

Operations & Engineering Workgroup

September 13, 2023



Agenda Item 1.1

Optimization of Project Schedule

JP Robinette

Current Work Plan Status

- Project is on schedule for 30% design and Project Cost update in mid 2024
- Benefits and Obligations Contracts are pushing out our Amendment 3 period by 1 year
- Developing plan to stretch our revenue and expenses through 2025
- Continue to meet obligations of Environmental requirements to start Construction
- Optimization of Initial Phase 3/4 Project Schedule is continuing from July Board information presentation

Project Schedule Objectives



MANAGE COST



MANAGE RISK



ACHIEVE
EXPEDITIOUS
PERMITTING
DECISIONS



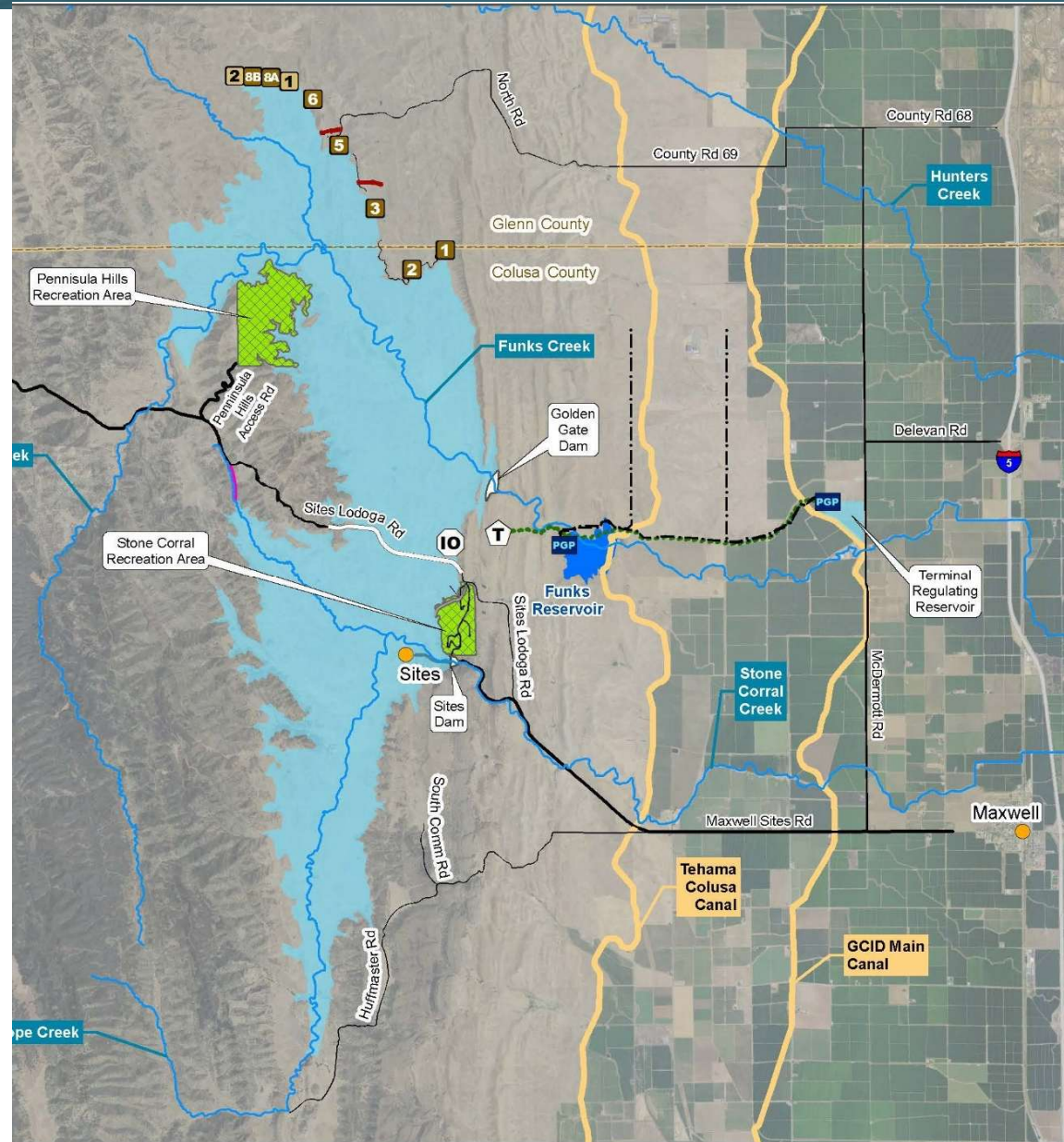
MAINTAIN
CREDIBILITY

Why Develop Optimized Phase 3/4 Schedule?

