

An aerial photograph of a large concrete dam situated in a deep, rugged canyon. The reservoir behind the dam is a vibrant blue, contrasting with the arid, brownish-orange rock walls. The sun is low in the sky, casting long shadows and highlighting the textures of the canyon walls. The title text is overlaid on the upper portion of the image.

Salt River Pumped Storage Project

Spring Outreach

April 2024

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

Welcome

Purpose of Outreach

Share Project Details

- Generation
- Transmission
- Resources
- Considerations



Share Feedback:

- Site Selection
- Route Options

Review Details & Ask Questions

- Displays
- Technical Experts



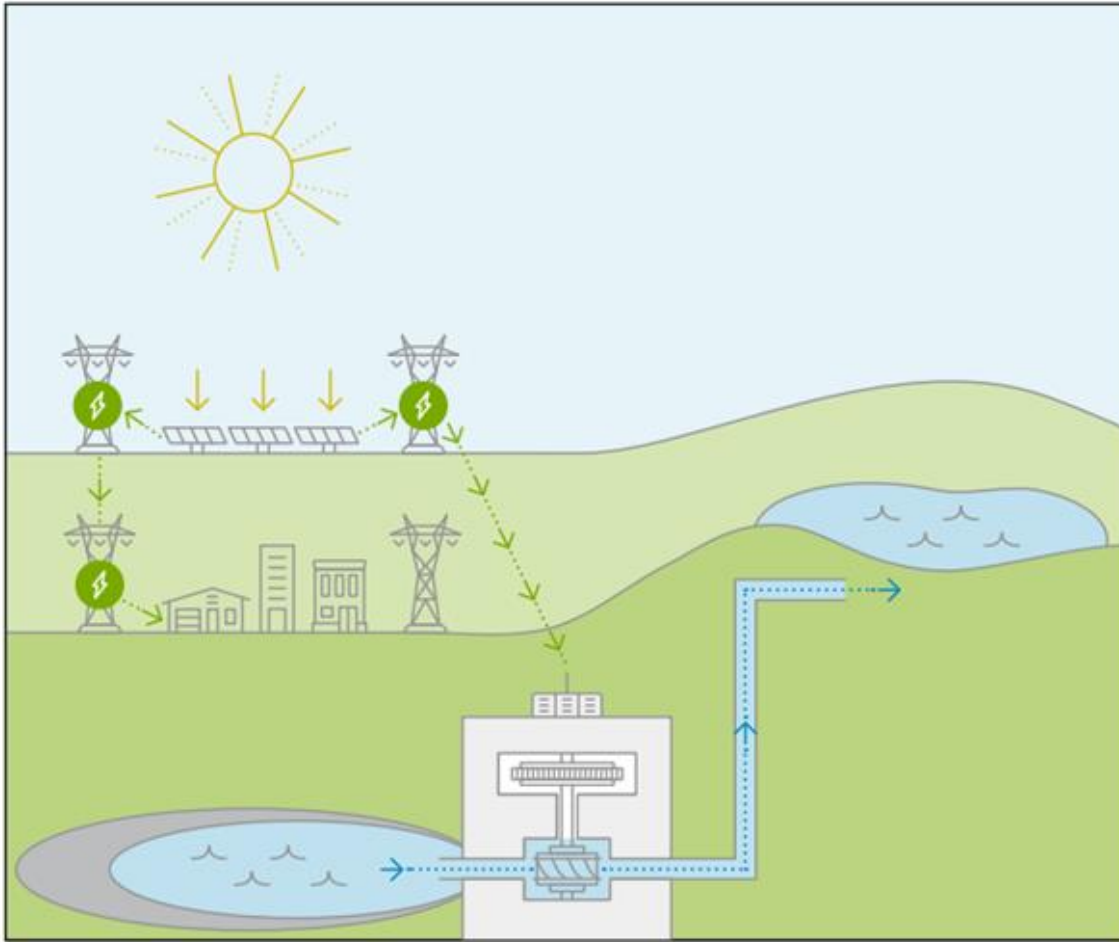
- Comment Cards
- Feedback Form
- Discussions
- Website

Background: What is Pumped Storage?

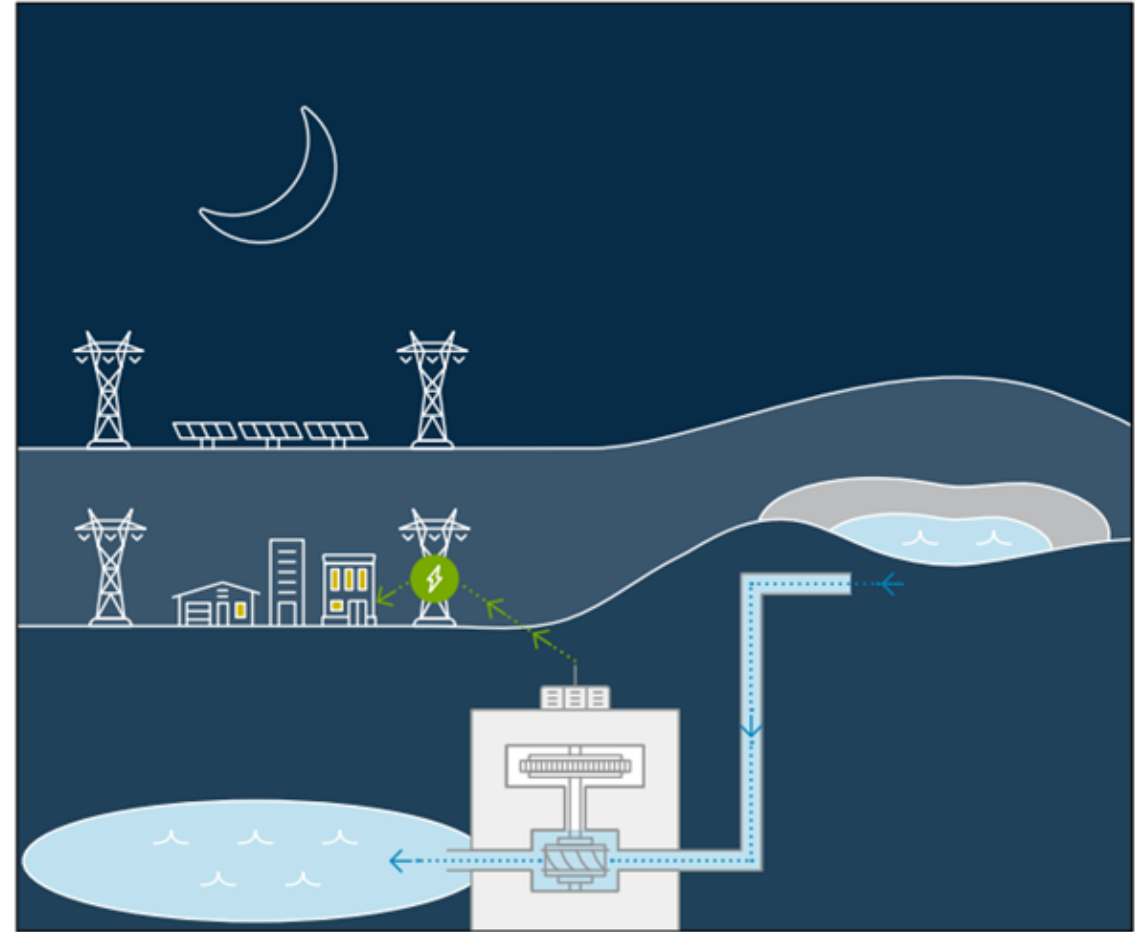


Pumped Hydropower Technology Example

Morning and Midday Operation



Late Afternoon and Overnight Operation

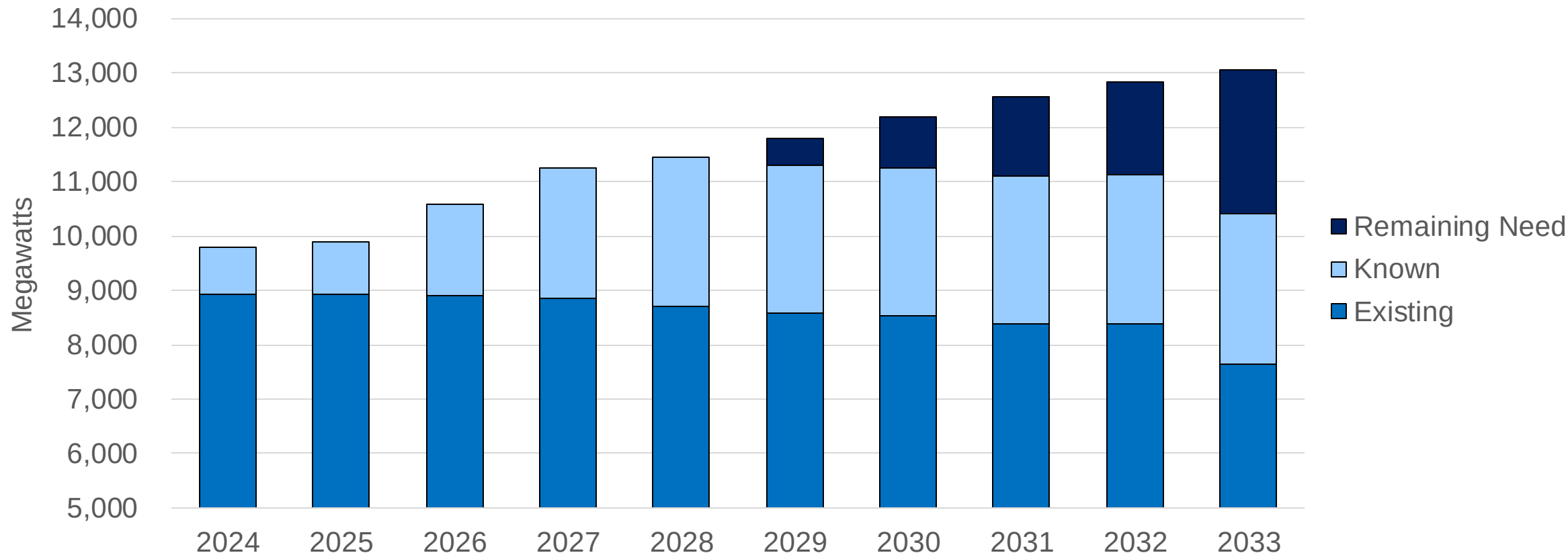


An aerial photograph of a large concrete dam situated in a deep, rugged canyon. The canyon walls are composed of layered, reddish-brown rock. A river flows through the canyon, curving around the base of the dam. The water is a deep blue. The sky is a clear, pale blue. The text "Background: Resource Plan & Need" is overlaid in white, bold, sans-serif font.

