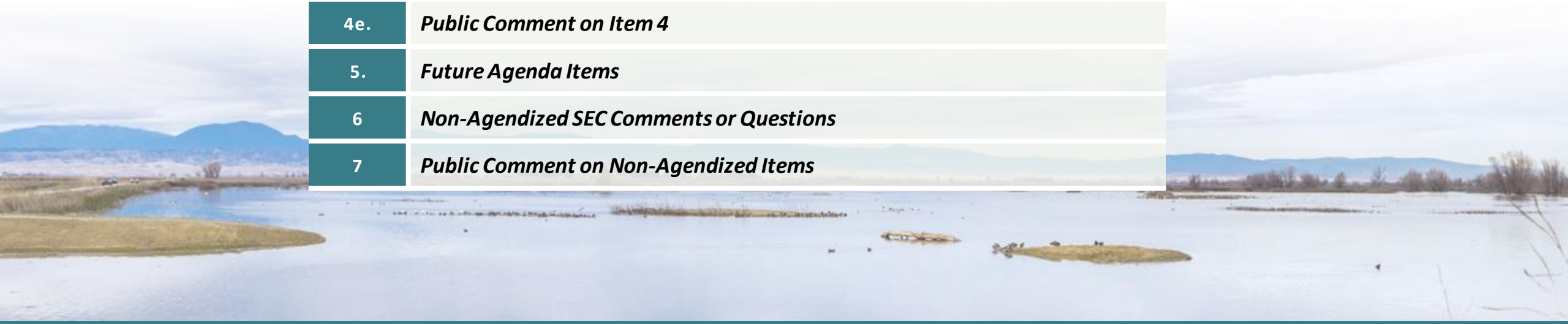
DCA
DELTA CONVEYANCE DESIGN & CONSTRUCTION AUTHORITY

NOVEMBER 5, 2020

Stakeholder Engagement Committee Meeting

Meeting Agenda

1	**Welcome/Call to Order**
2	***Roll Call/Housekeeping***
3	***Minutes Review: September 23, 2020 Regular SEC Meeting***
4	***Technical Presentations***
4a.	***Deferred SEC Questions***
4b.	***Bethany Reservoir Alternative Update***
4c.	***DWR Update***
4d.	***SEC Questions or Comments on September 23rd Meeting Presentation***
4e.	***Public Comment on Item 4***
5.	***Future Agenda Items***
6	***Non-Agendized SEC Comments or Questions***
7	***Public Comment on Non-Agendized Items***



Item 3.

Minutes Review:

September 23, 2020
Regular SEC Meeting

Item 4.

Technical Presentations

Deferred SEC Questions

Questions from Previous SEC Meeting

Bethany Update

DWR Update

Public Comment

Item 4a.

Deferred SEC Questions

Deferred SEC Questions

1. Coordination with Port of Stockton - Sustainability
2. Site Renders Package
3. Site Water Management During Construction
4. Air Quality Emissions at Construction Sites
5. Post Construction Intakes Operations - Truck Traffic
6. Total Power Requirements and Power Line Corridors
7. Impact on Existing Train Traffic Loads and Idling in South Stockton
8. Emergency Response Plan - Construction
9. RTM Environmental Data
10. DCA Seismic Studies
11. Twin Cities Stockpile Use for Uplands Foraging Habitat

1. Coordination with Port of Stockton - Sustainability

Q: The Delta Conveyance program needs to work together with the Port of Stockton to help it become a "clean" Port. Community Benefit opportunities to help the Port become a model of a Sustainable Port should be considered.

DCA will Partner with the Port of Stockton - Identify Opportunities for Synergy

Green Marine Environmental Certification

Port must measure performance on a scale of 1 to 5, in 13 areas.
1 – Monitoring of Regulations 5 – Excellence and Leadership

GREEN MARINE

https://green-marine.org/certification/results/

DEEP Plan

Delta Environmental Enhancement Program
Port of Stockton CALIFORNIA

The Port's Delta Environmental Enhancement Program which aims to enhance air quality, water quality, and wildlife habitats in the Delta and surrounding communities

- **Air Quality Program**
- **Water Quality Program**
- **Ballast Water Management Program**
- **Barn Owl Nest Box Program**
- **Bat Roosting Box Program**
- **Antioch Dunes Project**

https://www.portofstockton.com/environment/

2. Site Renders Package

Q: What features will be left behind at each site? How visible will these facilities be from freeways and other local roads?

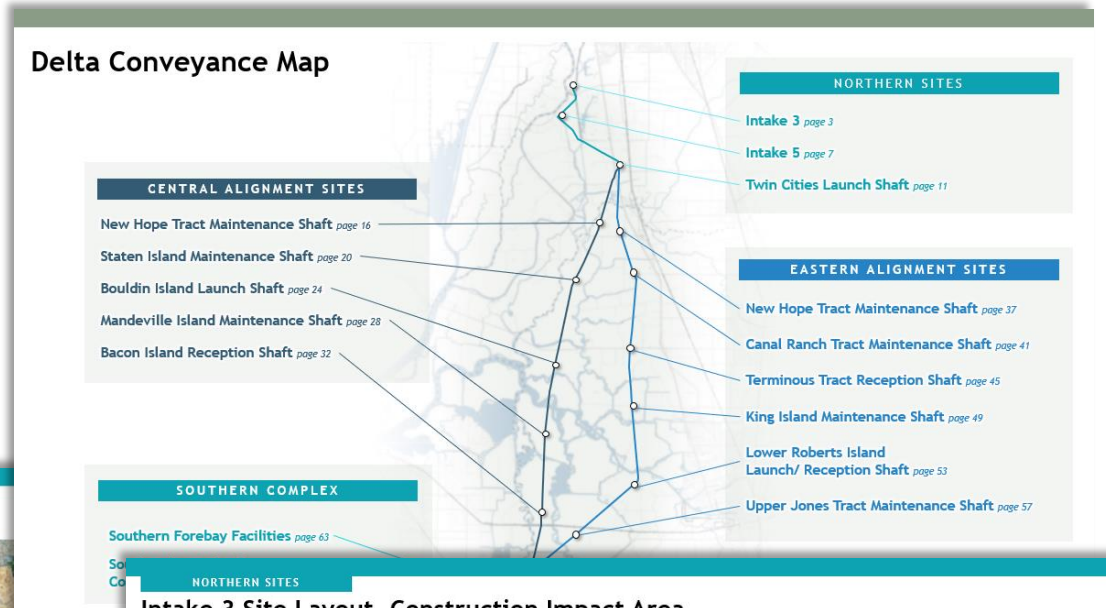
Project Booklets

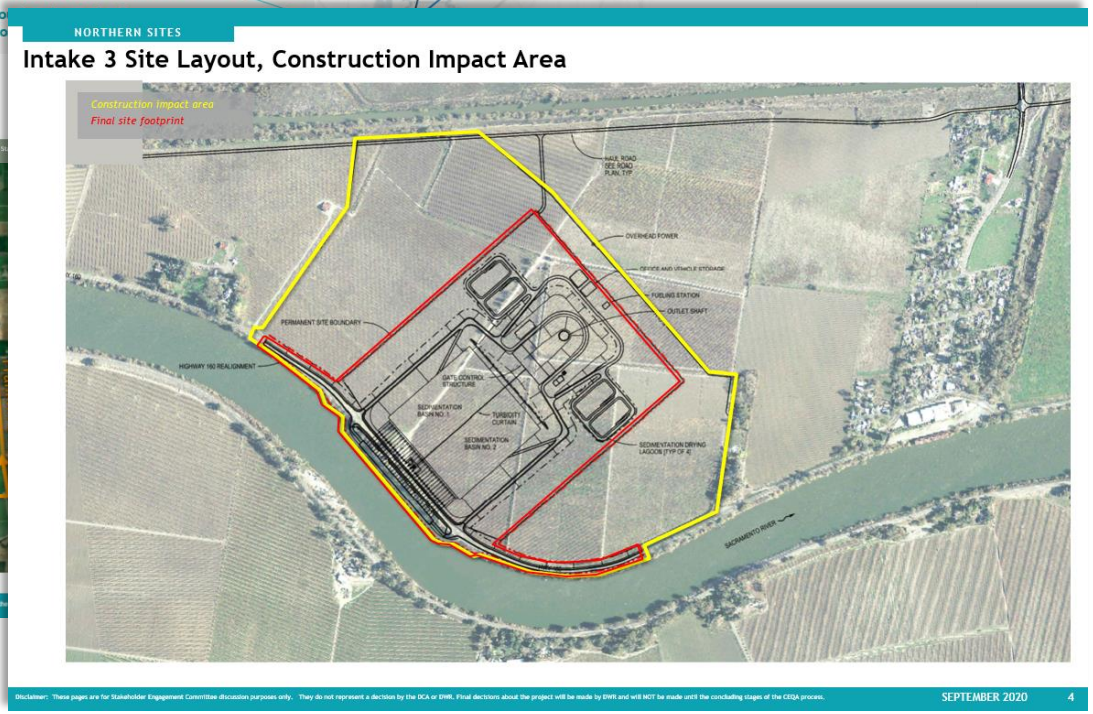
Graphic Material Provided to Date:

- Site Plans – Construction
- Site Plans – Post-Construction
- Site Photos
- Logistics Routes

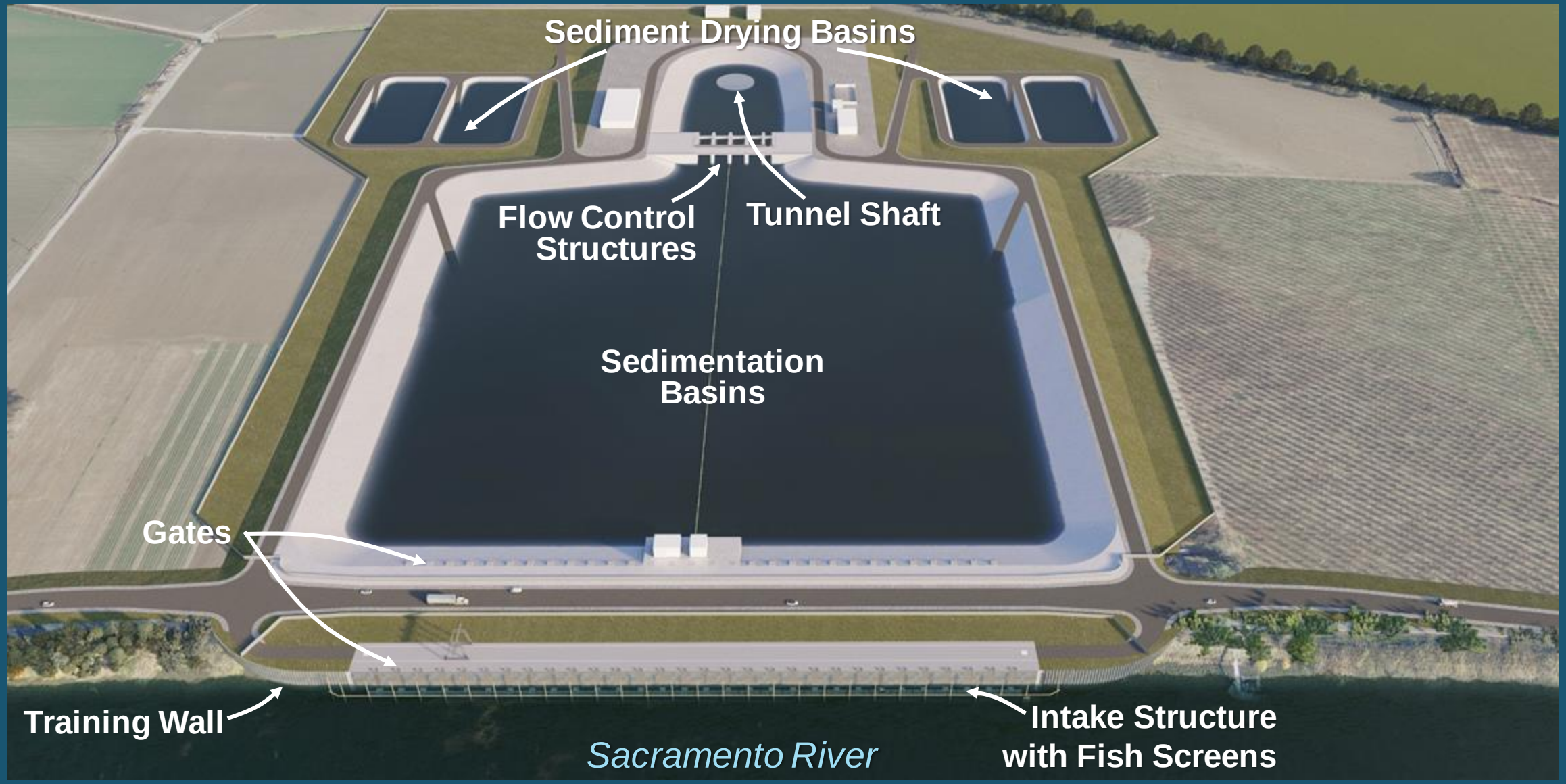
New Render Book:

- Intakes
- Launch Shaft Site
- Maintenance Shaft Site
- South Delta Pumping Plant
- Southern Forebay Complex