- Previous workplans were to establish the planning and scope of the project
 - This is currently being completed
- Moving from planning focus to execution
 - Cost and schedule optimization
 - Organization growth and resource scaling
 - Critical Path Management
 - Sites Reservoir is made of many Projects
 - Risk Management
 - Building institutional knowledge as scale up to full execution

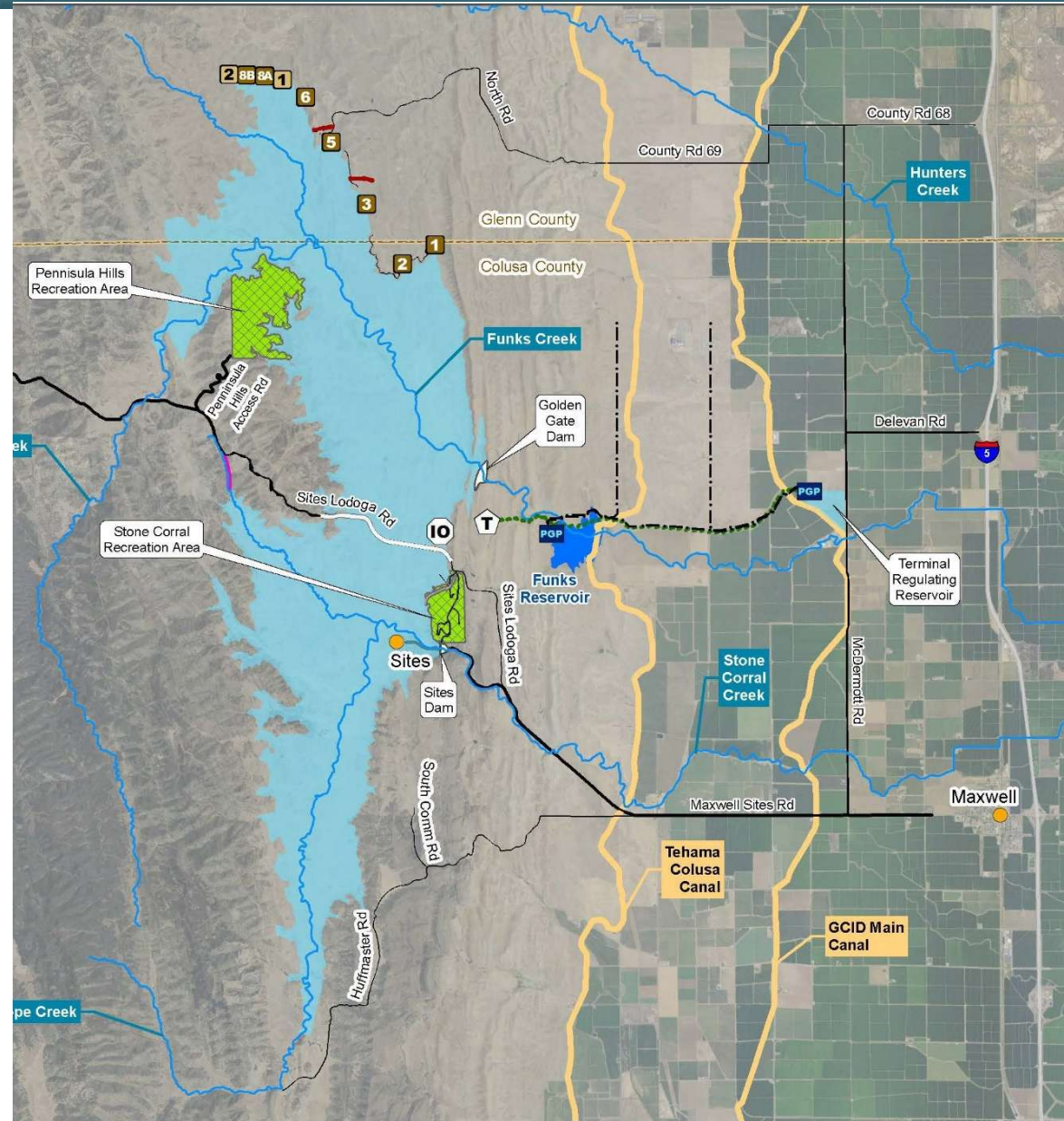
Steps to Construction

- Project is really a program made up of multiple projects and sub-projects
- Currently 9 construction packages and 18 major locations within the project
- For each Project need to execute in a step function
 - Land Purchase
 - Environmental Clearance
 - Design Completion
 - Construction
 - Commissioning



Anticipated Construction Critical Path

- #1 Golden Gate Dam
- #2 Sites Lodoga Rd Detour
- #3 Sites Dam
- #4 Transmission Powerlines
- #5 Inlet/Outlet Facilities
- #6 TRR Complex
- #7 Funks Complex
- #8-14 Saddle Dams
- #15 Dunnigan Pipeline
- #16 Sites Lodoga Rd and Bridge
- #17-18 Recreation Areas



2024- 2025 Critical Path Items

- In developing 2024 - 2025 optimized schedule investigated top 5 critical items
 - Programmatic Environmental plans and compliance
 - Required to achieve clearance for Geotech and Construction activities to commence
 - Critical Land Acquisition
 - Land required to construct first three projects
 - Golden Gate Dam
 - Longest design and construction activity
 - Sites Lodoga Rd Reroute
 - Required to keep traffic access while constructing Sites Dam
 - Sites Dam
 - Next longest design and construction activity

Reprioritize Amendment 3 Work

- Focus activity on higher priority work for advancing critical features
- Continue progress on activities that continue defining Level 3 cost estimate

Benefits:

- ✓ Full geotechnical investigation on Sites and Golden Gate Dam (cost certainty)
- ✓ Development of Sites Lodoga Bypass road design (early start construction)
- ✓ Advance 60 % Foundation design for Sites and Golden Gate Dams (cost certainty and early start construction)

