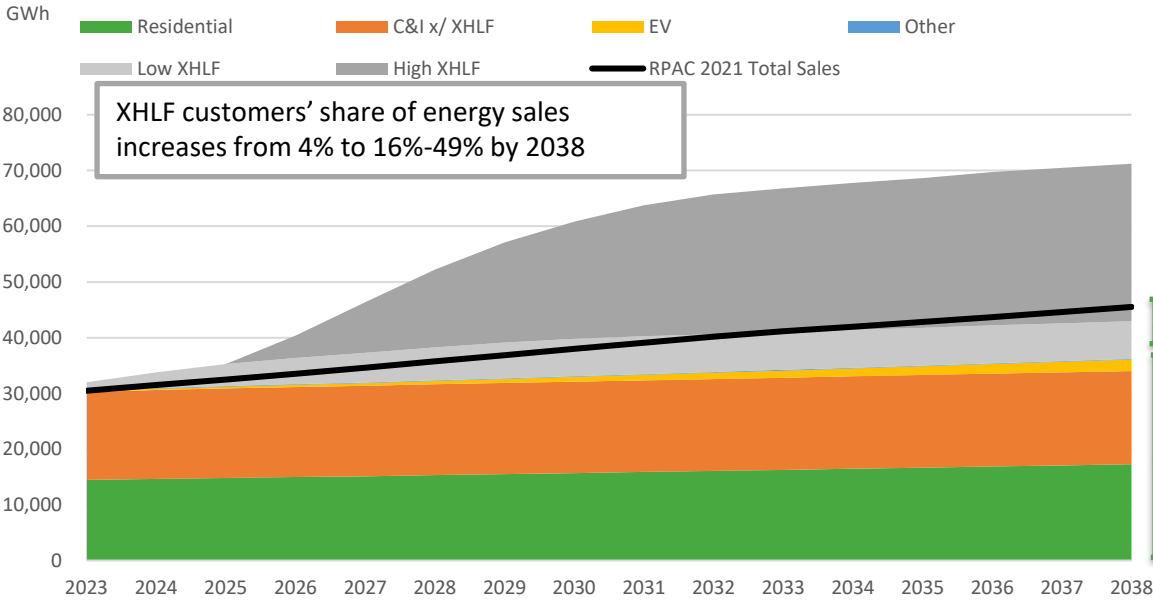
# 2023 APS Resource Diversity



|                                   | PEAK CAPACITY | NAMEPLATE CAPACITY |
|-----------------------------------|---------------|--------------------|
| <b>Nuclear</b>                    | <b>1,146</b>  | <b>1,146</b>       |
| <b>Coal</b>                       | <b>1,347</b>  | <b>1,347</b>       |
| <b>Natural Gas</b>                | <b>5,120</b>  | <b>5,239</b>       |
| APS Owned                         | 3,347         | 3,466              |
| PPAs                              | 1,773         | 1,773              |
| <b>Short-term Purchases</b>       | <b>713</b>    | <b>713</b>         |
| <b>Microgrid (Quick Start)</b>    | <b>42</b>     | <b>42</b>          |
| <b>Renewables</b>                 | <b>669</b>    | <b>1,440</b>       |
| Solar                             | 439           | 737                |
| APS Owned Solar                   | 189           | 378                |
| Solar PPAs                        | 250           | 359                |
| Wind (PPAs)                       | 147           | 620                |
| Solar + Storage (PPA)             | 60            | 60                 |
| Other (PPAs)                      | 23            | 24                 |
| <b>Energy Storage</b>             | <b>128</b>    | <b>265</b>         |
| <b>Incremental Customer-Based</b> | <b>237</b>    | <b>499</b>         |
| Energy Efficiency                 | 132           | 132                |
| Distributed Energy                | 9             | 217                |
| Demand Response                   | 96            | 123                |
| <b>TOTAL</b>                      | <b>9,402</b>  | <b>10,292</b>      |

# Sales Forecast Update

RPAC 2022 Sales Forecast (GWh)



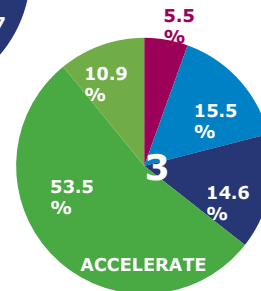
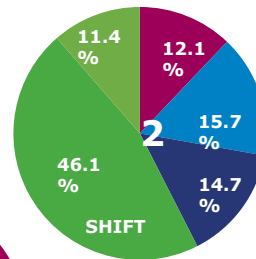
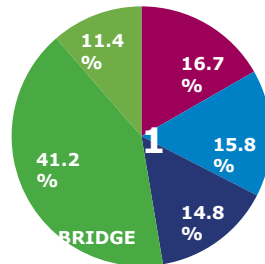
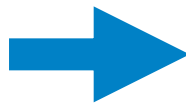
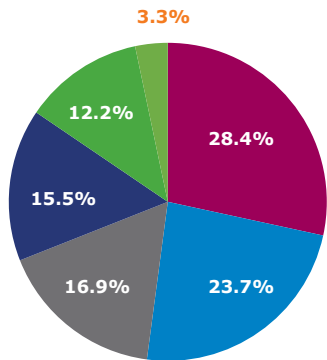
Large projected load increase due to prospective datacenters and large manufacturing

**High XHLF:** an increase of 28,000 GWh by 2038 vs Low XHLF based on prospective XHLF customers (probabilistic approach)

**Low XHLF:** close to 2021 RPAC, based largely on existing customers

Slight net decrease among residential and C&I compared to 2021 RPAC forecast

# MAINTAINING A DIVERSE ENERGY MIX IS IMPORTANT



2020 | 30,460 GWh

2035 | 44,678 GWh



Natural Gas



Nuclear



Coal



Demand Side Mgmt.



Renewables



Purchase

Source: 2020 IRP, Pg. 136 & 138

# Customer to Grid Solution

Judson Tillinghast, Manager,  
Customer to Grid Solutions



# OUR STRATEGY

**CLEAN**



**AFFORDABLE**



**RELIABLE**



**CUSTOMER  
CENTRIC**



# ELECTRIC VEHICLES

Providing EV charging equipment to  
businesses, government agencies, non-  
profits and multi-family communities

161 sites completed

Rapid charging sites



# COOL REWARDS PROGRAM

In partnership with our customers



Customers get a \$35 annual participation credit and can save up to \$115 with rebates and special offers through APS Marketplace



APS adjusts thermostats by a few degrees on the hottest days (<20 days per year)



Small adjustments over 70,000 thermostats is like harnessing the power of a small power plant



Goal of 100,000 thermostats by end of 2023



# COMMUNITY PARTNERSHIPS



**Phoenix**



**Tempe**



**Flagstaff**

## KEEPING IT **RELIABLE**



Solar Programs



Battery Storage



Microgrids



EV Fleet

## CITY OF FLAGSTAFF STAFF SUMMARY REPORT

**To:** The Honorable Mayor and Council  
**From:** David McIntire, Community Investment Director  
**Date:** 05/19/2023  
**Meeting Date:** 05/30/2023



### TITLE:

**Annual Report for MOONSHOT at the Northern Arizona Center for Entrepreneurship and Technology (NACET) - 2023**

### DESIRED OUTCOME:

MOONSHOT is contracted with the City to provide business development and support as well as property management services. They provide an annual report to City Council. The desired outcome is for City Council and the public to be informed of the activities and results generated by the contract, as well as MOONSHOT's efforts in the region with the City of Flagstaff.

### EXECUTIVE SUMMARY:

The City of Flagstaff contracts MOONSHOT to provide business development and support services and to operate the NACET campus. The campus includes a 10,000 square foot Business Incubator and a 28,000 square foot Business Accelerator. The focus of the contract is to provide business development services for entrepreneurs in Flagstaff and to manage the facilities in order to grow businesses and jobs in: research and development, science, technology, clean-energy, bio-science, healthcare, manufacturing, digital products, emerging technology, tourism and astronomy for the benefit of the City and the citizens of Flagstaff and the State of Arizona. Each year MOONSHOT presents to City Council on their accomplishments and activities related to this contract and to their other economic development efforts in the region.

### INFORMATION:

As described above, MOONSHOT is contracted, through a Master Lease and Service Agreement, to provide business development and support services and property management for the City of Flagstaff in the NACET campus. In doing so, they must adhere to grant restrictions in place because the city received significant funding for the campus from the US Economic Development Administration which limits the use of the campus to the specific sectors outlined in the Executive Summary.

As you will hear with more specifics from the presentation, during the previous years and over the term of the agreement MOONSHOT has provided continued strong occupancy and has supported businesses to develop and grow. They have generated strong benefit in their benchmark areas such as businesses served, jobs created, occupancy, revenue to the City, and investment in their business clients. They also partner with the City on programs such as the Innovate Waste Challenge and other opportunities as well.

The relationship with MOONSHOT has been consistent over a number of years. The current agreements began on January 1, 2019, and the term of the contract expires in December 2023, but has two 5-year renewals available should both sides agree to extend the partnership. City staff and MOONSHOT staff

have met to discuss that renewal and any amendments that could improve the agreements and are reaching consensus on those terms. The City currently pays a combined total of \$268,000 for business services and the property management of the campus. The City receives rent revenue from the campus and pays management and maintenance expenses. A revenue report generated on May 19th shows rent revenue of approximately \$339,000 with more to come as the year closes out. This is approximately \$19,000 more than at this time last year which had been the strongest year to date.

---

**Attachments:**     [MOONSHOT presentation 23](#)



**Moonshot**  
at NACET

**THE ONES WHO ARE  
BOLD ENOUGH TO  
THINK THEY CAN  
CHANGE THE WORLD...**

**ARE THE ONES  
THAT DO.**



# Moonshot

at NACET

**2021-2022 REVIEW**

**DIANA WHITE, EXECUTIVE DIRECTOR - FLAGSTAFF**

# Meet the Team



*Diana White*

Executive Director



*Angela Hamby*

Dir. of Events and Community Relations



*Rainah Ramsey*

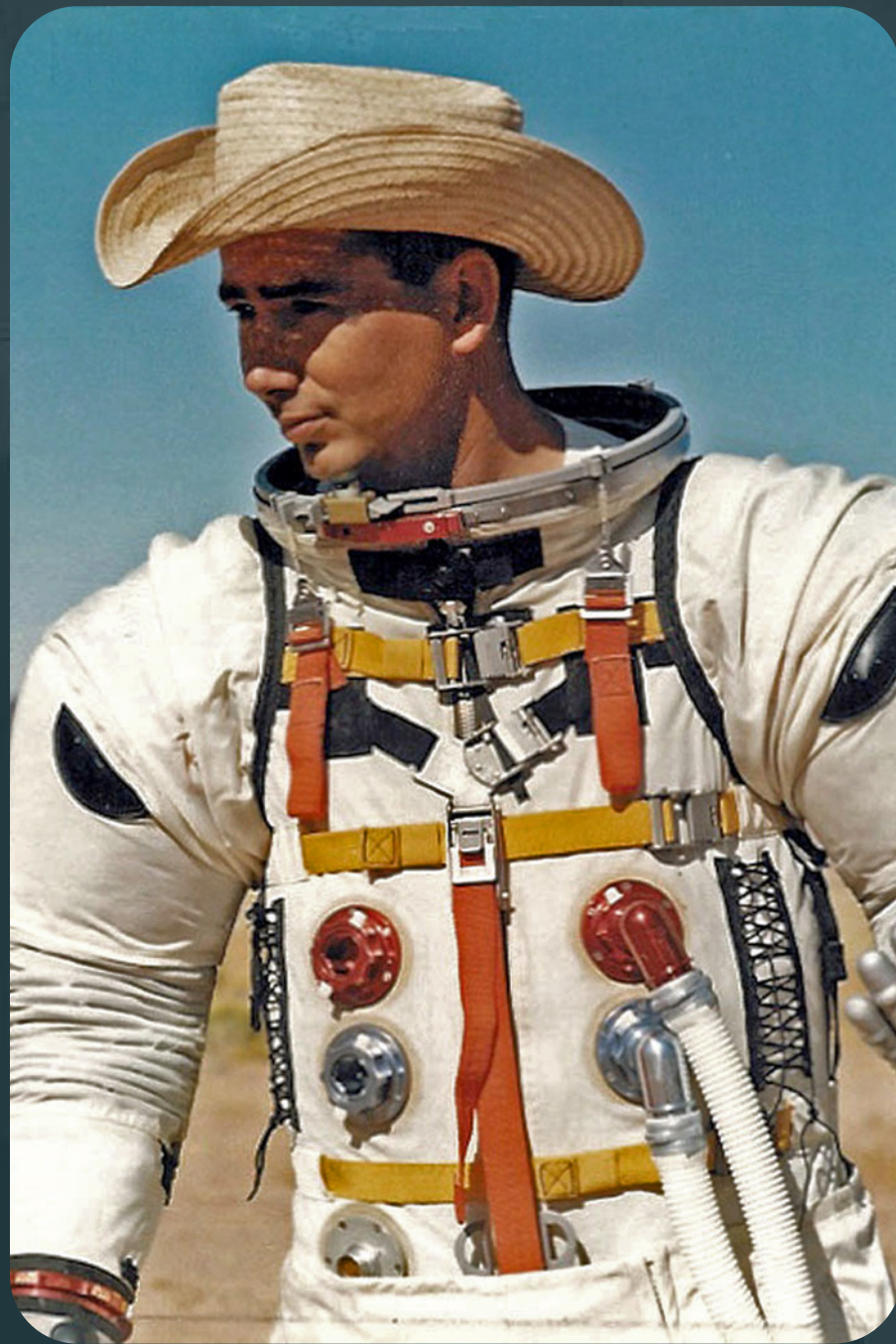
Facilities Coordinator



 **Moonshot**  
at NACET

# A LOOK AT THE NUMBERS

How Moonshot at NACET is Impacting the Local Economy



# MOONSHOT AT NACET CAMPUS TOTAL INVESTMENT FUNDS

2019 - \$3,482,561

2020 - \$224,600

2021 - \$7,831,615

2022 - \$14,306,000



# MOONSHOT AT NACET CAMPUS

## TOTAL REVENUE GENERATED

2019

\$5,620,635

2020

\$4,778,869

2021

\$29,980,709

2022

\$42,960,680



# JOBS

MOONSHOT AT NACET  
CAMPUS TOTAL JOBS  
RETAINED AND  
CREATED

2019

303

2020

308

2021

384

2022

356

# 2022

## MOONSHOT AT NACET CAMPUS OCCUPANCY RATES AND NEW TENANTS

### OCCUPANCY RATES

Incubator: 95%  
Accelerator: 73%  
Total: 73%

### NEW TENANTS

Heetshield  
Starter.Video  
Crosswalk Labs  
Burgess and Niple  
Strong Strides  
Choice Humanitarian  
Team Logic