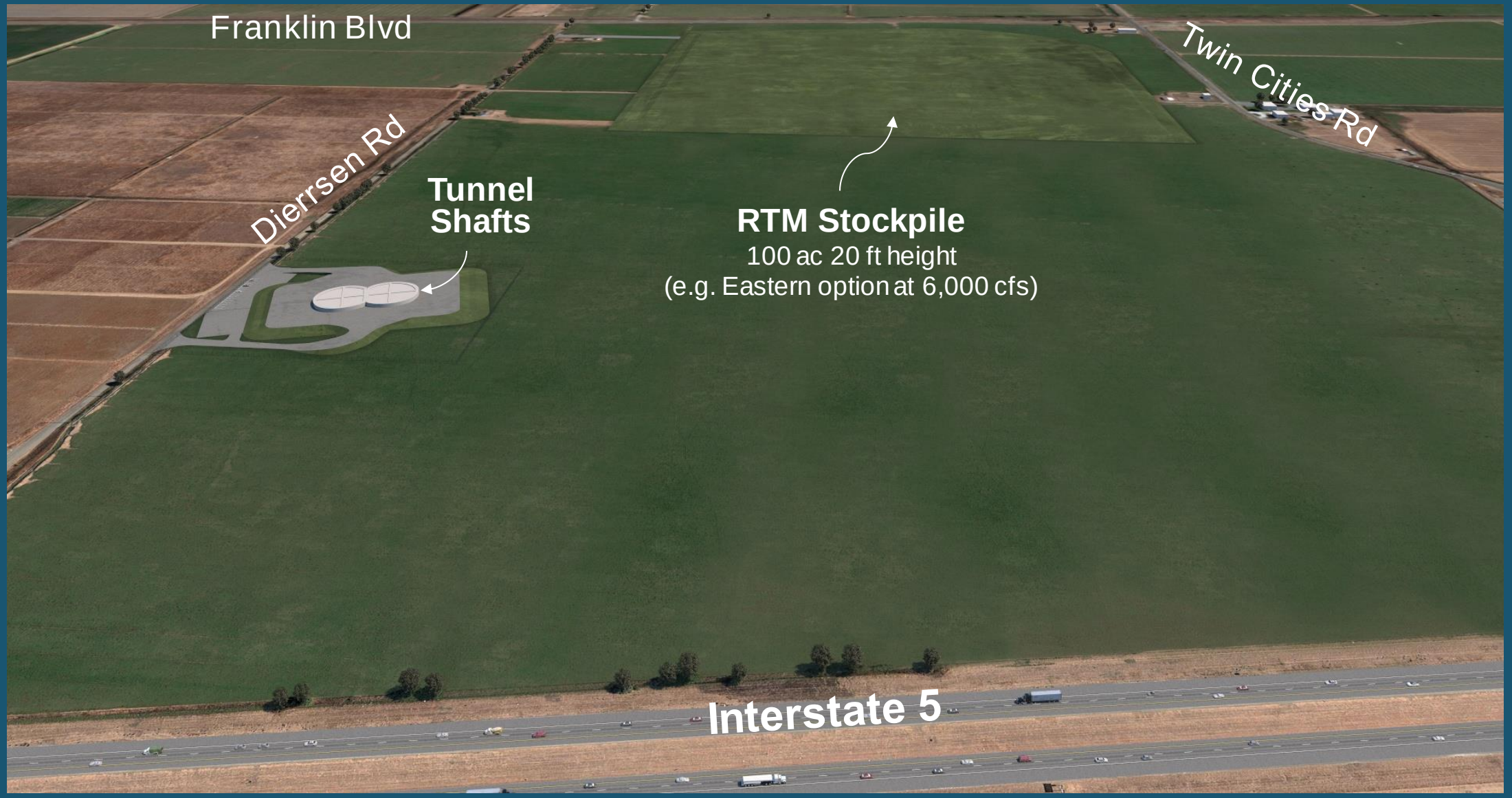




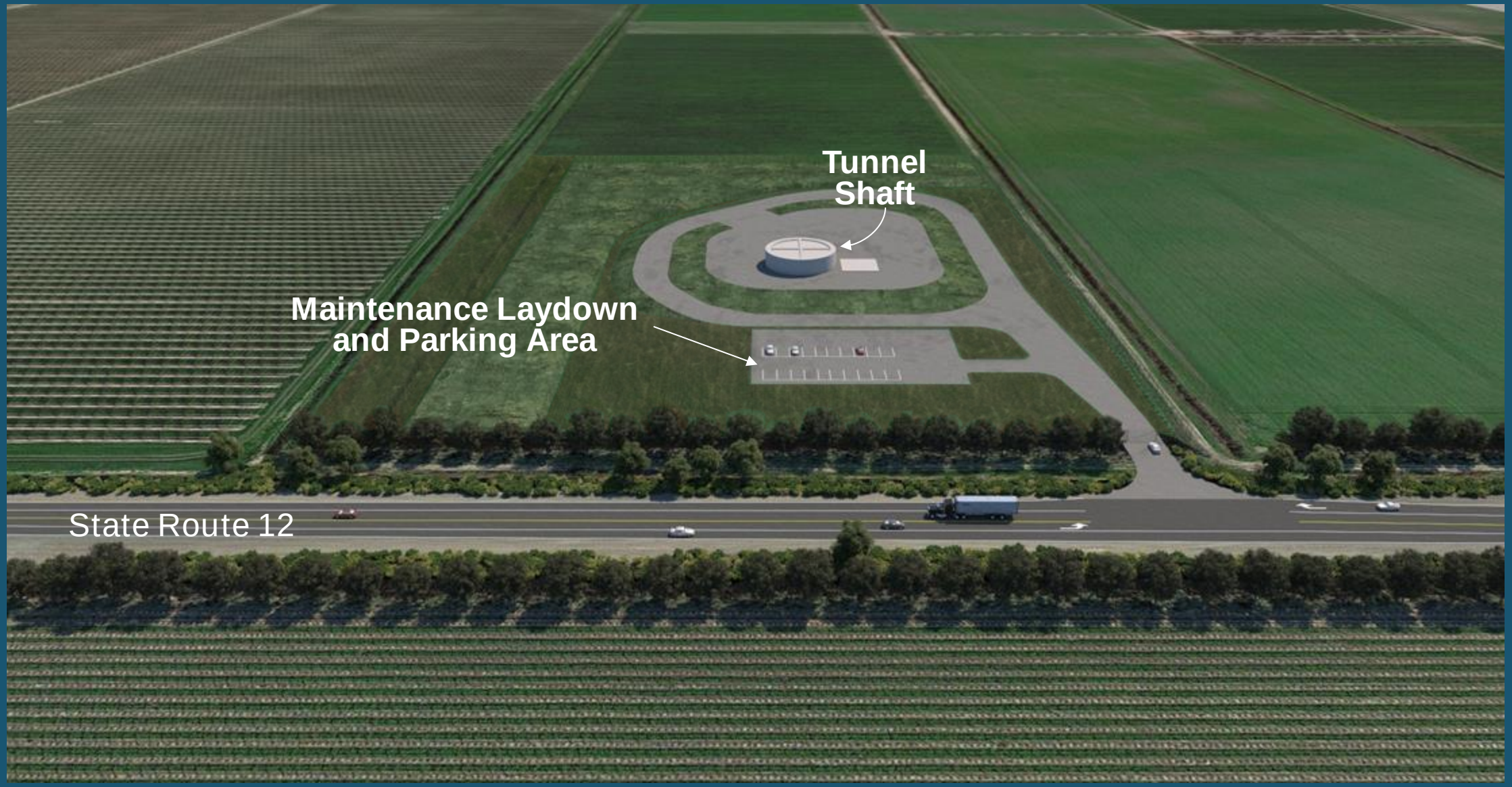
Intake - Typical



Twin Cities Launch Shaft Site (Typical)

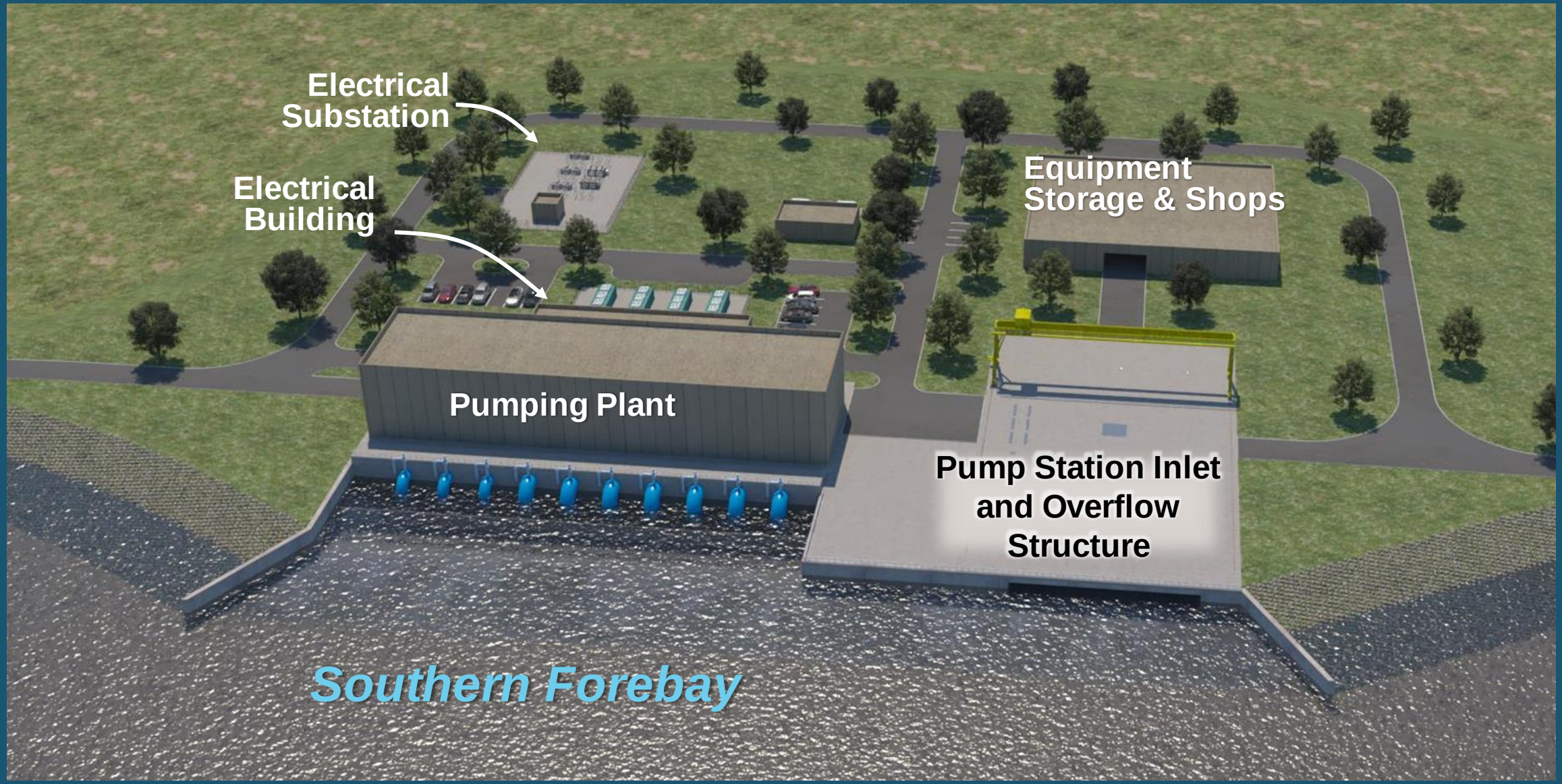


Terminous Reception Shaft (Typical)

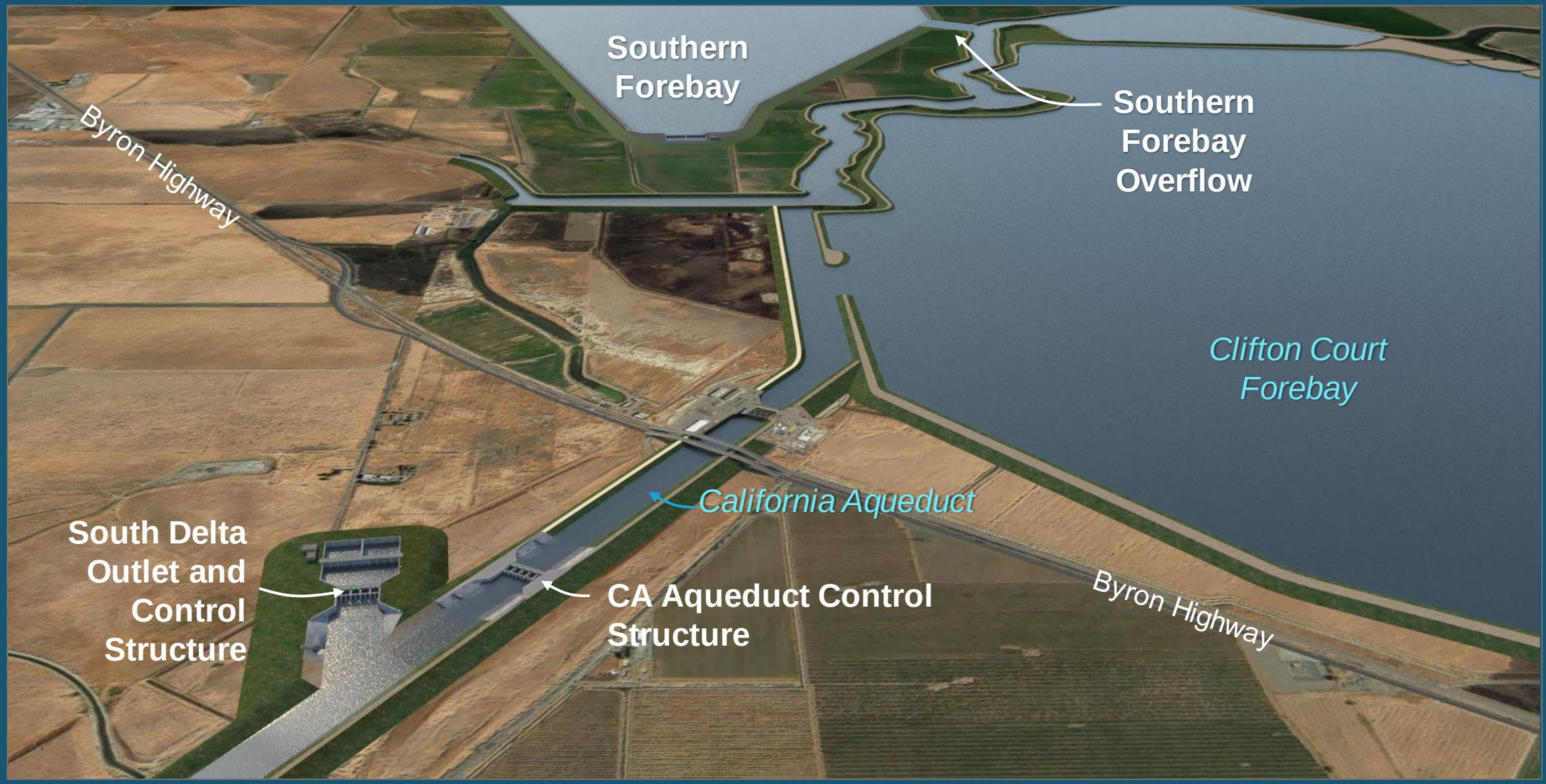


Pumping Plant

South Delta Pumping Plant



Southern Forebay Complex



3. Site Water Management During Construction

Q: How will water be managed on the construction sites, particularly stormwater? Will the existing sloughs be used as a source of water or point of discharge?