Background: Resource Plan & Need

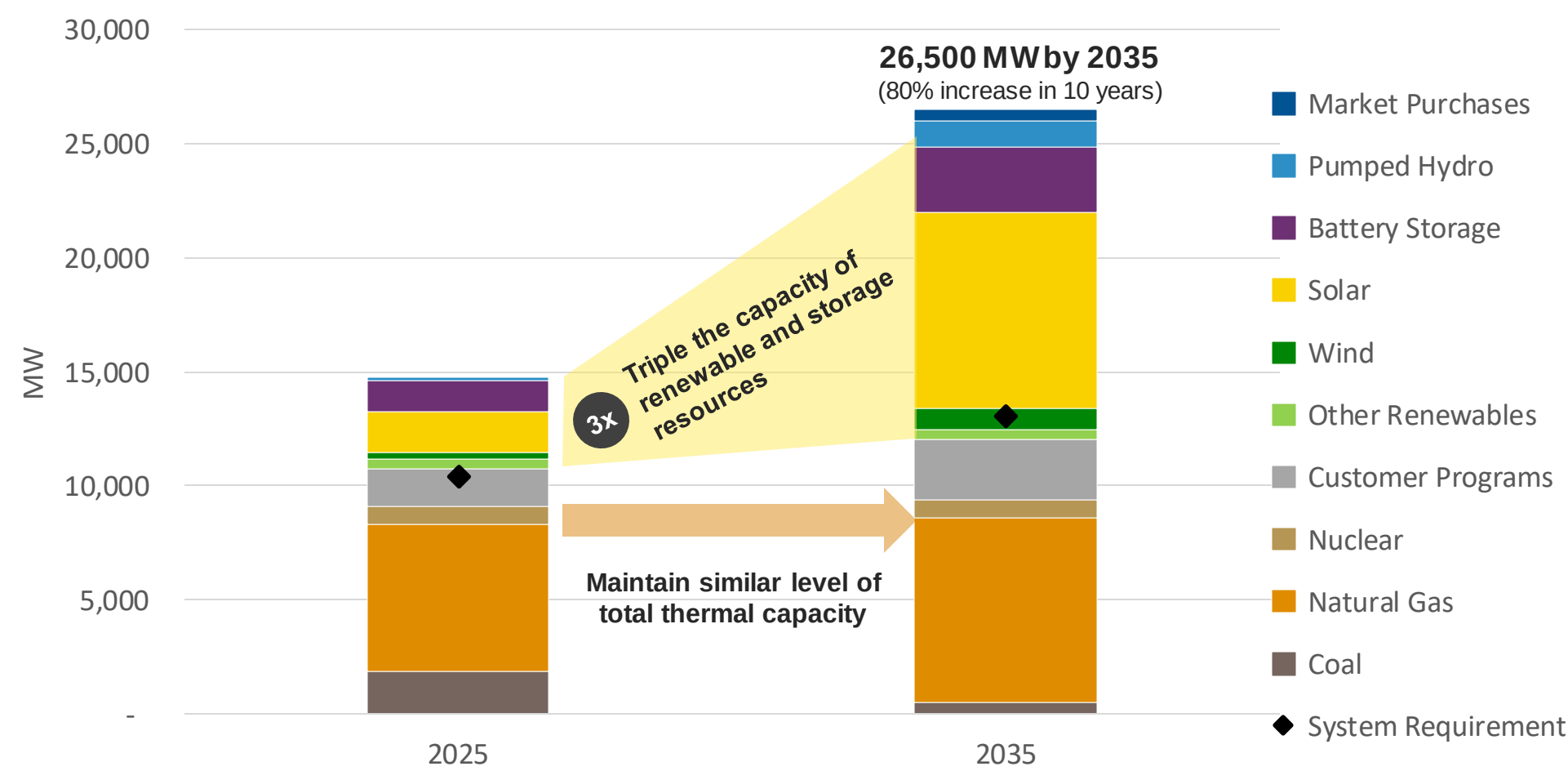


Resource Needs to Meet Summer Peak Demand *



Key Takeaway: SRP needs >2,600 MW by 2033; pumped storage could provide 1,000 MW in this timeframe

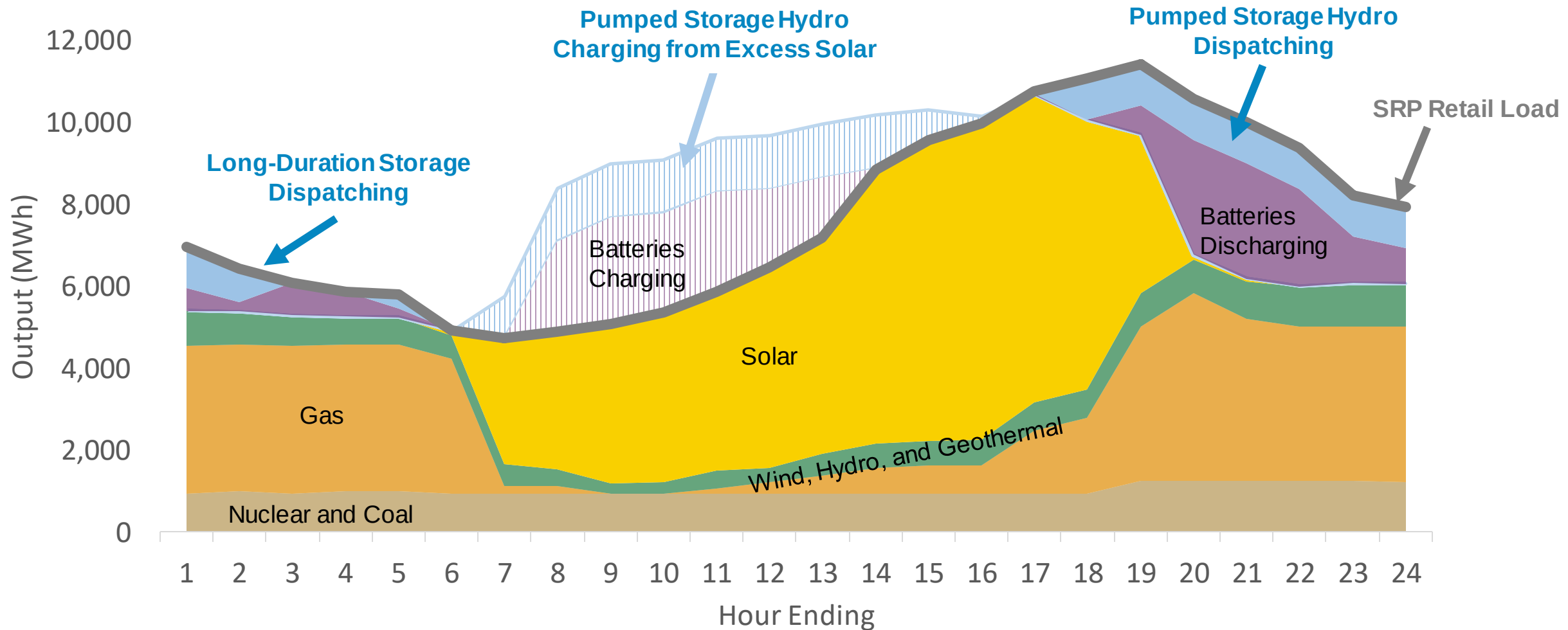
Planned Resource Additions *



Key Takeaway: Majority of resource additions over this time will be solar and battery storage

* Based on 2023 Integrated System Plan Balanced System Plan. Plans may change over time.

Example Day in Summer 2035*



Key Takeaway: Pumped storage can store solar and discharge it to meet peak demand and through the night

* Modeling result – actual daily operations may differ

Pumped Storage Benefits

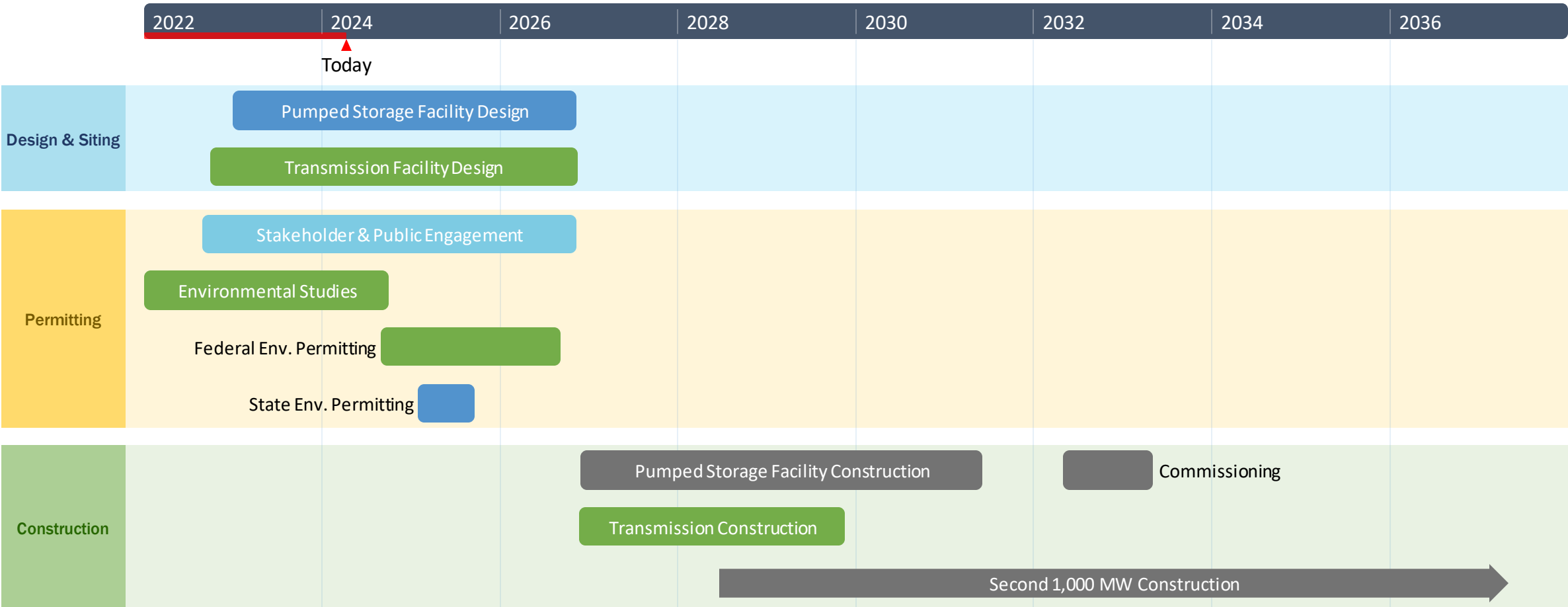
Benefits

- Resource Diversity
 - >4,300 MW of 4-hour and 1,000 MW of battery storage planned by 2033
 - Supply Chain & Workforce Diversity
- Proven Technology
 - SRP has ~150 MW in operation today
 - Less expected performance degradation
 - Provides a reliable source of inertia
- Long Asset Life
 - 100 years vs. 10-20 years for battery