CHOOSE  
**FLAGSTAFF**  
THE CITY OF INNOVATION



# CURRENT OCCUPANCY RATE AT NACET

# 730%\*

\* Highest occupancy count in 2022 was 78%

AS OF MAY 2023



**A LOOK AT A FEW  
MOONSHOT AT NACET EVENTS**

# 2022 NACET Event Highlights

*Missions & Madness*



*Campus Quarterly Meetings*



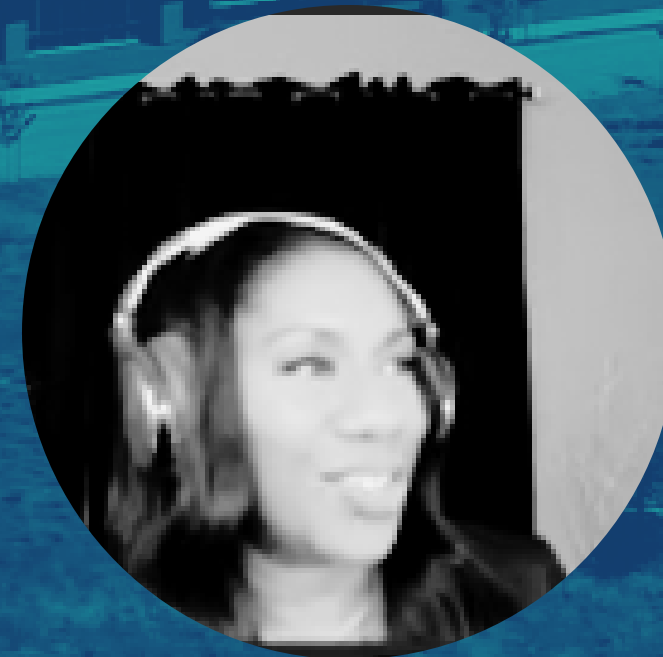
*EDA Nacet Tour*



*Workshops*



*Nacet Tracks*



 **Moonshot** | 2022-2023

# 4TH ANNUAL AZ PIONEER PITCH STATE-WIDE TOUR

PRESENTED BY



**BlueCross  
BlueShield**  
Arizona

An Independent Licensee of the Blue Cross Blue Shield Association



**ARIZONA**  
COMMERCE AUTHORITY



*Congrats to our winners!*

**1ST PLACE - DAVID RICHARDS, BLOCKCHAIN UNMASKED**

**2ND PLACE - SUSAN PURRINGTON, WELCOMED HERE**

**3RD PLACE - NICOLE SARN, WHOLE HEARTEDLY NUTS**

## Flagstaff Local Sponsors



CHOOSE  
**FLAGSTAFF**  
THE CITY OF INNOVATION

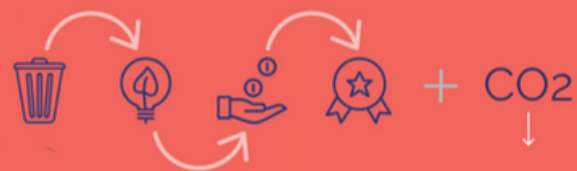


# WINNERS TOOK HOME THEIR SHARE OF \$30,000 IN CASH PRIZES!



**Innovate  
Waste  
& Carbon  
Neutrality  
Challenge**

Presented by The City of Flagstaff



**CONGRATULATIONS TO THE WINNERS OF THE 4TH ANNUAL INNOVATE WASTE AND CARBON NEUTRALITY CHALLENGE EVENT! SPECIAL THANKS TO FLAGSTAFF CITY GOVERNMENT, FLAGSTAFF ECONOMIC DEVELOPMENT OFFICE, FLAGSTAFF SUSTAINABILITY OFFICE, FLAGSTAFF CITY COUNCIL AND TO OUR VOLUNTEER MENTORS AND JUDGES.**

1st Place - 4 Corners Carbon Coalition | 2nd Place - Convergent Dynamics | 3rd Place - Silvaflux



🌩️ Moonshot

# The 3rd Annual SH⚡EMAKER

*wards*



MOONSHOT AT NACET PRESENTS

---

# WE MEAN BUSINESS

## WOMEN ENTREPRENEURS & BUSINESS LEADERS

*Coffee Meetups for Moonshot Thinking Leaders*



NACET - 2201 N GEMINI DRIVE  
ACCELERATOR BUILDING  
POLICY ROOM

[MOONSHOTAZ.COM/WE-MEAN-BUSINESS](https://moonshotaz.com/we-mean-business)



Thank you!



**Moonshot**  
at NACET

**DIANA WHITE, EXECUTIVE DIRECTOR - FLAGSTAFF**

## CITY OF FLAGSTAFF STAFF SUMMARY REPORT

**To:** The Honorable Mayor and Council  
**From:** Michelle McNulty, Planning Director  
**Date:** 05/19/2023  
**Meeting Date:** 05/30/2023



### TITLE:

**J.W. Powell Specific Plan Study Update**

### DESIRED OUTCOME:

Provide a status update on the J.W. Powell Specific Plan Study.

### EXECUTIVE SUMMARY:

City Staff will provide an update on the J.W. Powell Specific Plan Study. This update will focus on what a specific plan is and the customization of such a plan for this area. Furthermore, the update will cover recent flooding as well as specifics for Change Order 5. This Change Order is being requested to allow for the critical planning and public involvement portion of this project to take place. The Specific Plan will create a robust planning initiative for the entire study area and include careful coordination with City Staff and leadership, study area landowners, and community members. The final “plan” and document will address the full range of deliverables including proposed policies, proposed plans and proposed initiatives moving forward. All with the intent of complementing the City’s Regional Plan and helping to guide growth and development in this area of the City.

### INFORMATION:

**Background/History:** On 20 February 2018, City Council approved the contract with Peak Engineering, Inc. for the John Wesley Powell Area Specific Plan Study to develop a Specific Plan to guide the future private development of public infrastructure, utilities and public facilities (schools, fire/police stations, libraries, parks, etc.).

In November 2018, voters approved Proposition 419 which allocated funding for roadway and bike and pedestrian improvements along the future John Wesley Powell Boulevard extension.

On 27 October 2020, City Staff and the JW Powell Design Team presented an update to City Council regarding the current design work and the Land Use Framework.

On 28 January 2021, the JW Powell Design Team conducted a corporate meeting with the small-parcel property owners and consequential one-on-one meetings with small-parcel property owners who requested to meet regarding specifics to their respective parcels. Starting in May 2021, the JW Powell Design Team began to meet with the large-parcel property owners individually.

On 28 June and 7 July 2022, City Council, along with copious community input, selected the final alignment for the new JWP roadway extension. The final alignment shifts the alignment to the west and out of the South Fourth Street corridor.

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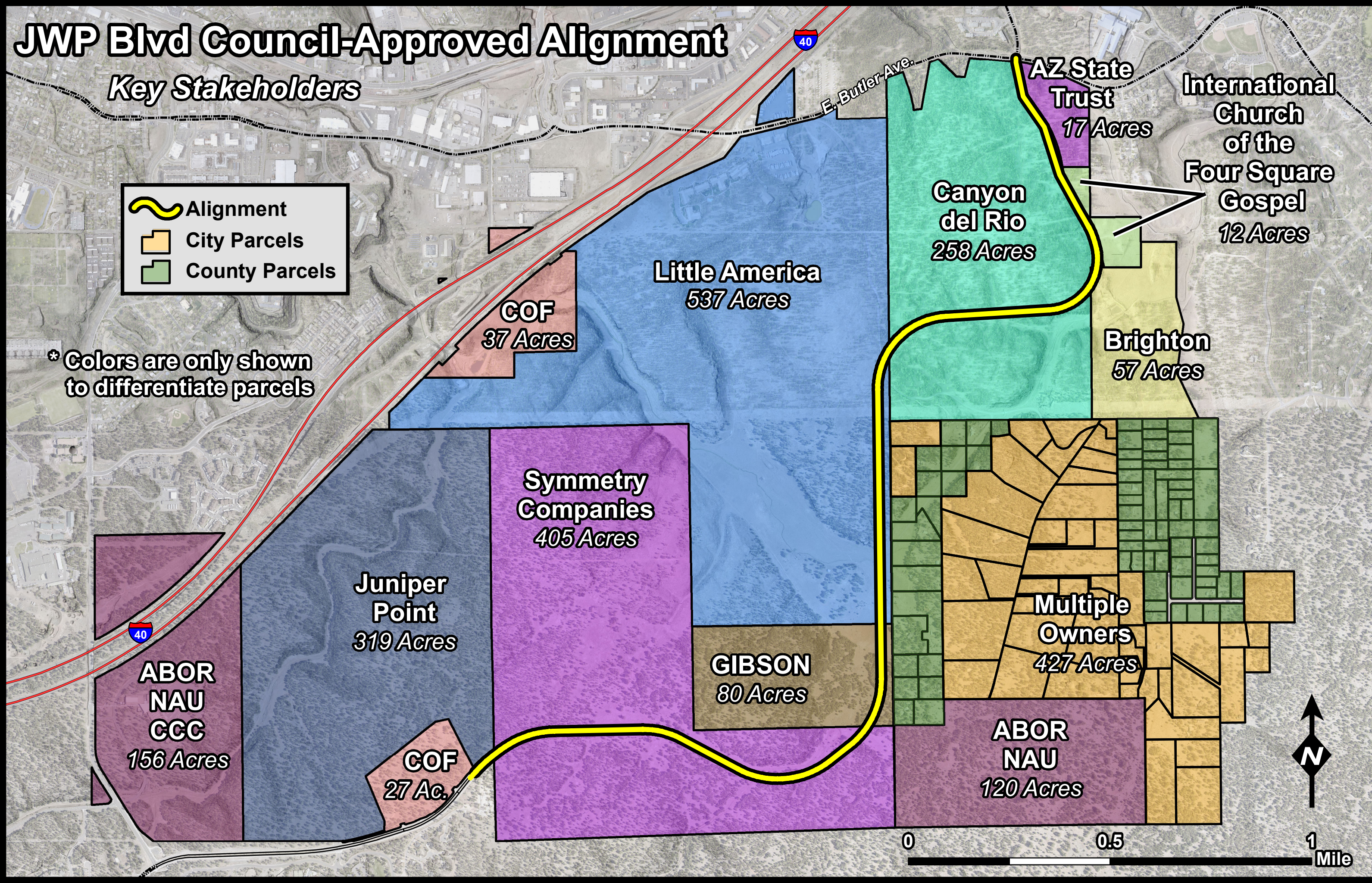
**Attachments:** [Council-Approved Alignment Map](#)  
[Specific Plan Scope of Work](#)  
[Presentation](#)

# JWP Blvd Council-Approved Alignment

## Key Stakeholders

-  Alignment
-  City Parcels
-  County Parcels

\* Colors are only shown to differentiate parcels



**COF**  
37 Acres

**Little America**  
537 Acres

**Canyon del Rio**  
258 Acres

**AZ State Trust**  
17 Acres

**International Church of the Four Square Gospel**  
12 Acres

**Brighton**  
57 Acres

**Symmetry Companies**  
405 Acres

**Juniper Point**  
319 Acres

**GIBSON**  
80 Acres

**Multiple Owners**  
427 Acres

**ABOR NAU CCC**  
156 Acres

**COF**  
27 Ac.

**ABOR NAU**  
120 Acres



## CHANGE ORDER #5 REQUEST – JWP SPECIFIC AREA PLAN SCOPE OF SERVICES

Date: December 6, 2022  
Rev 1: December 15, 2022  
Rev 2: March 7, 2023  
Rev 3: March 9, 2023  
**Rev 4: March 30, 2023**

Project: John Wesley Powell Specific Plan Study, Phase 1

COF Project No: 03-16010 (PO 18-001394)

Peak Project No: 17COF02

Prepared For: David Pedersen, Capital Improvements Project Manager

Prepared By: Julie Leid, P.E., Peak Project Manager

---

We have prepared this change order request for preparation of the Specific Area Plan in collaboration with Swaback.

Swaback will lead the effort for the Specific Area Plan as outlined in Exhibit A, attached. Peak Engineering will provide overall project management and support for this effort as defined in Task SP below.

### TASK SP-1: PROJECT MANAGEMENT & MEETINGS (ALLOWANCE)

Project Management: Scope, Schedule, QA/QC, internal communications and coordination for the duration of the project (approximately 12 months). This effort is included in the 10% subconsultant markup on Swaback's proposed fee.

Meetings: We have established an allowance for support of and participation in meetings as outlined in Swaback's attached proposal. The allowance is based on an assumed level of effort of 8 hours/month of PM time and 12 hours/month of PE time for a 12 month duration per the current rate sheet attached as Exhibit B to this proposal. The total allowance is 96 hrs at \$180/hr plus 144 hours at \$170/hr = \$41,760

Given the uncertainty of the participation needed in this effort, we propose to bill this effort as hourly up to the allowance amount presented.

### TASK SP-2: TRAFFIC PLANNING SUPPORT (ALLOWANCE)

Peak Engineering will consult with Burgess & Niple for traffic planning support, if needed, for preparation of the Specific Area Plan. Burgess & Niple is currently contracted with the City of Flagstaff for the Butler Avenue Roadway Improvements and with MetroPlan on the Regional Transportation Plan. The planning support would integrate the latest traffic models underway, as provided and available.

This task is an allowance for supporting the *Transportation Planning Analysis/ Considerations* identified in Swaback's proposal. For now, this allowance is a placeholder with the specific scope/task to be developed once the planning effort is underway.

## FEE SUMMARY

*As of 12/1/2022, no further work will be performed or deliverables made on the basic scope of services and approved change orders (#1-#4). The balance remaining in the current contract amount has been moved and shown as a carry-forward for this change order request.*

|  |                     |
|--|---------------------|
| Task SP1 (Peak Engineering) Allowance:                                       | \$41,760            |
| Task SP2 (Burgess & Niple) Allowance:<br>(includes 10% subconsultant markup) | \$16,500            |
| Swaback (per Exhibit A):<br>(includes 10% subconsultant markup)              | \$242,000           |
| Allowance for Project Expenses:<br>(direct cost printing, postage, mileage)  | \$25,000            |
| <hr/>  |                     |
| Subtotal Change Order #5   | \$325,260.00        |
| Carry Forward of Contract 2017-63:   | (\$105,117.38)      |
| <hr/>  |                     |
| <b>Change Order #5 Amount:</b>   | <b>\$220,142.62</b> |
| Current Contract Amount:   | \$485,978.59        |
| <hr/>  |                     |
| <b>New Contract Amount:</b>  | <b>\$706,121.21</b> |

## SCHEDULE EXTENSION

This request includes a contract time extension through May 31, 2024 for a contract extension of 601 calendar days for a new contract period of 2,244 days. Note that the current contract expiration is October 8, 2022.