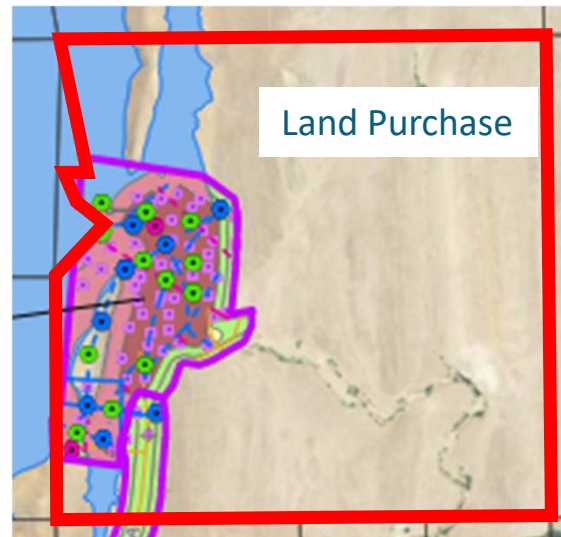
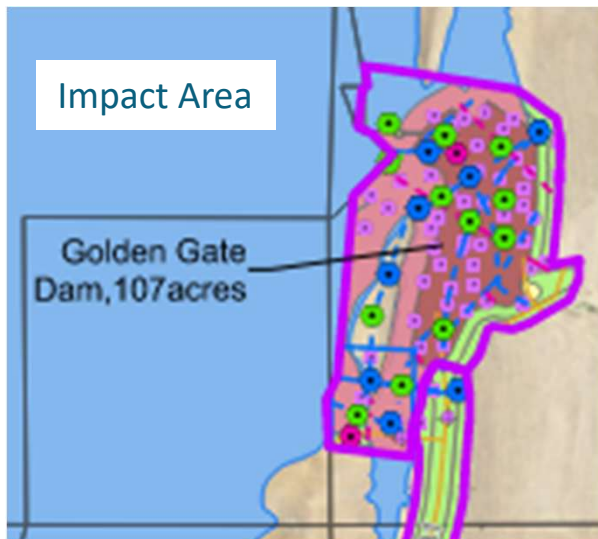
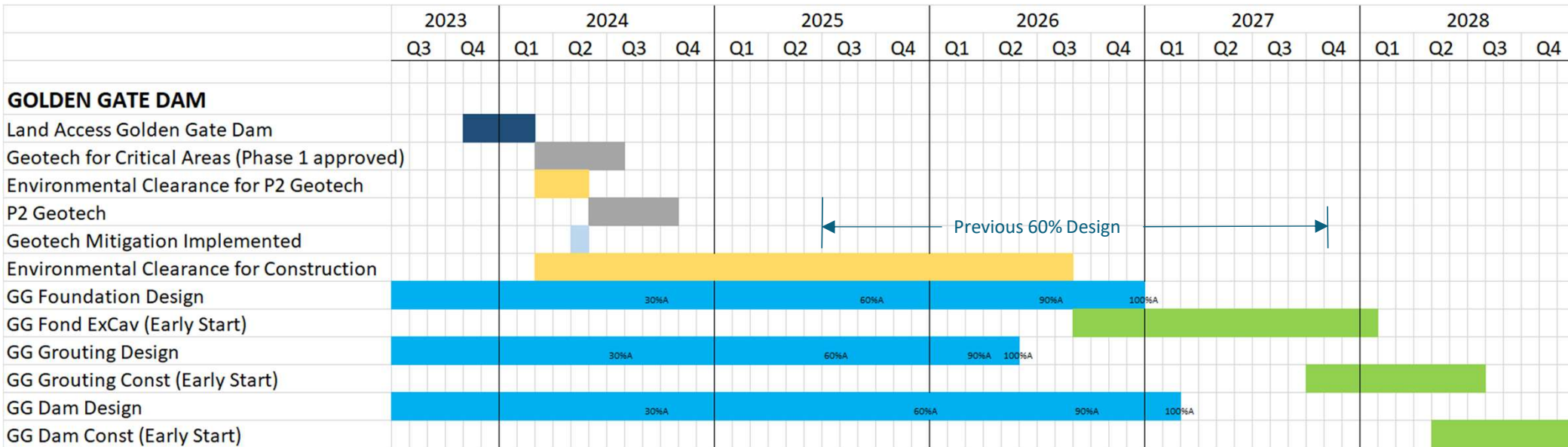
Early Land Acquisition

- Implementation of Early Fee Title Acquisition
- Full access to critical path features
 - Golden Gate Dam
 - Sites Dam
 - Sites Lodoga Road Detour