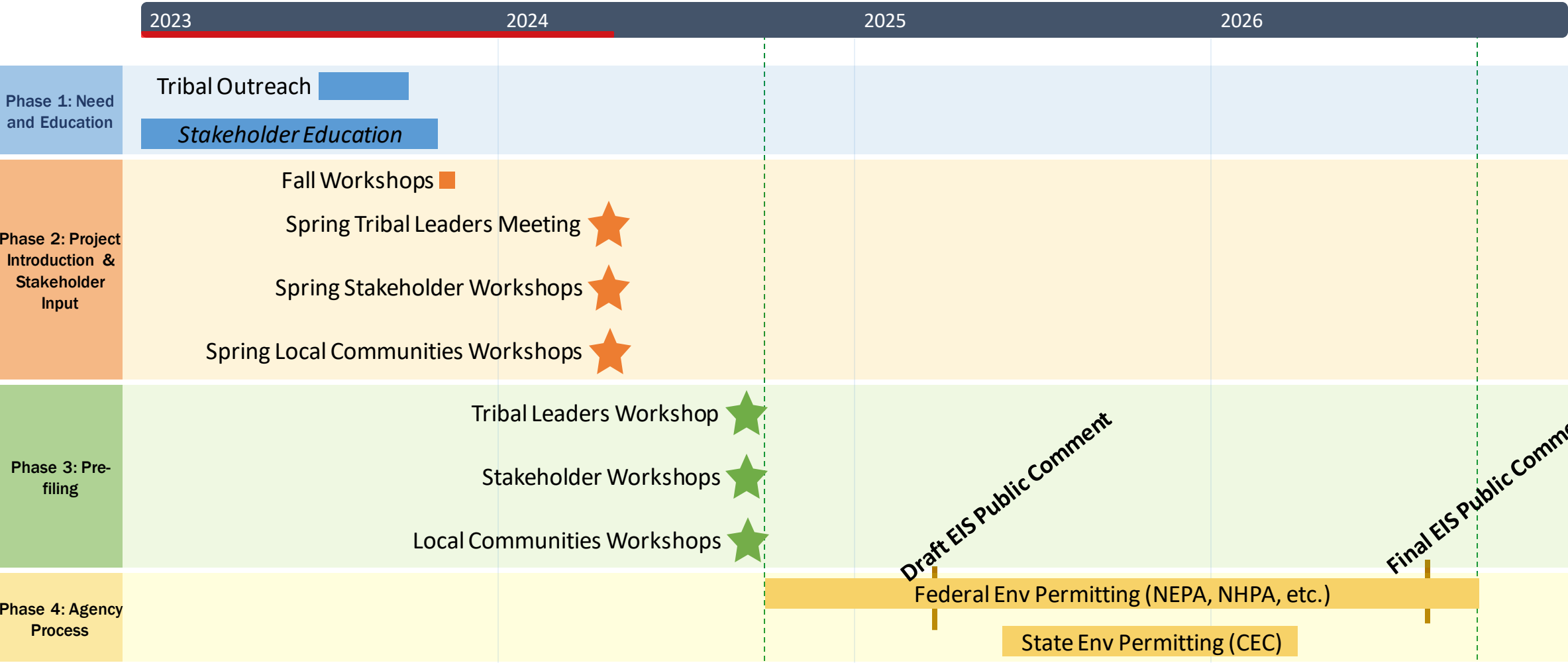
A wide-angle photograph of a massive concrete dam situated in a deep, rugged canyon. The canyon walls are composed of layered, reddish-brown rock. A river flows through the center of the canyon, its water a deep blue. The dam is a long, low structure with a small, arched structure at its base. The sky is a clear, pale blue. The text "Background: Project Development Timelines" is overlaid in large, white, sans-serif font across the center of the image.

Background: Project Development Timelines

Development Timeline



Outreach Activities & Milestones



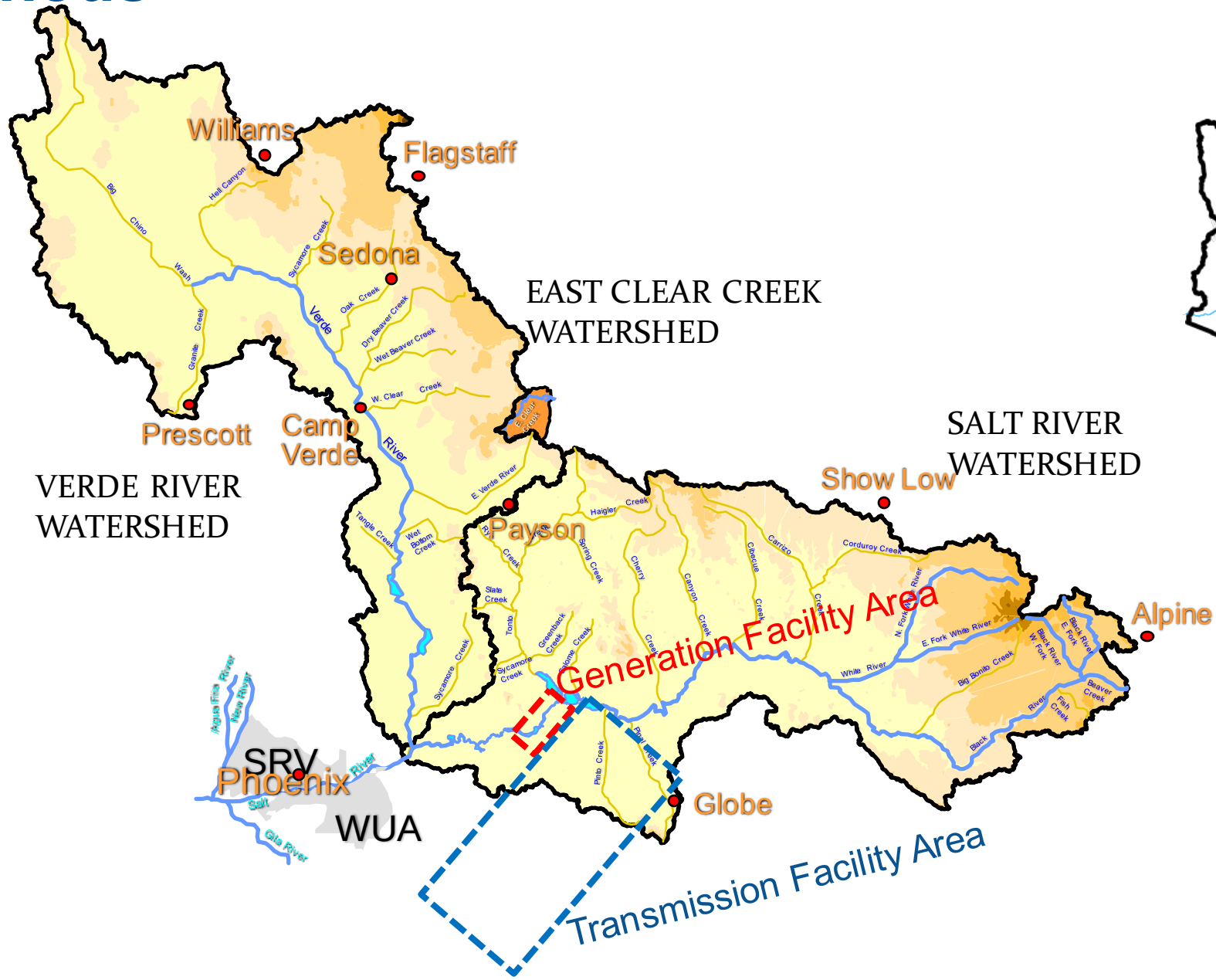
Start of Federal Environmental Permitting

NEPA, CEC, Record of Decision Completed

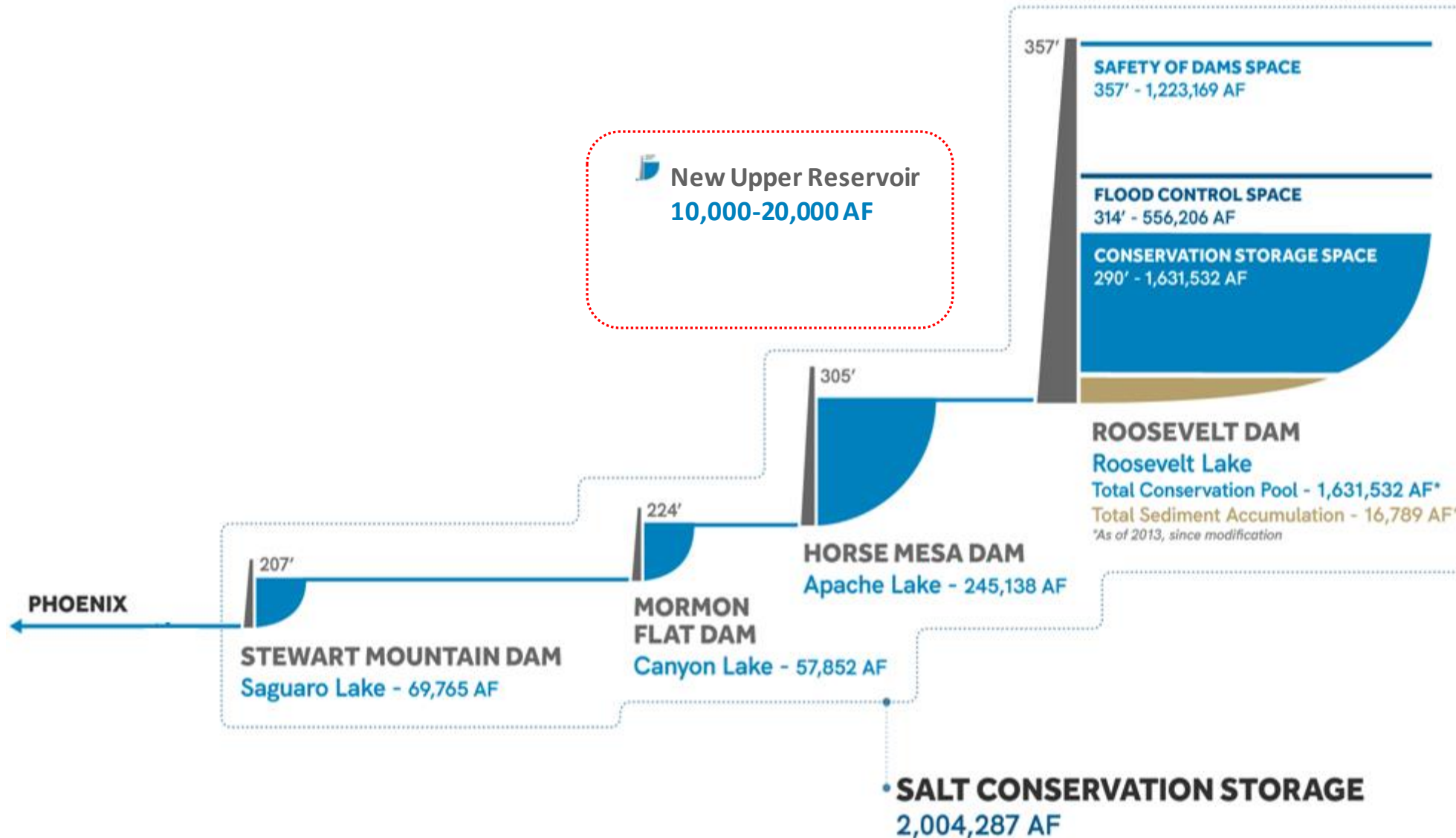
An aerial photograph of a large concrete dam situated in a deep, rugged canyon. The canyon walls are composed of layered, reddish-brown rock. A river flows through the canyon, and a smaller structure is visible on the right side of the dam. The sky is clear and blue.