12.2.2022

## EXHIBIT A

### J.W. Powell Boulevard- Specific Plan (“Light”)

#### Proposed Work Plan

##### Overview

The following scope of services has been organized in a very efficient and effective manner to ensure a robust planning initiative for the entire study area. This effort will include careful coordination with COF staff & leadership, key “stakeholders” (landowners), and interested community members. The methodology set forth will move from generals to particulars as each task is executed and the outcome becomes more crystalized. With each task, we will reinforce community input with a series of key meeting and workshops that include key stakeholders and Flagstaff citizenry. The final “plan” and document will address the full range of deliverables including; proposed polices, proposed plans and proposed initiatives moving forward. All with the intent of complimenting the City’s Regional Plan and helping to guide growth and development in this area of the City.

##### Tasks

Each of the following tasks identify a general description of the planned work effort, associated process, and planned accomplishments. In addition, specific deliverables, timelines, key meetings and costs are identified. All key mapping will be prepared in AutoCAD compatible programming so that GIS conversion will be easily accomplished (if necessary in the future by COF staff). The final report will be prepared in InDesign, a high-end desk-top publishing software. The software will be accompanied by a range of graphics, sketches, illustrations, diagrams, photographs and exhibits that will be incorporated into the overall document. Note; while the consultant team will strategize, formulate, prepare and orchestrate all public related meetings (for stakeholders/ for interested community members/ for Planning Commission& City Council), we assume that staff will be responsible for all public notifications, related communications and associated related logistics (securing venues, etc).

Assumes a January 1<sup>st</sup>, 2023 formal start date (with a Notice to Proceed mid-December 2022).

**Task One: Critical Review of Background Information** (4-6 weeks)

As part of the kick-off effort, the Consultant team will coordinate with COF staff on all key components of the study. This effort will include the preparation of detailed base mapping and associated data pertinent to the study area (including private development current planning efforts/ initiatives). We will also coordinate the logistics of internal team communication and roles/ responsibilities. The consultant team will prepare a detailed schedule of the overall process that identifies timing of each task, internal working meetings, COF review periods as well as all associated public meetings (for stakeholders and community members). This initial stage of work will include the review and approval of the Public Participation Plan and planned meetings. We will also crystallize the overarching goals and objectives for the exercise. This initial effort will conclude with a Community Wide “Project Kick-off Information Session”; which provides a public setting and presentation to interested community members as to the overall process, timing, key participants, goals & objectives, etc.

Note- as part of Task One, the market analysis portion of the study will be kicked off so that initial development modeling can be forecasted as part of Task Two. This market analysis will focus on demand/ capacity for a range of potential needs including; higher density housing, related retail & commercial uses as well as hotel/ hospitality demand. This analysis assumes the COF will provide the consultant team with any and all market data/ demographic data available. It is anticipated that this analysis will be completed prior to Task Three so that associated recommendations for uses (density and intensity) can be incorporated into options for the preliminary planning framework.

*Deliverables:*

- 1a. Preparation of base mapping (compilation of existing data and documents)*
- 1b. Preparation of Project Schedule with key meeting dates*
- 1c. Memorandum on Project Goals and Objectives with planned key Elements*
- 1d. Memorialize the Public Participation Plan*
- 1e. “Check-In/ Introduction Meeting with Stakeholder Group (landowners)*
- 1e. Orchestrate Community Project “Kick-Off” Meeting*
- 1f. Kick-off the Market Analysis/ Research Effort*

**Fee Budget: \$40,000.00**

**Task Two: Analysis of the Land Area** (2 months)

Before making any detailed recommendations, the consultant team will refine the site analysis effort within the context of current development considerations. This Opportunities and Constraints assessment will “align” with the framework of the Regional Plan’s **Natural Environment** and begin to formalize key considerations associated with environmental sensitivities, open space, water resources and energy. As part of this effort, the consultant team will study current private development initiatives in more detail in order to better articulate desired COF outcomes that align with the Regional Plan. As part of this effort, a “Stakeholder Work Session” will be conducted with the property ownership groups to further understand their aspirations and begin to foster an integrated planning methodology that balances public/ private considerations.

This stage of work will solidify the overall development framework and highlight those areas to study in more detail for Task Three.

*Deliverables:*

- 2a. *Refined Environmental Overlay Analysis (slopes, floodplains, etc.)*
- 2b. *Refined Open Space Overlay Analysis (wildlife corridors, vegetation, hydrology, etc.)*
- 2c. *Refined Trail Connectivity Analysis/ Considerations*
- 2d. *Refined Transportation Planning Analysis/ Considerations*
- 2e. *Opportunities and Constraints Summary Mapping of Sensitive Lands*
- 2f. *Public Facilities/ Services Refined Considerations*
- 2g. *Key Related Draft Goals and Policies for **Natural** Environment*
- 2h. *Orchestrate Initial Strategy Meeting with Stakeholders (Landowners)*
- 2i. *Market Summary Recommendations Memorandum on Capacity Potential (density & intensity)*

**Fee Budget: \$40,000.00**

**Task Three: Preliminary Plan Framework** (3 months)

Once the site analysis is completed and the overall development strategy is carefully established in collaboration with private landowners, the consultant team will begin to formulate options and strategies for the physical framework of the study area with a particular focus on place types (activity centers/ neighborhoods/ corridors) and the associated range of land uses. The initial market analysis study will now be expanded to include detailed potential recommendations for the range of focused uses that will include; higher density housing scenarios/ retail & commercial uses, etc. Based on a series of physical planning scenarios, a range of draft land use policies will be prepared that align with future potential development. This task will focus on alignment of the **Built Environment** section of the Regional Plan with the goal of complimented the established polices, goals and objectives. In addition, community character, site design, great streets, and architecture will be considered at this time.

We will also solidify direction for any and all related future “civic” uses. These considerations will include; public parks, public schools, other public facilities, etc.

*Deliverables:*

- 3a. *“Hybrid” Planning Options for Built Environment (a minimum of three scenarios/ land use)*
- 3b. *Configuration of Place Types associated with scenarios*
- 3c. *Trail Connectivity Options and Draft Recommendations*
- 3d. *Open Space Options and Draft Recommendations*
- 3e. *Architecture, Site Design and Landscape Character*
- 3f. *Key “Great” Streets and Roadway Network Framework*
- 3g. *Market Summary Recommendations Memorandum on Capacity Potential (density & intensity)*
- 3h. *Key Related Draft Goals and Policies for **Built** Environment*
- 3i. *Orchestrate Community Open House*
- 3j. *Orchestrate Stakeholder Work Session*
- 3k. *Orchestrate City Council “Progress” Presentation*

**Fee Budget: \$50,000.00**

**Task Four: Crystalizing the Planning Strategy** (2 months)

Based on the outcome of the series of prior tasks, the consultant team will look for formalize the recommendations for the Specific Area Plan with a focus on the **Human Environment** that highlights the organization of thoughtful neighborhoods within the context of housing demand, housing need and housing affordability (ownership and rental). Per the options explored in the preliminary plan framework, a more refined overall planning structure will be prepared and presented to ensure a general collective agreement as to the preferred direction. This process will include an additional stakeholder work session, as well as a follow up community-wide meeting. While all-encompassing agreement is not assured, the key to the public participation process is to ensure that the full spectrum of interested parties have the opportunity to share their interest and concerns through out the process. This public input will be documented at every stage of the process and the consultant team will highlight and articulate how the citizenry involved process helped to shape the final plan and outcome. All the components from Task Three will be refined and formulated to the preferred plan direction (community design/ urban design/ architecture character/ policies and goals/ etc.).

*Deliverables:*

- 4a. Preferred "Hybrid" Planning Options for Built Environment (a minimum of three scenarios/ land use)*
- 4b. Preferred Place Types*
- 4c. Preferred Trail Connectivity Plan*
- 4d. Preferred Open Space Plan*
- 4e. Refined Architecture, Site Design and Landscape Character*
- 4f. Refined Key "Great" Streets and Roadway Network Framework*
- 4g. Key Related Draft Goals and Policies for **Human** Environment*
- 4h. Orchestrate Community Open House*
- 4i. Orchestrate Stakeholder Work Session*
- 4j. Orchestrate City Council "Progress" Presentation*

**Fee Budget: \$40,000.00**

**Task Five: Final Report** (2 months)

The consultant team will prepare the final Specific Plan using the desk-top-publishing program; *InDesign*. The document will be prepared in a digital .pdf “book-style” format that can be loaded to the City’s web page. The document will include a table of context (in a similar format to the scope of work followed) and will include narratives, diagrams, tables, plan exhibit, sketches, illustrations, perspectives, etc. While not intended to “copy” the physical graphic organization of the City’s Regional Plan, the new Specific Plan will complement the visual quality and content of the Regional Plan. It is anticipated a first draft will be prepared and distributed for review, comment and input from City staff. Once comments are incorporated, the consultant team will issue a final document for record. As part of this final effort, the consultant team will work closely with City staff to prepare and orchestrate presentations to both the COF Planning Commission and City Council (with the goal of “securing” adoption).

All materials, graphics, data (both formal and informal/ draft and final) will be provided in carefully organized files to the City of record. The consultant team will provide the City with two draft reviews to ensure quality and continuity. The conclusion of this effort will include a summary PowerPoint Presentation to be prepared and presented to both the Planning Commission (for review and recommendation of approval) and City Council (for review and adoption).

*Deliverables:*

- 5a. Preliminary Draft Report for COF staff review (electronic format in InDesign)
- 5b. Final DRAFT Report (electronic format in InDesign)
- 5c. Delivery of all final materials (organized in an easy to access series of file folders)
- 5d. Orchestrate Presentation to the Planning Commission
- 5e. Orchestrate Presentation to the City Council
- 5f. Final Specific Plan (electronic format in InDesign)
- 5g. Project Close-Out and Exit Interviews with COF staff/ management team

**Fee Budget: \$50,000.00**

**Swaback Total Fee Budget for Labor: \$220,000.00**

**Expenses estimated: \$25,000.00**

| <b>TASK</b>  | <b>SWABACK</b>   | <b>ESI</b>      |
|--------------|------------------|-----------------|
| <b>1</b>     | \$30,000         | \$10,000        |
| <b>2</b>     | \$30,000         | \$10,000        |
| <b>3</b>     | \$50,000         | -               |
| <b>4</b>     | \$40,000         | -               |
| <b>5</b>     | \$50,000         | -               |
| <b>TOTAL</b> | <b>\$200,000</b> | <b>\$20,000</b> |

Note: ESI will provide the market analysis for Swaback.

**2022 Rate Structure and Reimbursable Expenses**

**Hourly labor rates:**

|                          |                   |
|--------------------------|-------------------|
| Principal .....          | \$200.00 per hour |
| Project Manager .....    | \$180.00 per hour |
| Project Engineer.....    | \$170.00 per hour |
| Design Engineer .....    | \$130.00 per hour |
| Engineering Intern ..... | \$90.00 per hour  |
| Technical Drafter .....  | \$90.00 per hour  |
| Clerical Support.....    | \$80.00 per hour  |

**Terms:**

The following terms apply unless they are explicitly modified by the Client Contract:

- Personnel charges are assessed portal-to-portal.
- If you ask us to work outside normal business hours to expedite the project schedule, we'll charge 1.5 times the tabulated rates for all overtime.
- We'll charge 2.0 times the tabulated rates for hourly services related to litigation or arbitration including preparation for litigation or arbitration.
- Subconsultant services will be marked up 10 per cent.
- The tabulated hourly charges do not include reimbursable direct project expenses such as travel, meals, lodging, expedited shipping, printing and title reports. These items will be billed in addition to the tabulated hourly rates. (This is not a complete listing of reimbursable expenses, but merely some examples to indicate the nature of these expenses.)



