

An aerial photograph of a large concrete dam situated in a deep, rugged canyon. The canyon walls are composed of layered, reddish-brown rock. A river flows through the canyon, passing behind the dam. The sky is a clear, pale blue. The text "Salt River Pumped Storage Project" is overlaid in large, white, sans-serif font across the upper portion of the image.

Salt River Pumped Storage Project

Spring Outreach

Spring 2025

A blue geometric graphic consisting of two overlapping triangles, one pointing right and one pointing left, creating a larger triangular shape.

Welcome

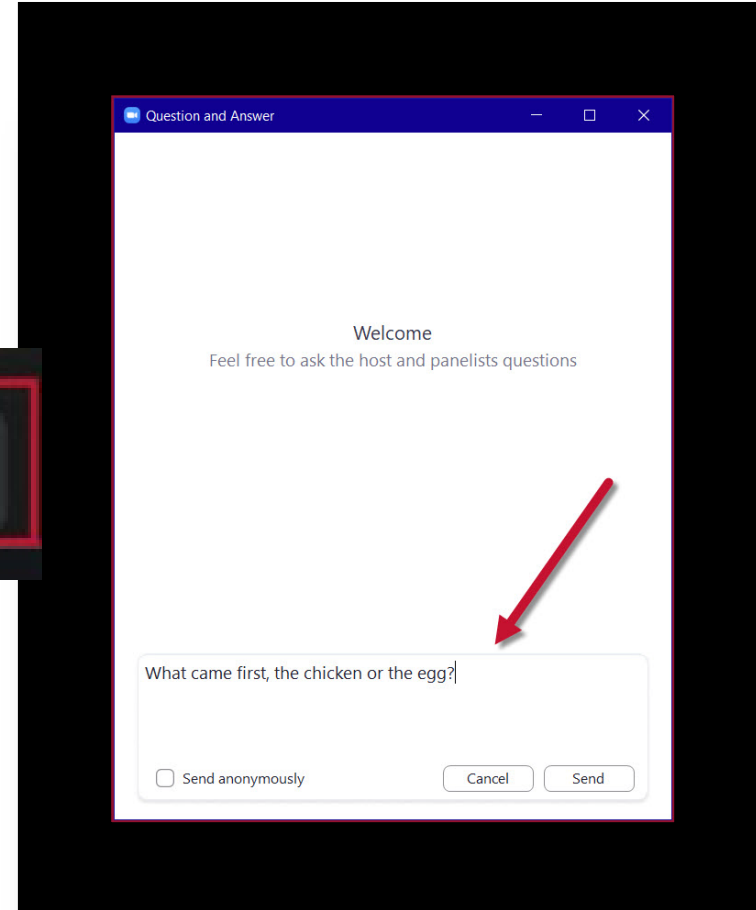
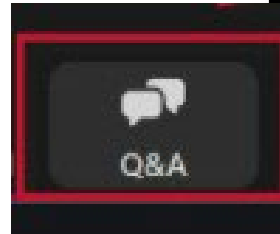
Agenda

- Introductions
- Project Overview Presentation
- SRP Technical Experts to Discuss Technical Areas
- Questions & Answers via Q&A Function

Questions

- Use the Q&A Feature to type in questions
- Can ask questions throughout the presentation
- We will respond to as many questions as we can

Click "Q&A" at bottom of screen



Project Feedback: We Want to Hear from You

- Please fill out the Project Feedback Survey Form. See link and QR Code in the Chat.

Survey active two hours after the meeting.

srp.net/pumped-storage
1-855-584-1484

Purpose of Workshops



COMMUNICATE PROJECT
DETAILS

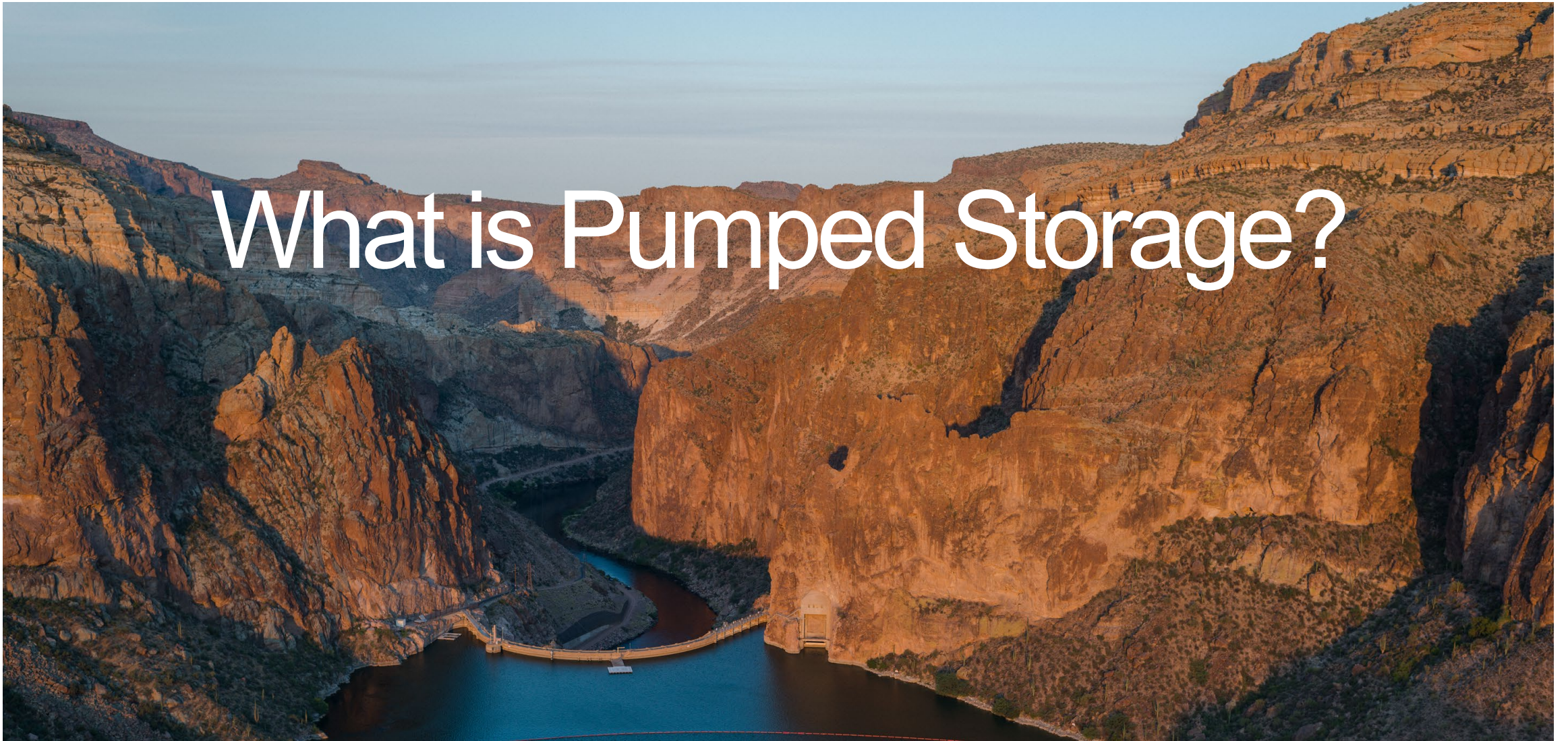


SOLICIT FEEDBACK AND
PERSPECTIVES



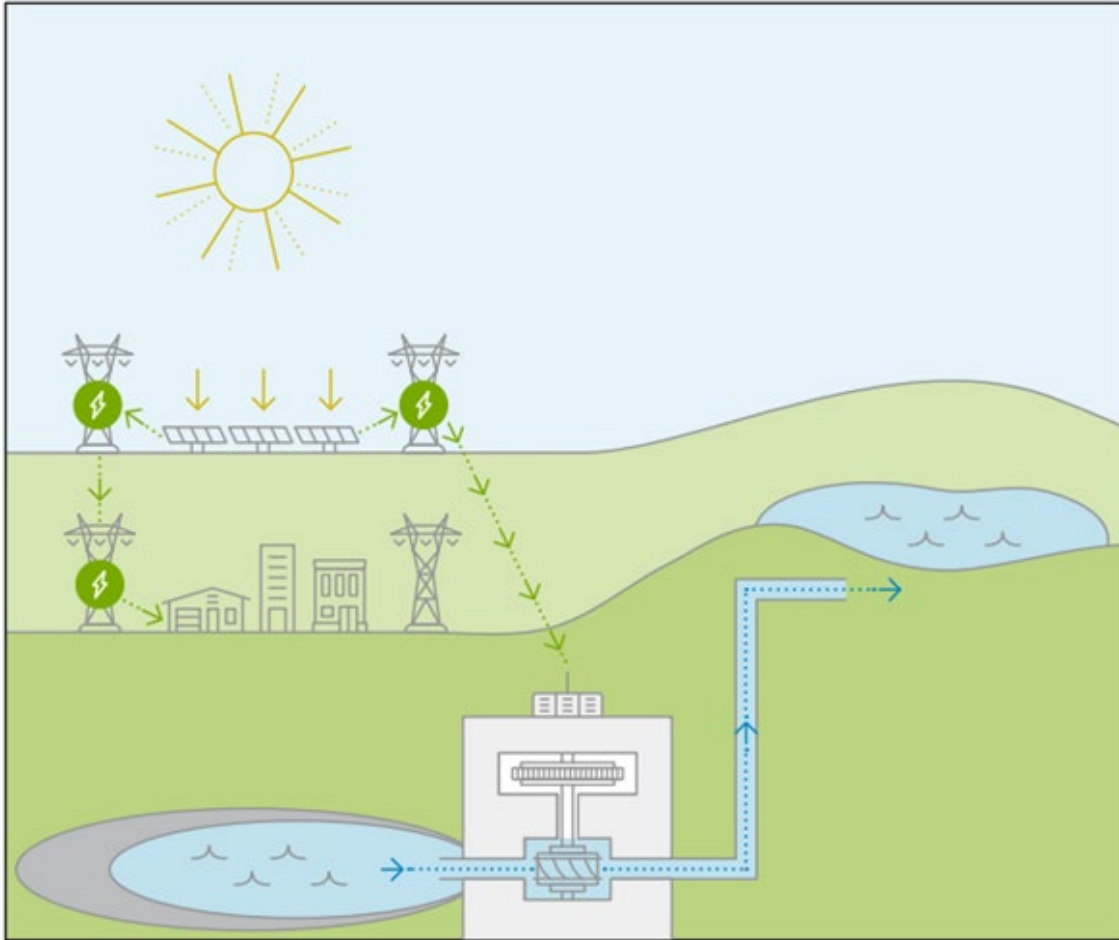
CONTINUALLY SHARE FEEDBACK
AND PROJECT UPDATES

What is Pumped Storage?