Water Balance Goals

Overall Goal: Avoid reductions in surface water and groundwater supplies

- ✓ Maximize use of on-site water supplies to reduce discharge of stormwater and minimize need for other supplies
- ✓ Limit on-site surface water use to historical diversions
- ✓ Limit on-site groundwater use to regional groundwater use/acre
- ✓ Maximize use of recycled wastewater
- ✓ Minimize use of water from public water supplies

Water Uses and Sources at Construction Sites

Major Water Demands

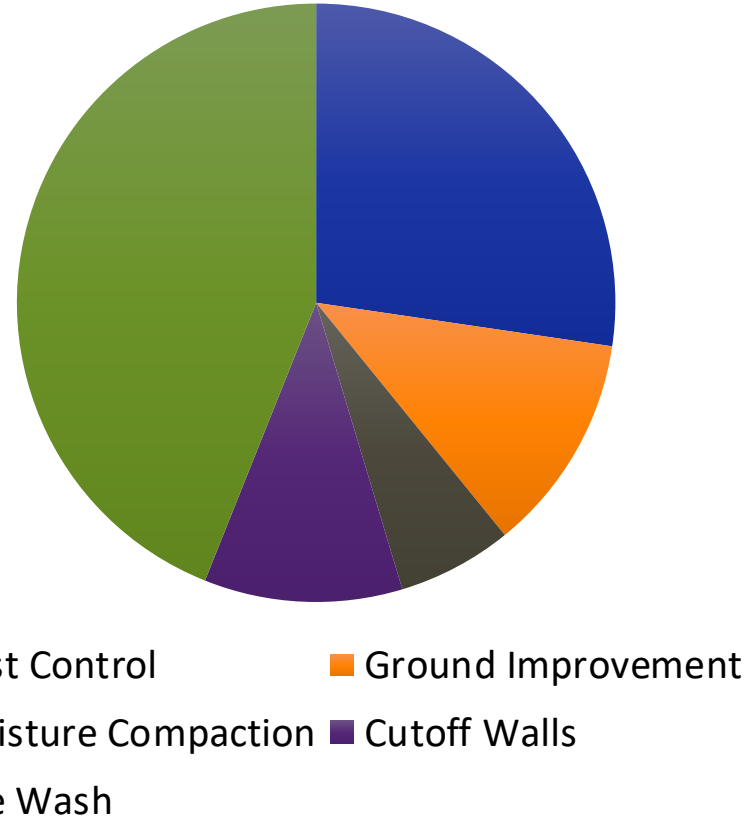
- Construction site dust control
- Water to mix soil and cement to stabilize ground
- Moisture for soil compaction
- Water to mix with cement/bentonite to create slurry wall structures
- Water injected at tunnel head to loosen soil
- Water to make concrete at the Batch Plants
- Tire Wash Basins at exit locations

Potential Water Sources

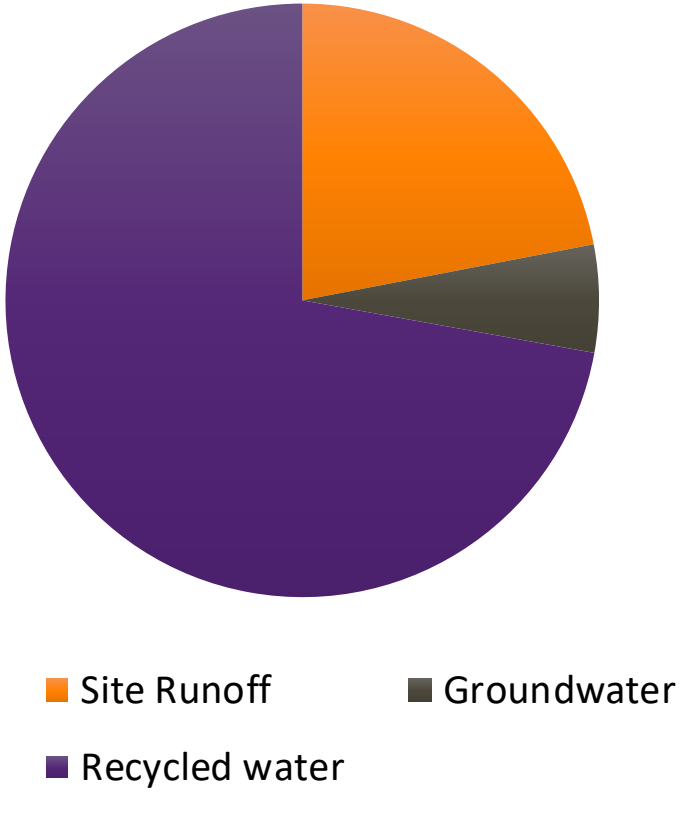
- Dewatering flows from excavations
- Existing surface water diversions (not to exceed historical diversions)
- Site runoff from storm events
- Groundwater wells (not to exceed regional diversion rates)
- Recycled water from nearby wastewater treatment plants
- Public water agency supplies

Example: Water Demands for Smaller Sites (e.g., Reception/Maintenance Shafts) would be from Local Recycled Water, especially in Summer Months

Potential Water Demand
New Hope Shaft - Central

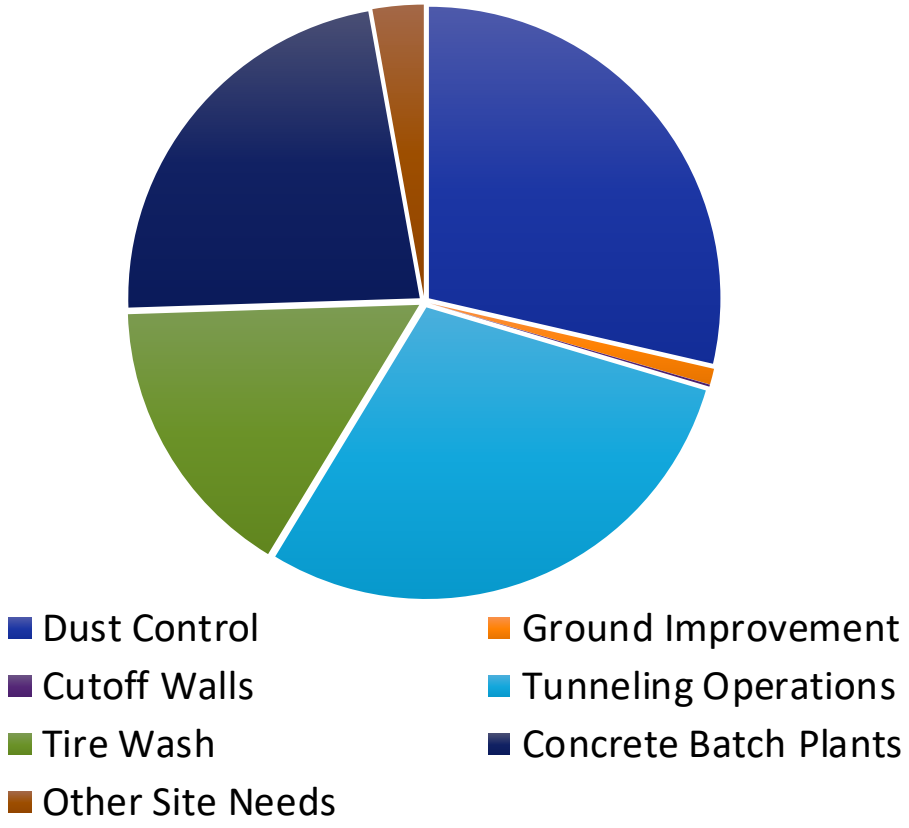


Potential Water Supplies
New Hope Shaft - Central

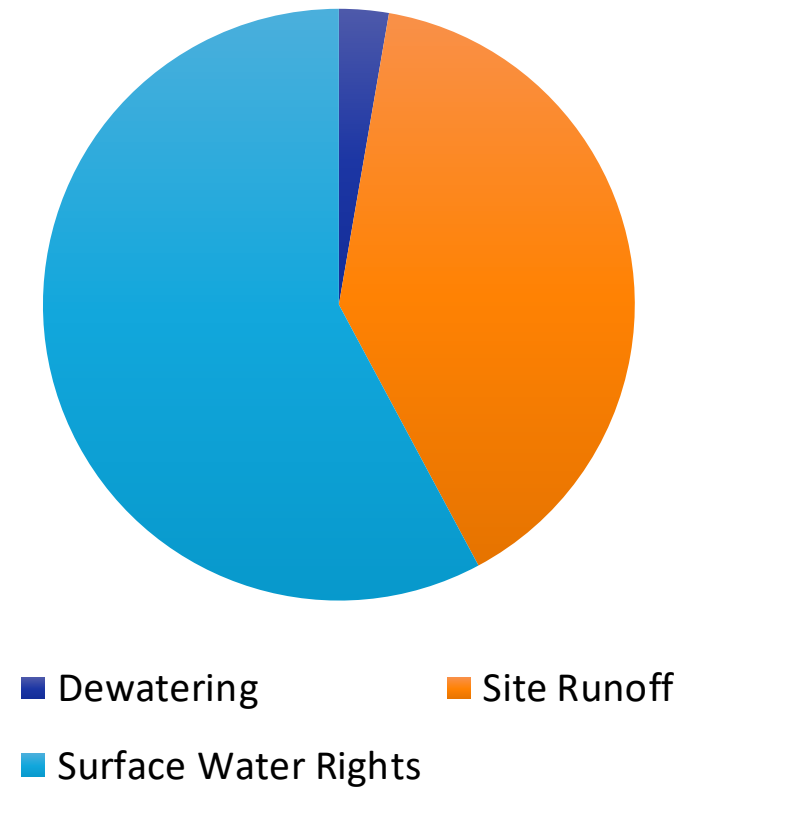


Example: Water Demands for Parcels with Existing Water Rights would also Use Site Runoff in Winter to Reduce Stormwater Discharges

Potential Water Demand
Southern Complex on Byron Tract



Potential Water Supplies
Southern Complex on Byron Tract



4. Air Quality Emissions During Construction

Q: Please include Air Quality as a future topic of discussion.

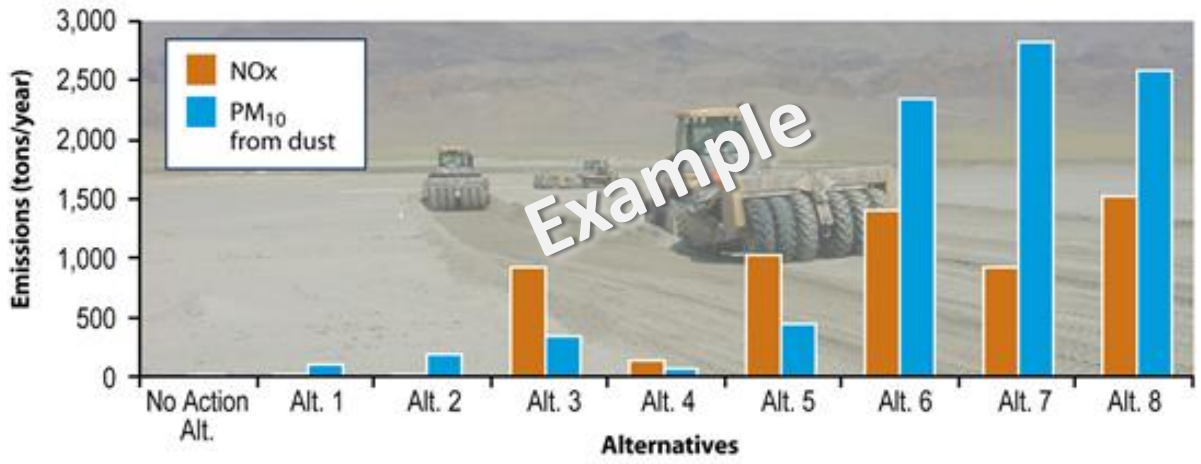
Site Air Quality Impacts – The Basics

DCA Assumptions & Inputs

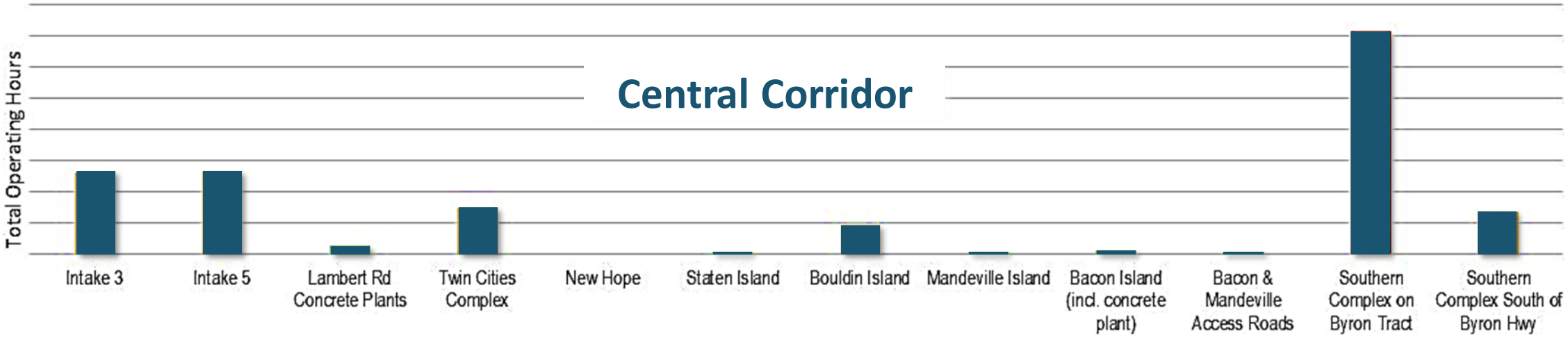
- If electric equipment is currently available, it was assumed that electric equipment would be used
- Non-electric equipment includes Tier 4 diesel engines if currently available
- Created list of non-electric equipment operating hours for each site
- Operating hours per construction schedules
- Major non-electric equipment includes:
  - Excavators
  - Dozers
  - Loaders
  - Rollers
  - Compactors
  - Grout Facilities
  - Asphalt Pavers
  - Generators
  - Graders
  - Pumps
  - Cranes
  - Forklifts
  - Welders

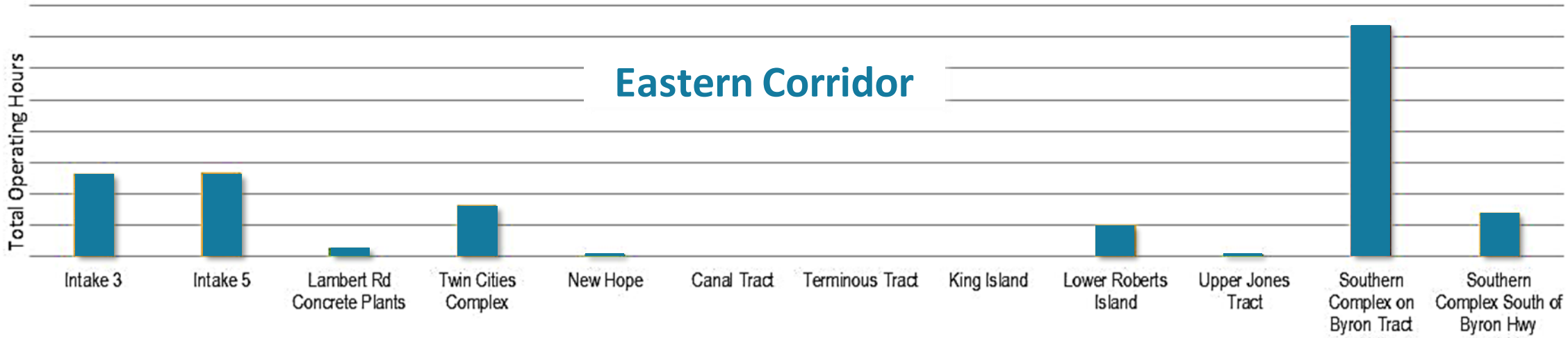
DWR – EIR Impact Analysis

- Use Air Quality Models to quantify emissions
- Compare to background air quality and thresholds
- If needed, identify mitigation measures
  - > Alternative Fuels
  - > Vehicles Retrofits
  - > Minimize Vehicle Miles
  - > Purchase Offset Measures