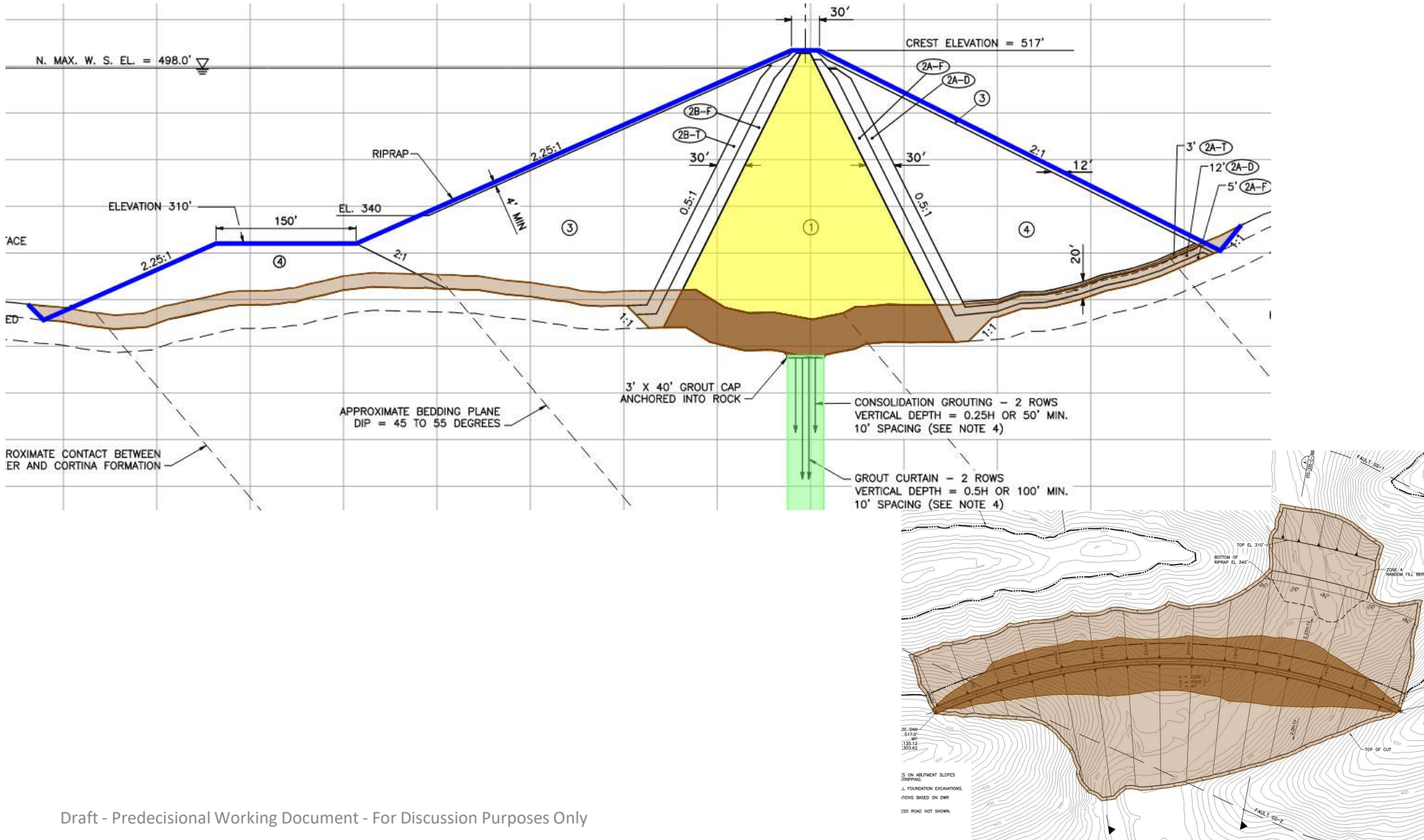
Benefits:

- ✓ Allows earlier access for full geotechnical investigation and commencement of foundation prep and stream rerouting (cost certainty and early start construction)
- ✓ Investigation of Value Engineering Option at Golden Gate Dam (cost savings)