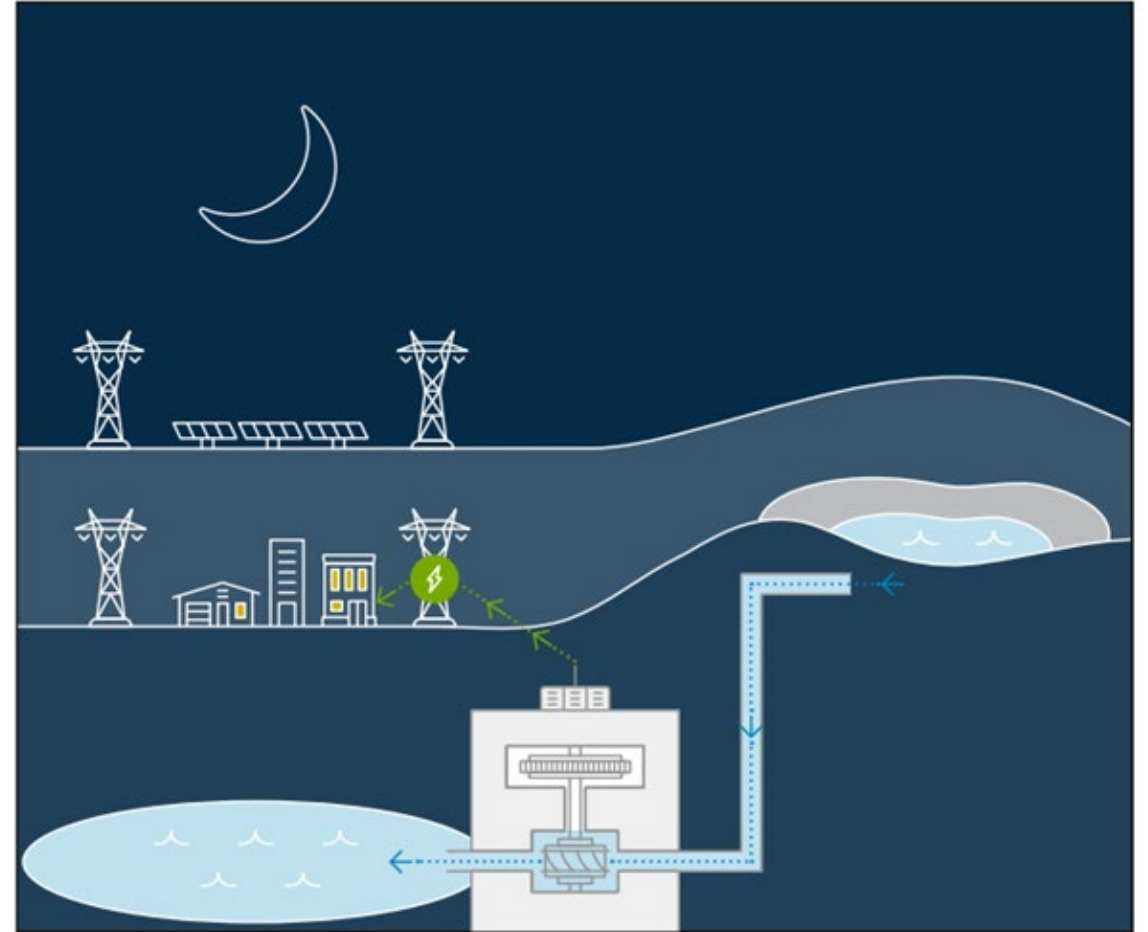


Pumped Hydropower Technology Overview Example

Morning and Midday Operation



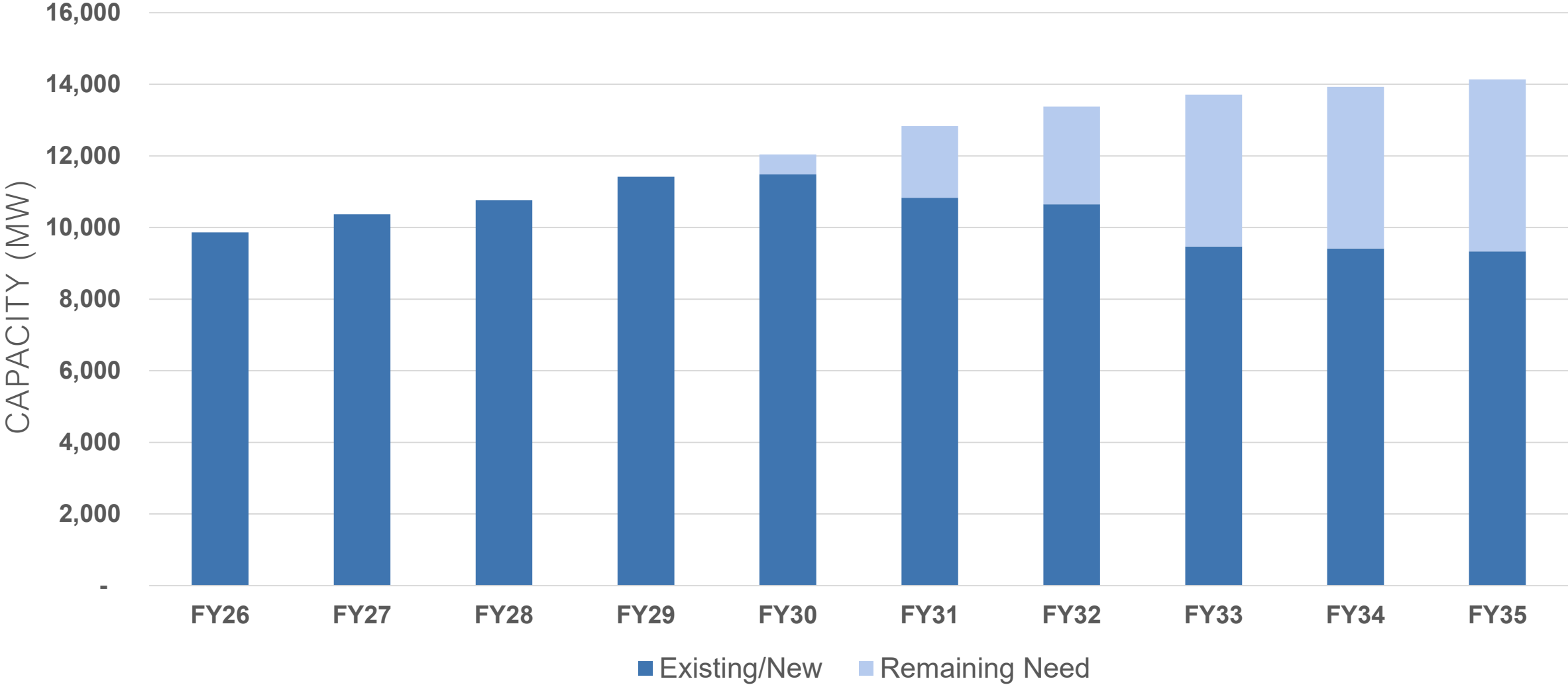
Late Afternoon and Overnight Operation



Resource Plan & Need



Resource Needs to Meet Summer Peak Demand



Key Takeaway: Growing energy demand while existing resources age and retire; pumped storage could help meet some of this need

Need & Benefit

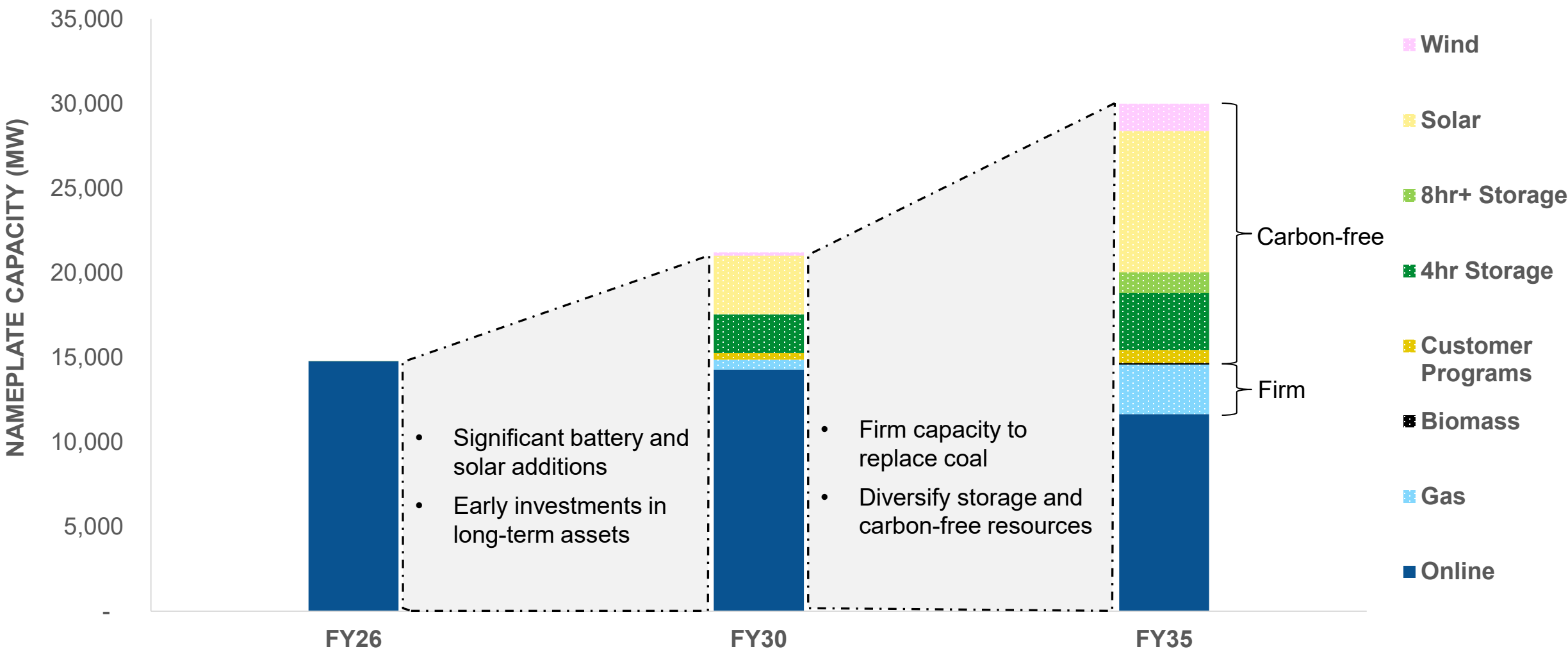
Need:

- Reliable capacity for growing load
- Long Duration Energy Storage: 10+ Hours
- First 1,000 MW by 2033
- Second 1,000 MW by 2037

Benefit:

- Renewable energy support
- Long asset life & resource balance
- Grid reliability & resiliency
- Proven technology

Planned Resource Additions*



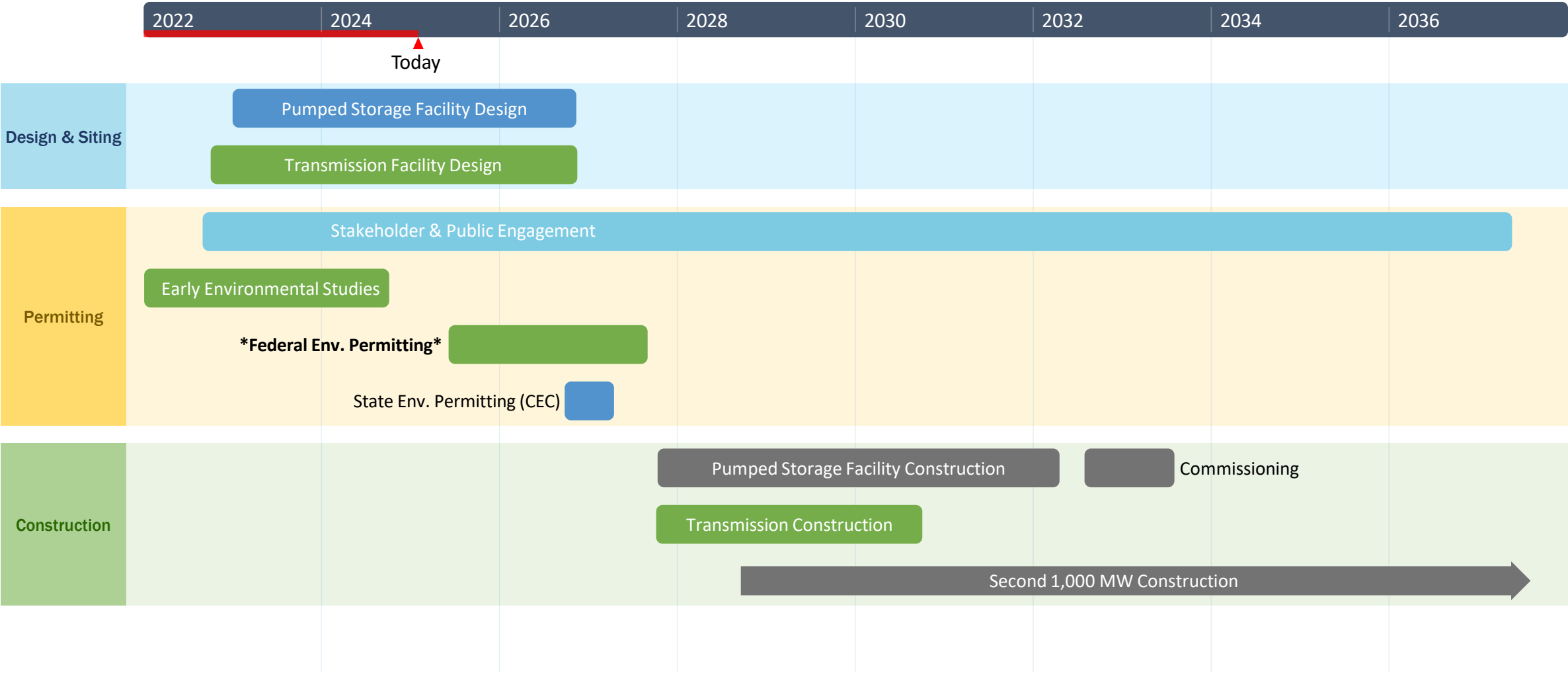
Key Takeaway: Holistic resource additions over this time, including pumped storage, for long duration storage needs

*Resource Plans may change over time.