*July 8, 2022*

Thomas E. Smith, P.E.  
Principal

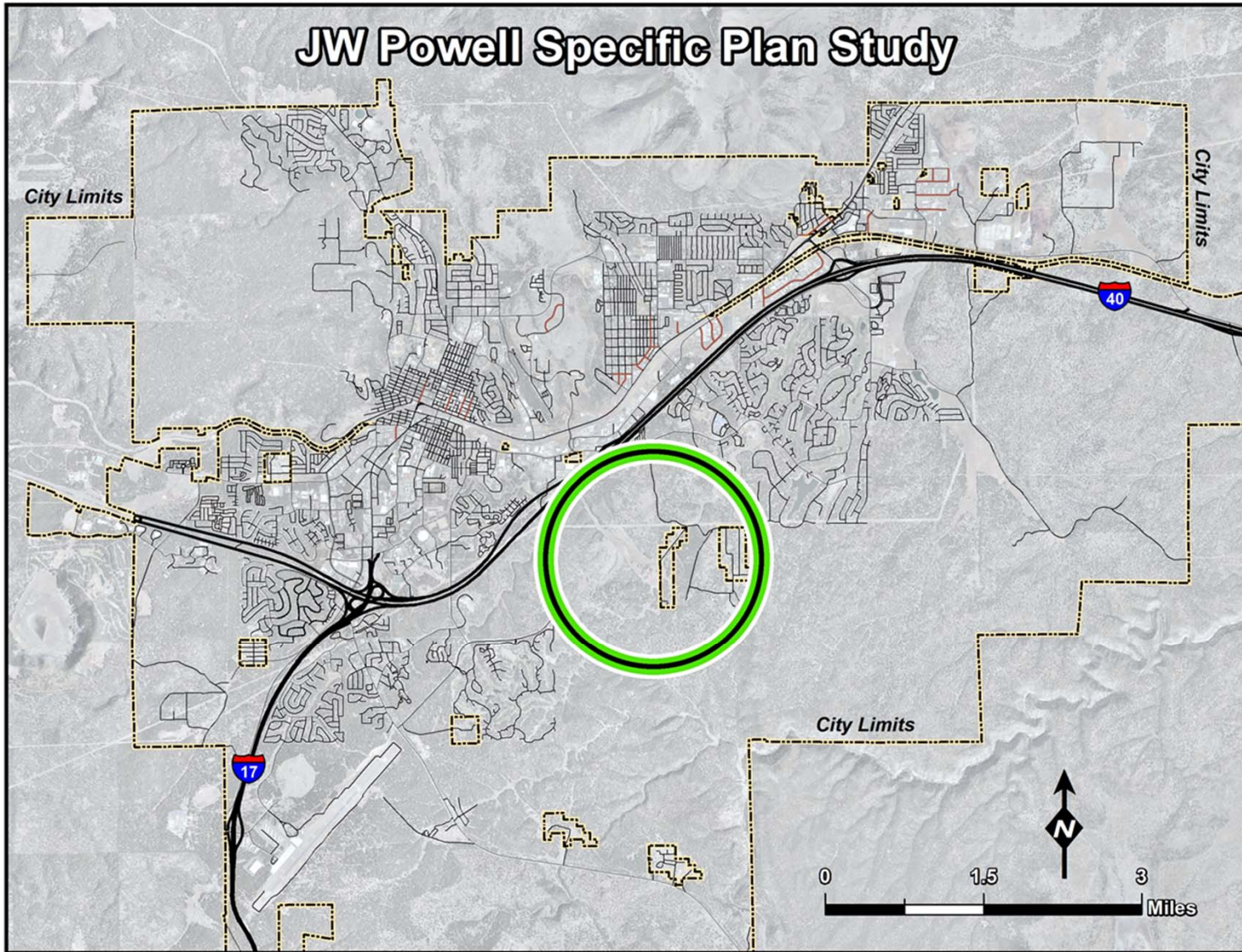
# J.W. Powell Blvd Specific Plan Study

Project Update

30 May 2023

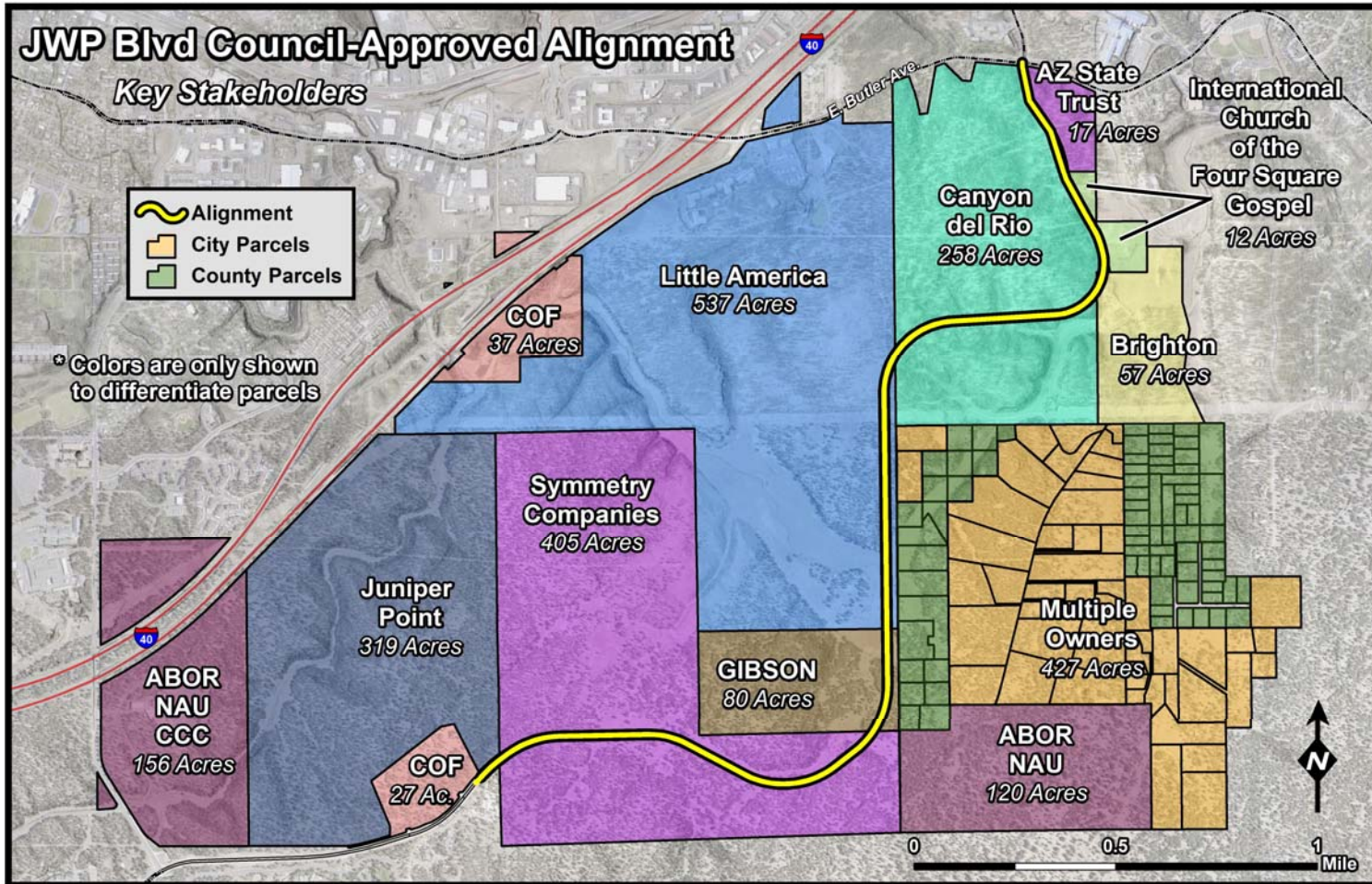


# JW Powell Specific Plan Study





# Key Stakeholders



- Council-Approved Alignment
- ❖ 7 July 2022



# JWP Specific Plan Study



- **Project Team:**

- City Staff  
Multiple Departments
- Community Service Providers  
Mountain Line, MetroPlan,  
FUSD, AZ Forestry & Fire  
Management, Northern  
Arizona Healthcare, Flagstaff  
Arts Coalition, USPS, AZ Game  
and Fish, Coconino County, AZ  
Board of Regents (NAU)

- Consultant –

- Peak Engineering –  
*Engineering Design*  
Subconsultant
- Swaback –  
*Architecture & Planning*



# Update



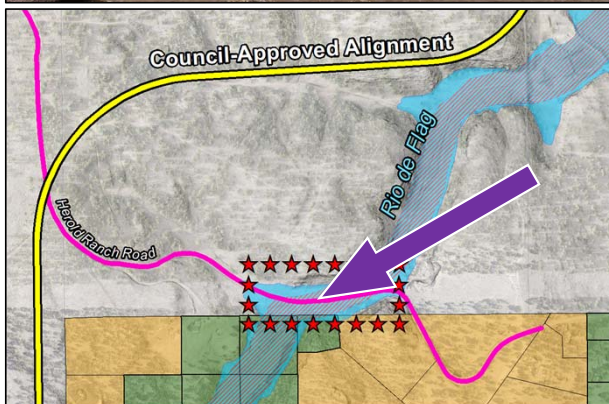
- **Update to City Council** (*October 2020*) – *Land Use Framework*
- **SP Owners Open House & 1-on-1 Meetings** (*Jan to Spring 2021*)
- **Update to City Council** (*October 2021*) – *Change Order 4*
- **Individual Mtgs with LP Owners** (*Fall 2021/Spring 2022*)
- **Group Mtg with LP Owners** (*May 2022*)
- **Project Update to SP Owners and Website** (*May 2022*)
- **Project Update to SP and LP Owners and Website** (*June 2022*)
- **Update to City Council** (*June & July 2022*) – *Final Alignment Selected*
- **Project Team Scopes Specific Plan** (*Spring 2023*)
- **Flooding Meetings and Discussions** (*Spring 2023*)



# Flooding Update – Herold Ranch Road



**18 April 2023**





# What is a Specific Plan?



- The **purpose** of a Specific Plan is to provide a greater level of detail for a specific geographic area or element of the General Plan, and to provide standards for the systematic implementation of the General Plan  
(Ord. 2015-13, Amended, 06/02/2015)
- **JW Powell Specific Plan** will focus on land use framework, activity center locations, transportation network, trails and open space, and public facilities (i.e., *Fire station*)
- Will **inform** the Regional Plan Update with more specificity for the area



# Change Order 5



## • **Scope of Services**

- Project Management and Public Involvement
- Critical Review of Background Information
- Analysis of the Land Area
- Preliminary Plan Framework
- Crystalizing the Planning Strategy
- Specific Plan Report
- Traffic Planning Support
- Time Requested = *601 calendar days*
- Cost = *\$220,142.62*



# J.W. Powell Specific Plan Study



## COMMENTS & QUESTIONS

**Michelle McNulty**

*Planning Director*

[michelle.mcnulty@flagstaffaz.gov](mailto:michelle.mcnulty@flagstaffaz.gov)

Office :: 928.213.2607

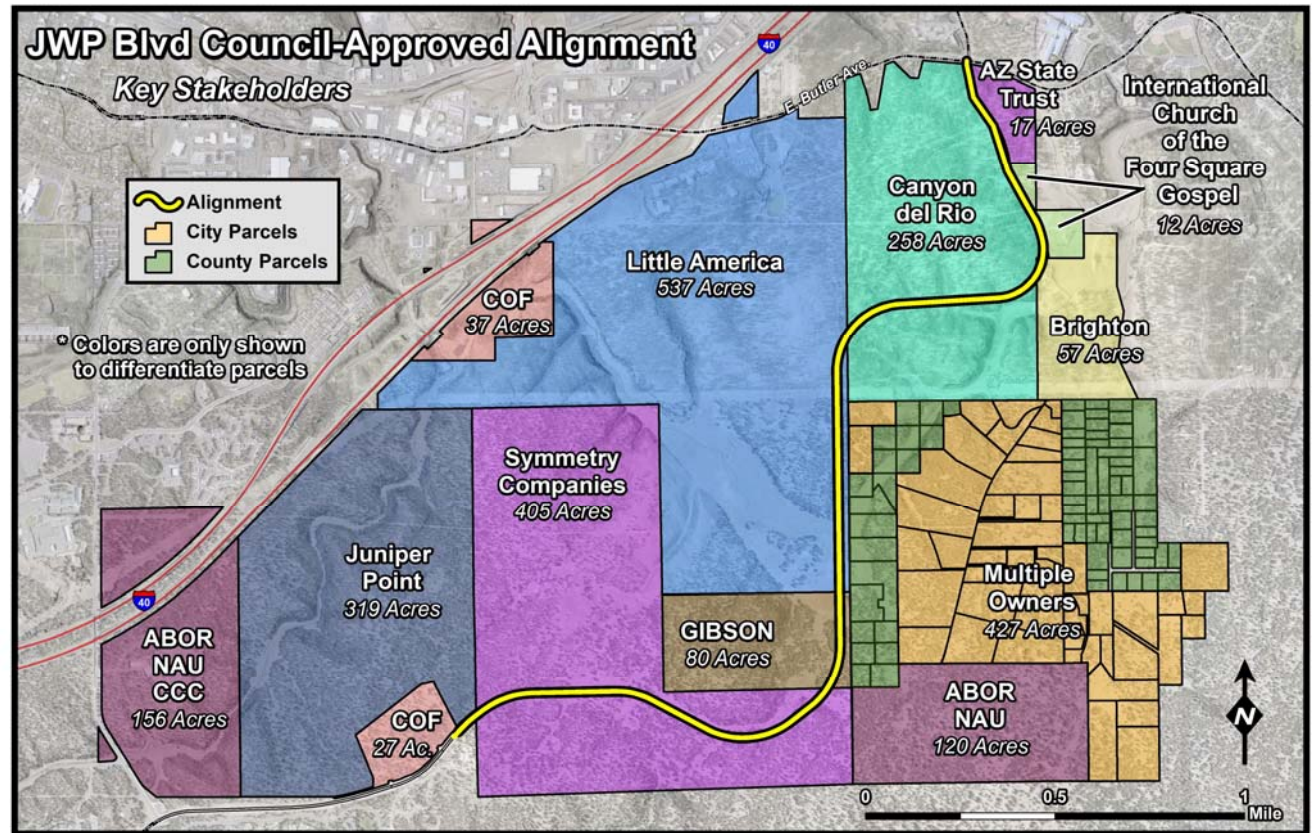
**David Pedersen**

*Project Manager*

Capital Improvements

[dpedersen@flagstaffaz.gov](mailto:dpedersen@flagstaffaz.gov)

Office :: 928.213.2677



[www.flagstaff.az.gov/jwpspecificplan](http://www.flagstaff.az.gov/jwpspecificplan)

**CITY OF FLAGSTAFF  
STAFF SUMMARY REPORT**

**To:** The Honorable Mayor and Council  
**From:** Paul Oltrogge, Wildland Fire Manager  
**Date:** 05/22/2023  
**Meeting Date:** 05/30/2023



---

**TITLE:**  
**Wildland Fire Preparedness Briefing**

**DESIRED OUTCOME:**  
Presentation of Wildland Fire Management's objectives and initiatives in relation to wildfire preparedness for the City of Flagstaff, its residents, and resources.

**EXECUTIVE SUMMARY:**  
Along with local partners, Wildland Fire Management will present a description of local preparedness efforts and planning for the upcoming 2023 wildfire season. Available resources, community outreach strategies and priority wildfire risk reduction projects will also be discussed as a means to complement annual planning efforts.

**INFORMATION:**  
The preparedness briefing will consist of a PowerPoint presentation, accompanied by 3-4 presenters with the Wildland Fire Battalion Chief, or a staff member representing the WFM Battalion Chief, delivering the majority of the content.

---

**Attachments:** [Presentation](#)

# 2023 Wildland Fire Preparedness Update





# Partners and presenters:



## Presenters:

- *Paul Oltrogge*, City of Flagstaff  
Wildland Fire Management (WFM)  
Battalion Chief
- *Katie Brown*, City of Flagstaff Fire  
Department Engineer/Paramedic  
Southwest IMT Situation Unit Leader
- *Jesse Causer*, USFS Flagstaff Ranger  
District Fire Planner
- *Joe Weathersby*, NE Division Manager



# WFM within Community Risk Reduction

The 5 E's drive our decision-making process, the seasonality of our mitigation efforts, and frame a strategy for consistent community outreach



# Flagstaff Fire Department - Response

- Response Plan:
  - All operational/on-duty personnel go through annual refresher training
  - Mutual Aid with Partner Agencies
  - Year-round planning, mitigation, preparedness, response, and recovery cycle
  - Call out program provides wildfire response training





# Flagstaff Fire Department – Severity Staffing

- Preparedness based on weather and resource indices:
  - Severity staffing, indicators:
    - Red Flag Warnings (Winds usually sustained above 25mph)
    - Available resources in region
    - Fire activity in region
- Severity staffing (1-3 units) would be on duty outside of their normal operating hours to increase staffing levels and decrease response times to a working wildfire event.