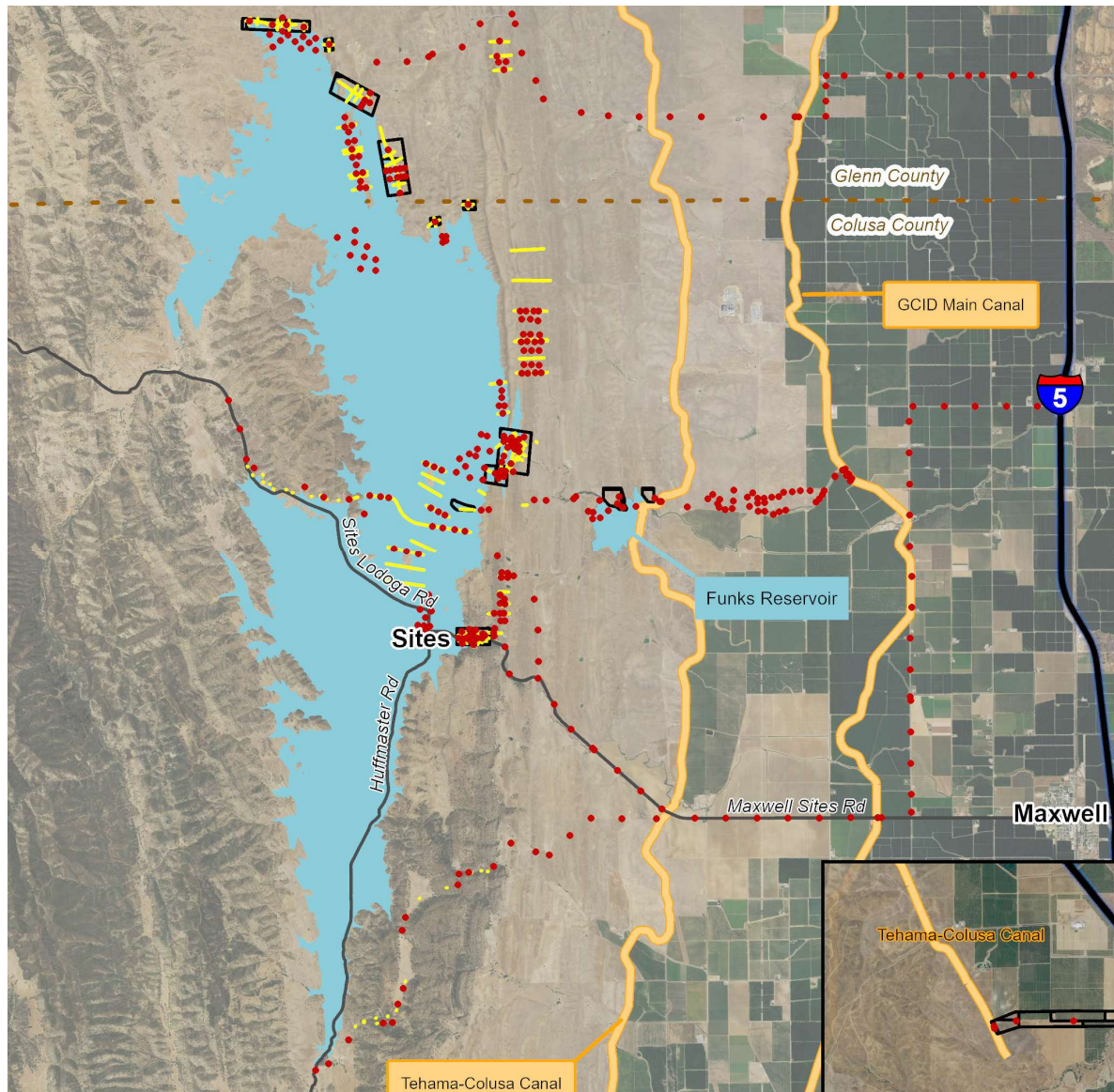
Golden Gate Dam Schedule



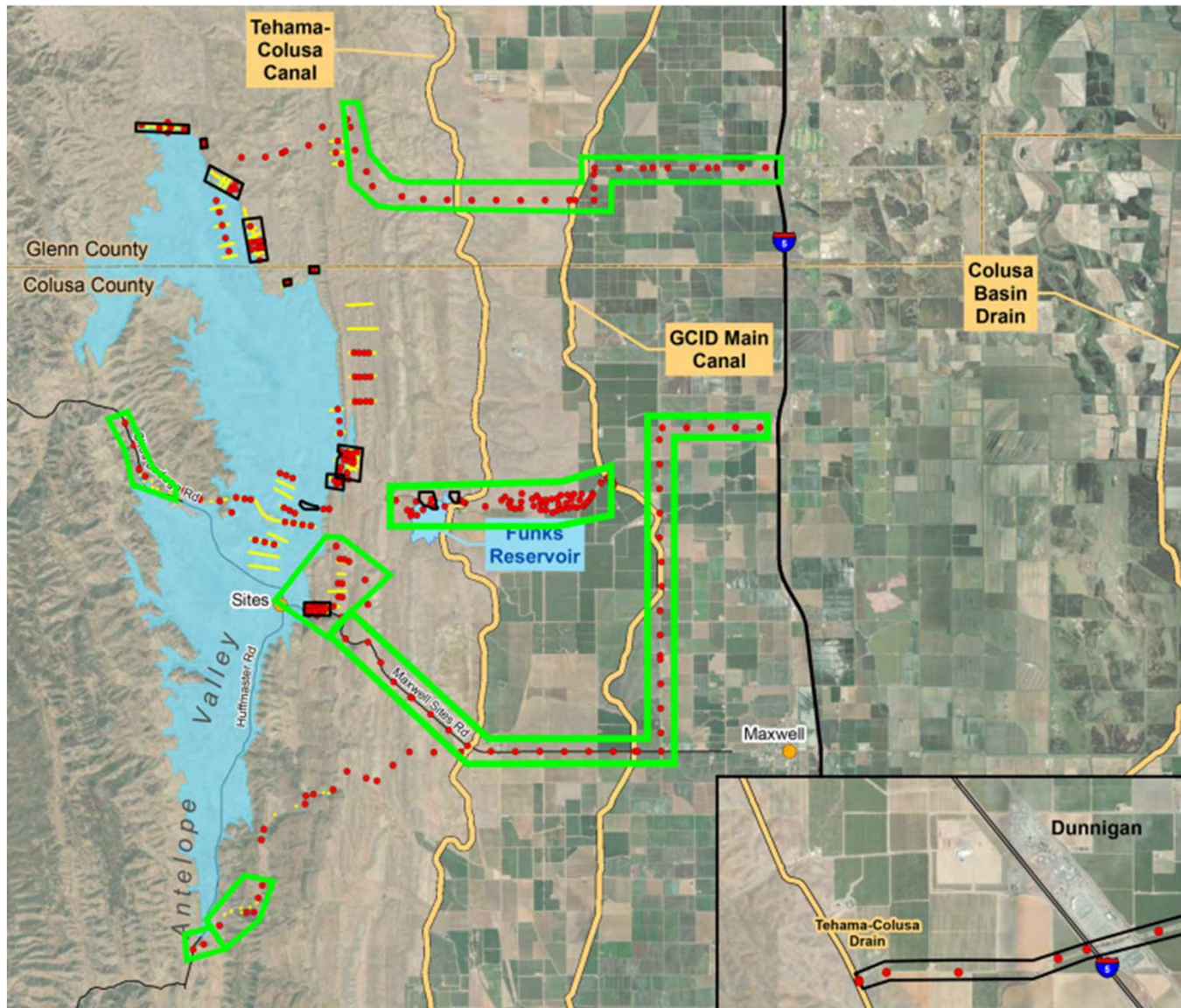