Project Development Timelines



Preliminary Timeline

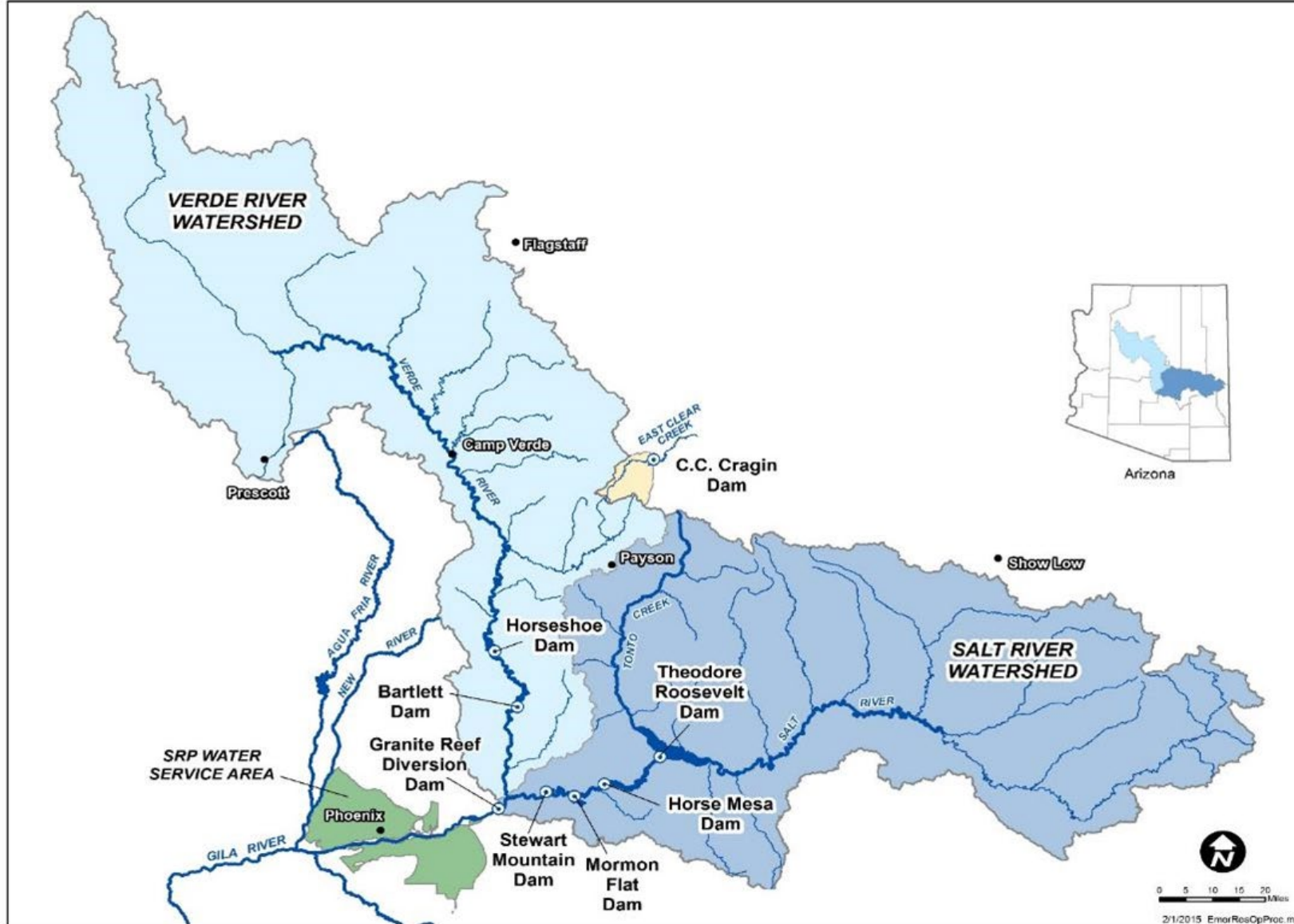


*Includes NEPA, NHPA, etc. with lead and cooperating Federal Agencies.

Project Location & Facilities

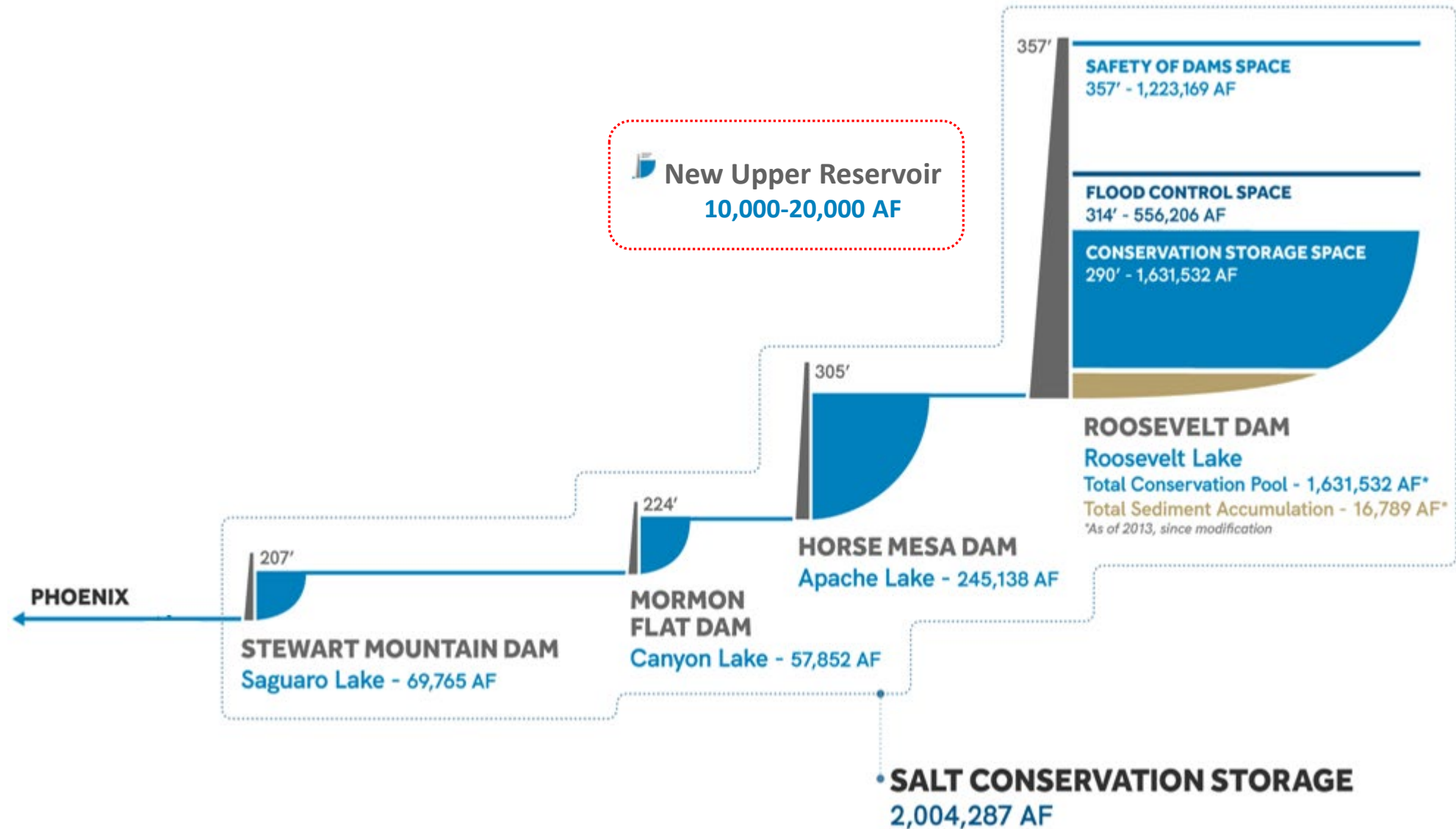


SRP Watersheds and Facilities



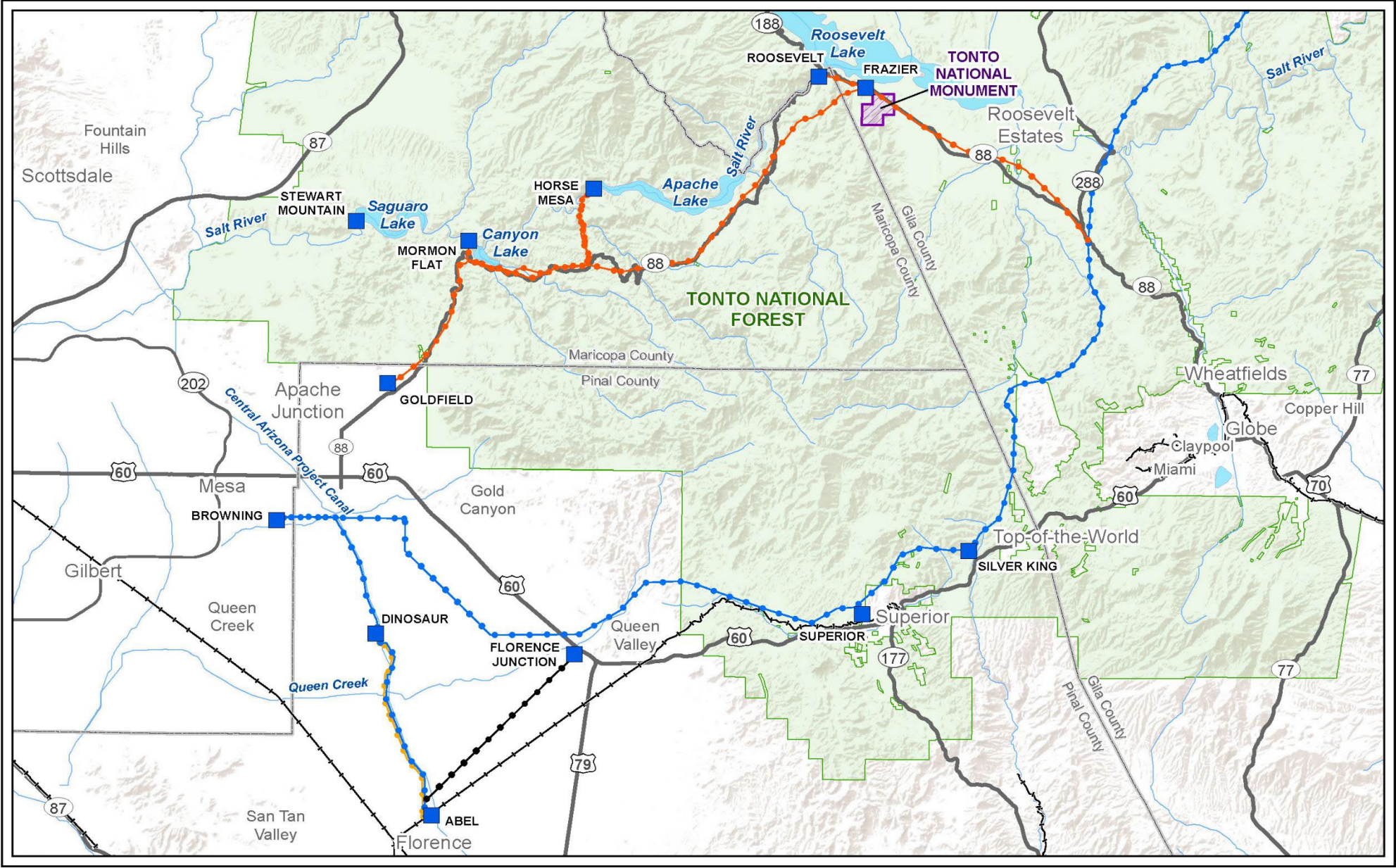
- Water comes from winter rainfall/snowmelt in 8.3 million acres of forested watershed (13,000 square miles)
- Average annual inflow into the reservoir system is about 1.1 million acre-feet of water
- SRP delivers 800,000-acre feet or about 260 billion gallons of water each year