# Aviation Resources



## Preposition of Aircraft During Fire Season

- Local Federal and Partner Agencies work with the Southwest Coordination Center (SWCC) to move Aviation resources to Northern Arizona.
- Aviation Resources can stage at local airport: Pullman Airport, Sedona Airport, or other designated bases as needed.
- Nearest Airtanker bases: Prescott and Winslow. These bases will host a range of different types of airtankers for support





# 2023 Seasonal Fire Outlook



## **Jesse Causer** Forest Fire Planner

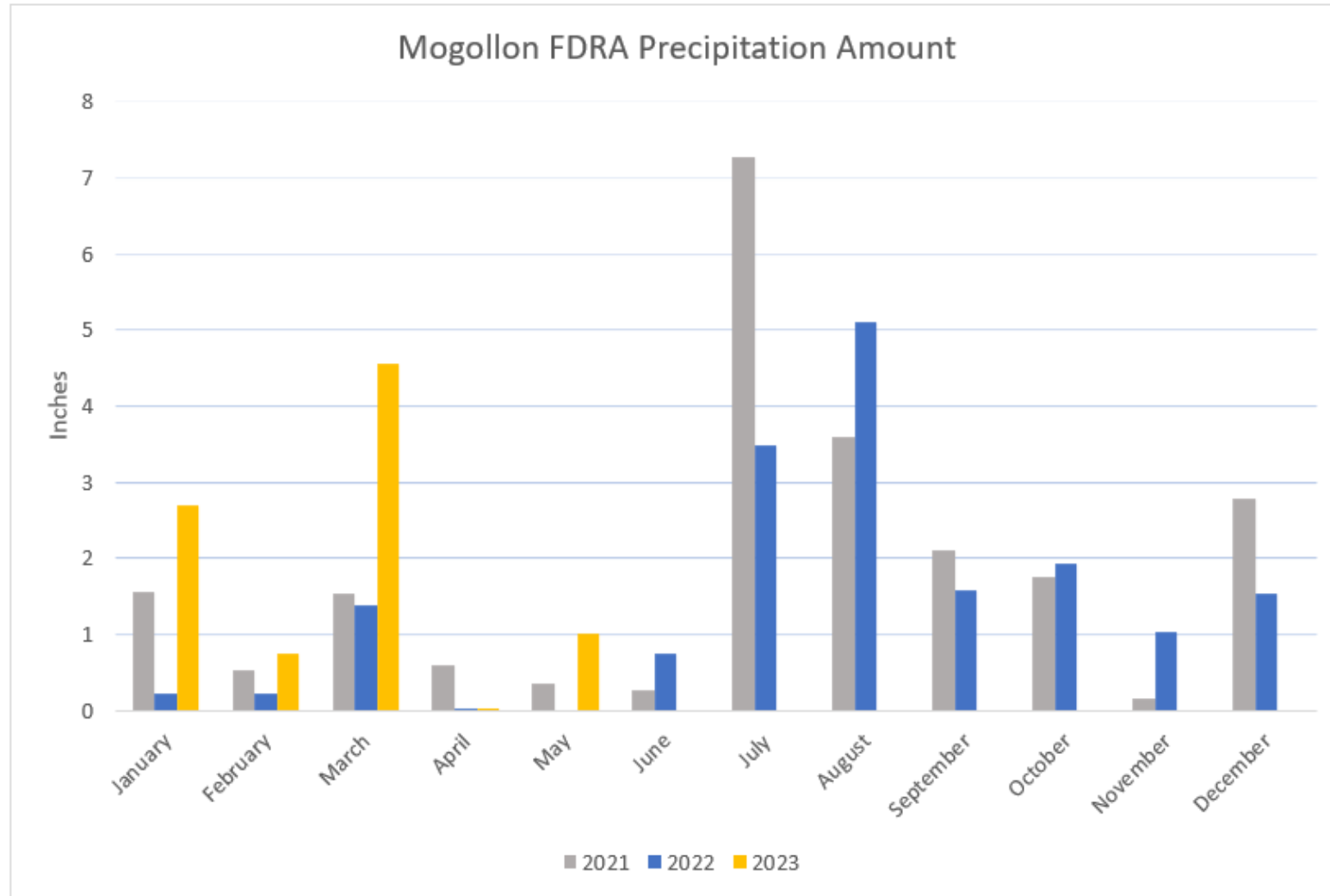
[jesse.causer@usda.gov](mailto:jesse.causer@usda.gov)

928-951-0013



# Precipitation

## Mogollon FDRA Precipitation totals 2021-2023



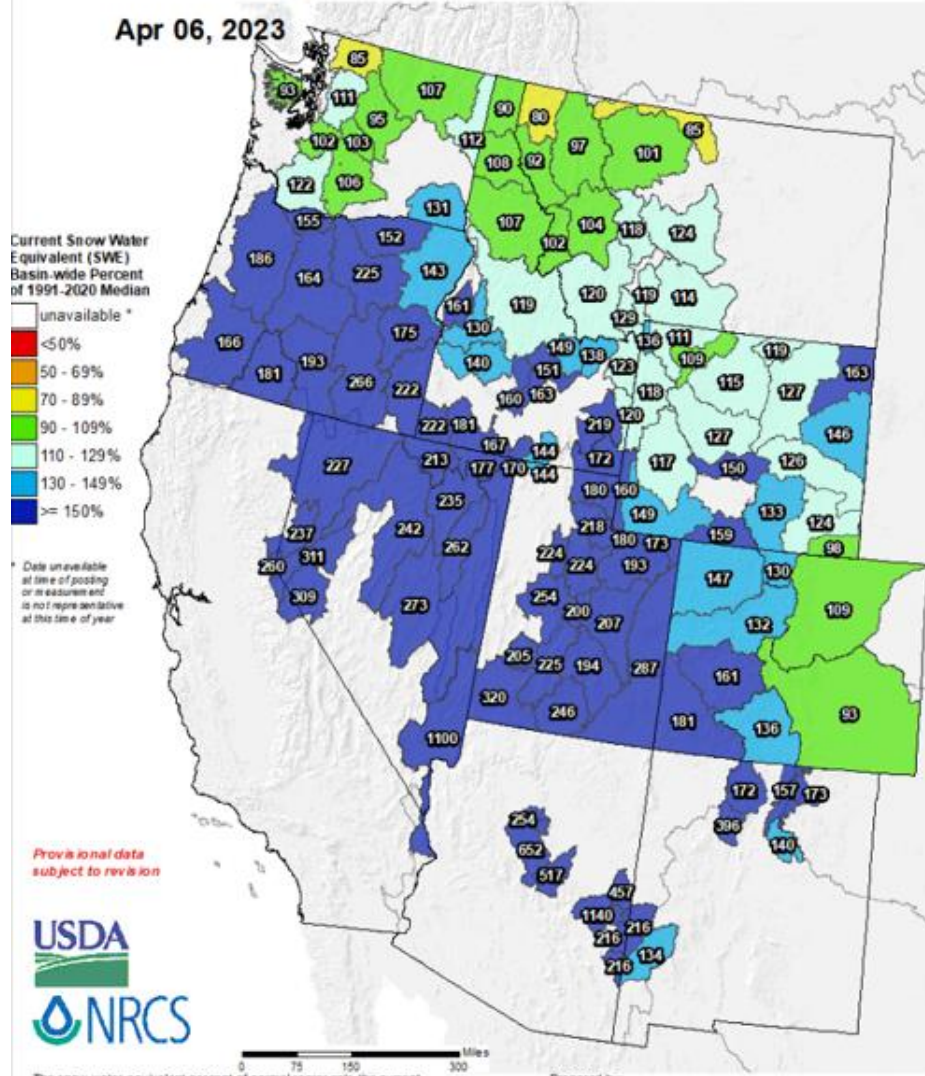


# Drought Monitoring



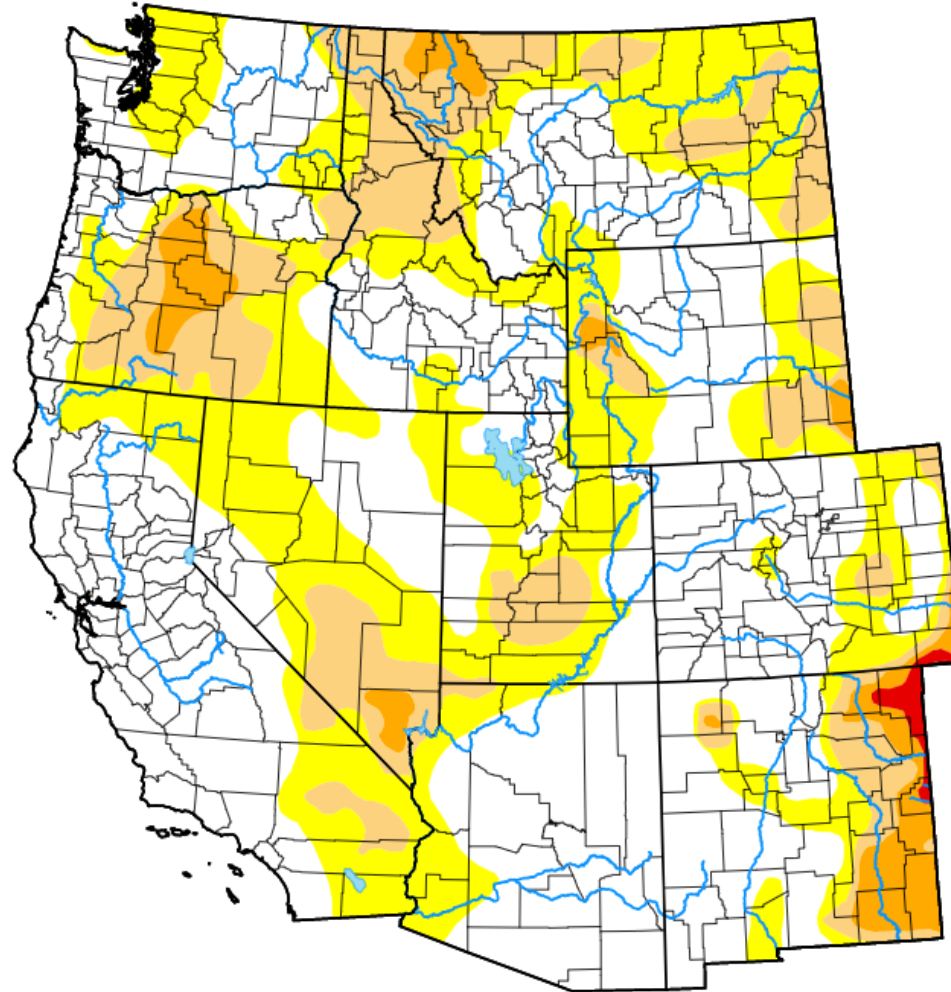
## Westwide SNOTEL Current Snow Water Equivalent (SWE) % of Normal

Apr 06, 2023



## U.S. Drought Monitor

Current Maps Data Summary About Conditions & Outlooks Ag in Drought En Español NADM



Map released: Thurs. May 25, 2023

Data valid: May 23, 2023 at 8 a.m. EDT

### Intensity

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data

### Authors

United States and Puerto Rico Author(s): [Brad Rippey](#), U.S. Department of Agriculture

Pacific Islands and Virgin Islands Author(s): [Rocky Bilotta](#), NOAA/NCEI

The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by: USDA/NRCS National Water and Climate Center Portland, Oregon <https://www.nrcs.usda.gov/wps/portal/nrcs/home>



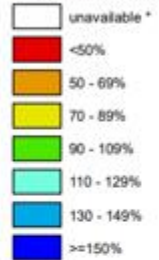
# Drought Monitoring



## Arizona

Apr 06, 2023

Current Snow Water Equivalent (SWE) Basin-wide Percent of 1991-2020 Median



\* Data unavailable at time of posting or measurement is not representative at this time of year

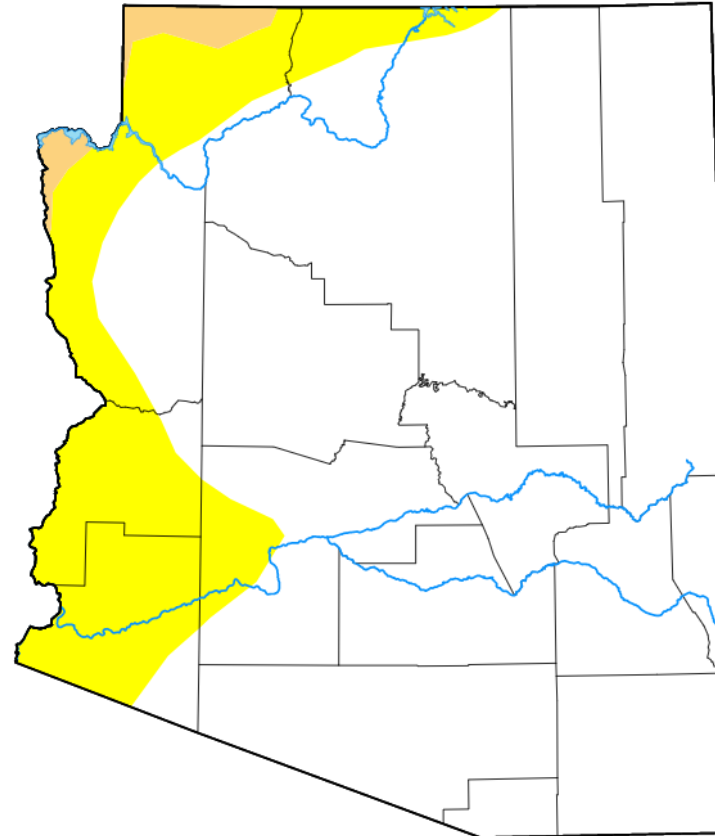
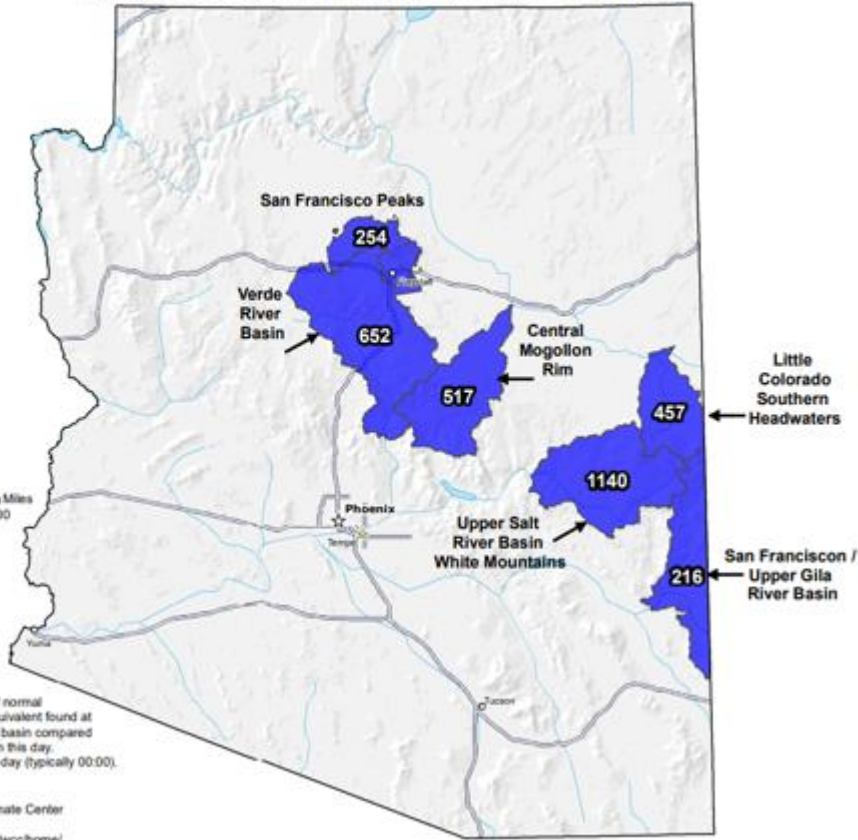
Provisional Data Subject to Revision