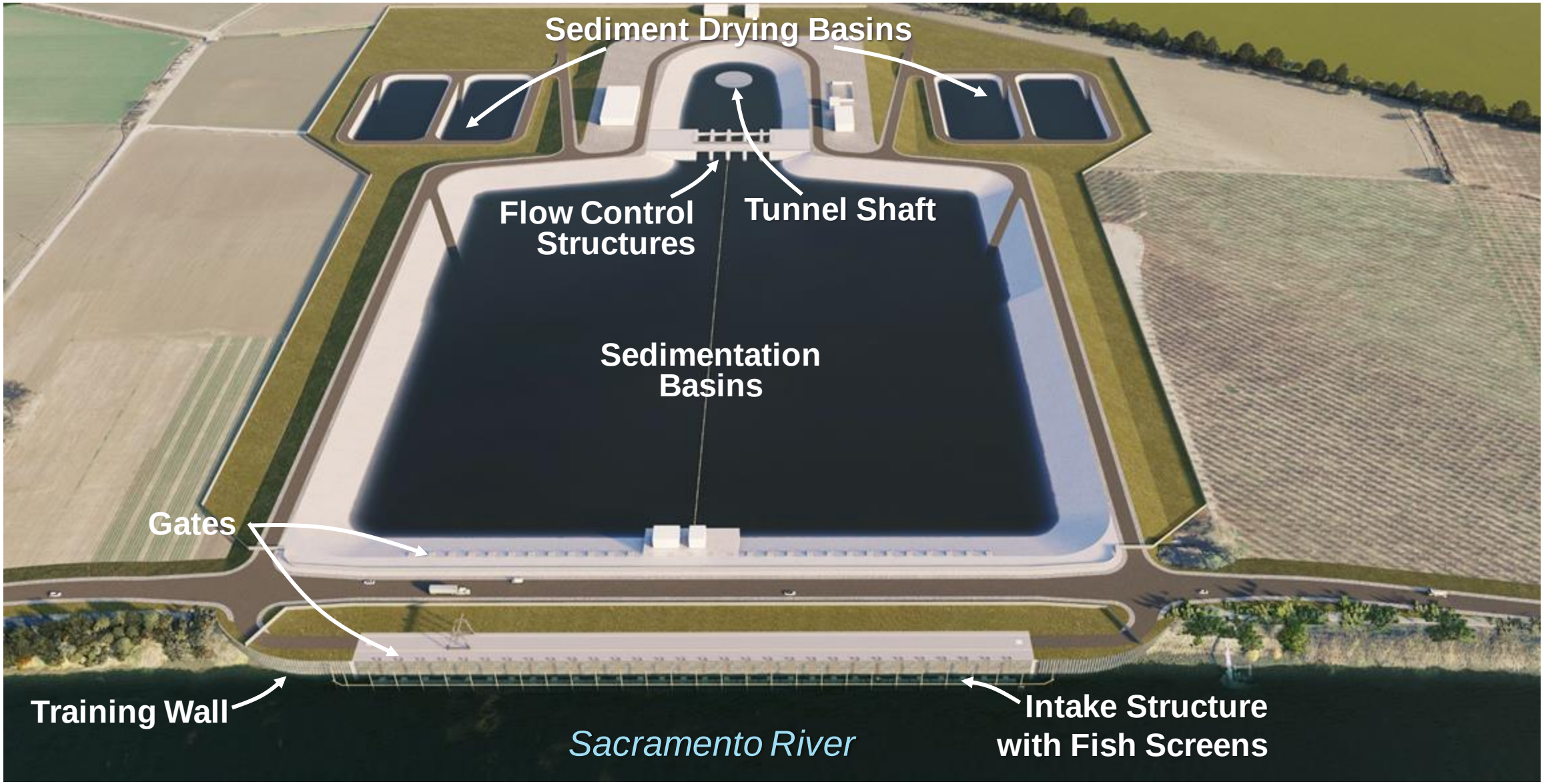
Relative On-Site Non-Electric Equipment Construction Use





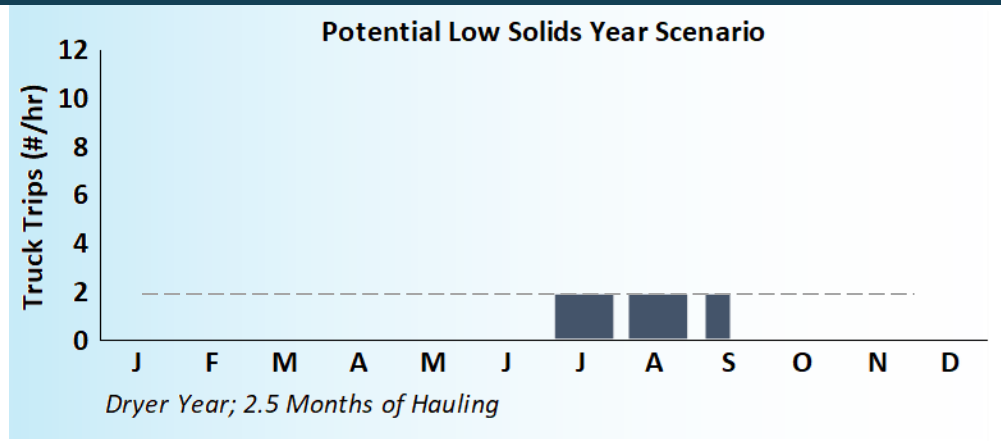
5. Post Construction Operations – Solids Hauling at Intakes

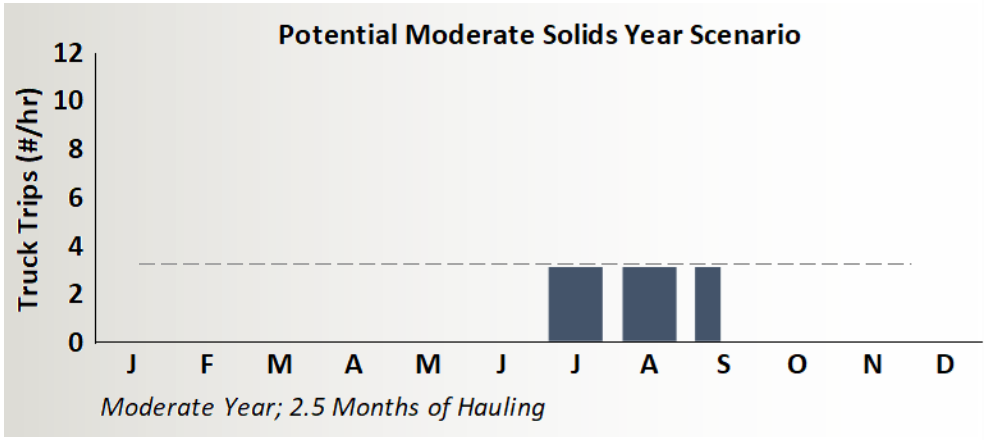
Q: Please identify post-construction traffic and noise levels at the construction sites, in particular the intake sites?

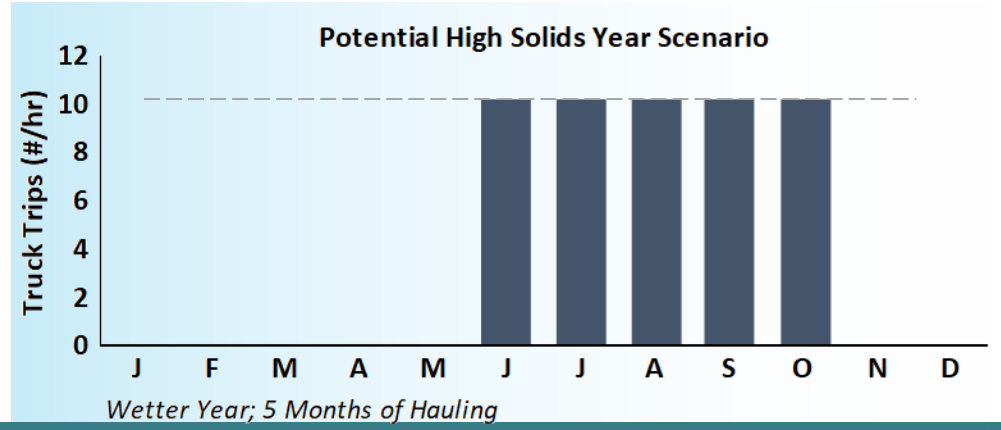


Intakes Solids Hauling - Post Construction

- Solids pumped from Sedimentation Basin to Drying Beds once per year during summer
- Anticipate 10 to 20 weeks each year to pump, dry, and haul solids off-site for disposal
- Total Solids Generated dependent upon:
  - Solids Loads in River
  - Total Volume Diverted (0 to 3,000 cfs per intake)
- Anticipate 2 to 10 trucks per hour (one way) to haul solids off site based on range of potential scenarios







6. Total Power Requirements and Power Line Corridors

Q: What are the total power requirements at the sites and how will power be brought to these sites? Will any renewable energy be built as part of the project?

Total Power Requirements and Power Line Corridors

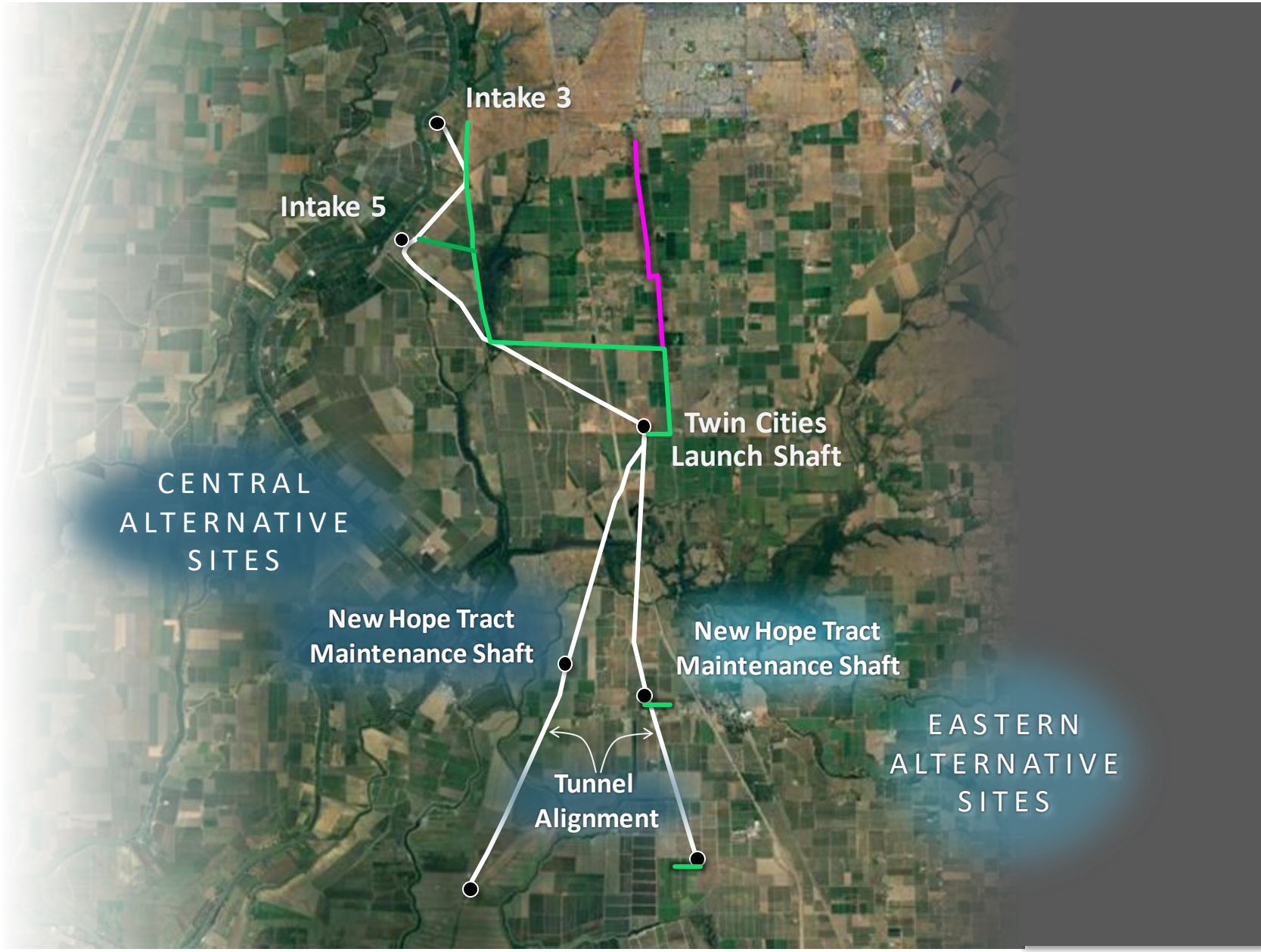
FACILITY	CONSTRUCTION	PERMANENT
Capacity (cfs) 6000	Load (kVA)	Load (kVA)
Intakes	8,000	4000
Batch Plants	4,000	-
Twin Cities Dual Launch Shaft and RTM Drying	62,000	<50
Bouldin Launch and Reception Shaft	29,000	<50
Lower Roberts Launch and Reception Shaft	29,000	<50
Maintenance/Reception Shafts (except Bacon Is)	1,000 (5,000)	<50
Southern Complex and Pumping Plant	71,100	122,000
South Delta Conveyance Facilities	2,000	2,000