Water System Support of Pumped Storage

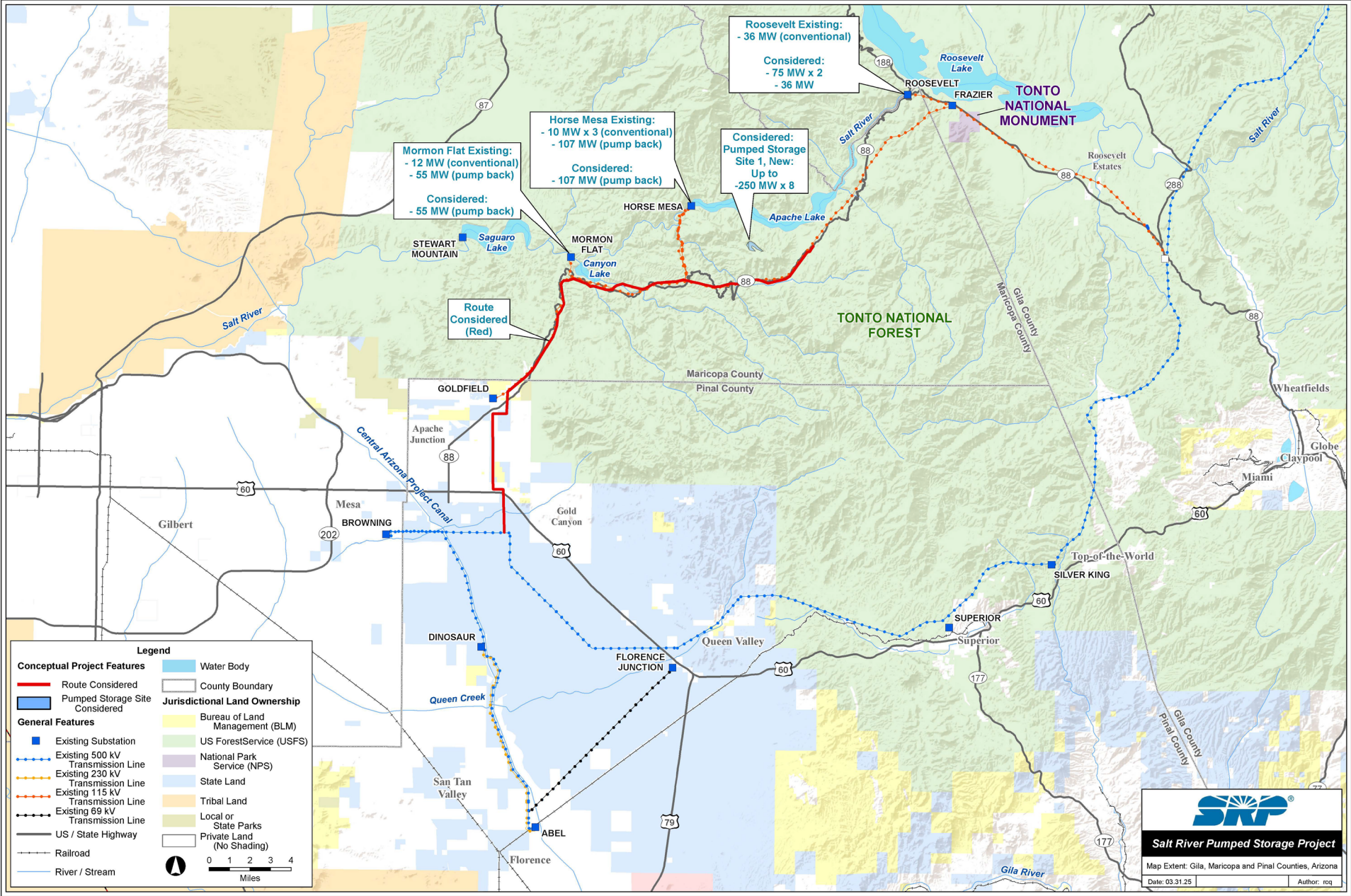


Key Takeaway: New upper reservoir would be small, exchanging water with Apache Lake, without disrupting water storage and delivery

Project Study Area & Existing SRP Facilities



SRP Project Components Considered



Previous Workshop Feedback



Feedback from Previous Workshops

Generation Sites

- Preference for Site 2 over Site 1

Transmission Line Routes

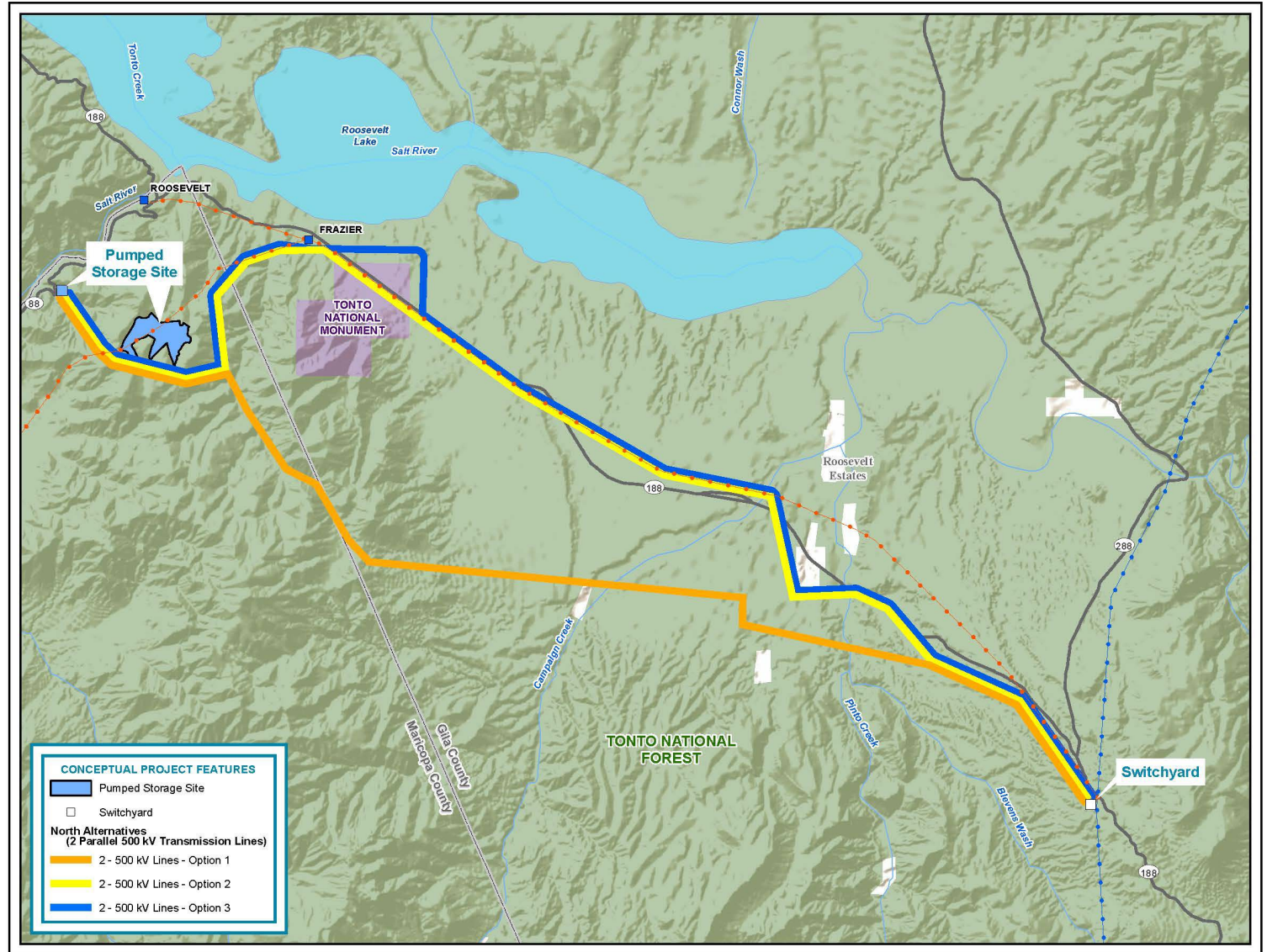
- Follow existing linear features where possible
- Minimize new disturbances
- Minimize residential impacts

Tonto National Monument

- Additional review for viewsheds & renderings from key visual points

Tribal Consideration

- Additional Surveys
- Ethnography study to inform project developments



Cultural & Environmental Resources





Cultural Resources within Project Area



Cultural Resource Studies & Purpose

- Identify archeological sites, historic cultural resources, and places important to Native American Tribes.
- Class III surveys conducted around pumped storage locations & potential transmission corridors.
- Tribal Engagement Work Plan under development
 - SRP has retained an ethnographic consultant, invitations to Tribal Engagement Work Plan sent



Pumped Storage, Site 2

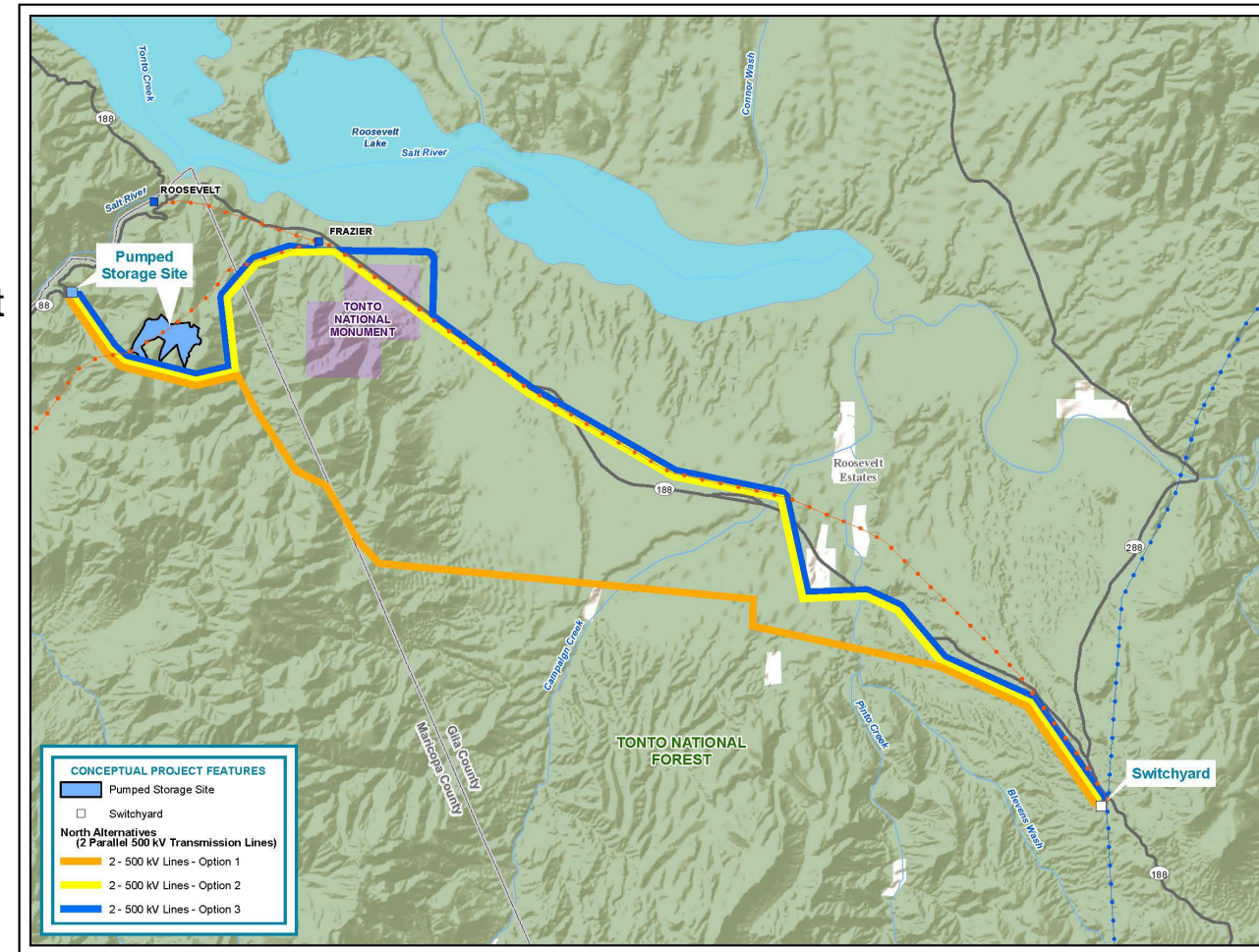
- 943-acre inventoried area
- 17 cultural resources identified:
 - 7 ancient Native American archaeological sites.
 - 1 rock feature, likely Basque shepherd related.
 - 1 historic highway camp, 1 mine prospect, and 1 historic artifact scatter.
 - 6 historic utility lines and roads.
- Area was a source of toolmaking and plant resources likely used seasonally and sporadically inhabited by ancient O'odham and historic Apache or Yavapai groups.