Foundation Work



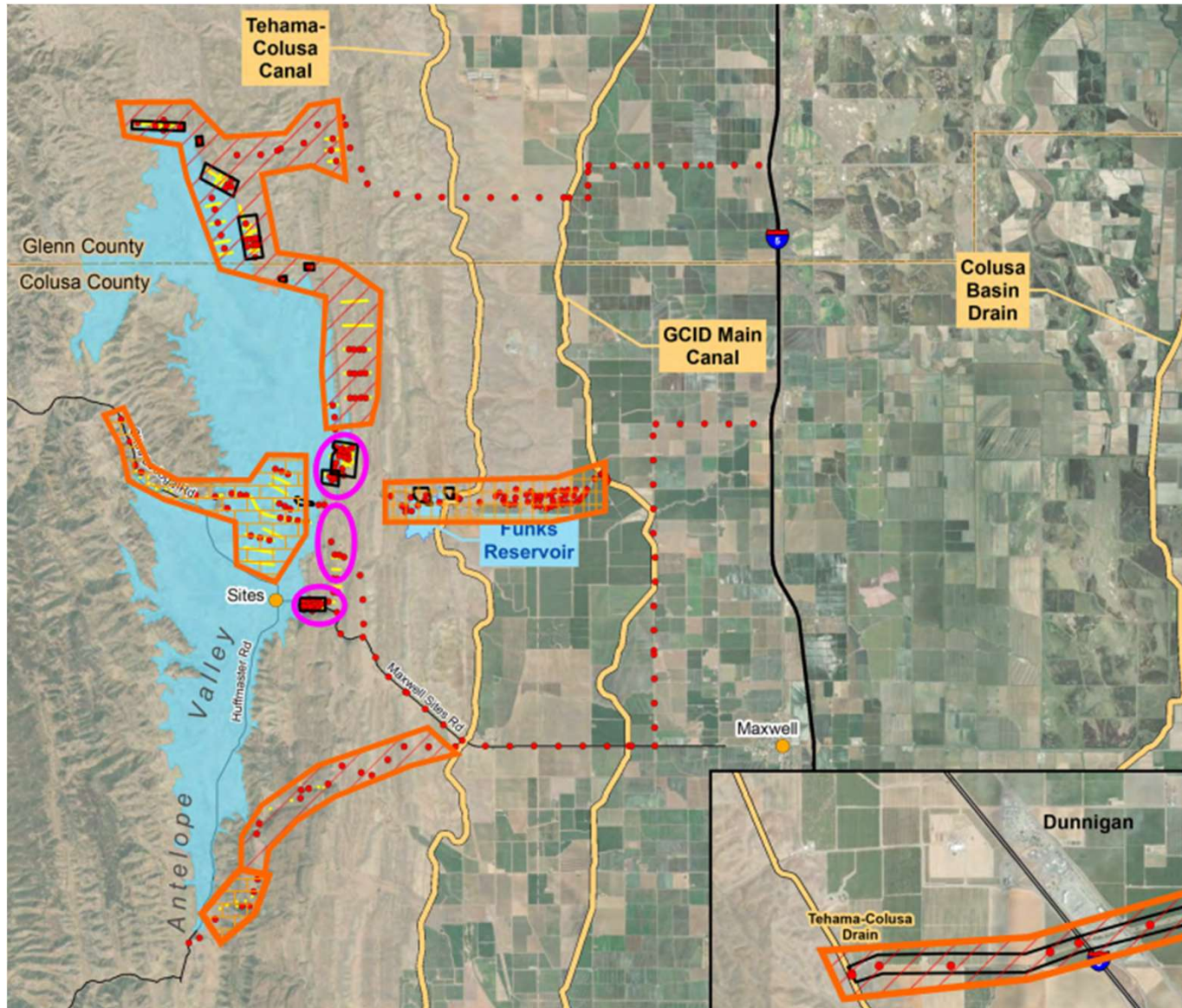
Current Work Plan - Geotech Investigation Locations