Proposed Power 1 of 3

KEY

Underground

Overhead – Ex. Corridor

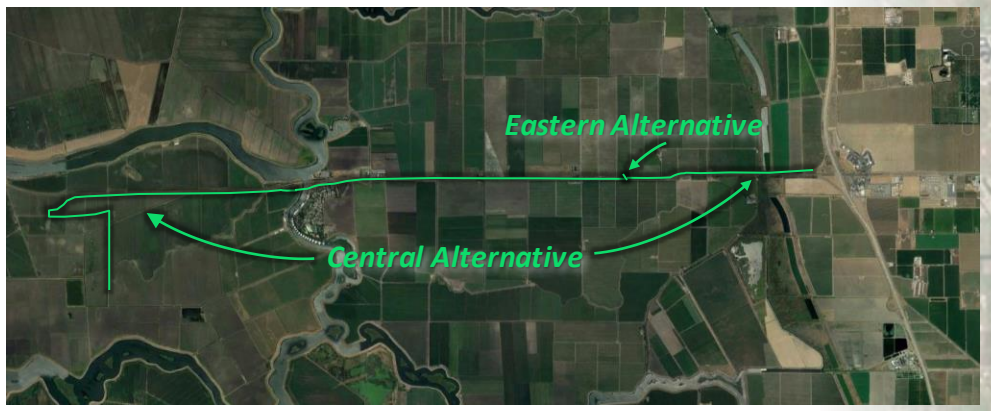


Proposed Power 2 of 3

KEY

Underground

Overhead – Ex. Corridor



CENTRAL ALTERNATIVE SITES

EASTERN ALTERNATIVE SITES

Terminous Tract Reception Shaft

Bouldin Island Launch Shaft

Tunnel Alignment

King Island Maintenance Shaft

Mandeville Island Maintenance Shaft

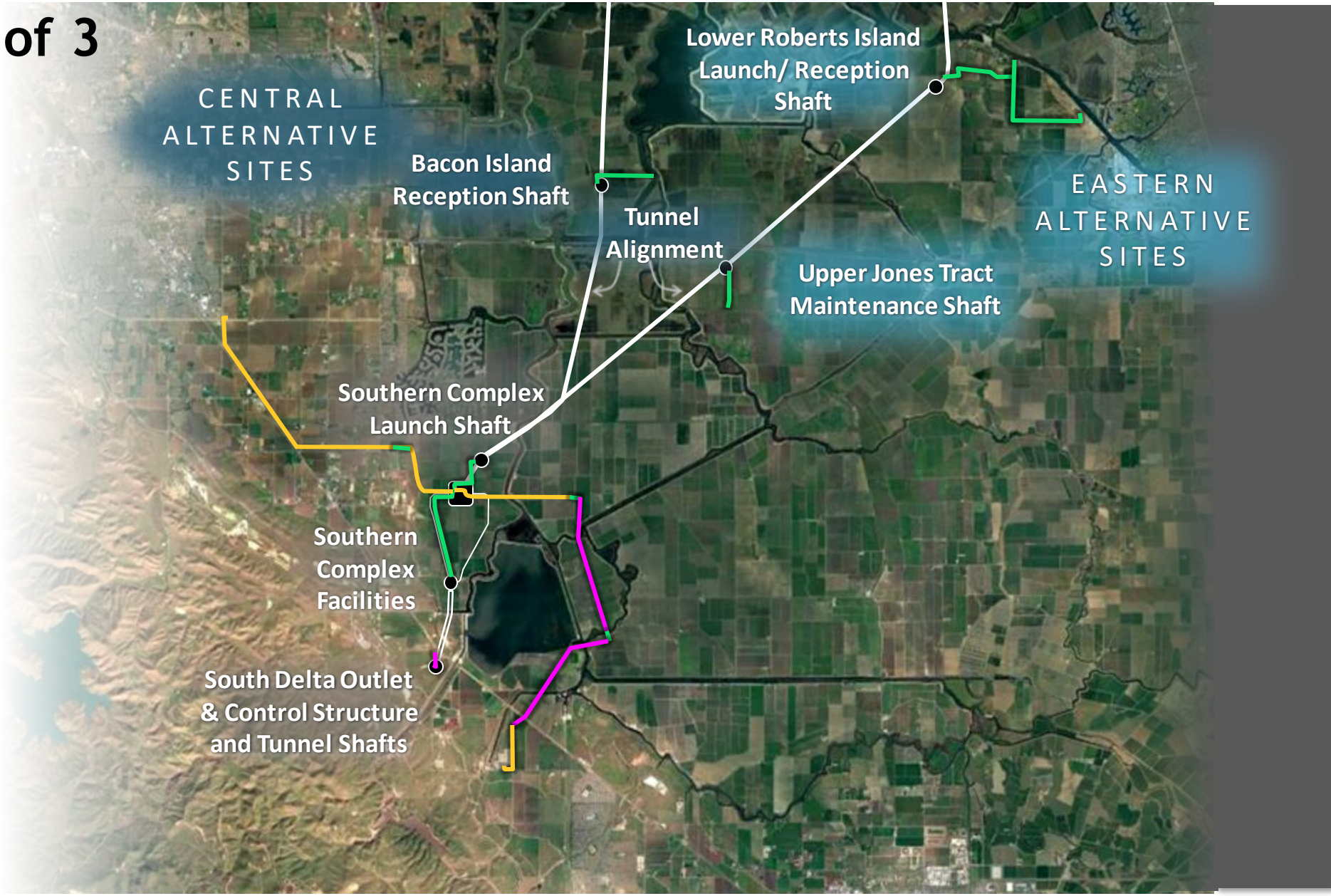
Lower Roberts Island Launch/ Reception Shaft

Bacon Island Reception Shaft

Proposed Power 3 of 3

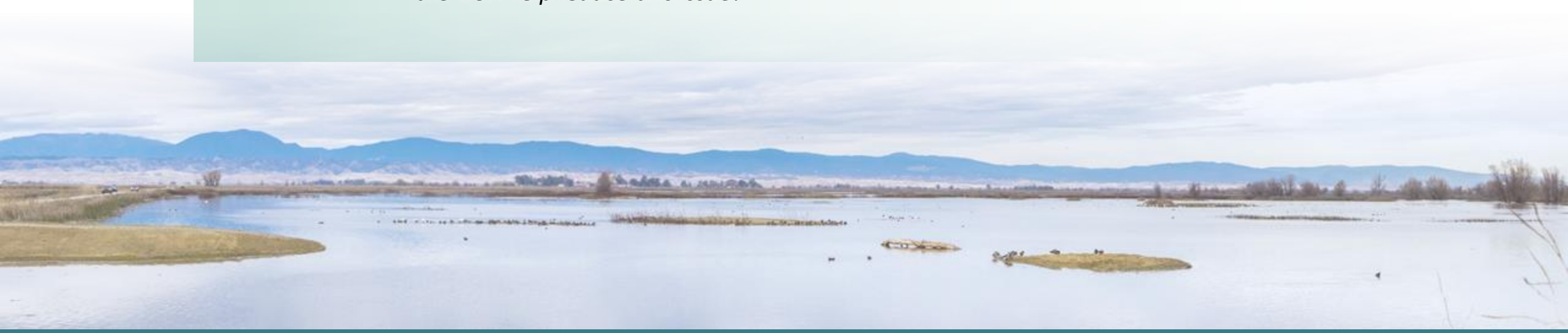
KEY

- Underground
- Overhead – Ex. Corridor
- Overhead – New Corridor



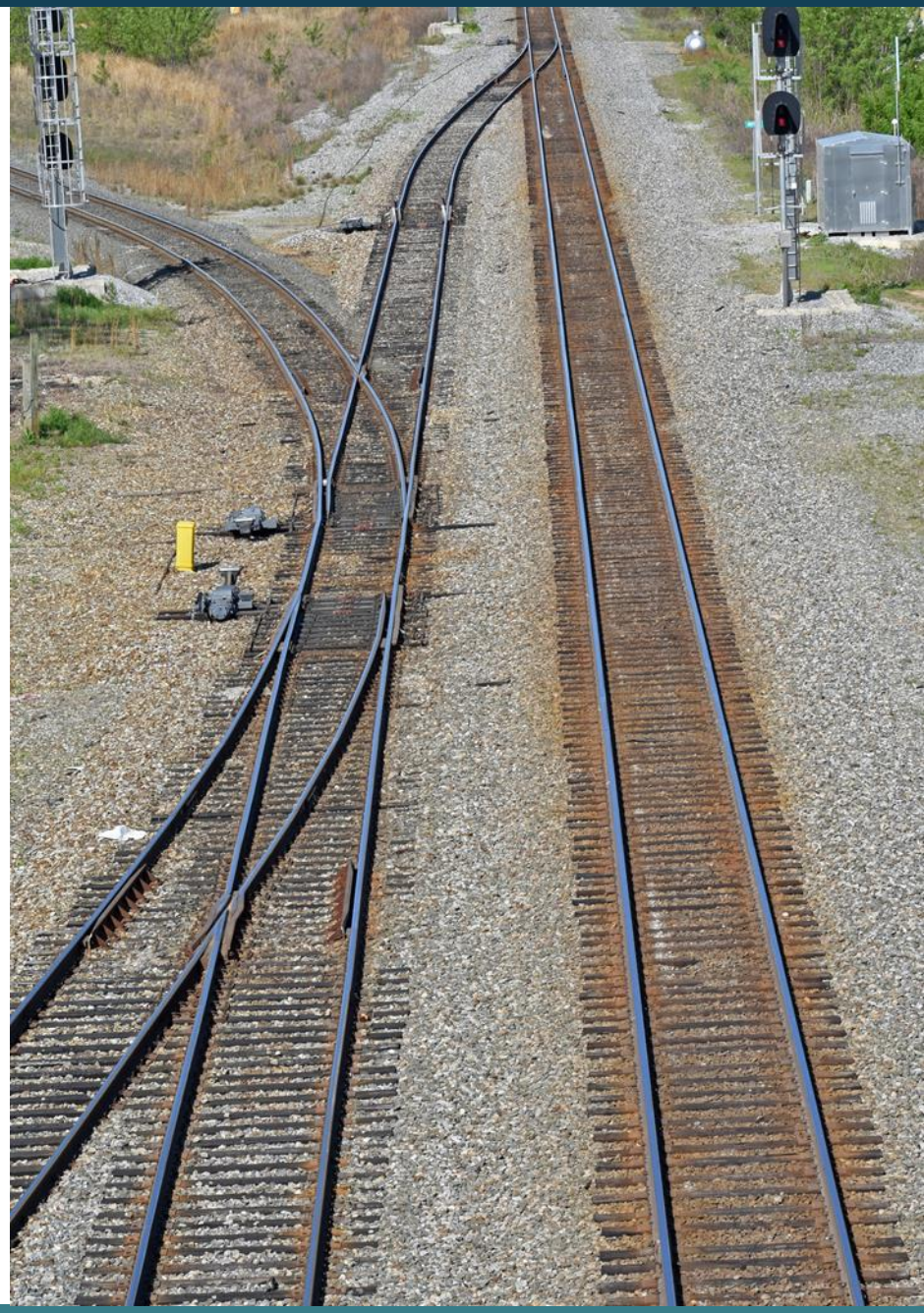
7. Existing Train Traffic Loads and Idling In South Stockton

Q: There are current issues with air pollution from idling trains in South Stockton. What train traffic with the DCA add to this area and how can the DCA help reduce this issue?



Existing Train Traffic Loads and Idling In South Stockton

- No data on rail idling in South Stockton is available
- BNSF Stockton: ~20 freight services per day & ~8 Amtrak trains/day
- DCA: ~2 weekly deliveries at Lower Roberts Island site (liners, bulk materials); ~2 trains/day to the Southern Complex site (liners, RTM, bulk materials).
- Trains will pull off main line onto site spur; drop-off ~ 20 – 40 railcar loads; locomotive will depart after drop-off. Minimal idling.
- On-site rail movement managed by DCA Contractor under DCA governed operating specifications.



8. Emergency Response Plan - Construction

Emergency Response Plan During Construction

Coordination with Emergency Response Agencies throughout the region to provide for the safety of those working on the project, without compromising community coverage.

Delta Conveyance Emergency Response Plan will conform to existing plans and regulations:

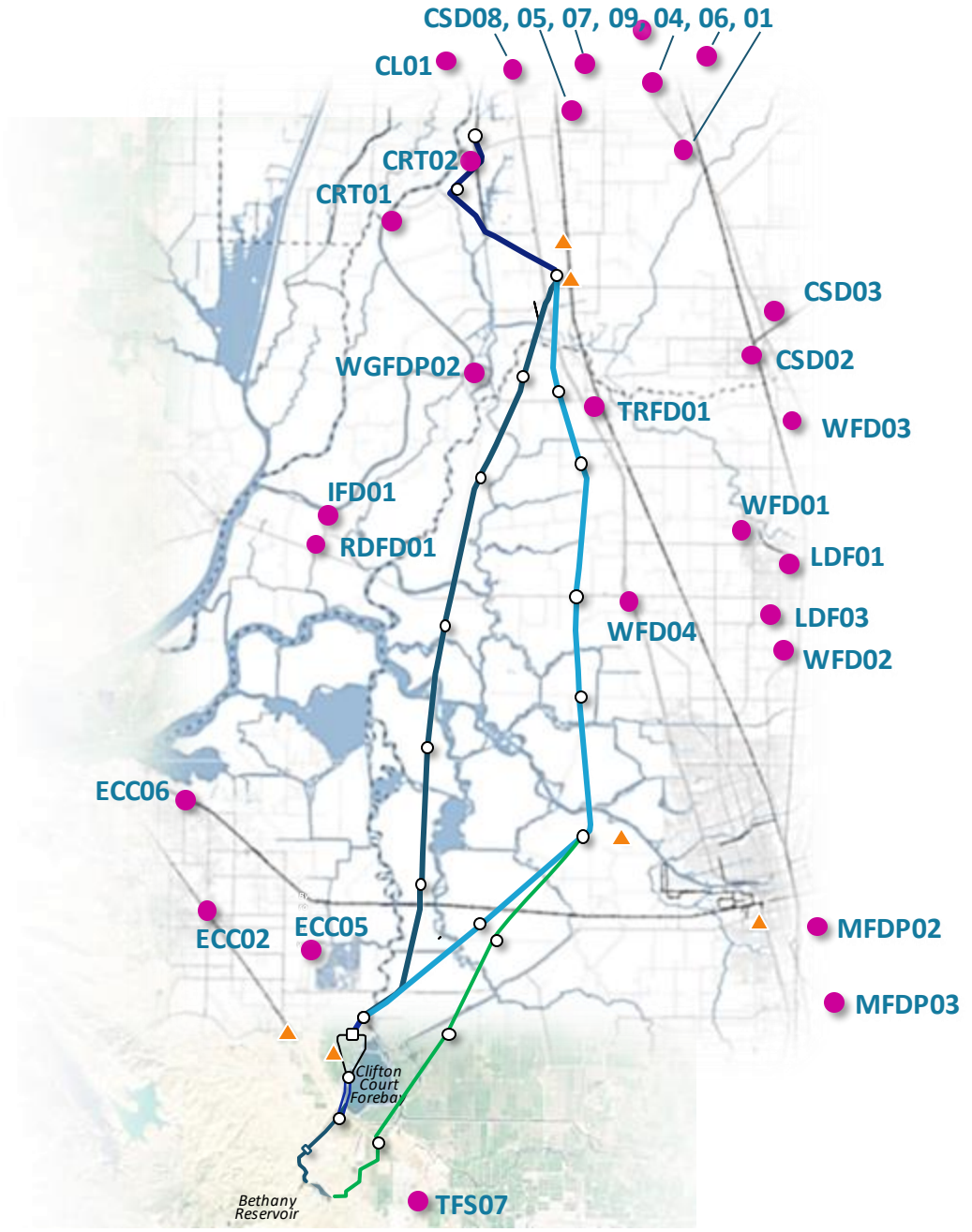
- **Cal OSHA/Federal Tunneling Regulations**
- **general civil construction requirements**
- **DWR's Emergency Action Plan Requirements**

The project would aim to:

- **Enhance local emergency response capabilities**
- **Construct on-site facilities where needs cannot be adequately met with local facilities**
- **Augment or expand existing local emergency response agency facilities**
- **Leave a legacy in the way of equipment and training**

Emergency Response - Coordination Agencies

Fire District	
Clarksburg Fire Protection District	CL
Cosumnes CSD Department	CSD
Courtland Fire Department	CRT
East Contra Costa Fire Protection District	ECC
Isleton Fire Department	IFD
Lodi Fire Department	LFD
Montezuma Fire Protection District	MFPD
River Delta Fire District	RDFD
Thornton Rural Fire District	TRFD
Tracy Fire Department	TFS
Walnut Grove Fire Protection District	WGFPD
Woodbridge Fire District	WFD



9. Soils Environmental Data – Year 1

Q: While levels of constituents in the RTM may be consistent with background levels at the surface, some naturally occurring contaminants are at high levels in the background. This doesn't necessarily mean that the material will meet standards. How are you assessing this issue?