The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by: USDA/NRCS National Water and Climate Center, Portland, Oregon  
<https://www.nrcs.usda.gov/wps/portal/wcc/home/>

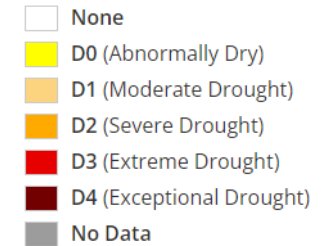
Arizona SNOTEL Current Snow Water Equivalent (SWE) % of Normal



Map released: Thurs. May 25, 2023

Data valid: May 23, 2023 at 8 a.m. EDT

### Intensity



### Authors

United States and Puerto Rico Author(s):  
[Brad Rippey](#), U.S. Department of Agriculture

Pacific Islands and Virgin Islands Author(s):  
[Rocky Bilotta](#), NOAA/NCEI



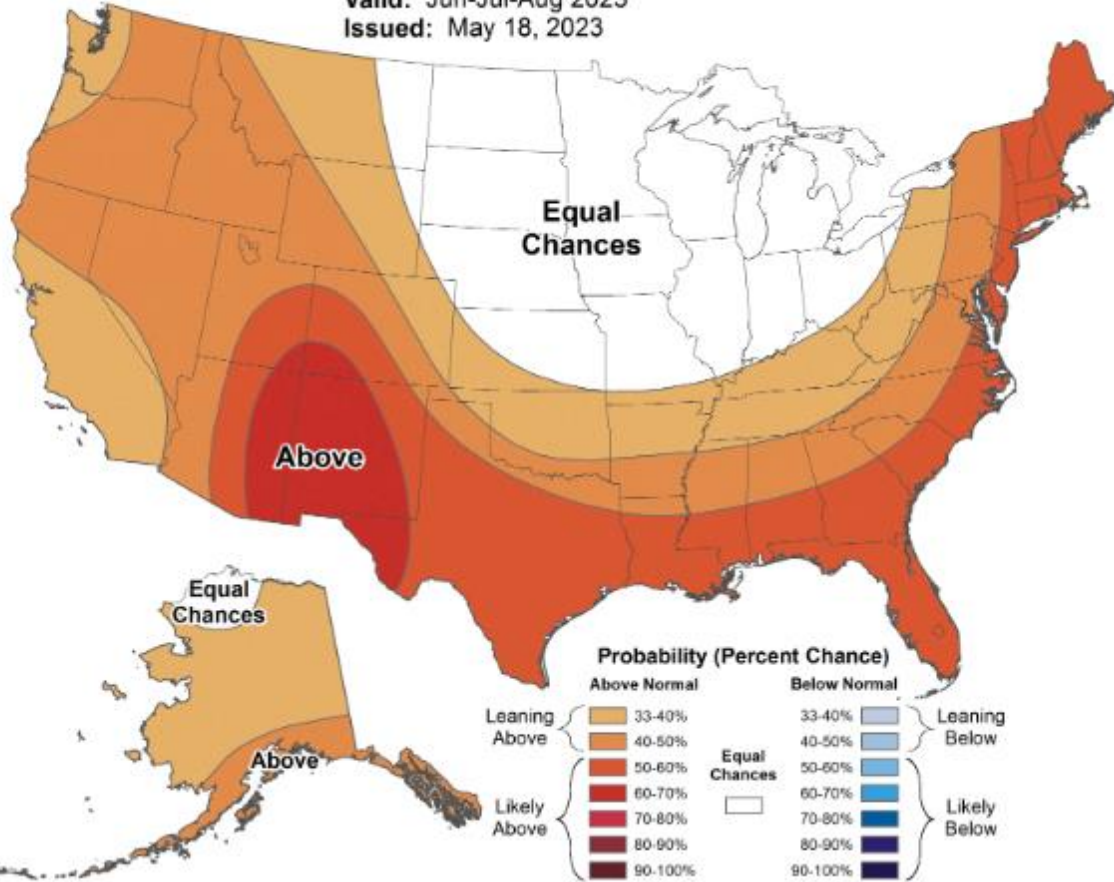
# Seasonal Outlook



## Seasonal Temperature Outlook



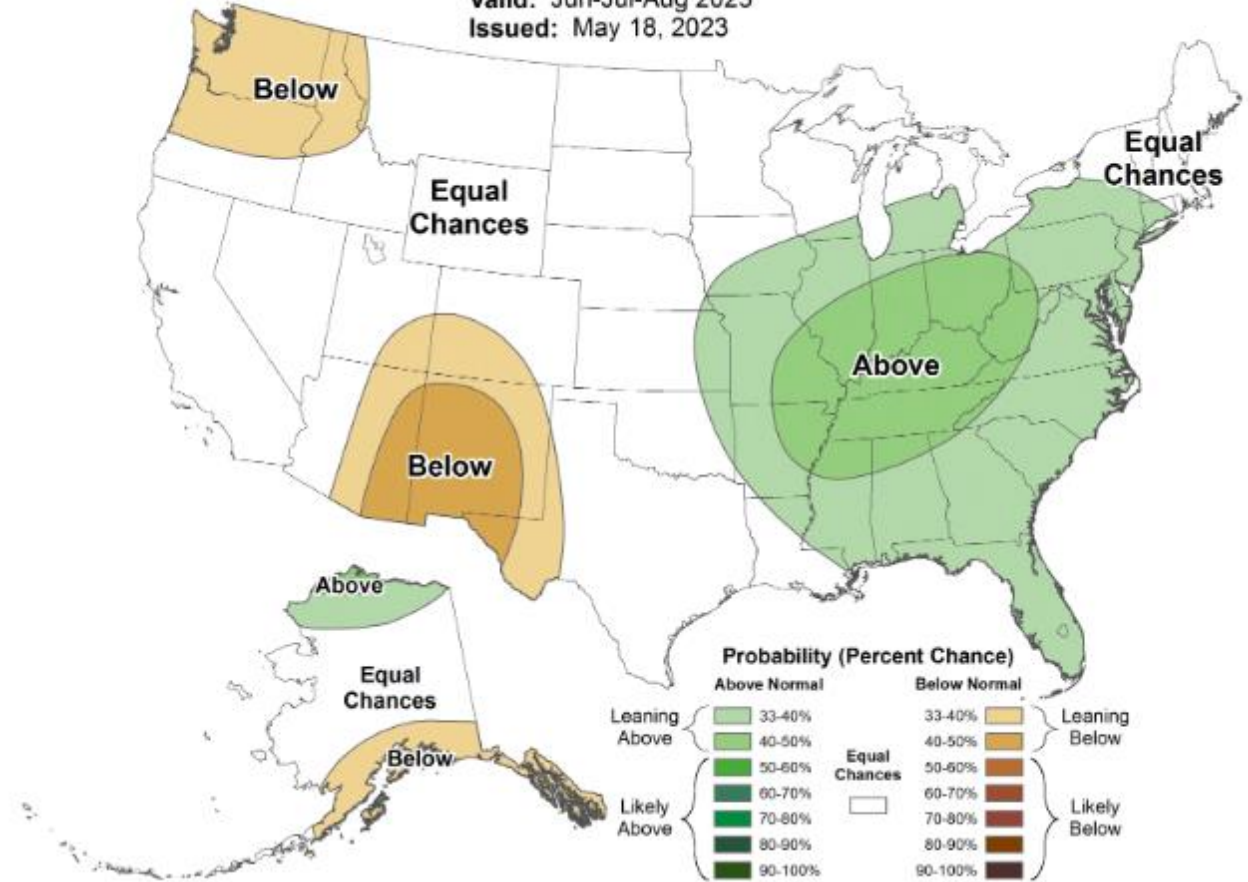
Valid: Jun-Jul-Aug 2023  
Issued: May 18, 2023



## Seasonal Precipitation Outlook



Valid: Jun-Jul-Aug 2023  
Issued: May 18, 2023





# National Predictive Services



**National Significant Wildland Fire Potential Outlook**

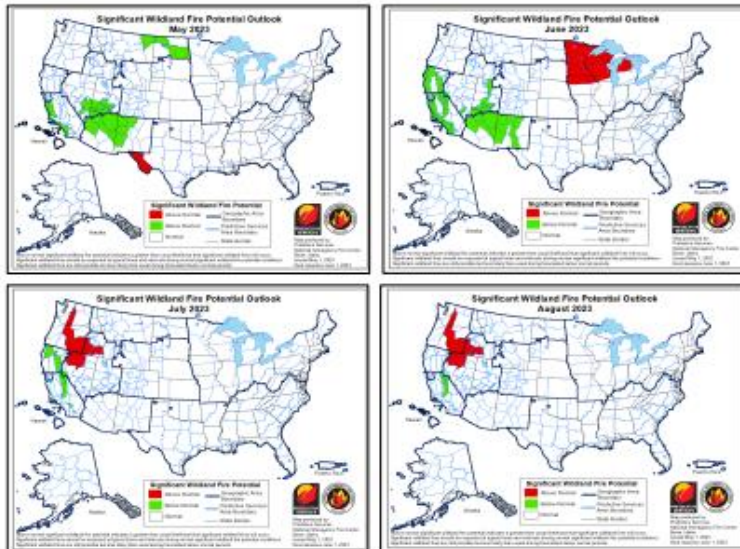
Predictive Services  
National Interagency Fire Center

Issued: May 1, 2023  
Next Issuance: June 1, 2023

Outlook Period – May through August 2023

### Executive Summary

The significant wildland fire potential forecasts included in this outlook represent the cumulative forecasts of the ten Geographic Area Predictive Services units and the National Predictive Services unit.



Significant fire activity continued to increase across the Southern, Southwest, Rocky Mountain, and Eastern Areas in April, but a portion of the Southern Area observed a decrease in significant fire activity at the end of the month due to green-up. Significant fire activity remained minimal elsewhere across the West and Alaska. Green-up is well underway across much of the West, but fuel moistures are decreasing across the lower elevations of the Southwest and portions of southern California. Year-to-date acres burned for the US is 55% of the 10-year average, with a below average number of fires, nearly 83% of average.

## National Significant Wildland Fire Potential Outlook

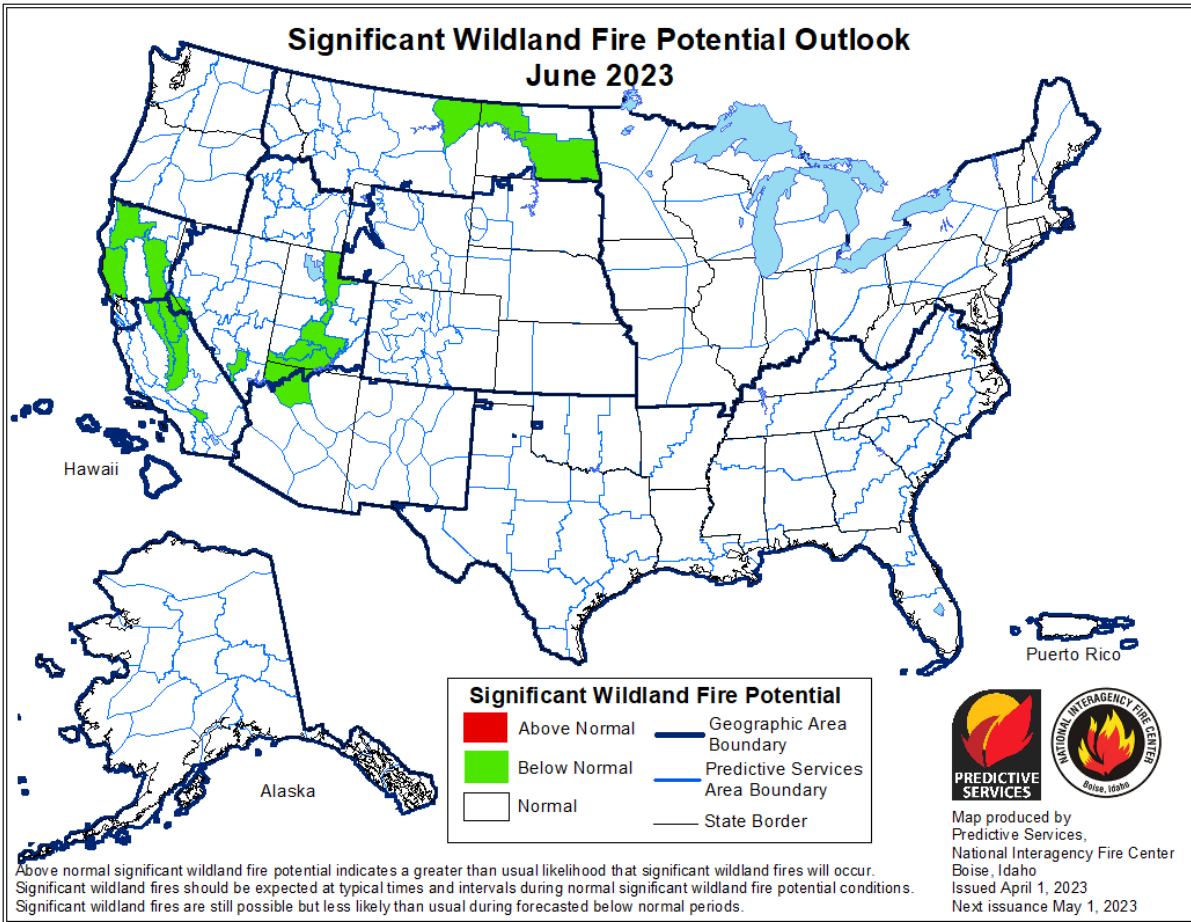
- “Early summer potential for spring-like, weak El Nino”
- “***Below normal*** significant fire potential is anticipated across most of northern Arizona late spring into early summer.”
- “The Monsoon may arrive late in Arizona”