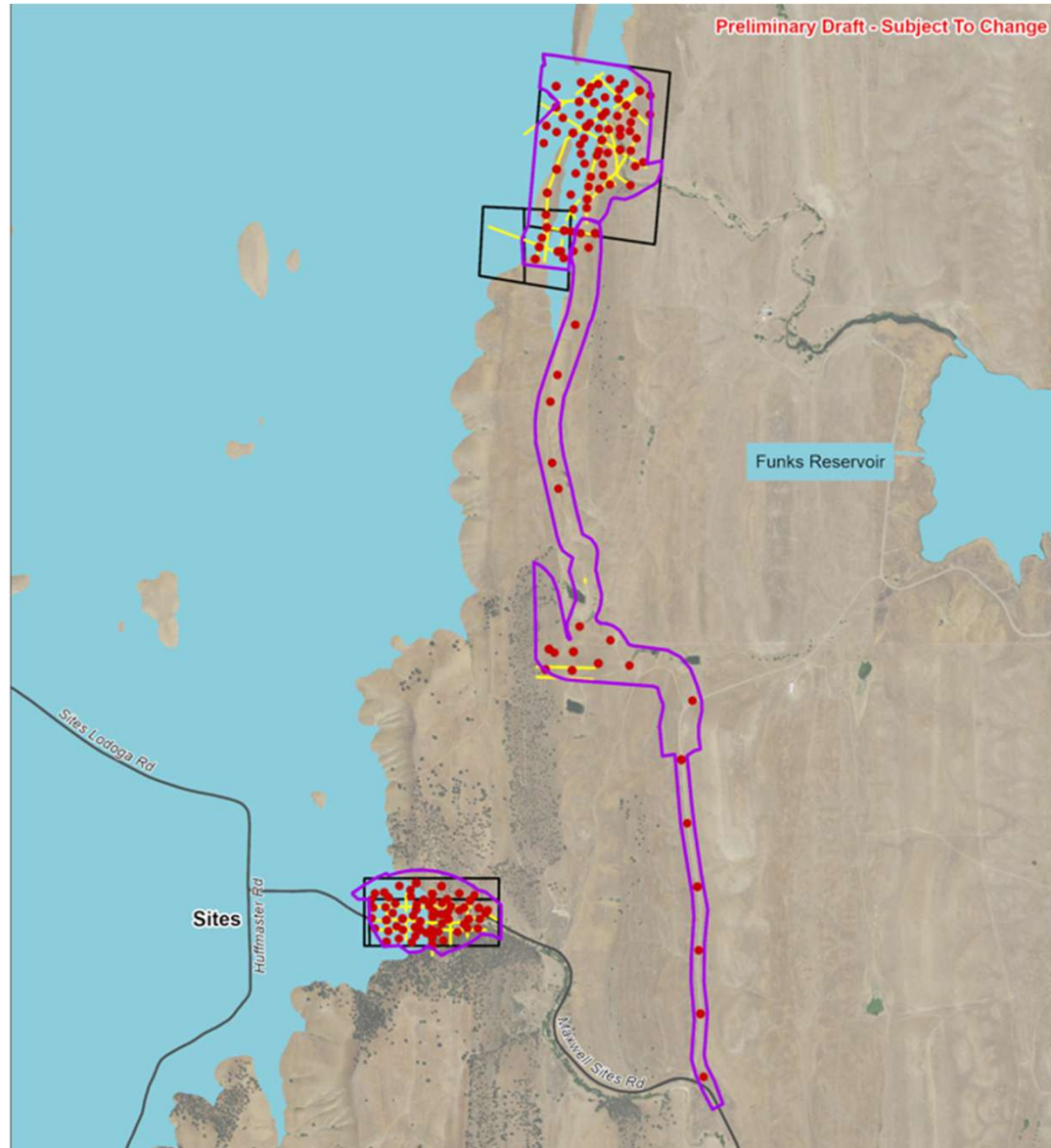
Where Geotech Investigation Have Started



Geotech Investigation Locations to be Deferred



Proposed Work Plan - Geotech Investigation Locations



Proposed Work Plan – Opportunities & Risk

- Early acquisition of land before investor commitment
- Value Engineering of Golden Gate Dam
- Prioritization of activities to be construction ready for critical path items once Investor Commitment obtained
- Cost Certainty of Project
 - Still have 30% design cost in 2024
 - Opportunity to develop and apply lessons learned
 - Opportunity to better understand foundation work
 - Opportunity for input from CMAR starting early 2025

Cost of Plan

- Staff scrubbed work plan to determine needs for 2024 – 2025
- Stopping and slowing down non-critical activities remaining in 2023
- Estimated expenses for proposed work plan revision ≈ \$96M
 - Programmatic Environmental plans and compliance
 - Critical Land Acquisition
 - Golden Gate Dam
 - Sites Lodoga Rd Reroute
 - Sites Dam

What can we afford?

- Estimated. funds available for 2024 & 2025 ≈ \$75M
 - Includes:
 - current cash on hand
 - projected 2023 underrun
 - A 2024 & 2025 cash call (\$160/AF & \$40/AF respectively)
 - Continued Federal WIIN Act and IJA reimbursement
- Adjusted plan to fit within expected revenue
 - Programmatic Environmental plans and compliance
 - Critical Land Acquisition (Includes Sites Dam and Ladoga Rd)
 - Golden Gate Dam
- Delay start of Sites Dam and Sites Lodoga Rd Reroute Geotechnical and Design work until funds available
 - Check back in mid-2024

Golden Gate Dam Foundation Sub-Project Scope (example)

Through 2025:

- Property Acquisition
- All Geotech exploration
- Environmental Clearance
- Design Advancement beyond 30% (begin 60%, CMAR input)