Background: Project Location & Facilities & Considerations

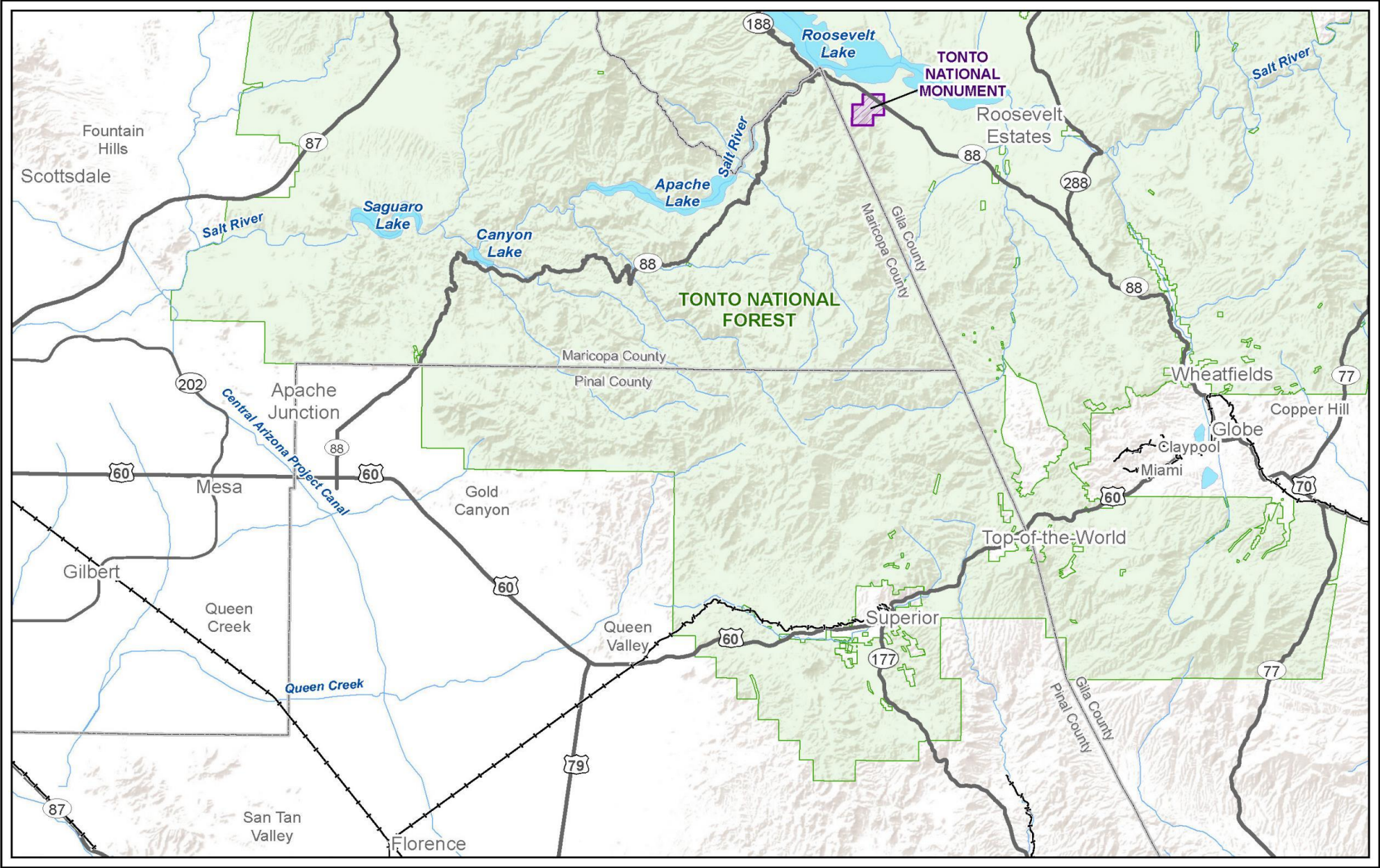
SRP Watersheds



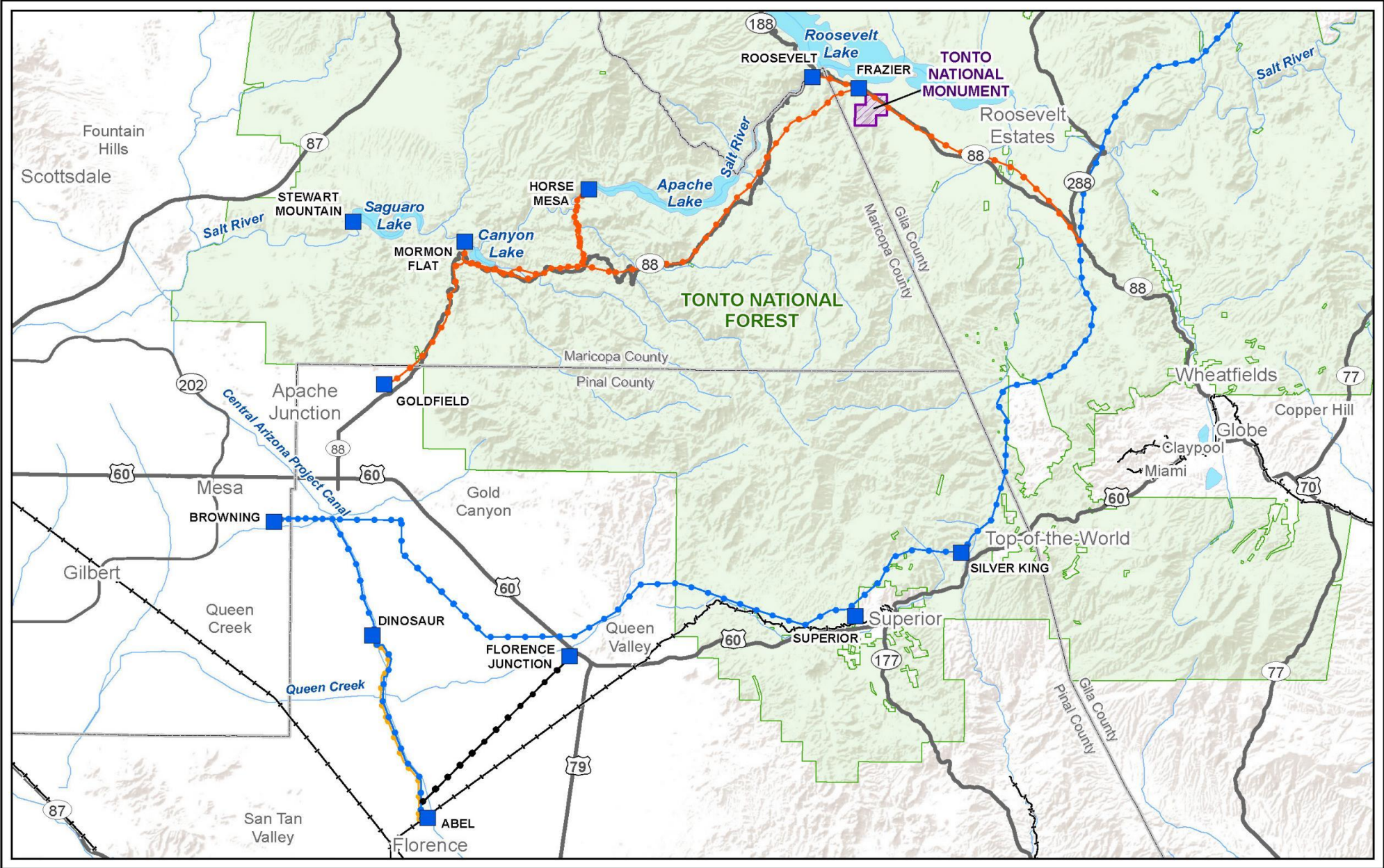
Water System Support of Pumped Storage



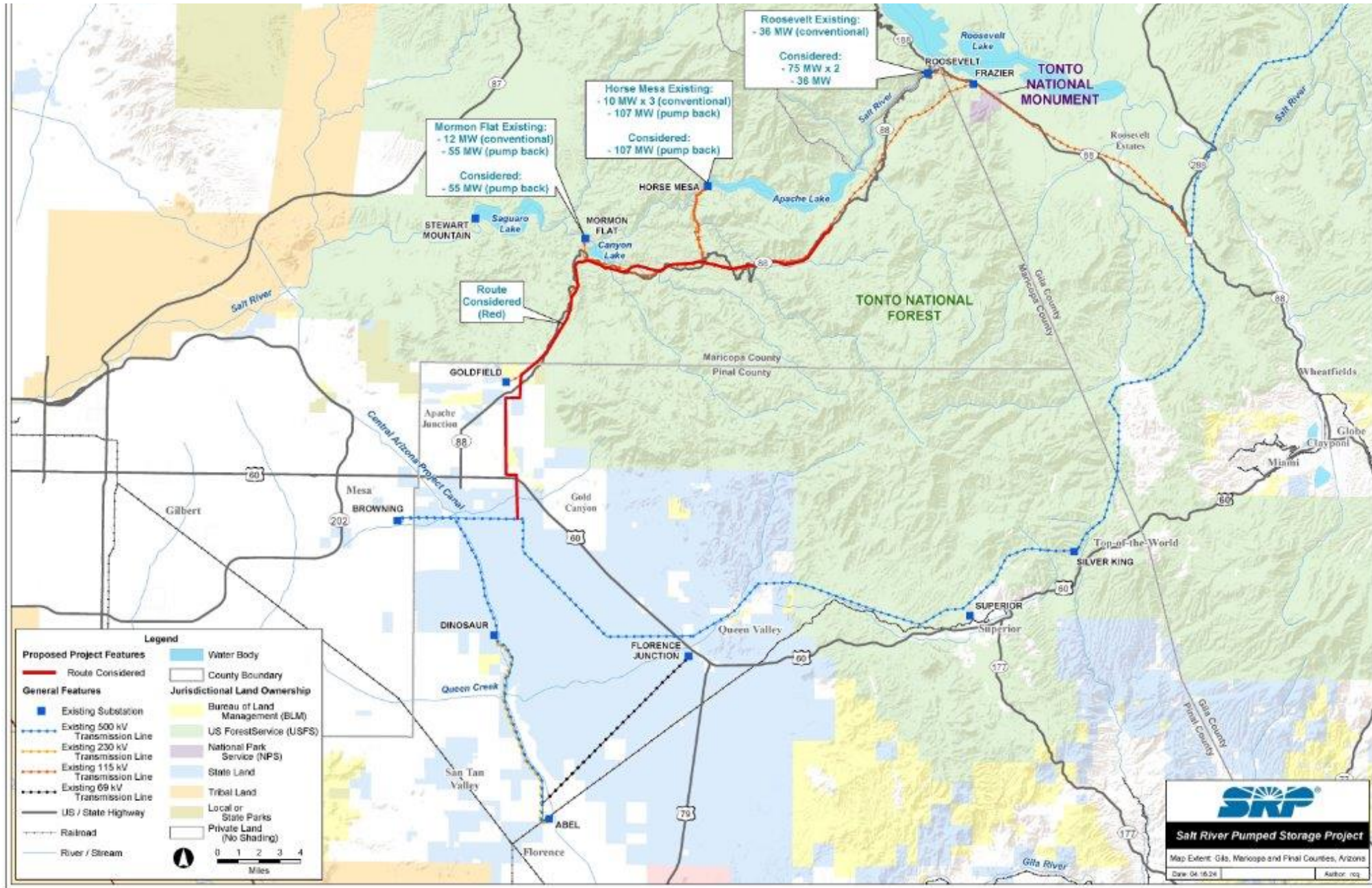
Project Area Study Area



Existing SRP Facilities



SRP Project Components Considered



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 "Project Updates: Fall Workshop Feedback" is overlaid in large, white, sans-serif font across the center of the image.

Project Updates: Fall Workshop Feedback



Feedback from Fall Workshop

Generation Sites

- Preference for Site 2 over Site 1

Transmission Routes

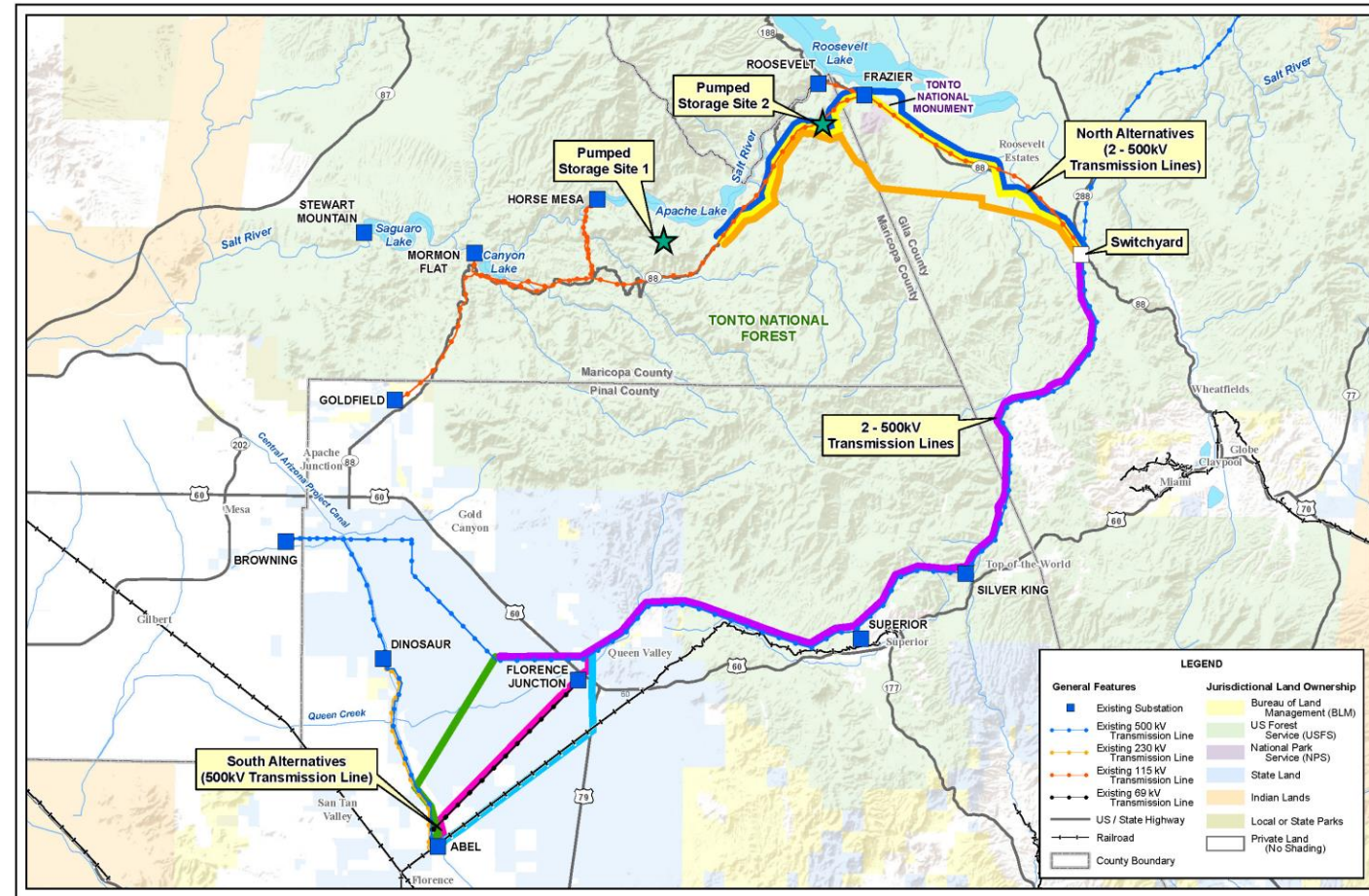
- Follow existing linear feature
- Minimize new disturbances

Tonto National Monument

- Additional review for viewsheds & renderings from key visual points

Tribal Consideration

- Additional Surveys
- Ethnography study to inform project developments

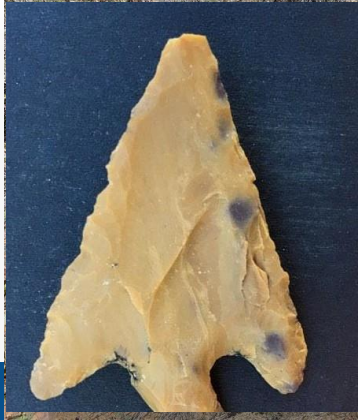


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Project Updates: Resources



Cultural Resources within Project Area



Cultural Resources

- Class III surveys were completed for proposed reservoir locations (Sites 1 & 2)
 - Purpose to identify archeological sites, historic cultural resources, and places important to Tribal Communities
- Site 1 removed from further consideration for SRP
- 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.
 - Other known cultural resources
 - Tonto National Monument
 - Apache Trail (SR 88)



Cultural Resources

New Initiatives

- Class III Survey of Northern Transmission Alternatives (in progress now)
- Identifying qualified consultants to start Ethnographic Study

Next steps

- Class III Surveys of Southern Transmission Alternatives
- Class III Surveys of parallel corridor
- Class III surveys of staging areas, roads, and other facilities
- Class I inventory to support Cultural Resources Visual Impacts Study