Pumped Storage Transmission Line Options

Surveyed Area: 2,500 acres

- **Option 1:** 12 Cultural sites identified
 - 7 Prehistoric artifact scatters, 4 prehistoric habitation sites, 1 prospecting site
- **Option 2:** 43 Cultural sites identified
 - 10 prehistoric sites, 9 historic sites, and 1 site of unknown age at Tonto National Monument (TNM)
 - 5 prehistoric artifact scatters, 12 prehistoric habitations, and 4 historic sites outside TNM
- **Option 3** (north of TNM): Cultural 5 sites identified
 - Three prehistoric habitation and historic sites





Bald Eagle



Southwest Willow Flycatcher



Saguaro



Golden Eagle

Potential
Species
within
Project Area



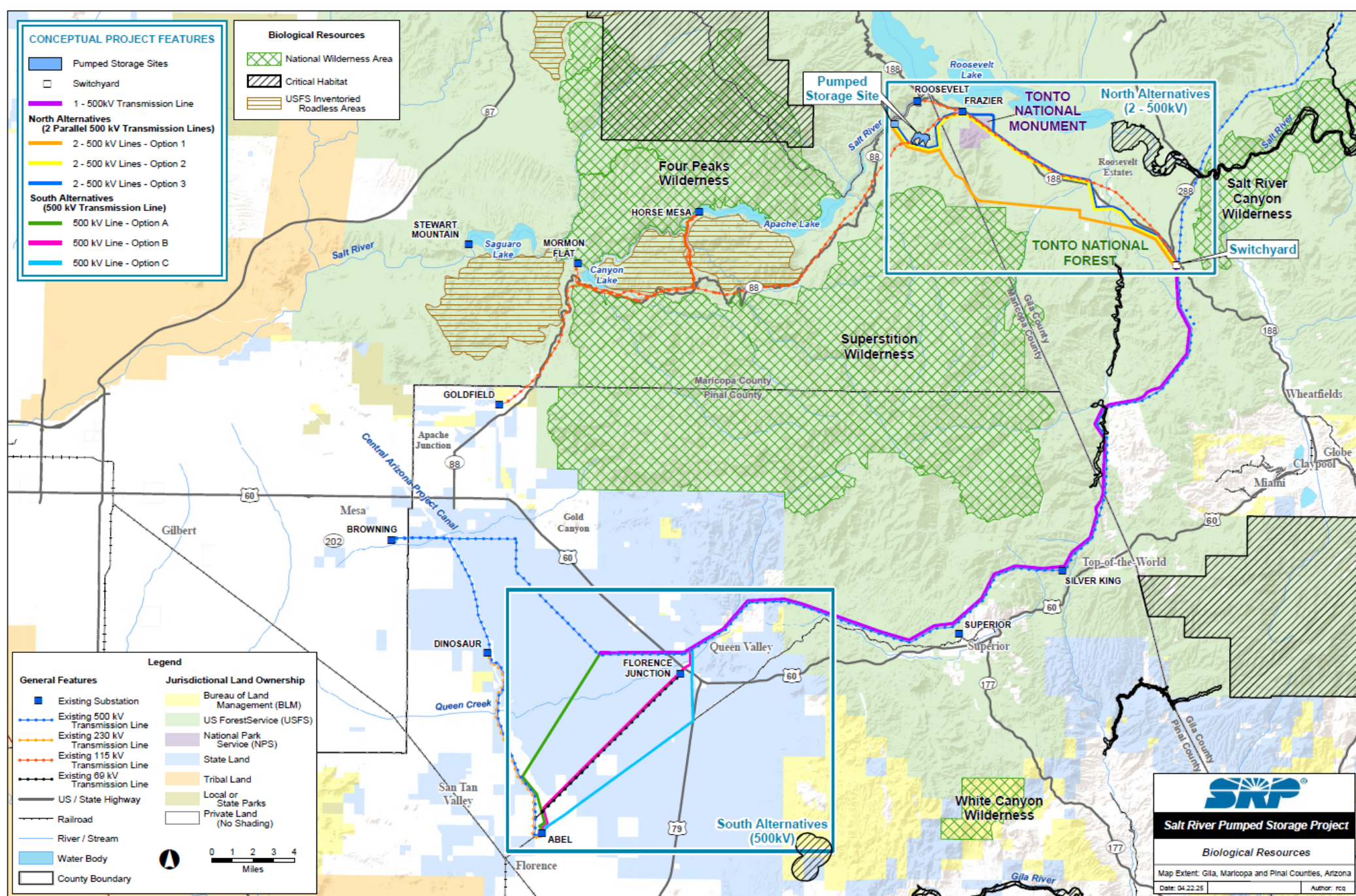
Hedgehog Cactus



Yellow Billed-Cuckoo



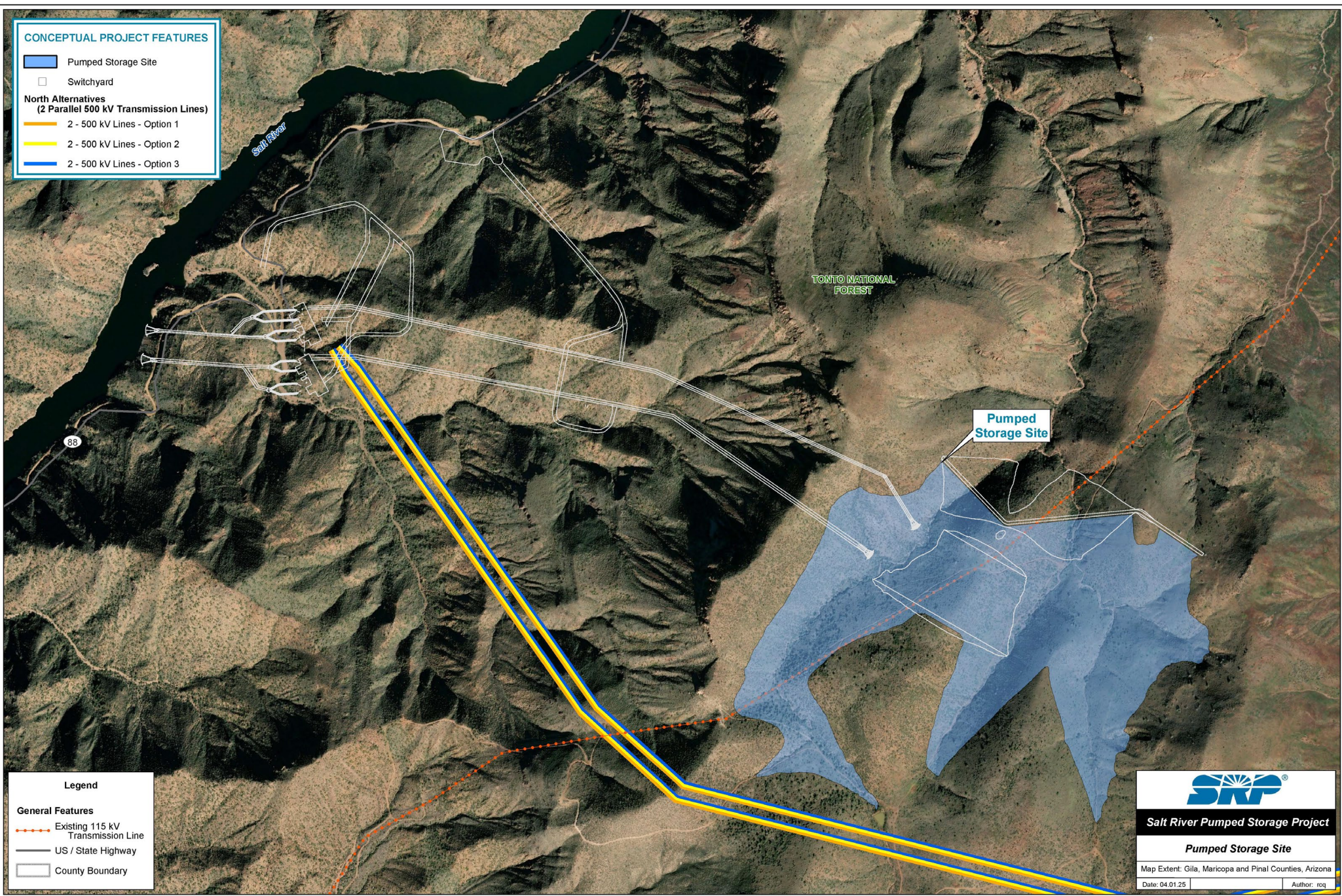
Sonoran Desert Tortoise



Proposed routes and project features subject to change through permitting process

Generation





CONCEPTUAL PROJECT FEATURES

- Pumped Storage Site
- Switchyard

**North Alternatives
(2 Parallel 500 kV Transmission Lines)**

- 2 - 500 kV Lines - Option 1
- 2 - 500 kV Lines - Option 2
- 2 - 500 kV Lines - Option 3

Legend

General Features

- Existing 115 kV Transmission Line
- US / State Highway
- County Boundary

SRP

Salt River Pumped Storage Project

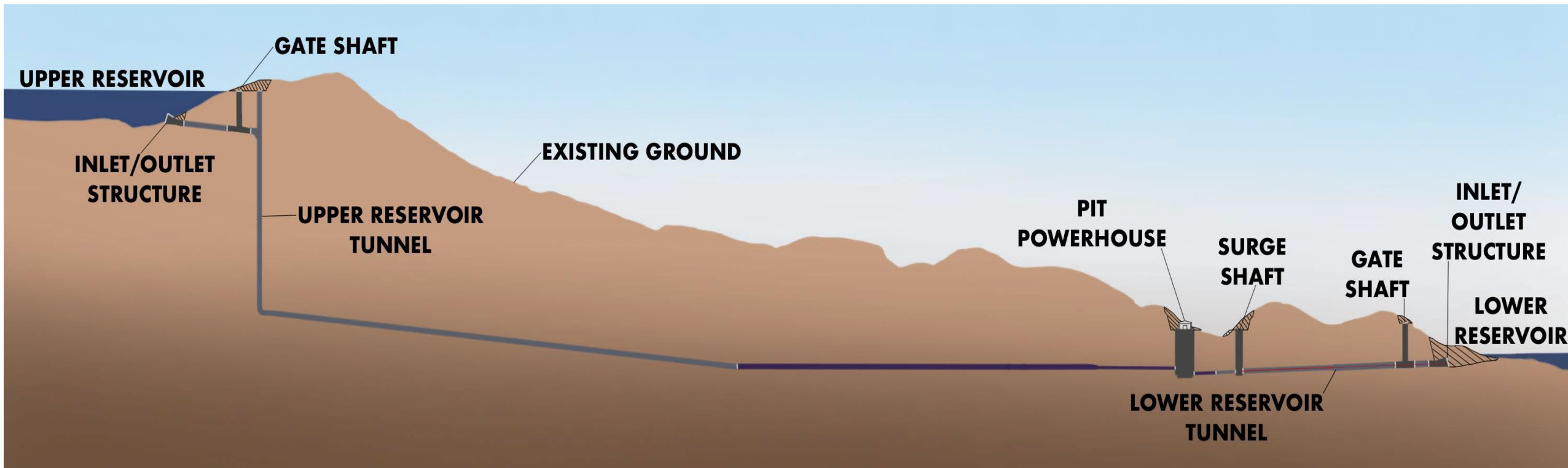
Pumped Storage Site

Map Extent: Gila, Maricopa and Pinal Counties, Arizona

Date: 04.01.25 Author: rcq

Proposed routes and project features subject to change through permitting process

Pumped Storage Option: Pit Waterway Profile



Considerations:

- Access
- Safety
- Constructability
- Schedule
- Feedback from workshops

RENDERING: PIT STYLE POWERHOUSE FACILITIES



CONCEPTUAL RENDERING
SUBJECT TO CHANGE

An aerial conceptual rendering of a hydroelectric power plant. The main image shows a large concrete dam across a river valley, with a powerhouse building situated on a hillside above it. A long penstock pipe runs down the slope from the powerhouse to the dam. The surrounding landscape is rugged and mountainous with sparse vegetation. In the bottom left, a body of water is partially obscured by a thick layer of white mist or clouds. An inset map in the top right corner shows the project's location within a larger regional context, with a pink shaded area indicating the project site and a blue line representing a river. A north arrow is also present in the inset map.