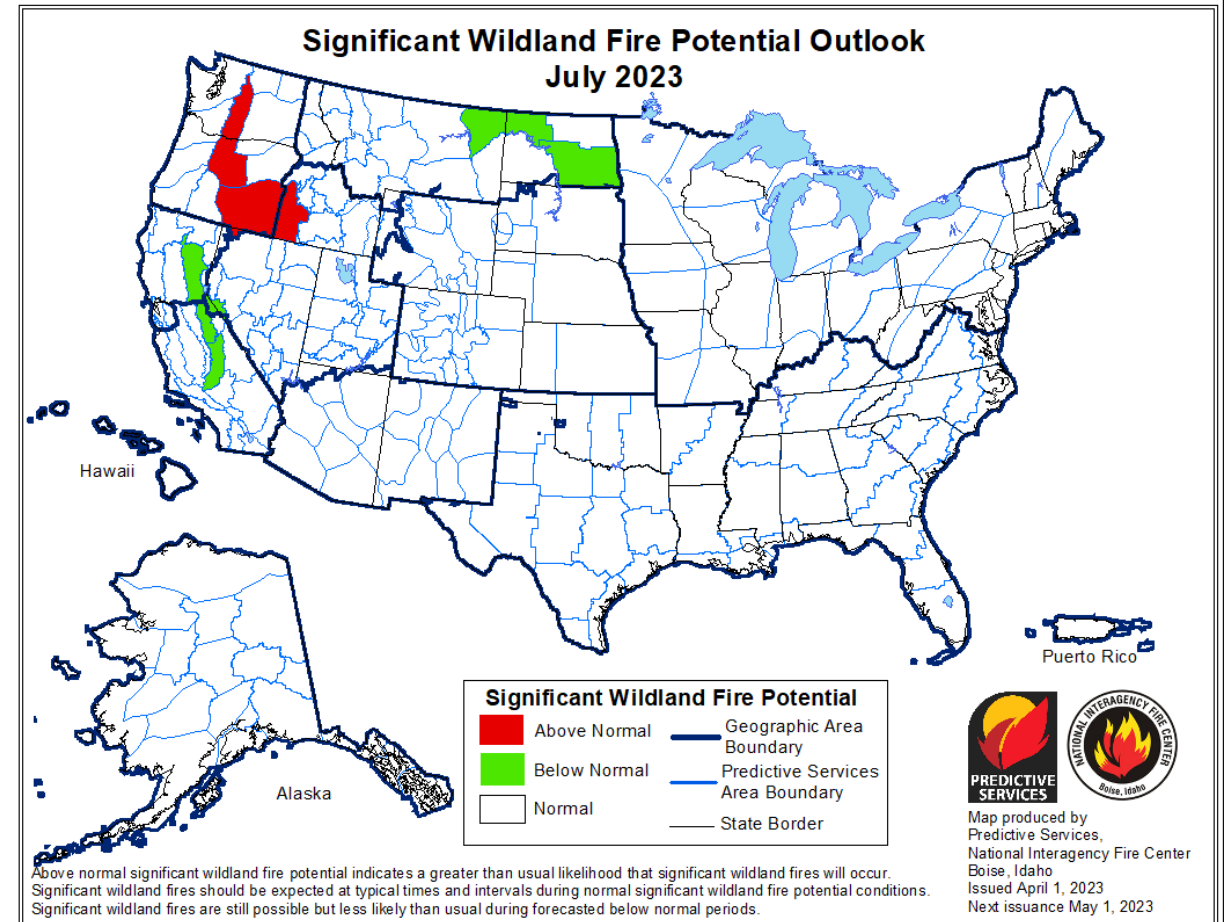
# Significant Wildfire Potential Outlook



### Significant Wildland Fire Potential Outlook June 2023



### Significant Wildland Fire Potential Outlook July 2023



Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur. Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions. Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.

Above normal significant wildland fire potential indicates a greater than usual likelihood that significant wildland fires will occur. Significant wildland fires should be expected at typical times and intervals during normal significant wildland fire potential conditions. Significant wildland fires are still possible but less likely than usual during forecasted below normal periods.



# APS Preparedness



# APS Wildfire Preparedness and Response

May 30, 2023





# APS Preparedness continued



## APS has a plan

- APS has robust programs in place in preparation for wildfires, and the **prevention** of overgrowth of fuels, and reduction of possible ignitions
- APS adapts and adjusts our operations to **mitigate** the impact of wildfire in the Wildland Urban Interface (WUI) during Elevated Fire Conditions
- APS is prepared and ready to **respond** to restore power safely during the high fire risk season.



# APS Preparedness continued



## APS Wildfire Prevention

- **Vegetation Management Program** executed on cycle per industry standards and best practices
- **Detailed Line Inspections** conducted to identify maintenance items needed
- **Annual Elevated Fire Conditions Patrols** on lines in high fire risk areas
- **Customer Programs** to help support community firewise preparation and remove vegetation around homes
- **Defensible Space Around Poles (DSAP)**



## APS Mitigation Protocols

- **Increased operations protocols** during outages in high fire risk season:
  - In the event of a power outage, we will not turn the power back on until we can confirm the integrity of the line.
- **Increased use of on-the-line technology** to improve restoration times
- **Notification** sent to **ALL** customers in areas of a higher fire risk that they **could** experience longer than normal outages



# APS Preparedness continued



## APS Wildfire Response

- A team of **Fire Mitigation Specialists** are on staff and coordinate APS response with local responding agencies
- Prepared local **Troublemens** are available **24/7** to take the call to assess and determine the best course of action in coordination with first responders
- If you see **smoke** or a **fire**, please **call 911**

# Paul Oltrogge

# Katie Brown

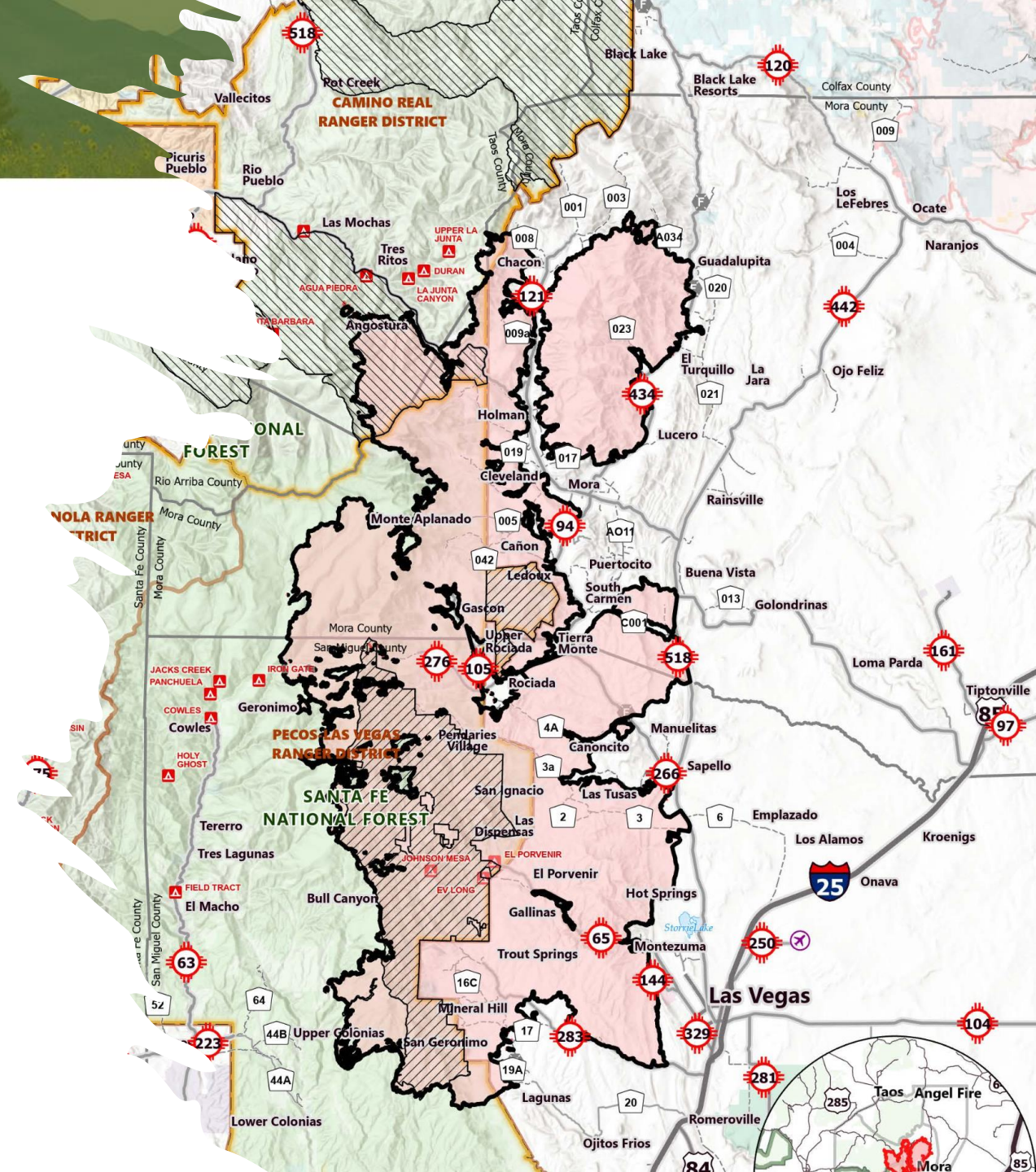
- Evacuation Zone Map
- Wildland Fire Risk Assessment





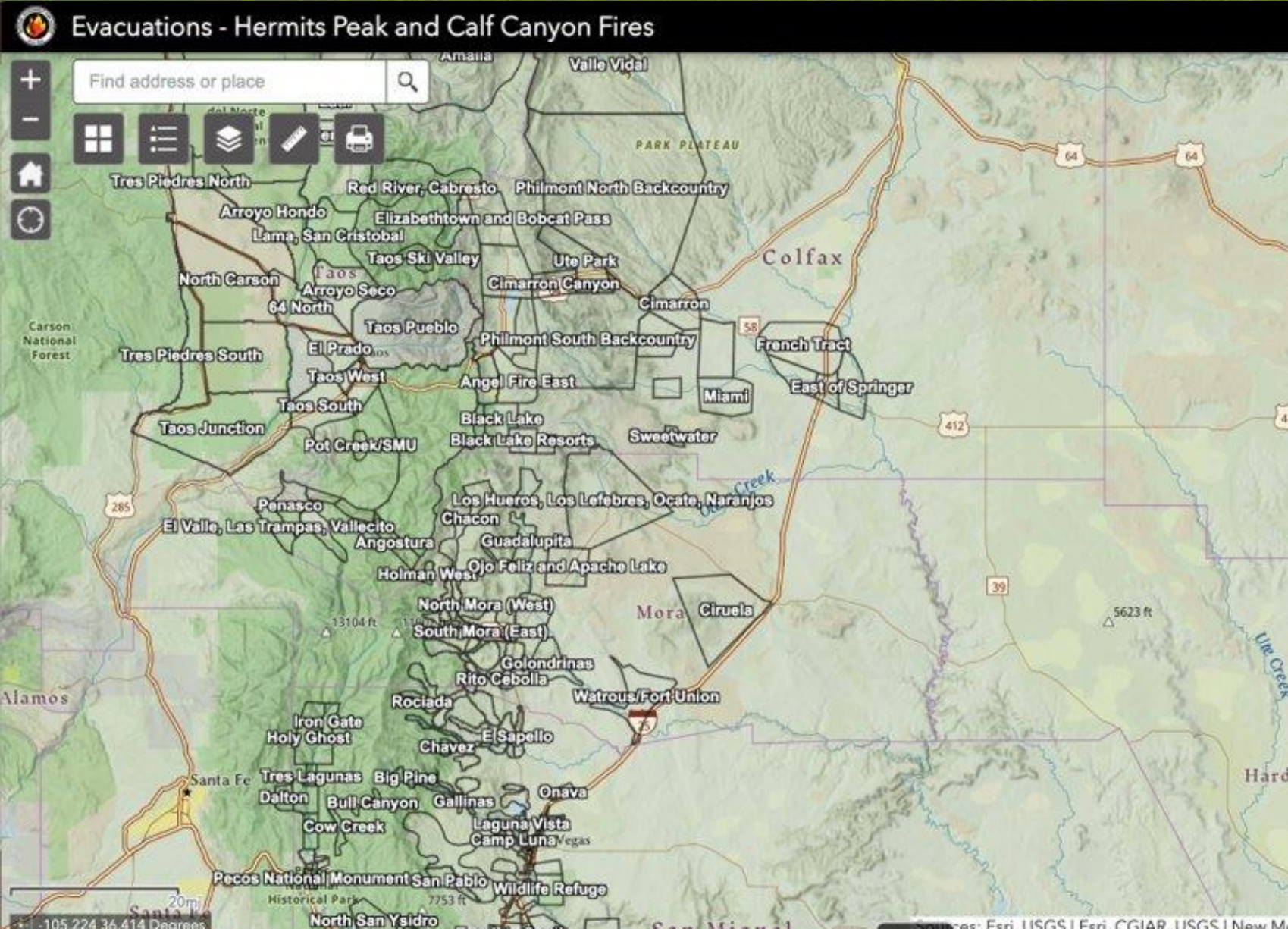
# The Evolution of the Evacuation Map

- Calf Canyon/Hermits Peak Fire, New Mexico
- April – September 2022
- Largest fire in NM history – 340,000 acres
- 4 counties, 2 national forests
- 900+ structures destroyed