Bald Eagle



Southwest Willow Flycatcher



Saguaro



Golden Eagle

Potential Species within Project Area



Hedgehog Cactus



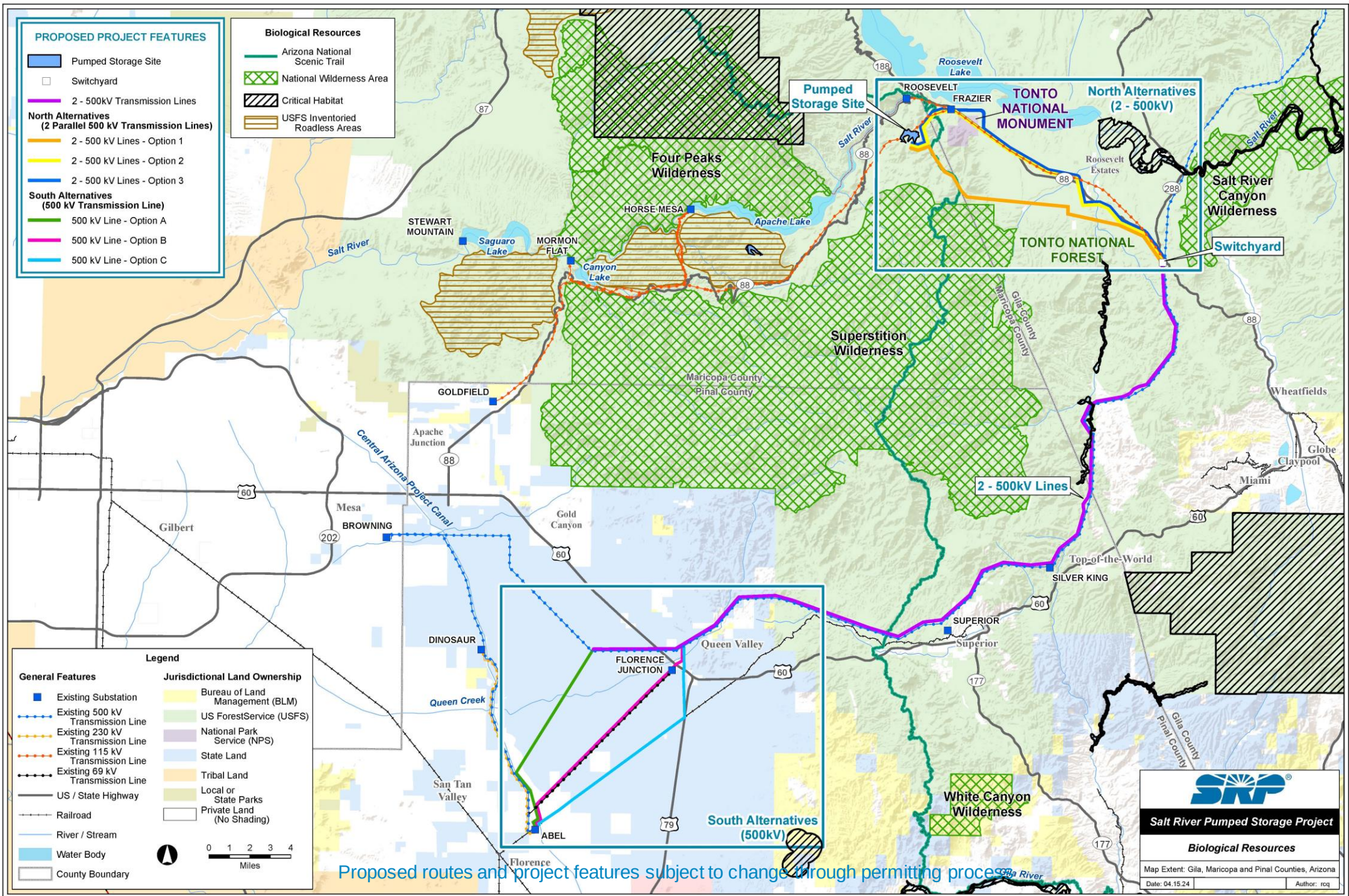
Yellow Billed-Cuckoo



Gila Topminnow



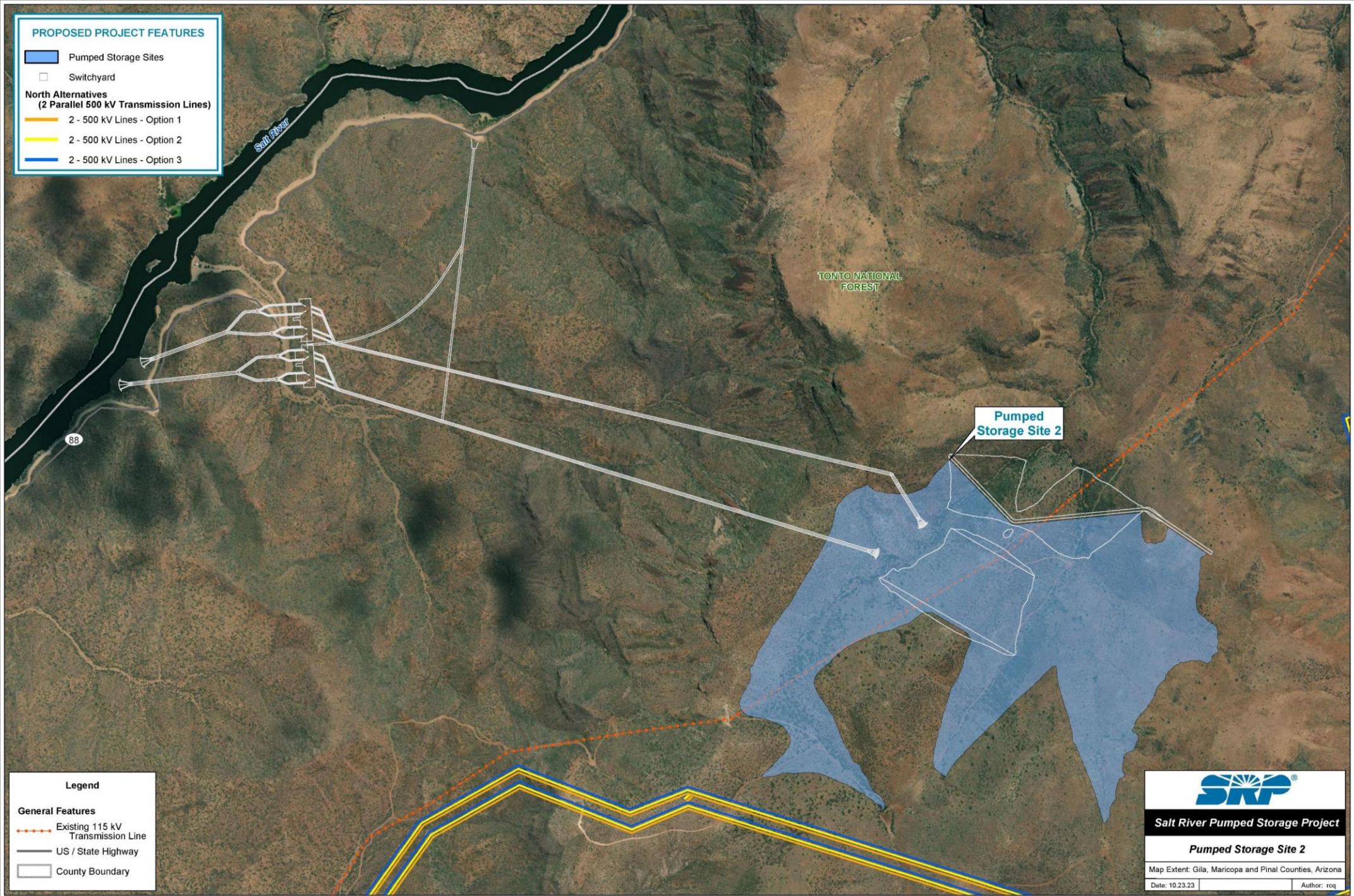
Sonoran Desert Tortoise



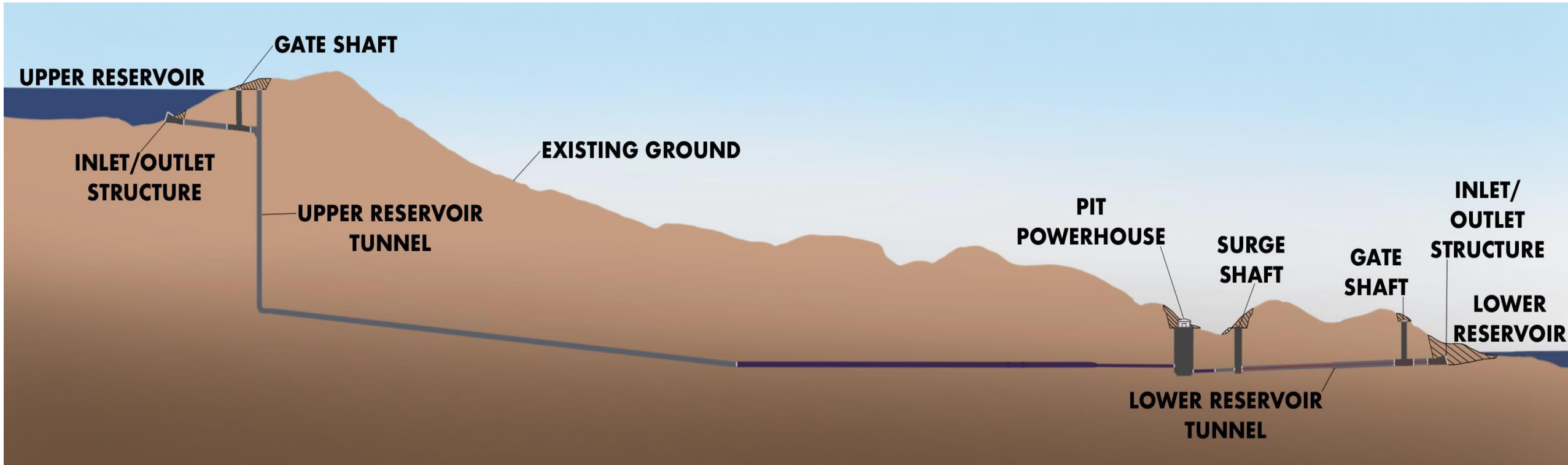
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Project Updates: Generation





Pumped Storage Powerhouse Preference: Pit over Cavern



Considerations:

- Access
- Safety
- Constructability
- Schedule
- Fall Workshop Feedback

RENDERING: PIT STYLE POWERHOUSE FACILITIES



CONCEPTUAL RENDERING
SUBJECT TO CHANGE

Visual Environments

RENDERING: PIT STYLE POWERHOUSE FACILITIES



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CONCEPTUAL RENDERING
SUBJECT TO CHANGE