RENDERING: PIT STYLE POWERHOUSE FACILITIES

CONCEPTUAL RENDERING
SUBJECT TO CHANGE

RENDERING: PIT STYLE POWERHOUSE FACILITIES



CONCEPTUAL RENDERING
SUBJECT TO CHANGE

RENDERING: UPPER RESERVOIR



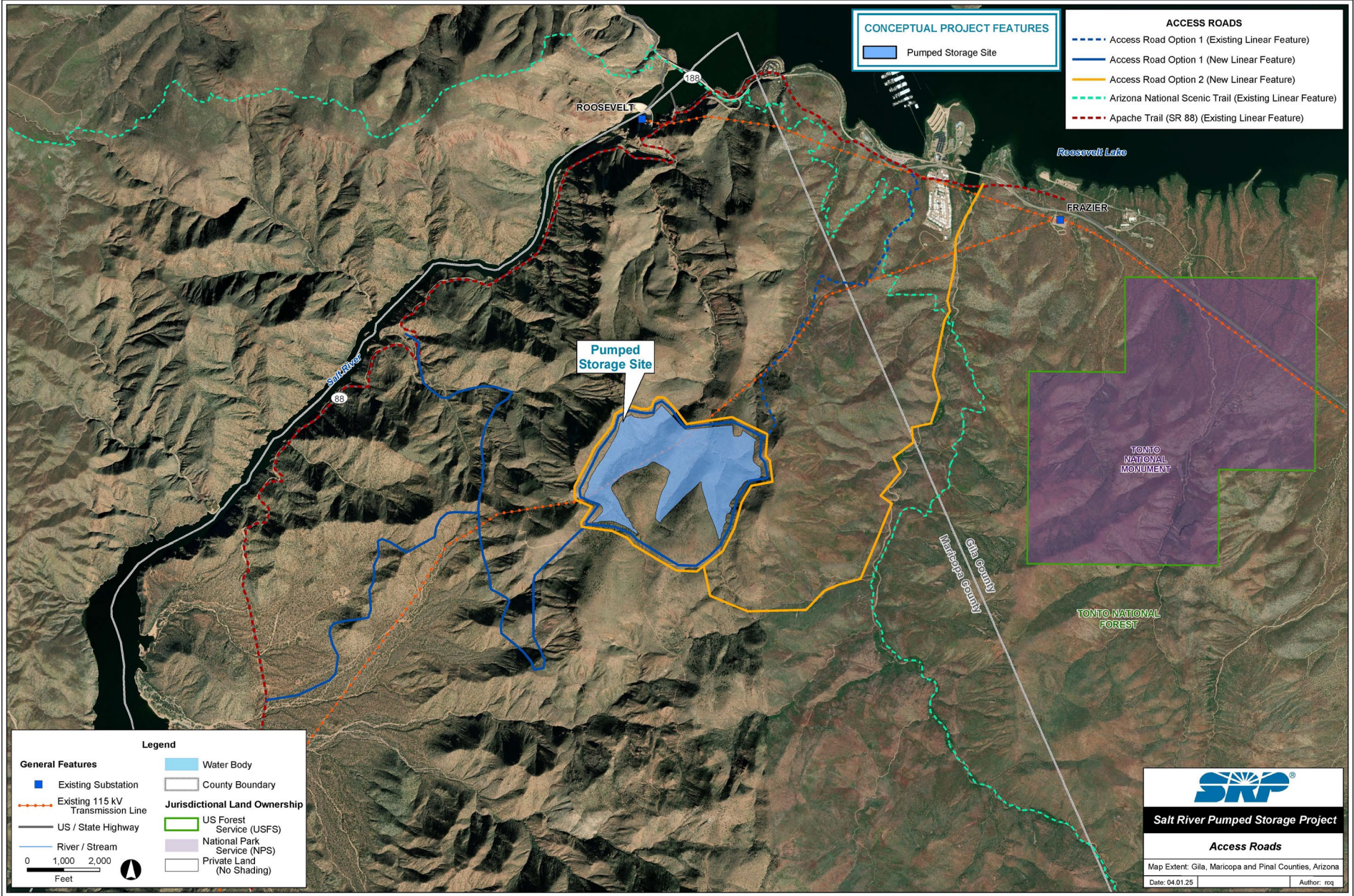
CONCEPTUAL RENDERING
SUBJECT TO CHANGE

RENDERING: UPPER RESERVOIR



CONCEPTUAL RENDERING
SUBJECT TO CHANGE

Access Roads: Upper Reservoir

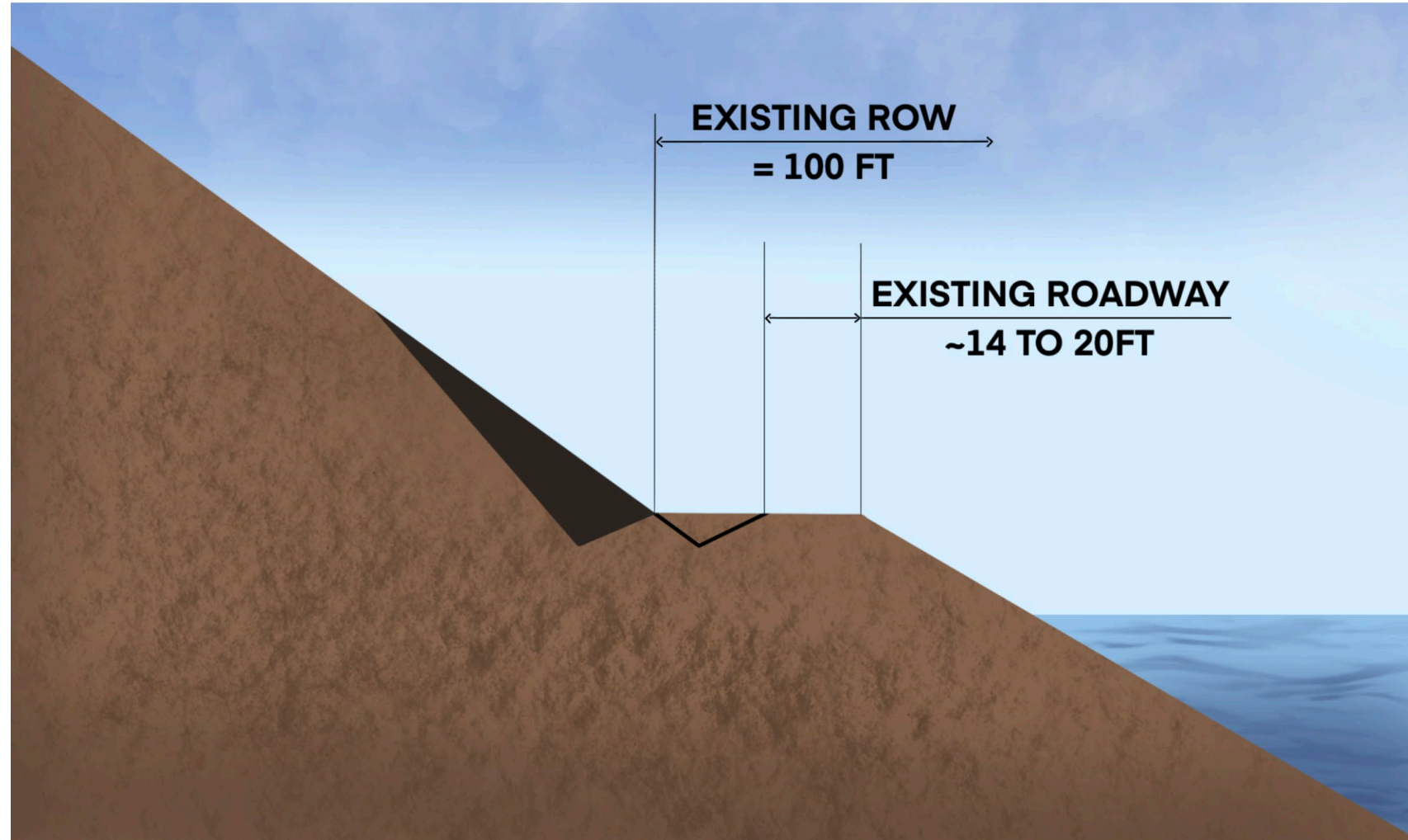


Conceptual routes and project features subject to change through permitting process.

Access Roads: Apache Trail

Potential modifications considerations:

- Public access
- Designs compatible with the rest of the Apache Trail in collaboration with ADOT & Tonto National Forest
- In slope rock cuts or sloped retaining walls



Existing



Rendering

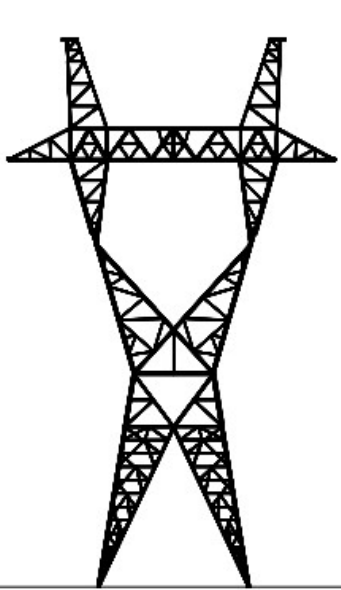


An aerial photograph of a large concrete dam situated in a deep, rugged canyon. The canyon walls are composed of layered, reddish-brown rock. A river flows through the canyon, curving around the base of the dam. The water is a deep blue. The sky is a clear, pale blue. The text "Transmission Facilities & Route Concept Options" is overlaid in white, sans-serif font across the center of the image.

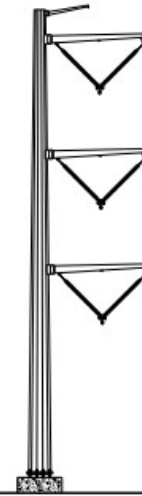
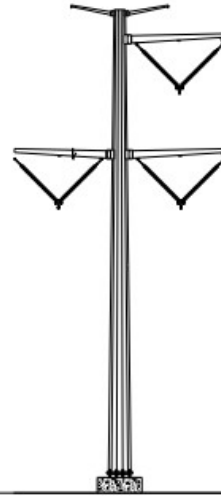
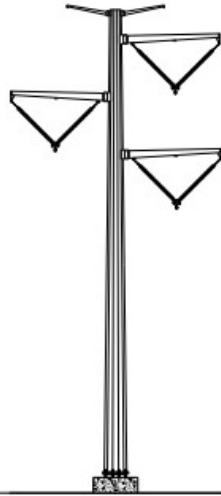
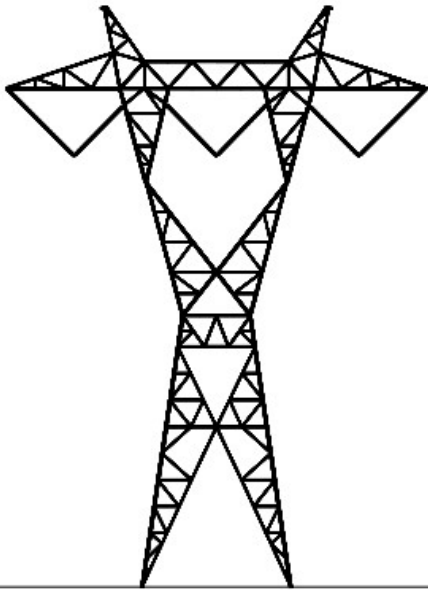
Transmission Facilities & Route Concept Options



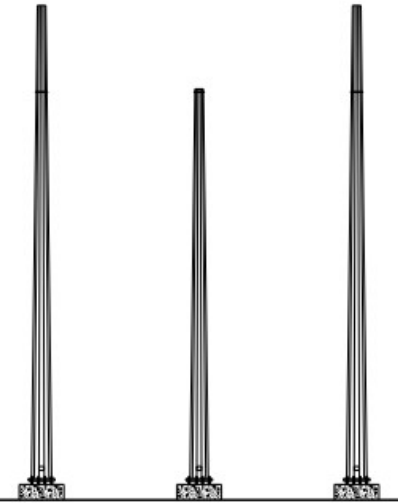
Typical Structure Types



Tower Type: Lattice Towers; **Voltage:** 500kV, Single Circuit; **Height:** Up to 160 ft