# The Evolution of the Evacuation Map



- Rapidly emerging incident, largely wind driven
- Thousands of evacuations
- Traditional information sharing methods outpaced by incident tempo
- Solution: Online live web map
- [Evacuations - Hermits Peak and Calf Canyon Fires \(arcgis.com\)](https://arcgis.com)
- State, regional and national recognition/ desire for standardization



# Evacuation Map



## Coconino County Evacuation Zones



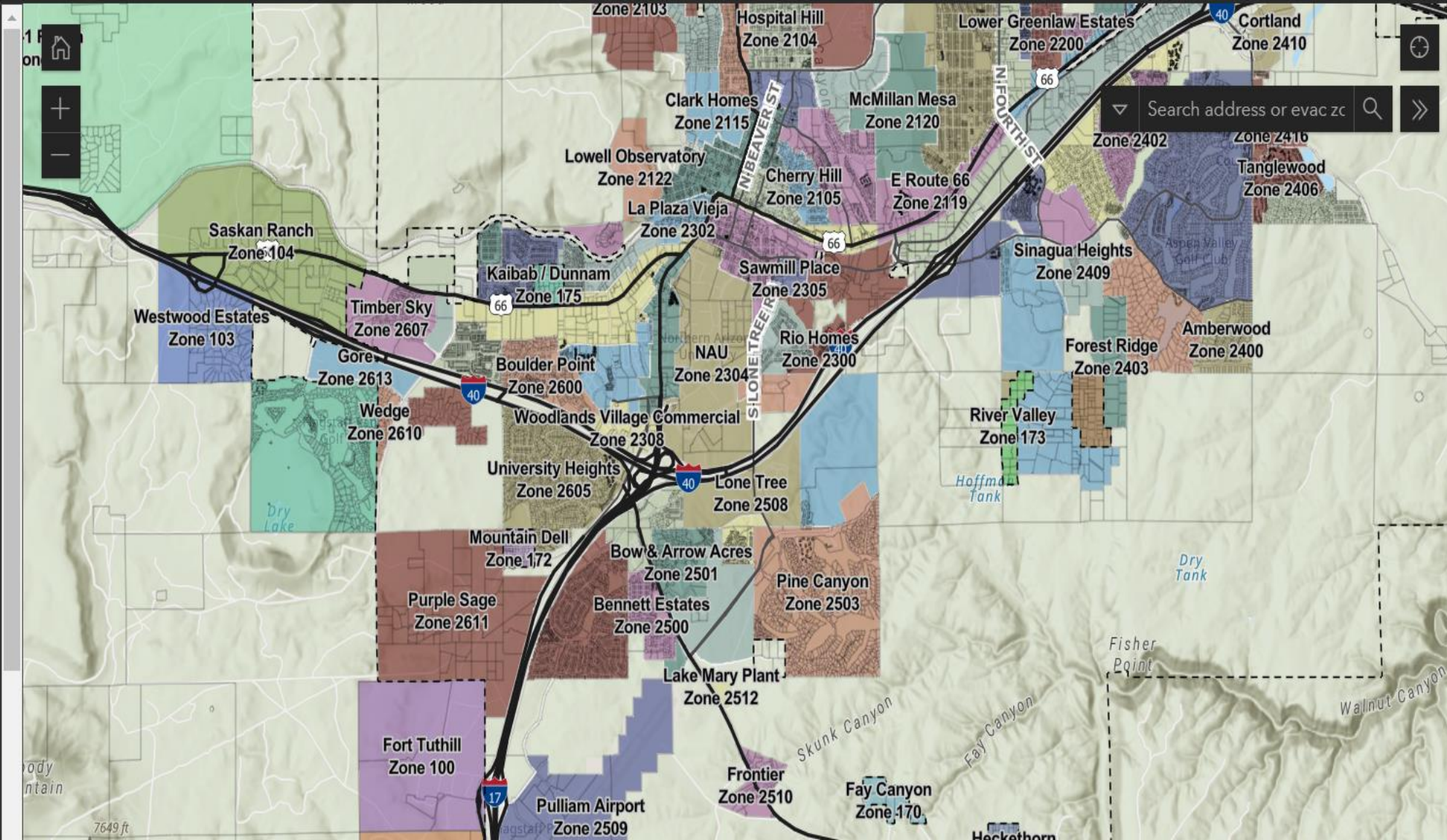
### Get Ready - Be fire-adapted and ready

Take personal responsibility and prepare long before the threat of a wildland fire, so your home is ready in case of a fire.

### Be Set - Be Aware

Pack your emergency items. Know how to receive and stay aware of the latest news and information on the fire from local media, your local fire department and public safety.

### Evacuate - Go! - Act early





## Be Set - Be Aware

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- An executed multi-agency mapping product that is ready for the use of residents and visitors.
- Partners:
  - Coconino County EM and Sheriff's Office
  - Flagstaff Police Department
  - Flagstaff Fire Department
  - City of Flagstaff Emergency Management
  - City of Flagstaff Public Affairs



# Evacuating From Wildfires



*“The City of Flagstaff is constantly analyzing its levels of community resilience, and preparedness is the first step in that process. Having these evacuation zones in place lays the groundwork for safe and efficient evacuation of neighborhoods in the event of an emergency”* **City Emergency Manager Daniel Kelly.**

## EVACUATING FROM WILDFIRES

*Always stay aware of your environment.  
Leave when asked by your local emergency officials.*

### TAKE ACTION IMMEDIATELY

Leave as soon as evacuation is recommended by fire officials to avoid being caught in fire, smoke or road congestion. A delay could cost your life!

Take the initiative to stay informed and aware. Listen to your radio, TV, or alerts on your phone for announcements from law enforcement and emergency personnel.



Cover up to protect against heat and flying embers. Wear long pants, long sleeve shirt, heavy shoes/boots, cap, a face mask, goggles or glasses.



Ensure your emergency supply kit is in your vehicle.



Enact your evacuation plan that includes the route you'll take and designated emergency meeting location outside the fire or hazard area.



Much of this information is courtesy of CAL FIRE - ca.gov





# Evacuating From Wildfires

- Sheltering Operations during Wildfires and Forest Closures
- Shelter Operations are provided for in the City/County Emergency Operations Plan. The EOC manages mass sheltering.
- The Forest Restriction and Closures Plan has additional measures to protect our unsheltered population impacted by fires and closures. The City's Housing Division coordinates this activity with Flagstaff Shelter Services.



# Highlights



## **Will evacuation zones be implemented with Ready, Set, Go?**

Evacuation zones enhance the Ready, Set, GO, Program.



## **Are these zones just for wildfires?**

No, while wildfires are a significant concern, these zones may be used for any threat or hazard, both natural or man-made.

## **How do I receive evacuation alerts and other emergency notifications?**

Confidential and free registration information is located at [www.coconino.az.gov/ready](http://www.coconino.az.gov/ready)

## **Where can I find more information about my zone?**

An interactive, searchable map can be found at [www.coconino.az.gov/evacmap](http://www.coconino.az.gov/evacmap) or by scanning the QR code above.



# FFD Risk Management Assessment



## NPS Wildand Fire Risk Assessment - Facility Assessment

For more information visit <https://wildfire-risk-assessments-nifc.hub.arcgis.com>

### Facility: Quarters 5

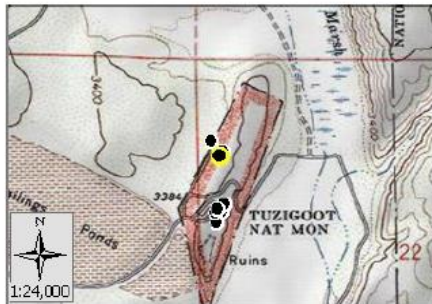
Unit - Location: TUZI - Tuzigoot National Monument  
FMSS ID: 13713  
Structure Type: Building  
Structure Use: Residence  
Owner: NPS  
Field Crew: L. Catlin  
Last Site Visit Date: 12/21/2020

Rating: Low  
Protection Level : Not Designated  
Resources of Concern Present? Unknown  
Occupied? Yes  
Local ID: [Local\_ID]  
In a Community? No  
Lat(WGS84): 34° 46.3399' Long(WGS84): -112° 1.56668'

Primary Access: Road  
Ingress/Egress: One roads in/out  
Access Width: 1 lane (<18ft)  
Access Condition: Surfaced-paved, grade<5%  
Bridge Condition: None/nonflammable,load limit will not limit response  
Access & Turnarounds: Access is <300 ft from facility w/turnaround  
Facility Number/Sign: None or not clearly visible  
Defensible Space: 30 ft treated  
Fuel Load (w/in 300 ft): Moderate  
Fuel Type (w/in 300ft): Grass,shrub,hardwood litter  
Topography (w/in 300ft): Slope 5% to 20%  
Roof Material: Noncombustible or not applicable  
Siding Material: Rock, concrete, metal  
Foundation: Closed, >30in masonry exposed or N/A  
Fences/Decks: None or noncombustible  
Firewood: None  
Propane Tanks: Present and fuels clearance  
Water Supply: Pressurized hydrant(s) or fixed sprinkler system  
Overhead Hazards: No overhead hazards  
Safety Zones: Potential safety zone(s) in area  
Additional Obstacles: None  
Triage Category:  
Hazmat:  
Assessment Comments:



2020\_TUFront1\_13713\_Quarters 5\_Front

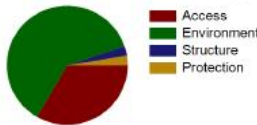


● Facility  
■ NPS Boundary

Score: 39  
Rating: Low  
Asset Priority Index (API): 30



### Factors Driving the Ratings



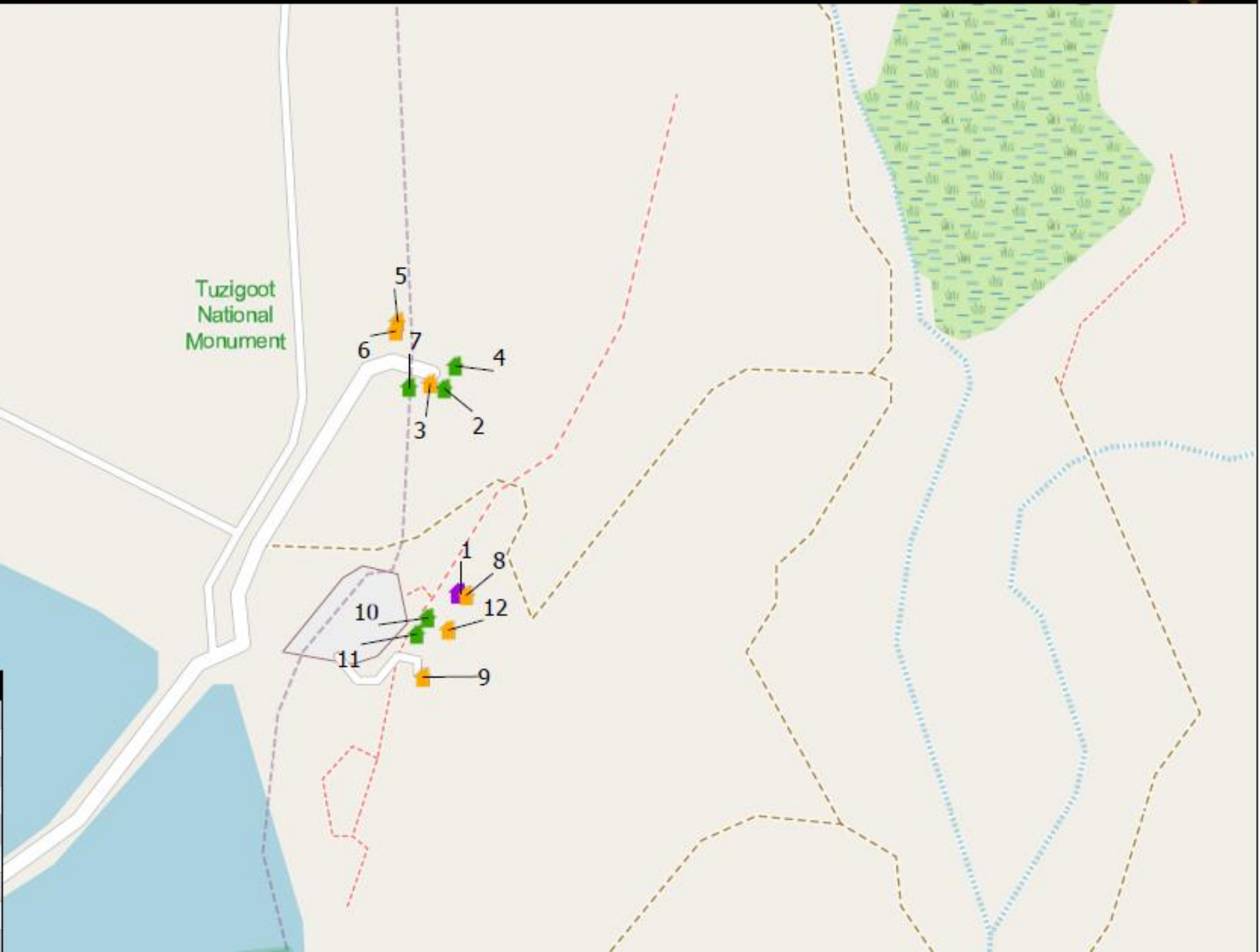
- Allows for thorough assessment of city neighborhoods and resources
- A rating of low, moderate or high will be assigned. Identifying areas that need focused treatment and annual firewise triage

Tuzigoot National Monument

**Rating**

- Low
- Moderate
- Not Found

| Map Label | FMSS ID          | Common Name        |
|-----------|------------------|--------------------|
| 1         | 74442            | Fire Pump Building |
| 10        | 13704            | Restrooms          |
| 11        | 13702            | Visitor Center     |
| 12        | 26620            | Well Pump House    |
| 2         | 13713            | Quarters 5         |
| 3         | 13716            | Quarters 7         |
| 4         | 13711            | Resource Center    |
| 5         | 26621            | Storage Building   |
| 6         | search not found | Storage Shed       |







Photos taken at the same location





HOTEL MONTE VISIT



# Questions?