Visual Environments

RENDERING: UPPER RESERVOIR



CONCEPTUAL RENDERING
SUBJECT TO CHANGE

Visual Environments

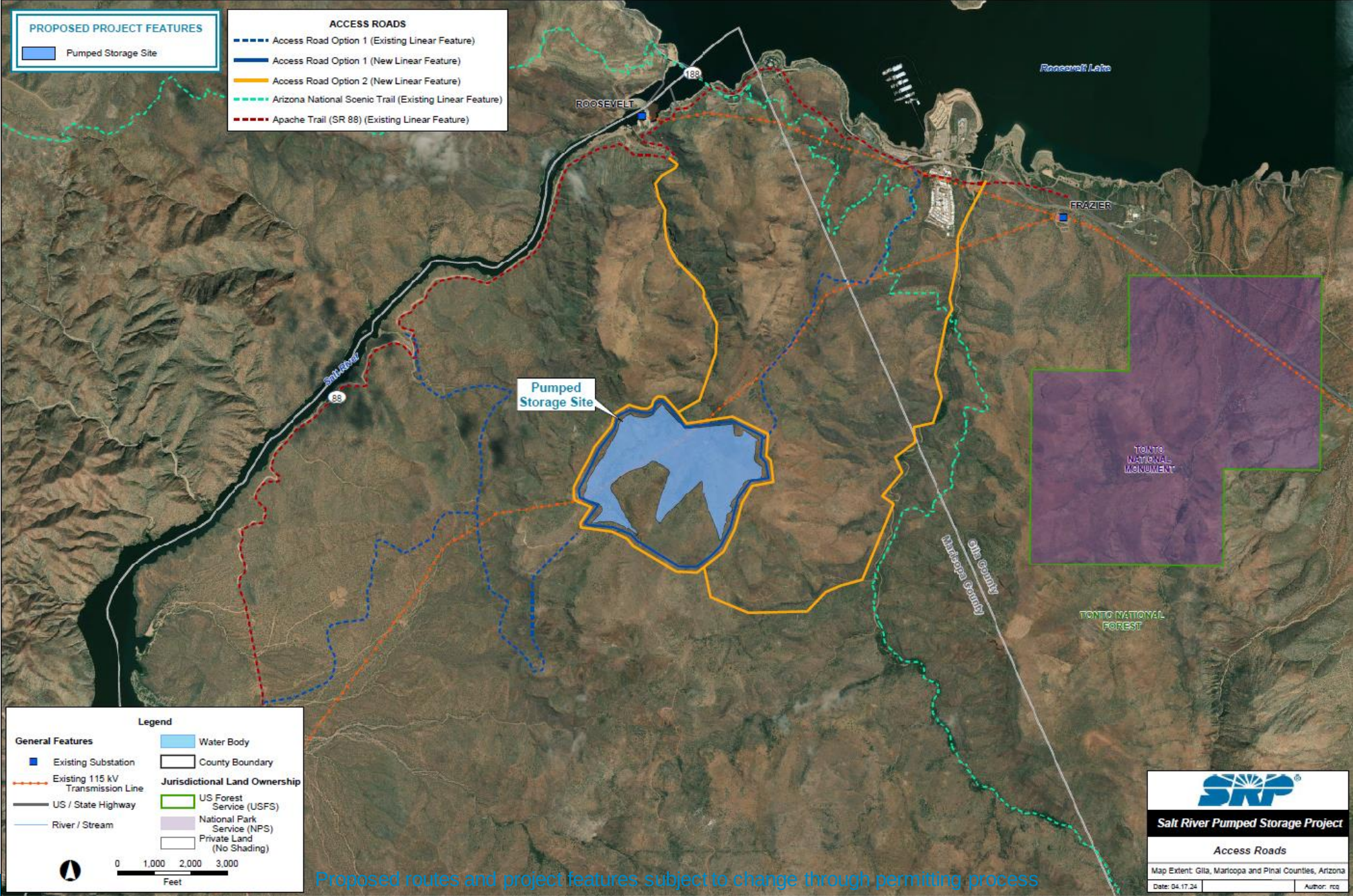
RENDERING: UPPER RESERVOIR



CONCEPTUAL RENDERING
SUBJECT TO CHANGE

Visual Environments

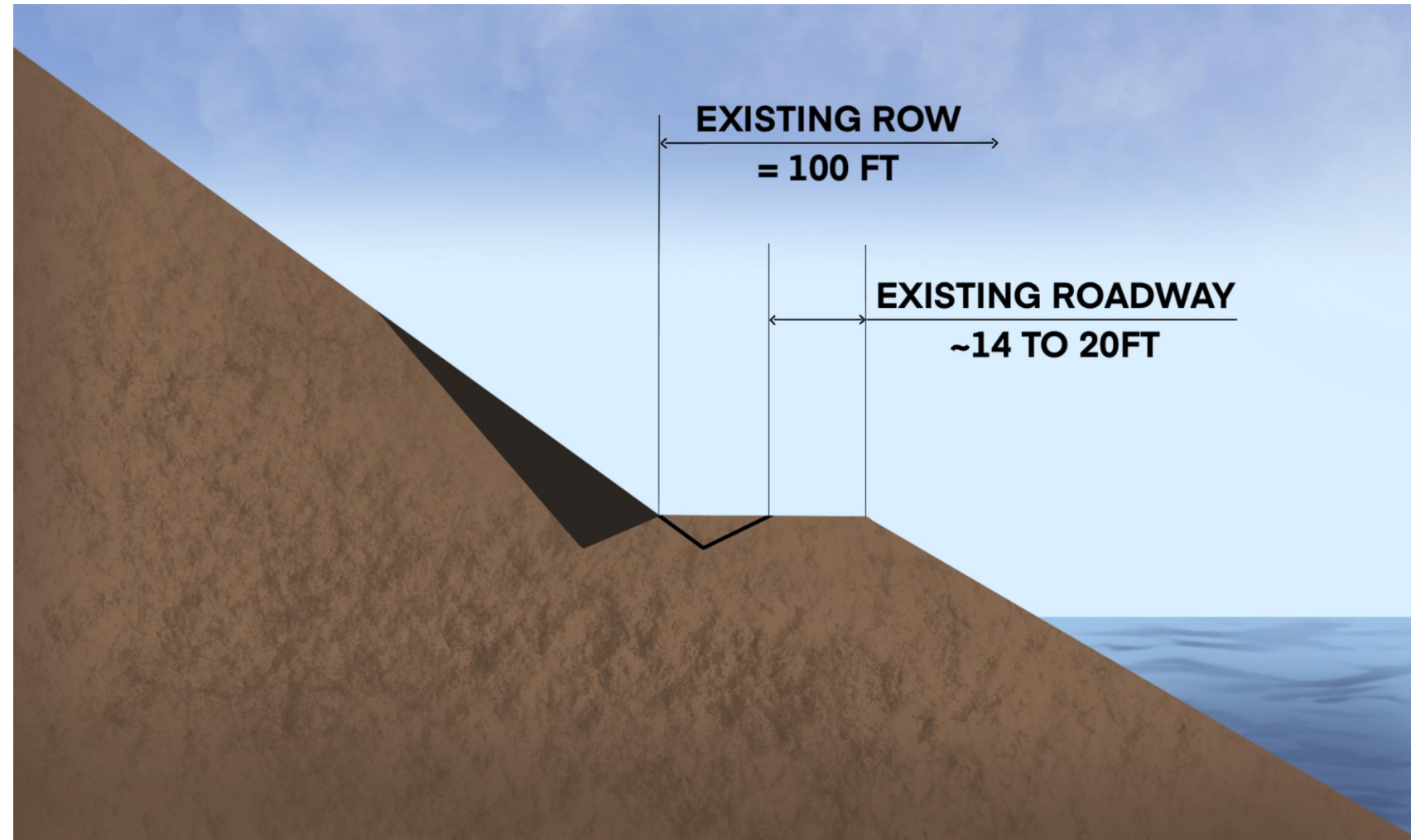
Access Roads: Upper Reservoir



Access Roads: Apache Trail

Potential modifications considerations:

- Public access & safety
- 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



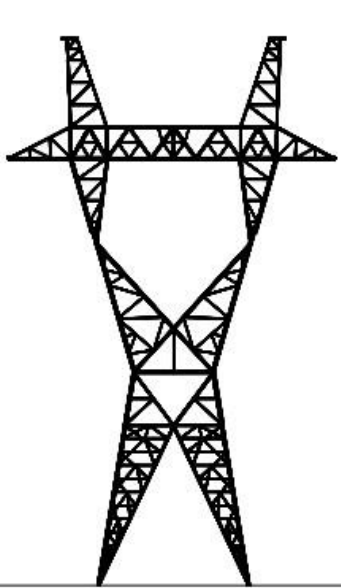
Proposed routes and project features subject to change through permitting process



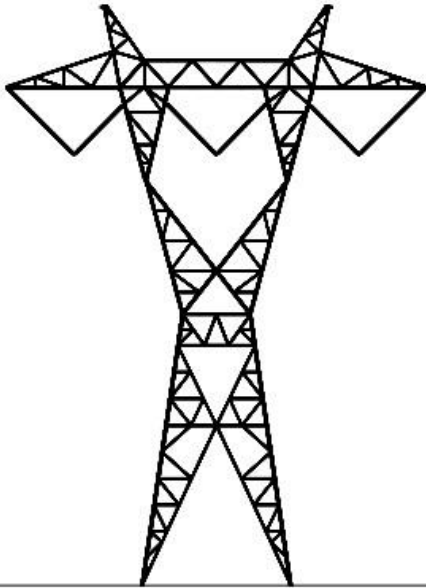
Project Updates: Transmission Renderings & Route Options



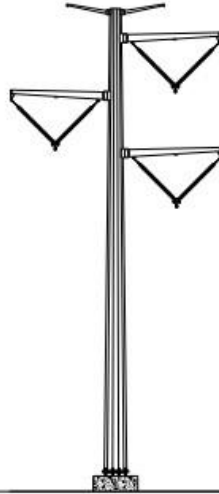
Typical Structure Types



5A6 Tower Family
500kV - Single Circuit
Height: 114-145 ft.



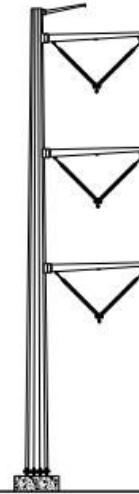
5T3+BE Tower Family
500kV - Single Circuit
Height: 97-160 ft.



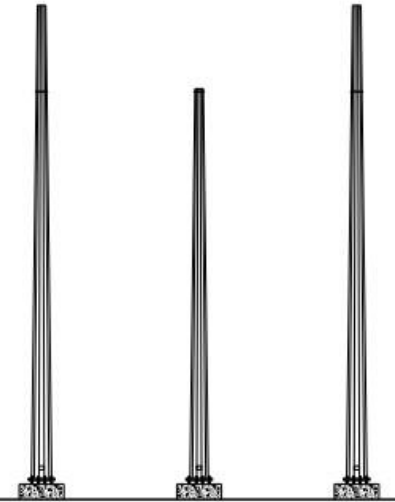
Monopole Tangent Delta
500kV Single Circuit
Fdn. Width: Up to 20 ft.
Height: Up to 190 ft.



Monopole Tangent Delta
500kV Single Circuit
Fdn. Width: Up to 20 ft.
Height: Up to 190 ft.



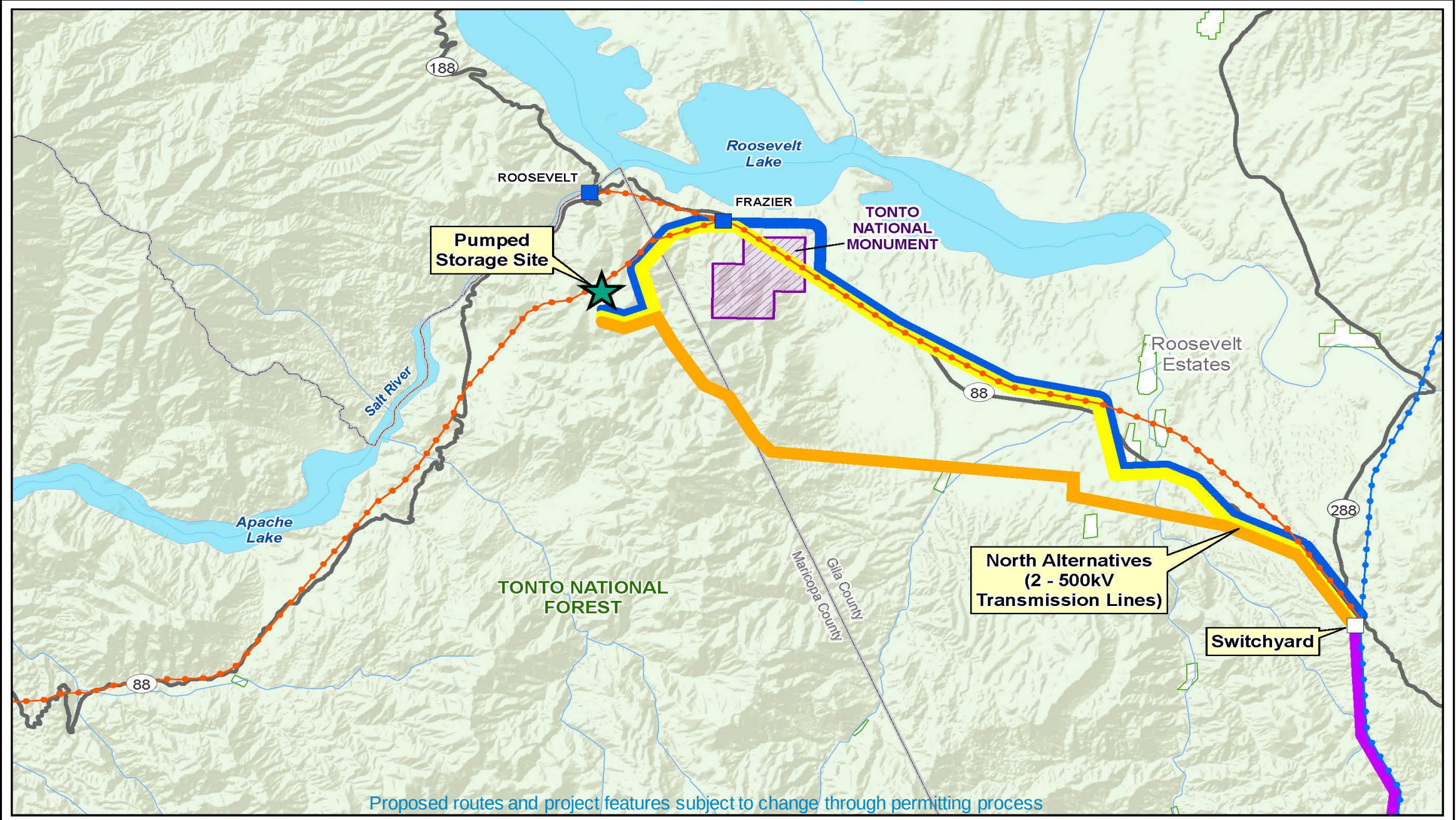
Monopole Tangent Vertical
500kV Single Circuit
Fdn. Width: Up to 20 ft.
Height: Up to 190 ft.