Year 1 Testing Program

Sample Depths:

- **Background Surface Conditions – 0 to 3 ft**
- **Shallow Excavation – 0 to 10 ft; sites where soils excavated for use on project (e.g. intakes)**
- **Tunnel Depth – 115 to 160 ft; representative of RTM**

Constituents:

- **See table to right**

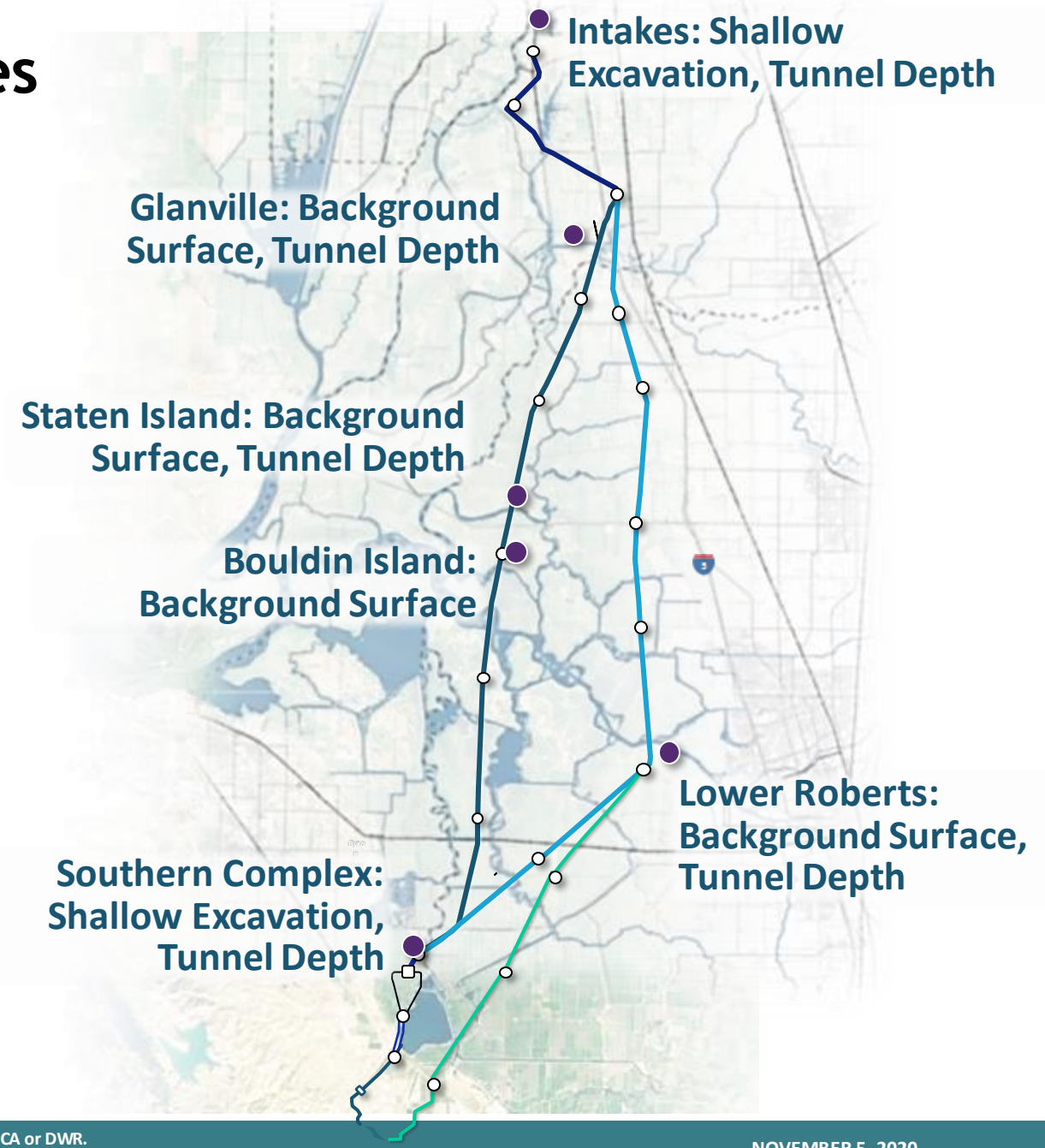
Schedule:

- **Drilling from October through June;**
- **Results available ~ mid-Summer 2021**

Analyte	Test Method
PAHs	• 8270SIM
Butyltins	• Krone Method
Ammonia	• SM4500NH3
Nitrate/Nitrite	• SM4500NO3
Metals	• ICP/MS
Metals, individual tests	• ICP/MS
Soluble Metals	• 6020 (DI-WET)
Mercury	• 7471
Methyl Mercury	• 1631
Soluble Mercury, discrete testing	• 7471 (DI-WET)
Hexavalent Chromium	• 7196
Soluble Hex Chromium	• 7196
TPH	• 8015M
Organochlorine Pesticides & PCBs	• 8080
Herbicides	• 8151
VOCs	• 8260
Semi-VOCs	• 8270
Total Organic Carbon	• Walkley-Black
Ag Testing including Boron	• Lab Standard Methods
Salinity as Chloride	• CL- SM2520
pH	• 9045D

Year 1 Soils Environmental Test Sites

Sample Type	Location
Background (0 to 3 ft)	• Glanville • Staten Island • Bouldin Island • Lower Roberts
Shallow (0 to 10 ft)	• Intakes • Southern Complex – Byron Tract
Tunnel Depth (115 to 160 ft)	• Intakes • Glanville • Staten Island • Lower Roberts • Southern Complex – Byron Tract



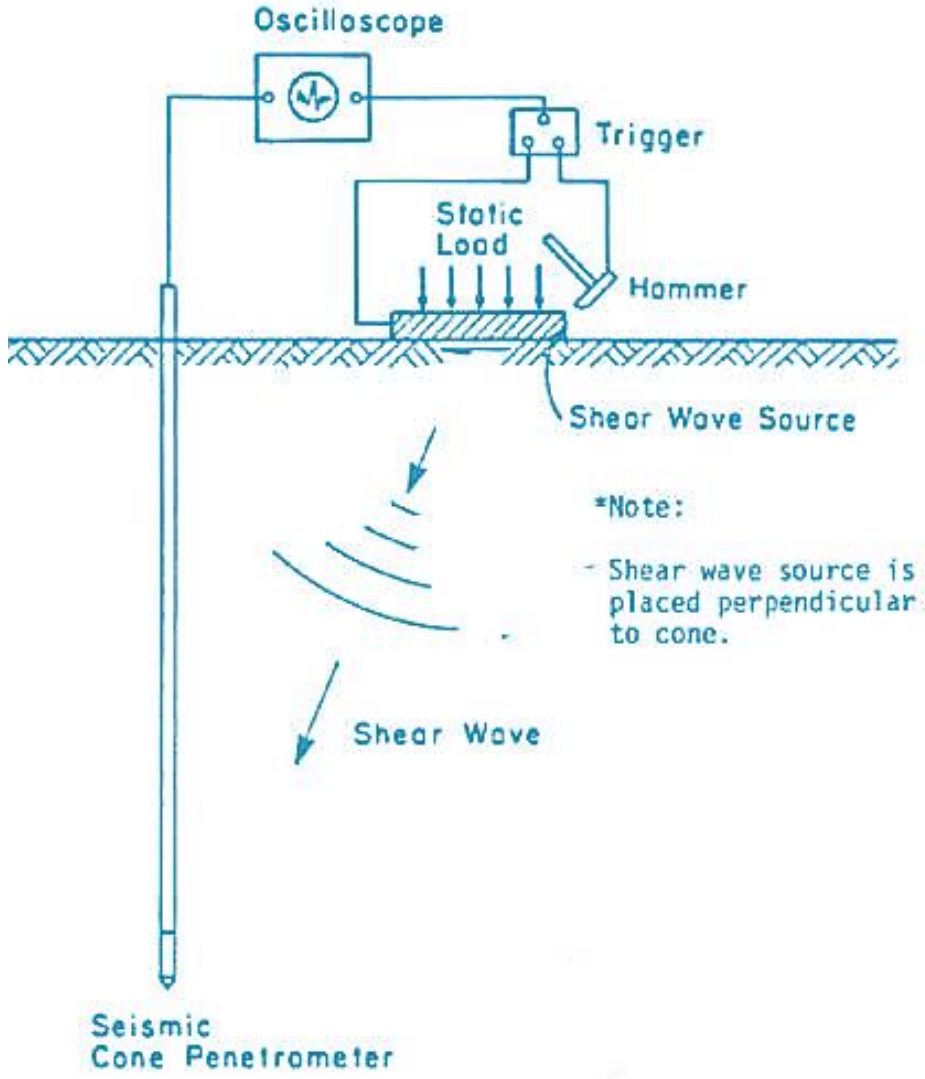
10. DCA Seismic Study

Q: Please explain all work that is being done by the DCA related to Earthquake analysis.

DCA Seismic Studies

- DCA performing various studies and field and laboratory tests to assess seismic risks at each site. Examples include:
  - Seismic Cone Penetration Tests (SCPTs) – examine propagation of ground motion from shaking
  - Downhole suspension logging
  - West Tracy Fault Studies
  - Laboratory Cyclic Shear Strength Testing – liquefaction potential
- Analyses required by building codes and regulations for site specific responses
- Data used for design of project facilities to meet seismic criteria for foundations and physical structures including existing levees

Schematic of Cone Penetration Test



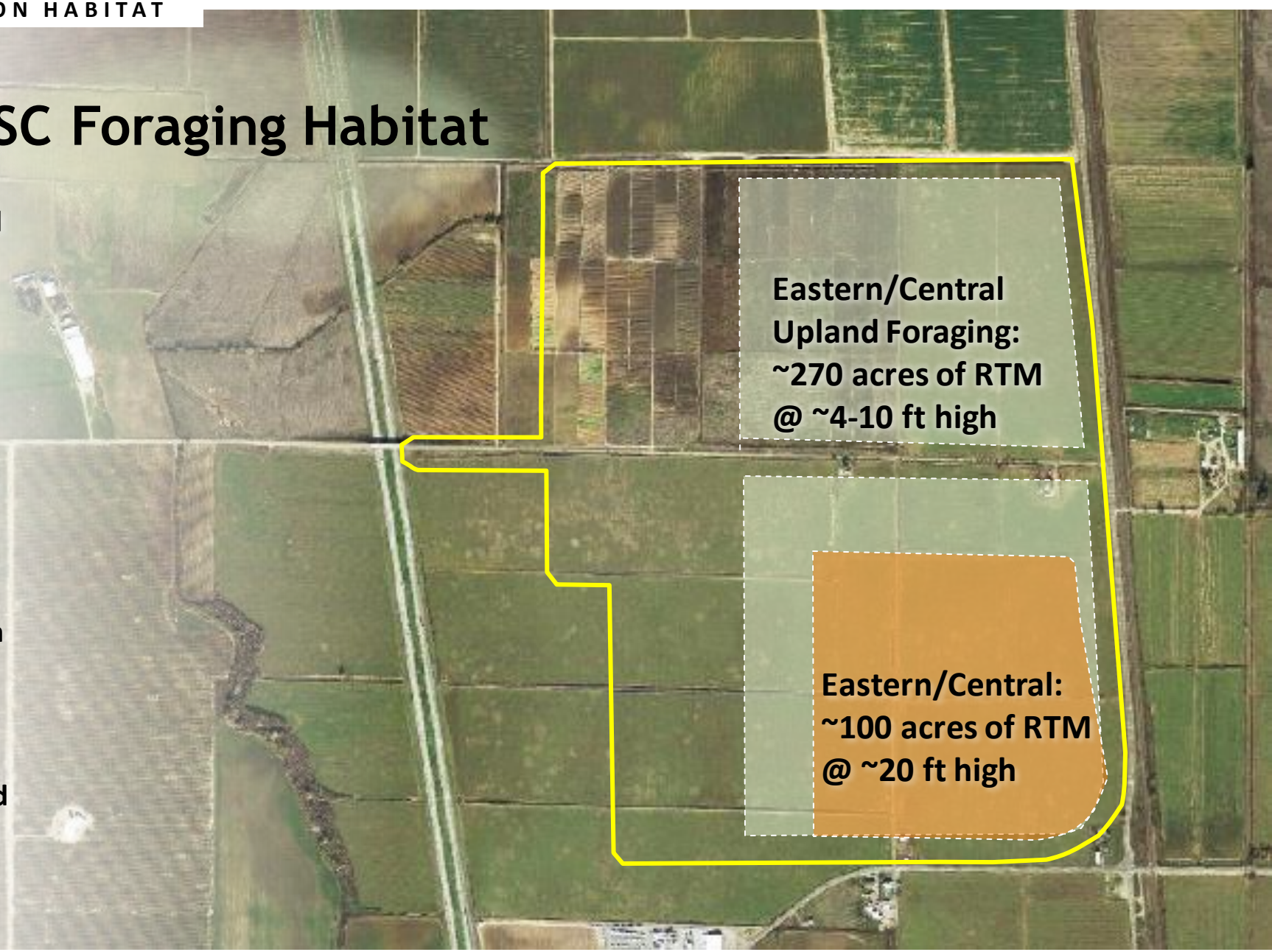
11. Twin Cities Stockpile - Potential for Uplands Habitat

Q: Please consider post-construction rehabilitation of the Twin Cities site for uplands foraging habitat.