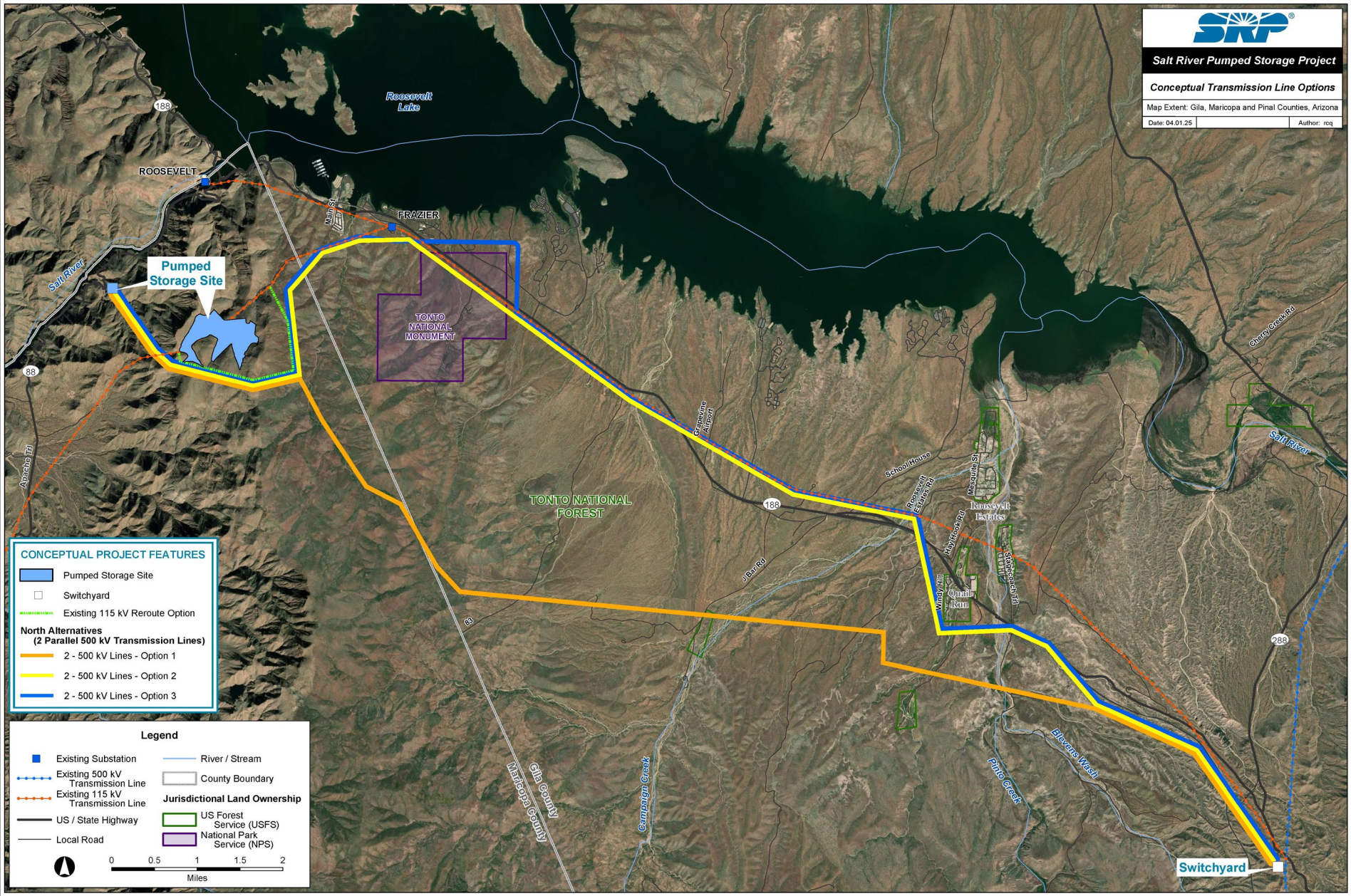
Tower Type: Monopoles; **Voltage:** 500kV, Single Circuit; **Height:** Up to 190 ft



Tower Type: 3-Pole Deadend;
Voltage: 500kV, Single Circuit
Height: Up to 190 ft

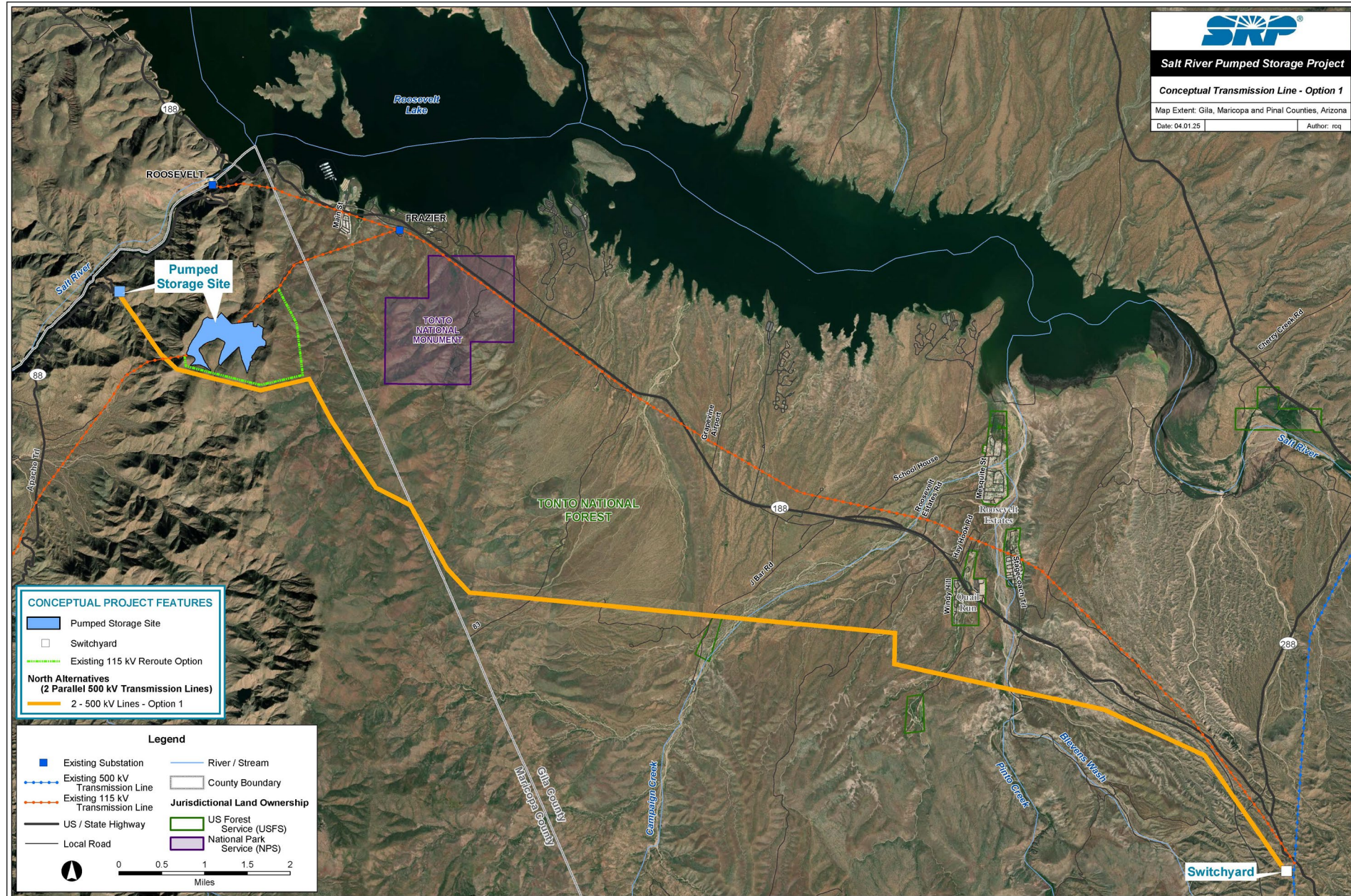
Represents SRP's typical structures. Actual structure types for this project have not yet been determined and may vary depending on location.

Conceptual Transmission Line Options



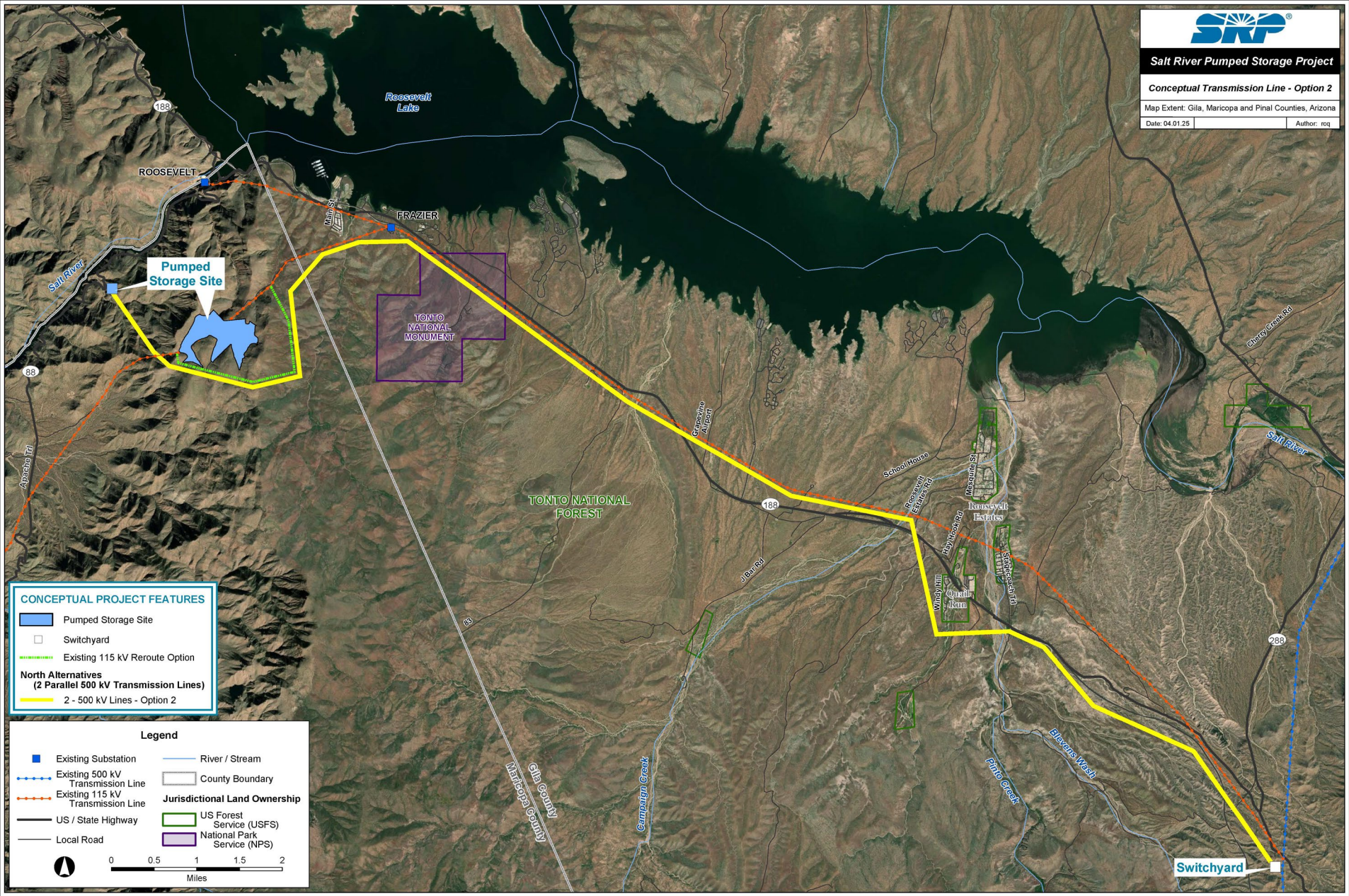
Conceptual routes and project features subject to change through permitting process.

Option 1



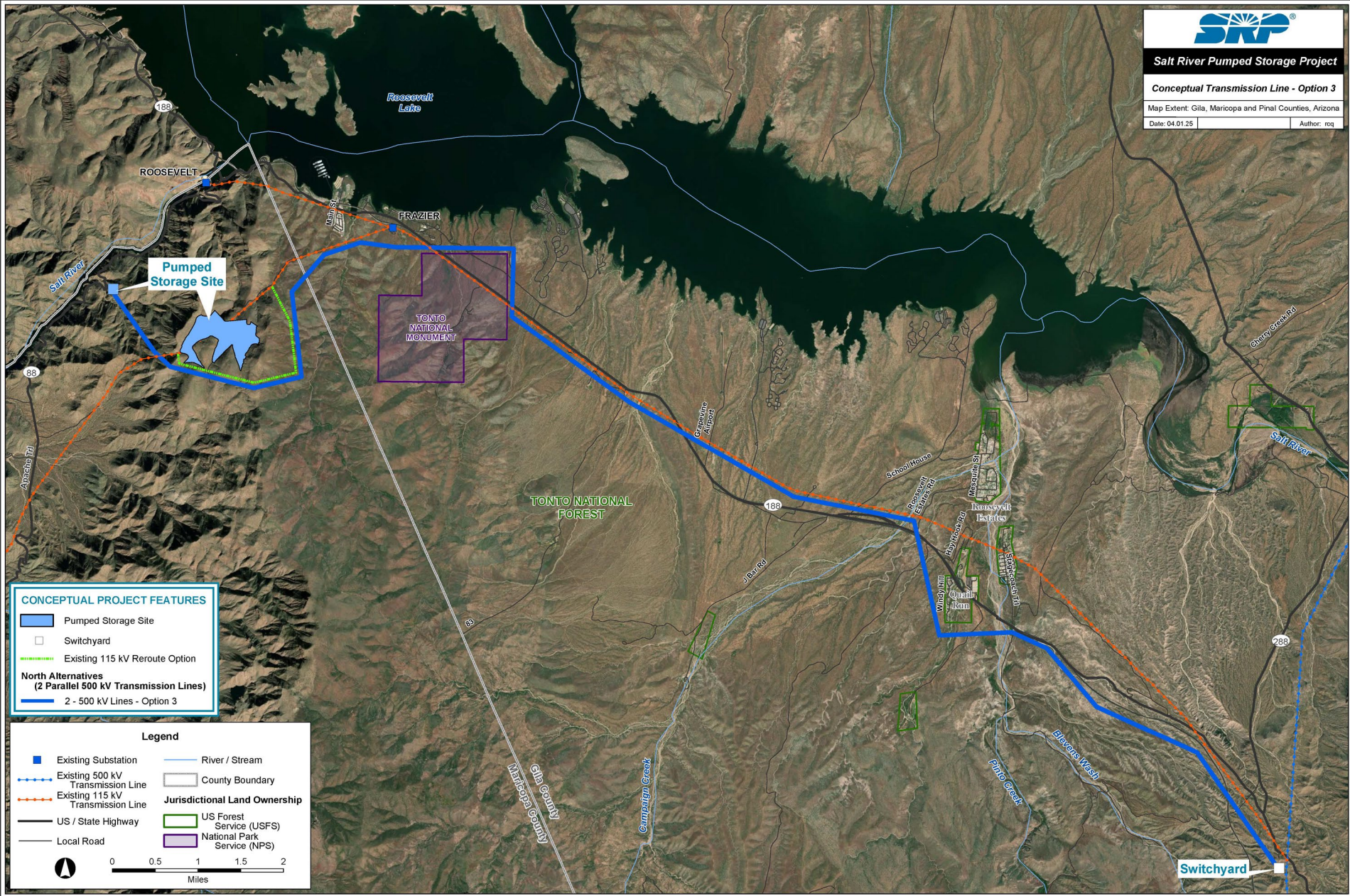
Conceptual routes and project features subject to change through permitting process.