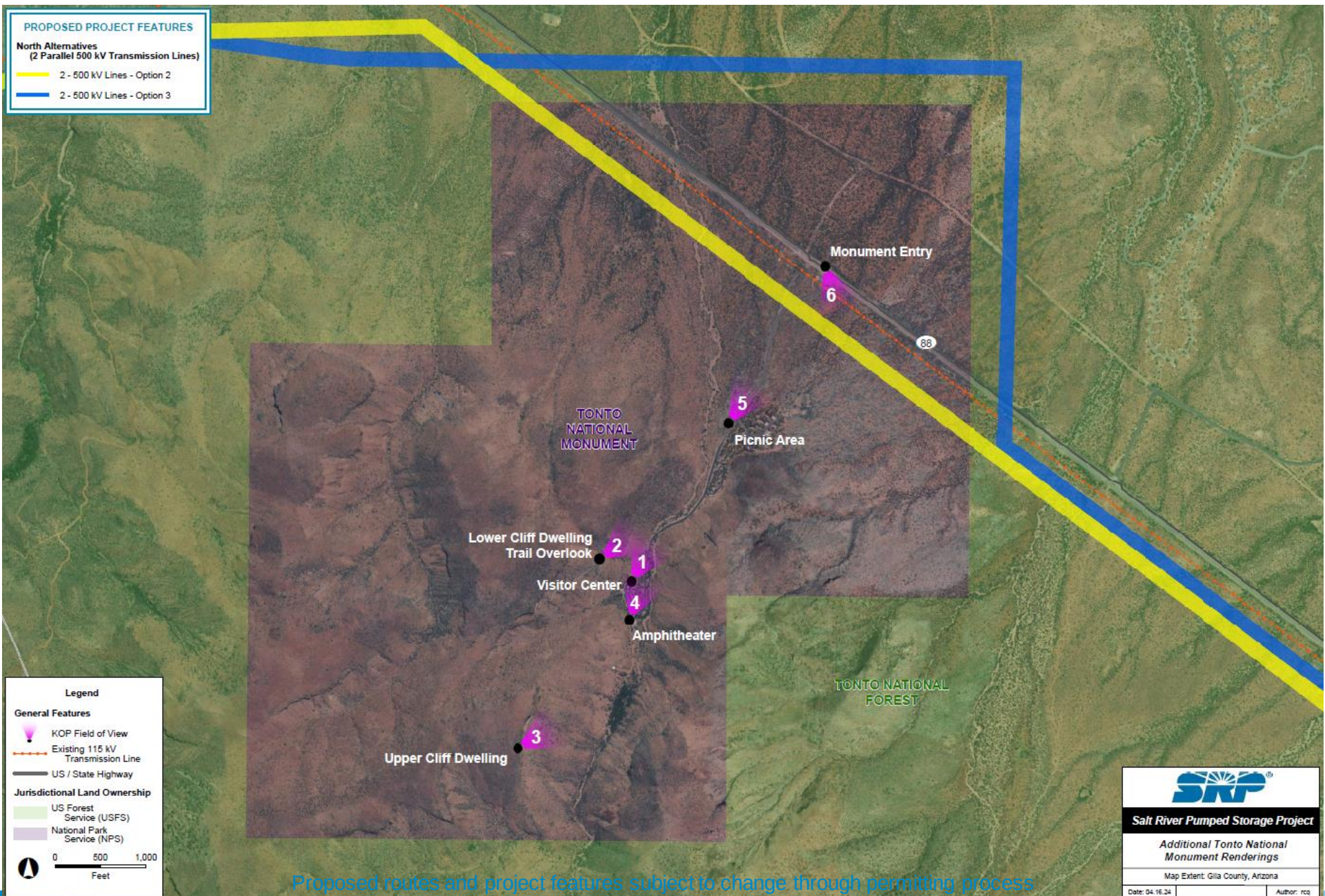
3-Pole Deadend
500kV Single Circuit
Fdn. Width: Up to 20 ft.
Height: Up to 190 ft.

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

Transmission Route, Northern Options



Additional Tonto National Monument Renderings



Existing View: Monument Entrance



Looking Southeast

KOP 6

Rendering: Monument Entrance, Option 2



Looking Southeast

KOP 6

Proposed routes and project features subject to change through permitting process

Rendering: Monument Entrance, Option 3



Looking Southeast

KOP 6

Proposed routes and project features subject to change through permitting process

Existing View: Picnic Area



Looking Northeast

KOP 5

Rendering: Picnic Area, Option 2



Looking Northeast

KOP 5

Proposed routes and project features subject to change through permitting process

Rendering: Picnic Area, Option 3



Looking Northeast

KOP 5

Proposed routes and project features subject to change through permitting process

Existing: Lower Cliff Dwelling



Looking North

KOP 2

Proposed routes and project features subject to change through permitting process

Rendering: Lower Cliff Dwelling, Option 2



Looking North

KOP 2

Proposed routes and project features subject to change through permitting process

Rendering: Lower Cliff Dwelling, Option 3

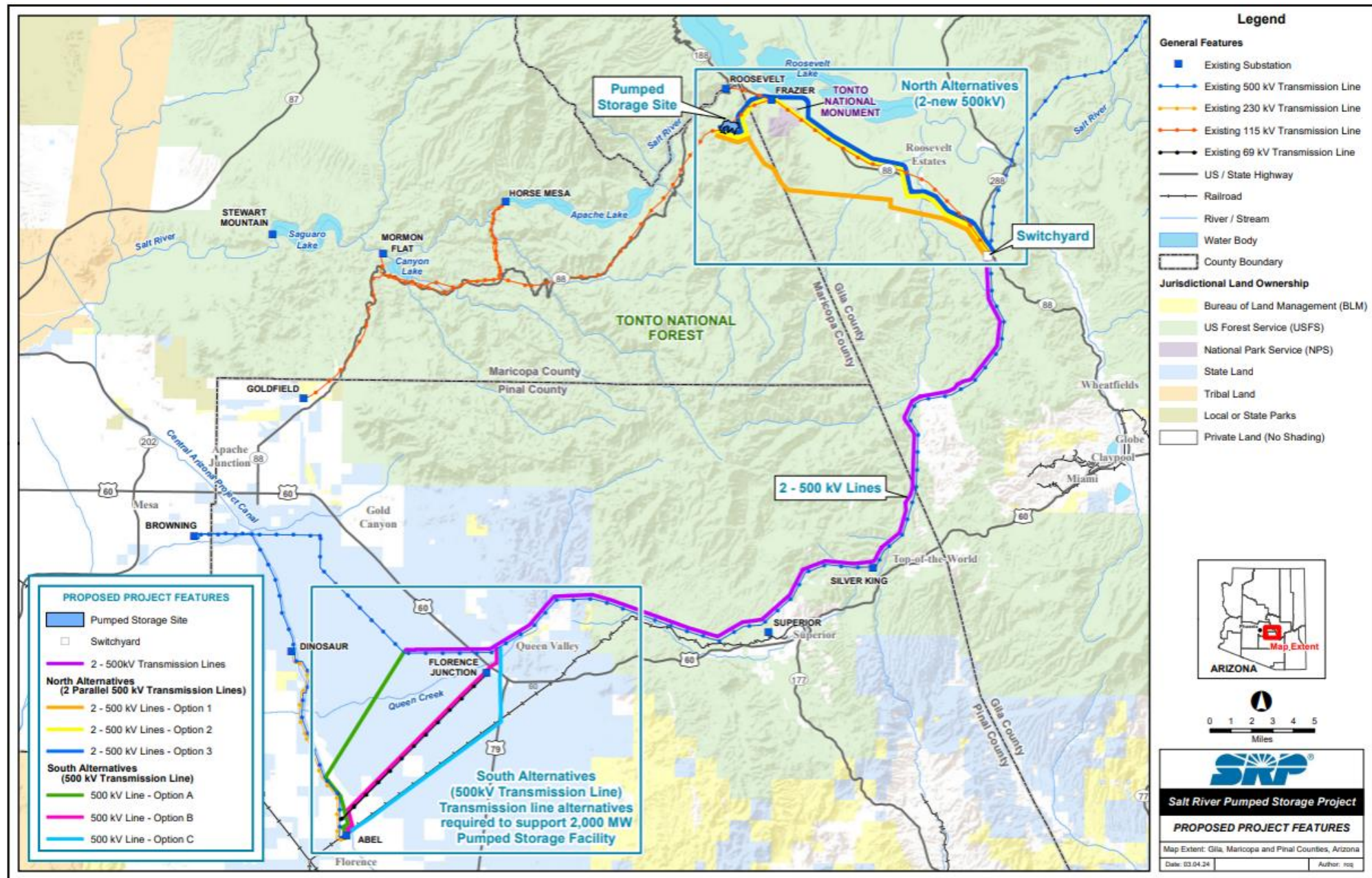


Looking North

KOP 2

Proposed routes and project features subject to change through permitting process

Updated Project Study Area: Generation & Transmission Route Options



Proposed routes and project features subject to change through permitting process

Next Steps

- **Complete remaining spring workshops seeking input**
- **SRP take input and incorporate in overall process**
- **Fall Workshops: Fall 2024**
 - Re-engage with Tribal Leadership, Local Communities, and Stakeholders
 - Summarize feedback from spring workshops
 - Share decision rationale project updates
 - Provide opportunity for input

Feedback and Thank You!



Scan this QR Code to add your feedback



srp.net/pumped-storage

1-855-584-1484

thank you!