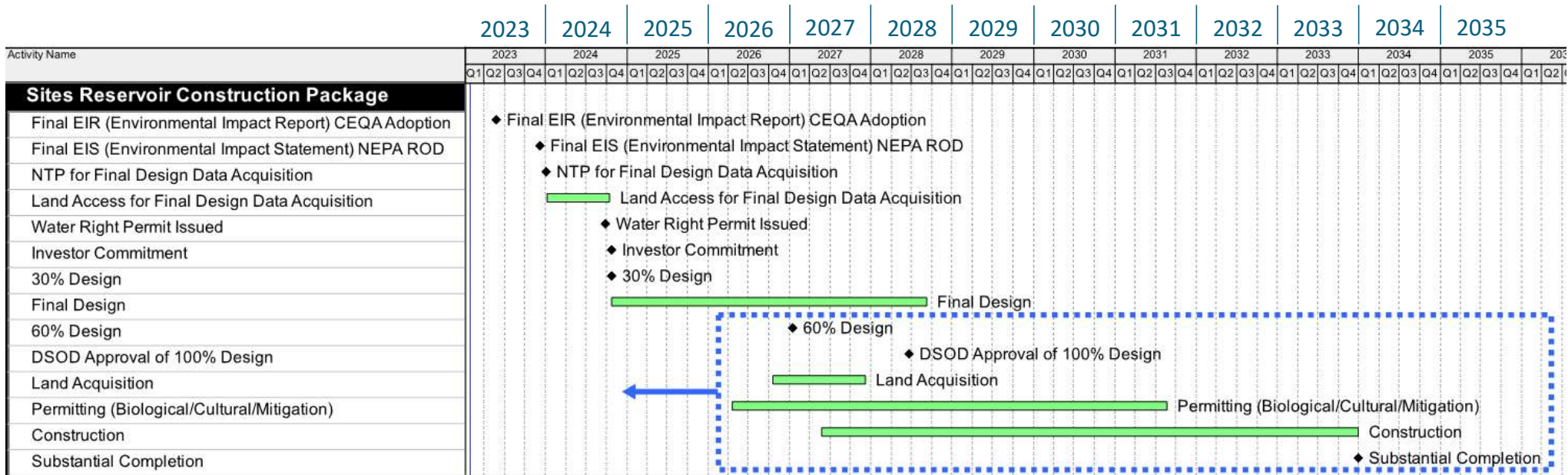
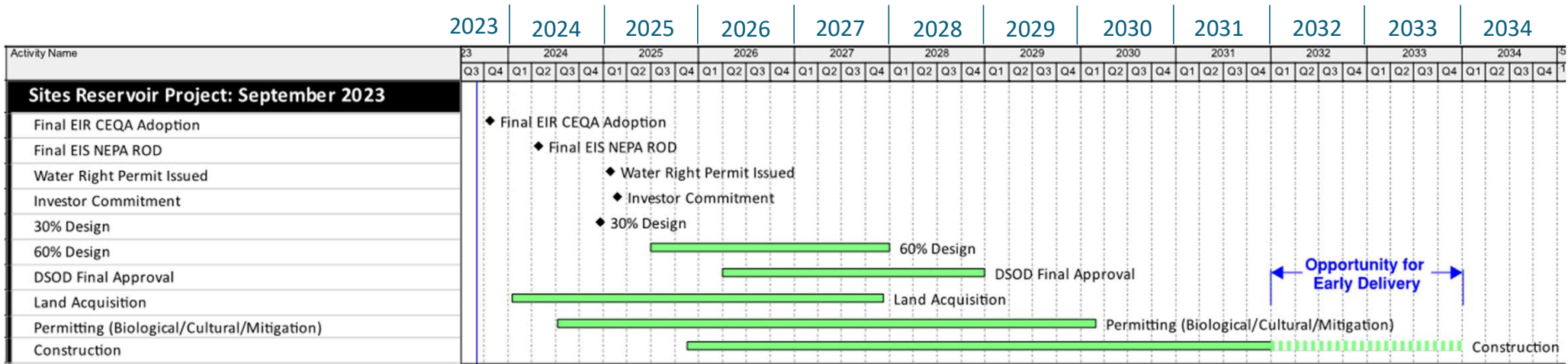
2026 and beyond:

- Design Completion
- Construction
- Commissioning

Draft recommendation of budget principles based on schedule optimization efforts

- Complete required permits, agreements, and cost estimates to support signing Benefits and Obligations Contracts and financing by the end of 2025 (Highest Priority)
- Hire Reservoir Package CMAR and Mitigation Contractor early 2025
- Acquire property for Golden Gate Dam Foundation, Sites Dam Foundation, and Sites Lodoga Detour sub-projects
- Complete programmatic pre-construction requirements
- Execute Golden Gate Dam Foundation sub-project starting Jan 2024. Check-in to see if Sites Dam Foundation and Lodoga Detour can be started mid-2024 based on budget forecasts.

Current Work Plan Status



Questions?



Engineering and Construction Manager's Report

JP Robinette

Future Topics

- Project Schedule (concurrent with budget adoption)
- Dunnigan Pipeline design and Lower CBD System considerations
- Emergency drawdown duration and flow allocation
- Construction access road options

Thank you!

Next Meeting: Wednesday, October 11, 2023 (1:30 pm – 3:30 pm)