Option 2



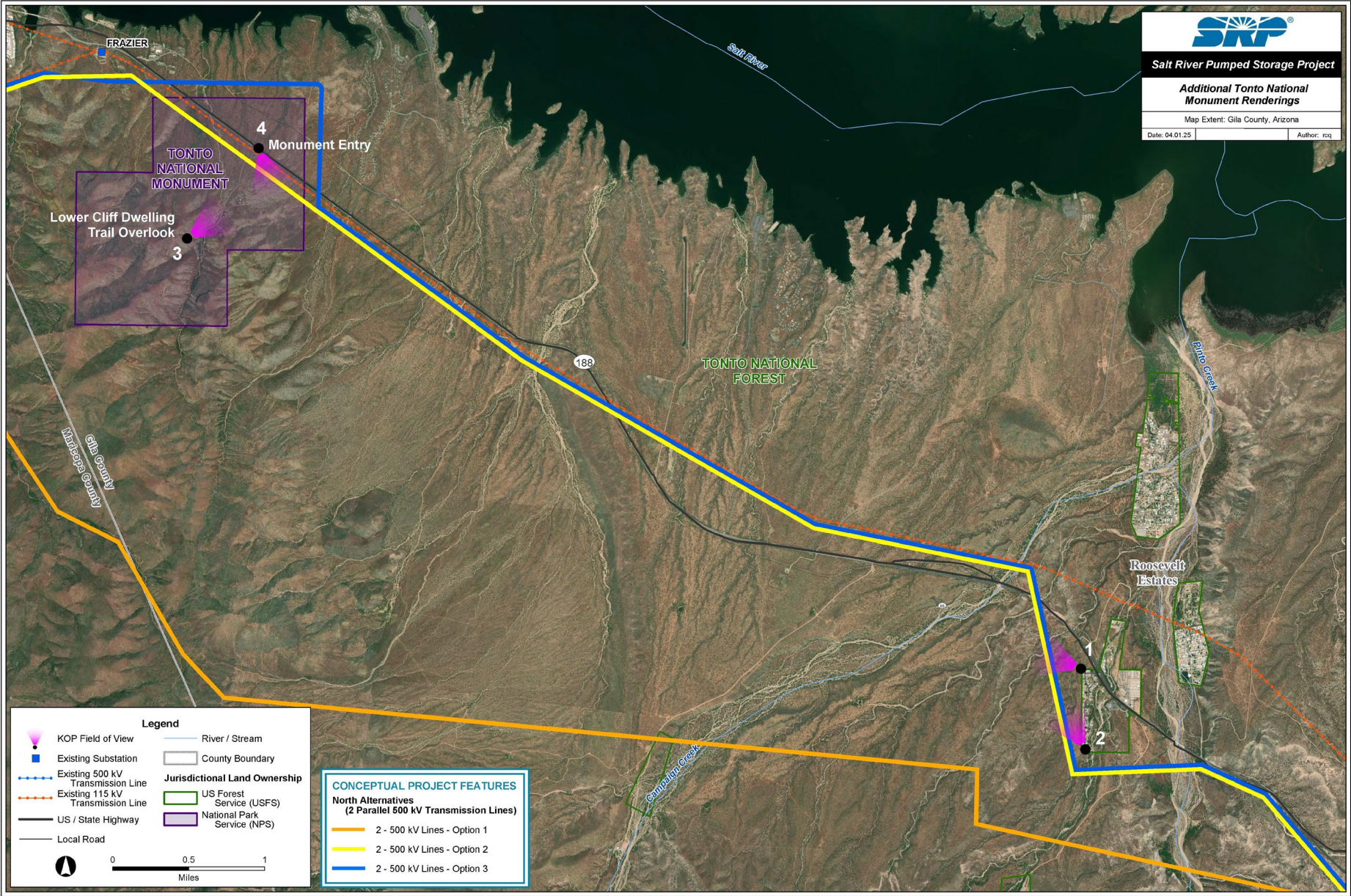
Conceptual routes and project features subject to change through permitting process.

Option 3



Conceptual routes and project features subject to change through permitting process.

Key Observation Points, Conceptual Renderings



Conceptual routes and project features subject to change through permitting process.

Existing: Northwest Corner of Quail Run



Looking Northwest

KOP 1

Rendering: Northwest Corner of Quail Run



Looking Northwest

KOP 1

Existing: South End of Windy Hill



Looking Northwest

KOP 2

Rendering: South End of Windy Hill



Looking Northwest

KOP 2

Existing: Lower Cliff Dwelling



Looking North

KOP 3

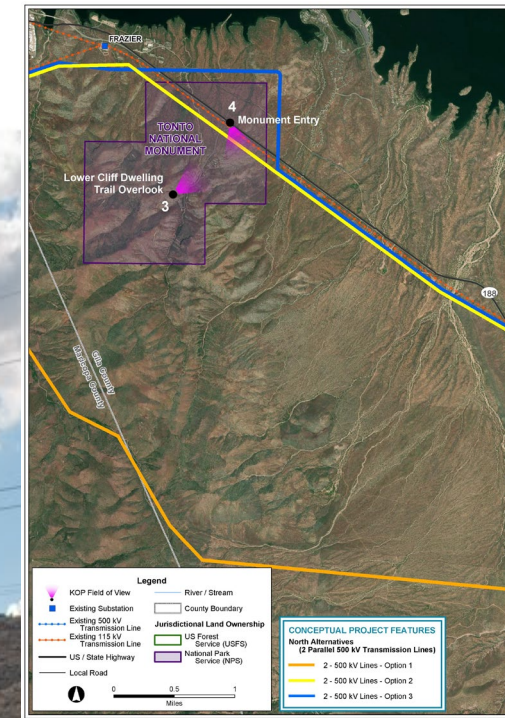
Rendering: Lower Cliff Dwelling



Looking North

KOP 3

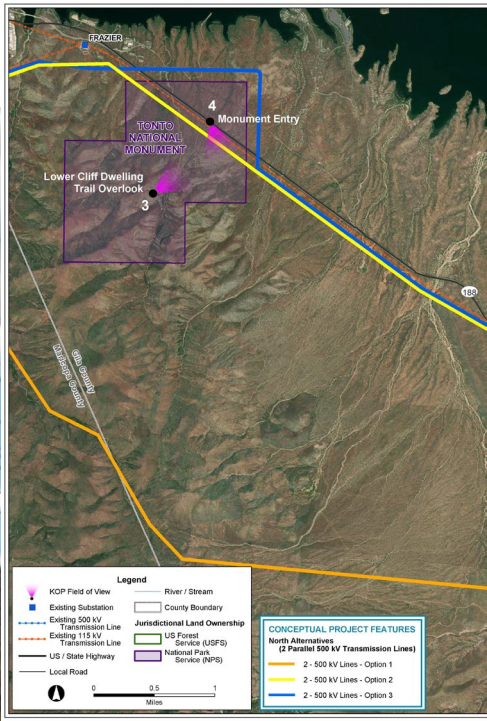
Existing View: Monument Entrance



Looking Southeast

KOP 4

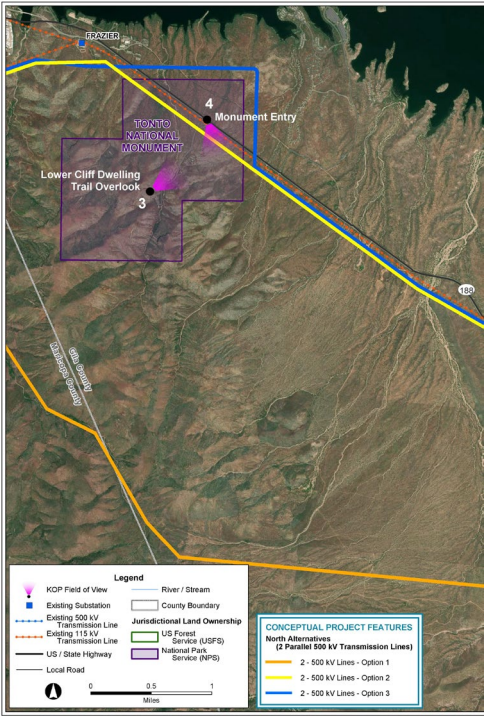
Rendering: Monument Entrance, Option 2



Looking Southeast

KOP 4

Rendering: Monument Entrance, Option 3



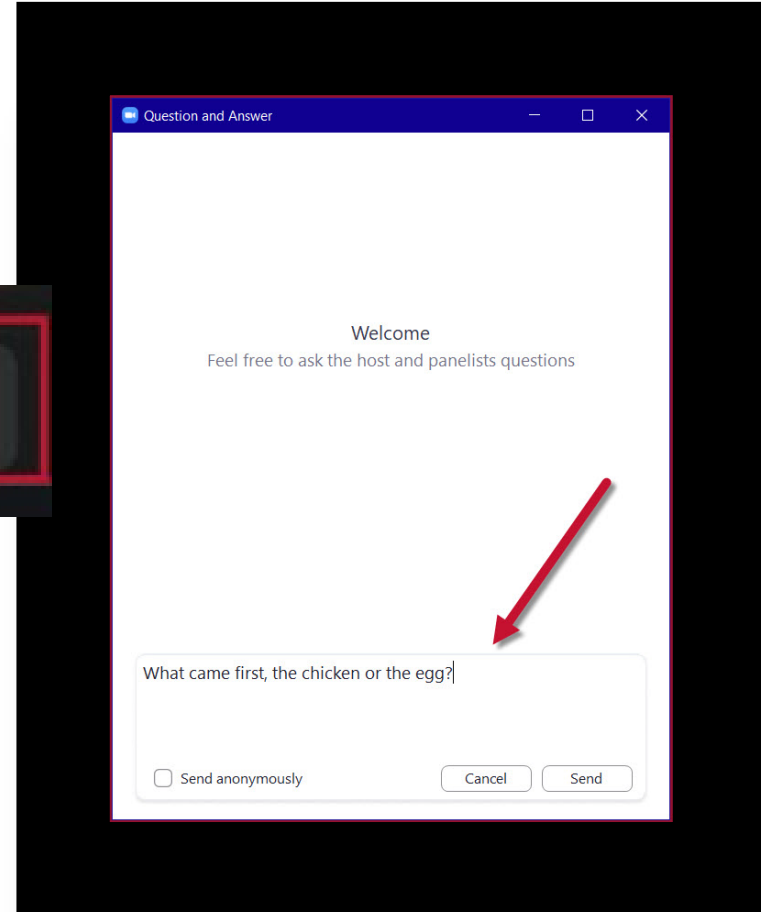
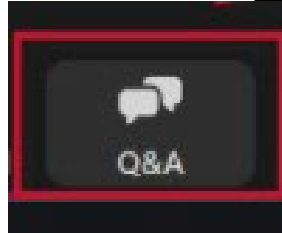
Looking Southeast

KOP 4

Questions

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*Click "Q&A" at
bottom of screen*



Feedback and Thank You!

Please scan the QR code below to complete a Feedback Survey Form



thank you!