Twin Cities Stockpile - Potential for Upland GSC Foraging Habitat

To create upland foraging habitat would require:

1. **Deeper stripping to provide more native soil**
2. **Grade and level site to above recurring floodplain @ El. 19 ft**
3. **Spread amendments and cross rip**
4. **Spread topsoil and cross disc**
5. **Final grade and level**
6. **Construct irrigation (depending on crop type)**
7. **Plant foraging crop (corn, winter wheat, pasture, alfalfa, or native grasses) - crop type selection could also support Swanson's hawk and white tail kite**

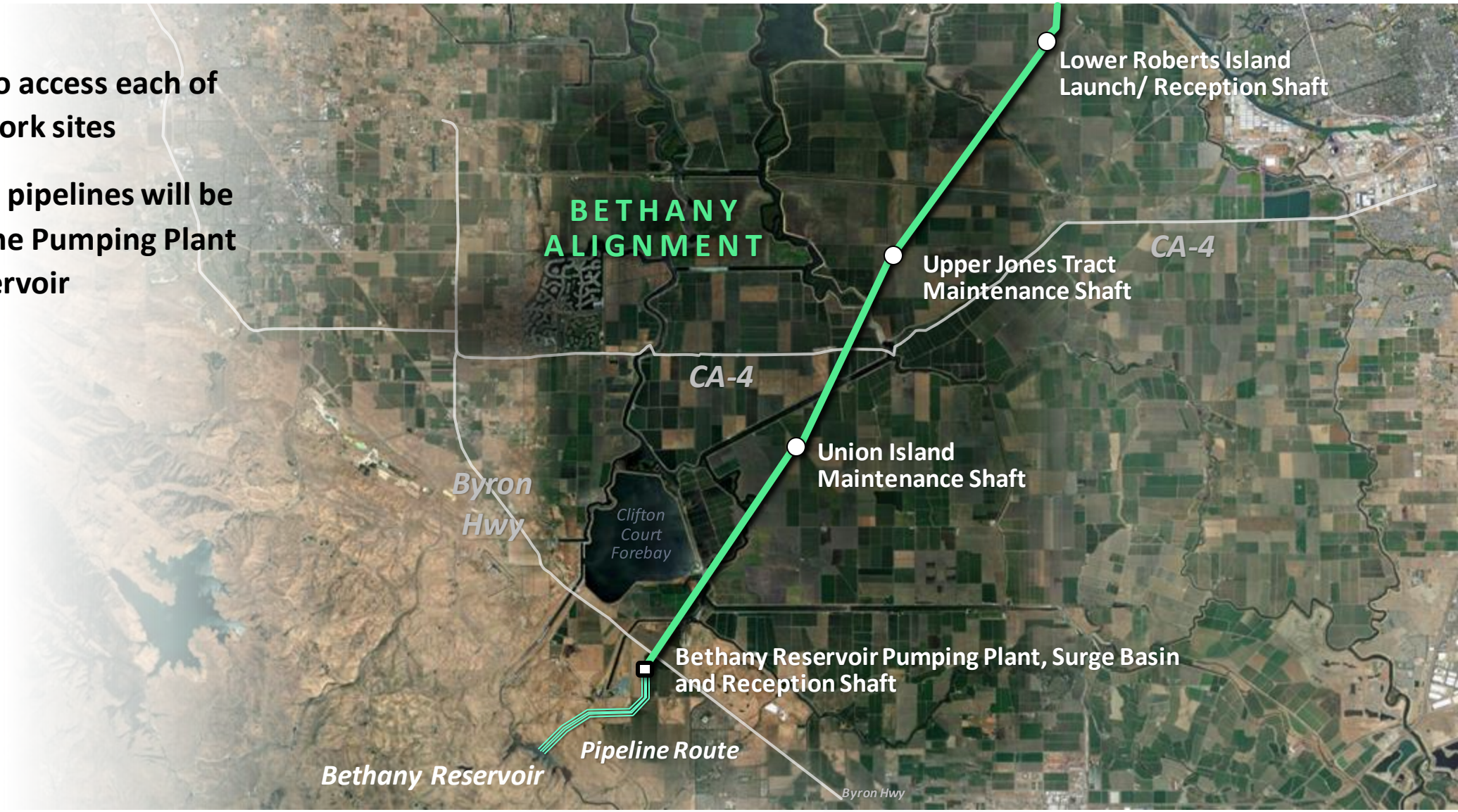


Item 4b.

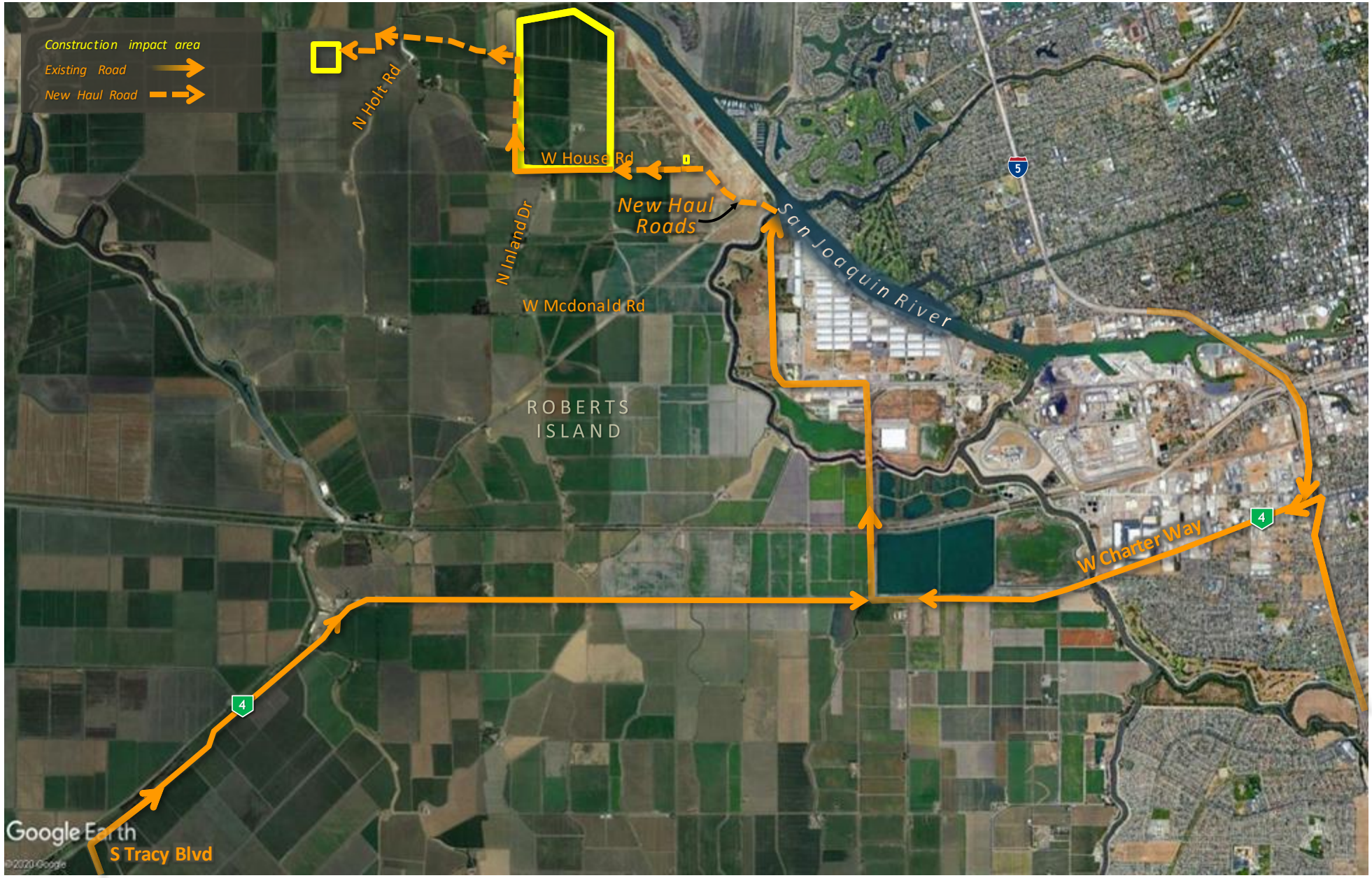
Bethany Reservoir Alternative Update

Bethany Update Topics

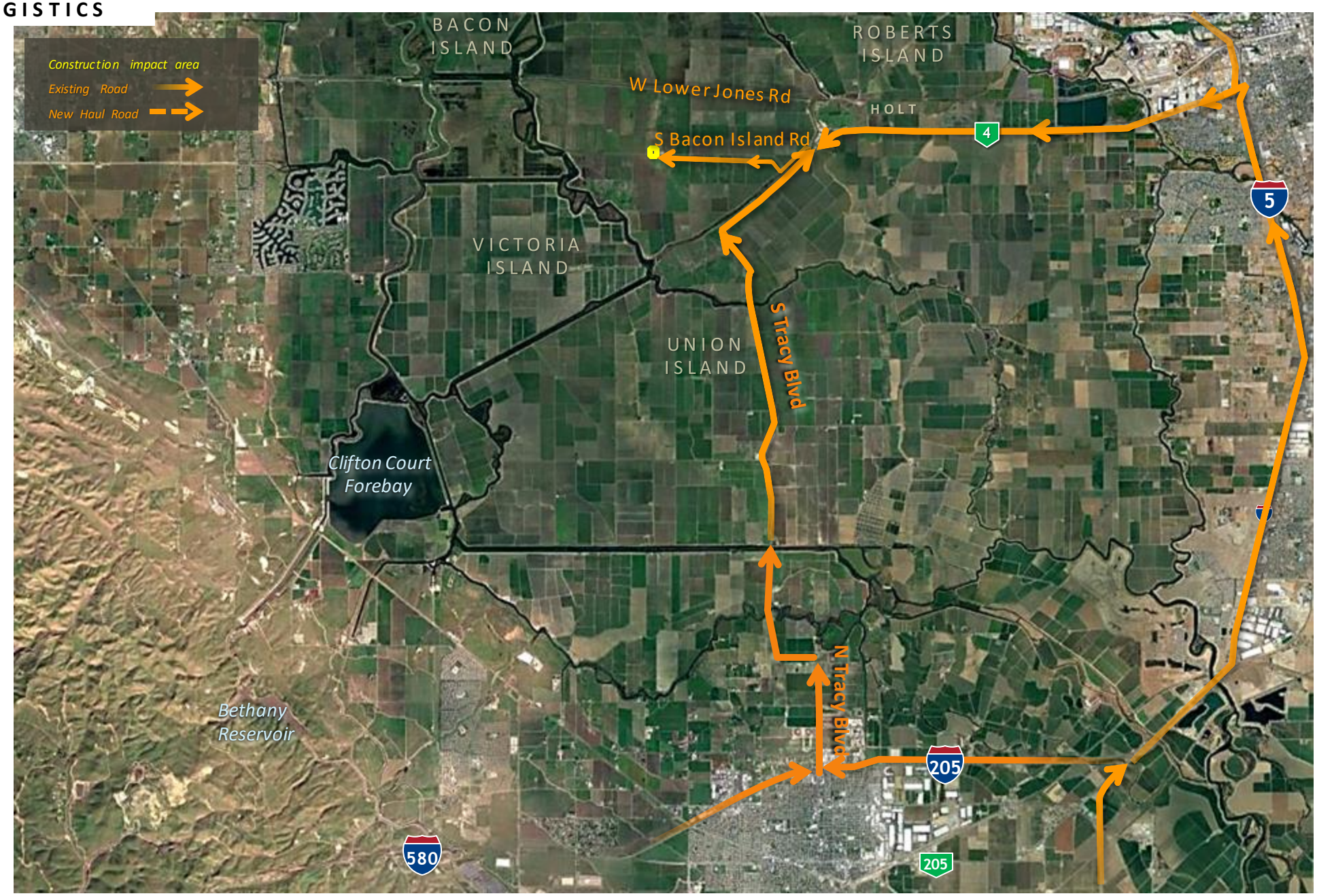
1. Logistics plans to access each of the four main work sites
2. Review how the pipelines will be installed from the Pumping Plant to Bethany Reservoir



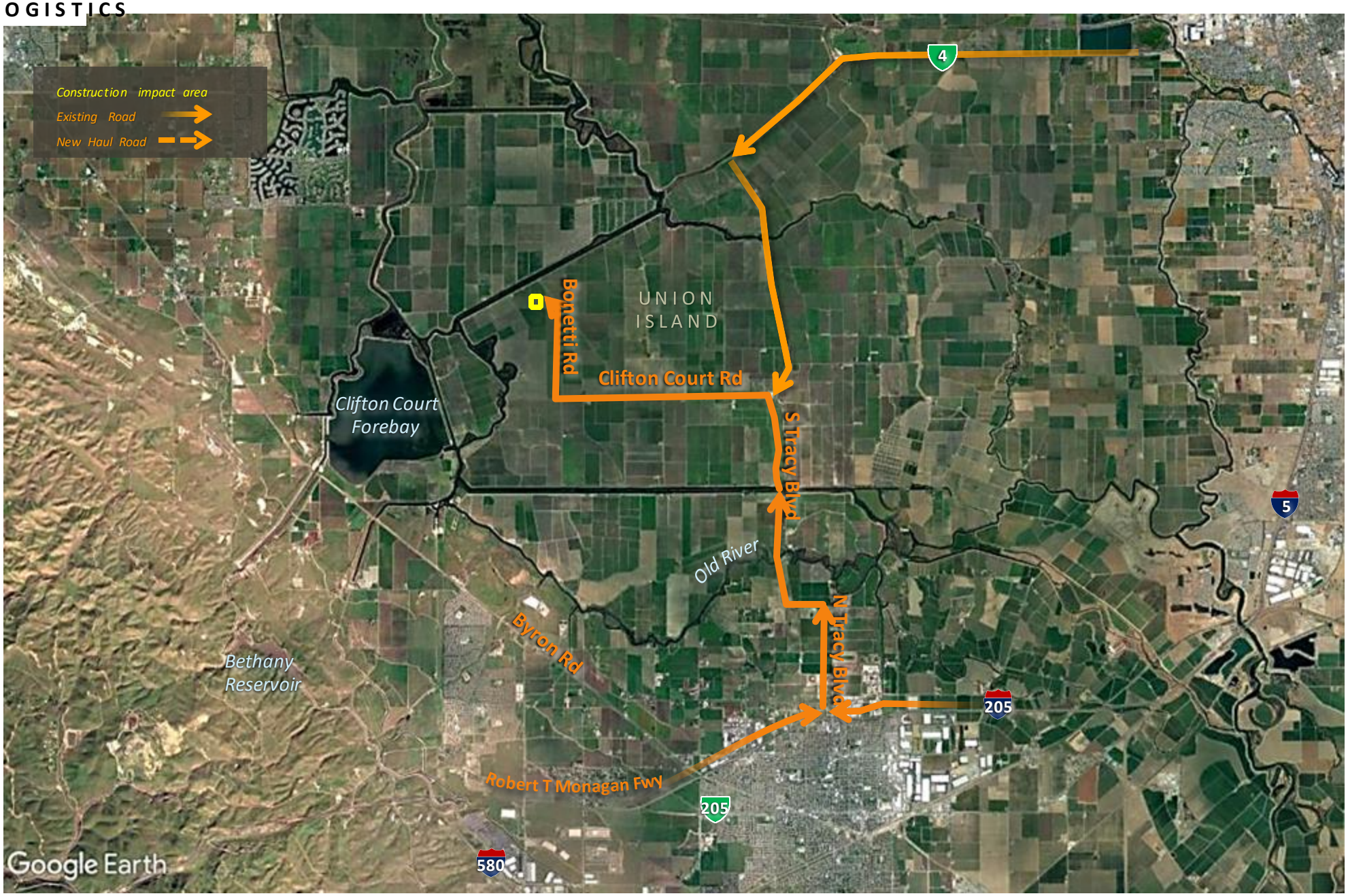
Logistics: Lower Roberts Island Launch Shaft Site Access Routes



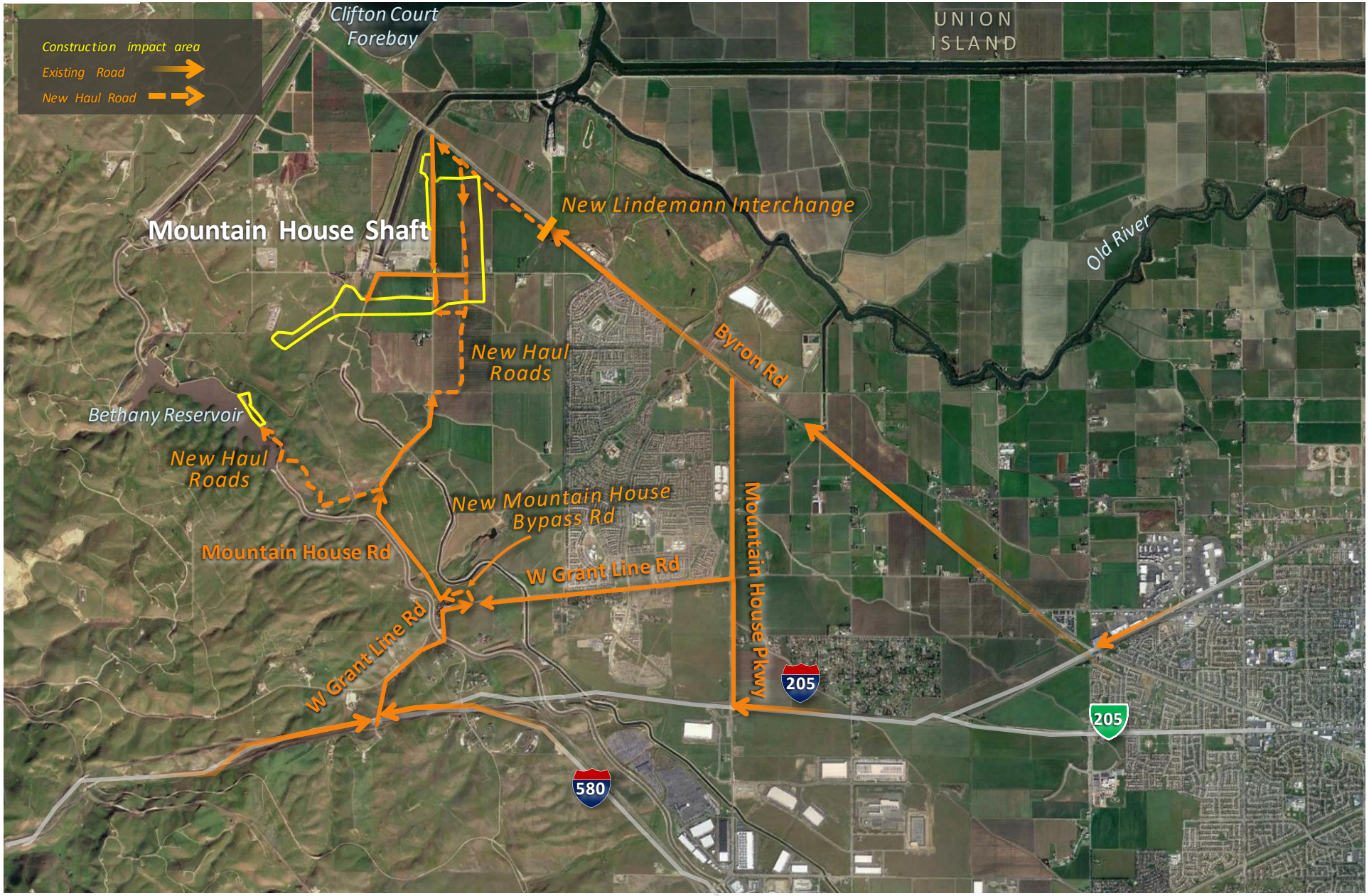
Logistics: Upper Jones Maintenance Shaft Site Access Routes



Logistics: Union Island Maintenance Shaft Site Access Routes



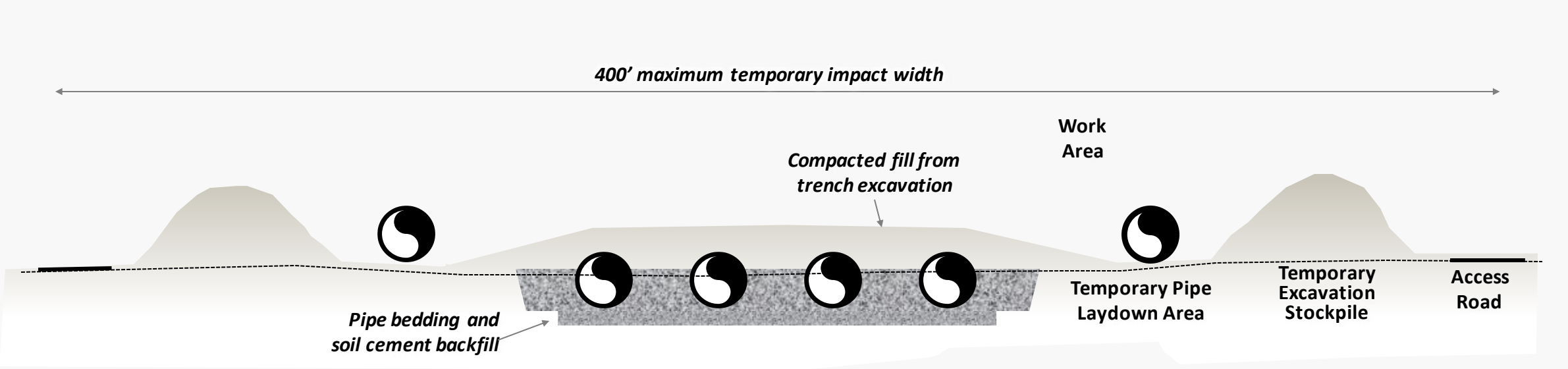
Logistics: Bethany Complex



Bethany Reservoir Alternative Pipeline Route

Cross-Section of Construction Aqueduct Trench - Open Cut Reaches

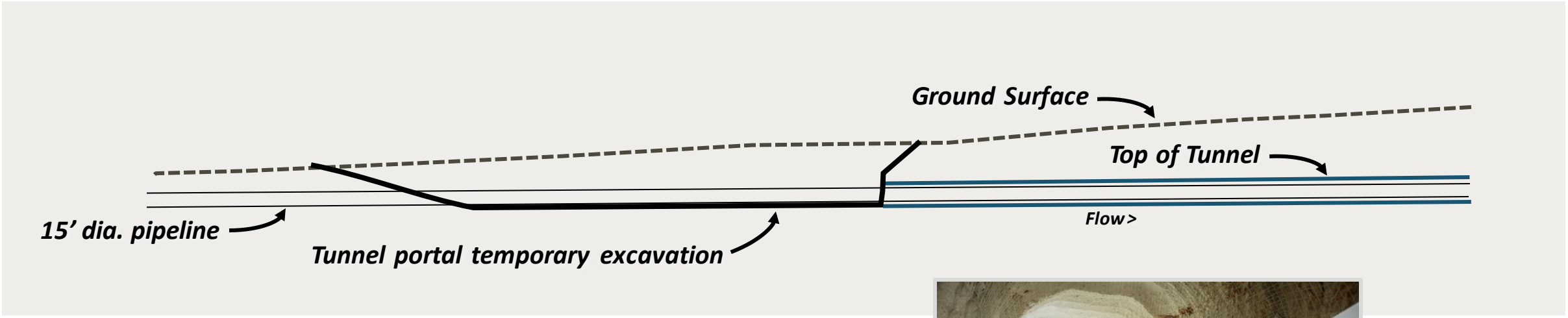
Typical construction phase trench section for open cut reaches of pipeline alignment



- Four, 15-ft diameter steel pipes
  - ~ 140 to 160 ft wide trench
  - ~ 12 to 15 ft deep trench
- Backfill trench with soil cement and reuse of excavated trench material

- Space on each side of trench for:
  - Stockpile of excavated material
  - Pipe section laydown
  - Access roads
- Fully buried under roads

Construction Phase Profile of Tunnel Portal



- Tunnel portal constructed to receive "cut and fill" pipes and launch tunneled pipe sections
- Portal about 200 ft long by 150 ft wide and 25 to 40 ft deep excavation
- Tunnel excavated with roadheader tunneling machine

- Sidewalls supported and stabilized during tunnel excavation
- 15 ft dia pipe installed in 30 ft sections – welded on site / in situ
- Space between tunnel and pipe filled with grout

Roadheader tunneling machine

Item 4c.

DWR Update

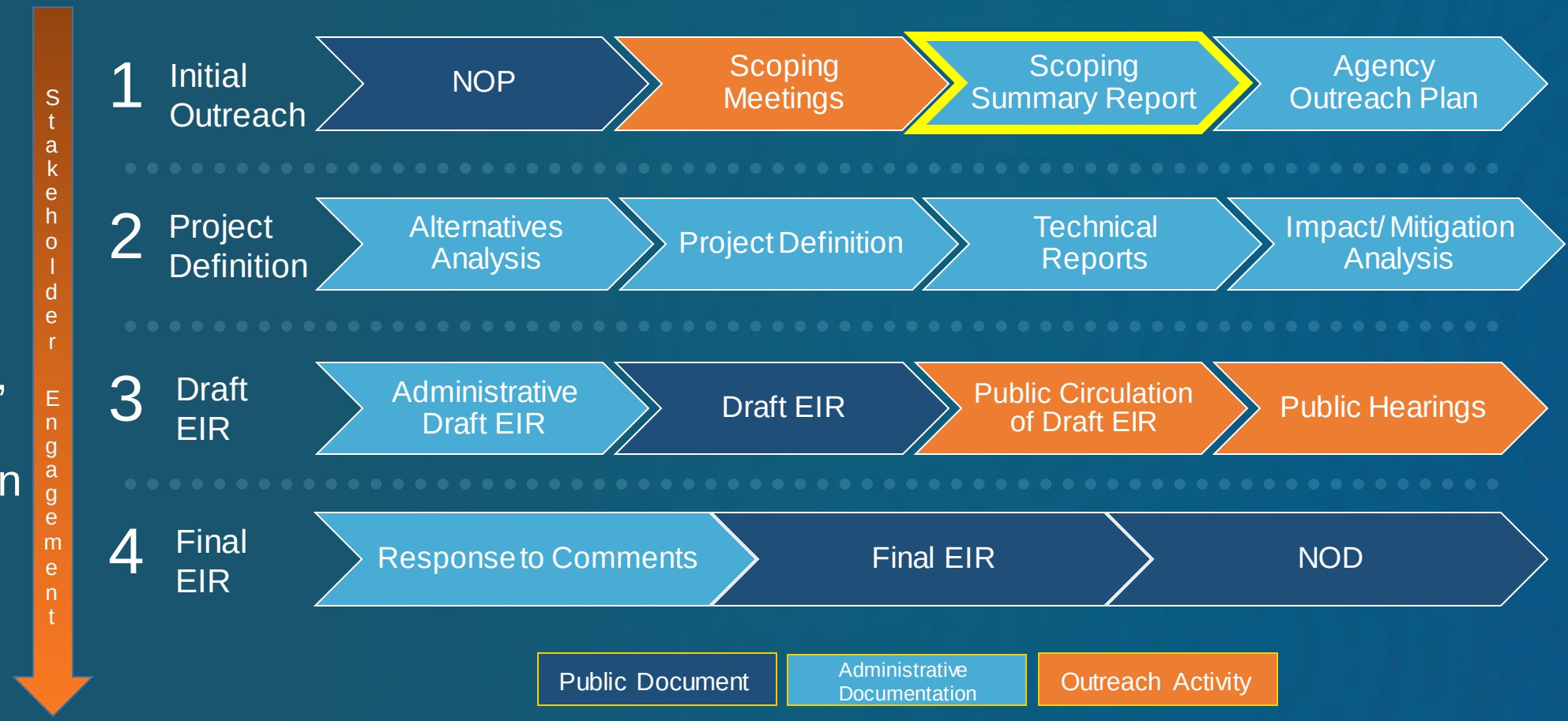
October 2020

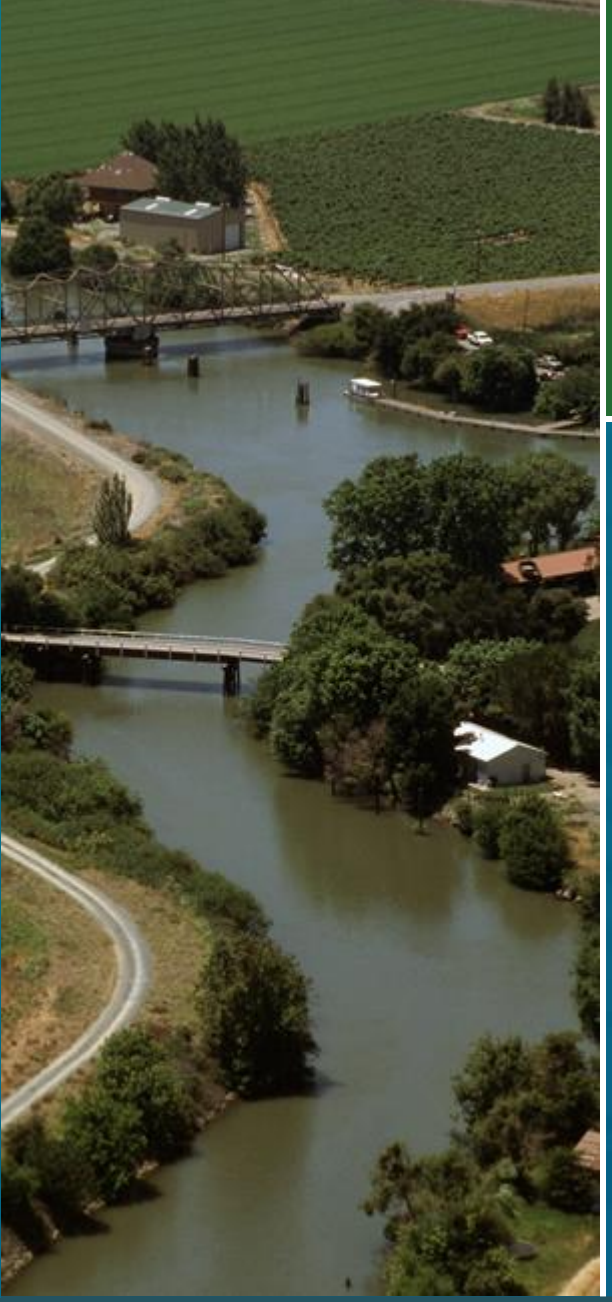
Delta Conveyance Project: *Environmental Review Update*

Carrie Buckman
Environmental Program Manager

Environmental Review Process

Identify, analyze and disclose the potential significant adverse environmental impacts of a proposed project, and provide feasible mitigation measures and alternatives to avoid or reduce such effects.





Environmental Planning Update

- California Environmental Quality Act (CEQA): work on existing conditions and analytical methods
- National Environmental Policy Act (NEPA): United States Army Corps of Engineers closed scoping on October 20 and received about 90 comment letters and emails
- Soil Investigations: field work under Initial Study/Mitigated Negative Declaration has started
- Community Benefits Program: DWR is preparing for a discussion of a Community Benefits Program concept at the December SEC meeting
- Environmental Justice Community Survey: survey open until the end of November

Item 4d.

SEC Questions or Comments on September 23, 2020 Presentation

Key Agenda Items: ***Bethany Update – Siting Analysis***

Bethany Update – RTM Management

DWR Update – EJ Survey

Item 4e.

Public Comment on Item 4

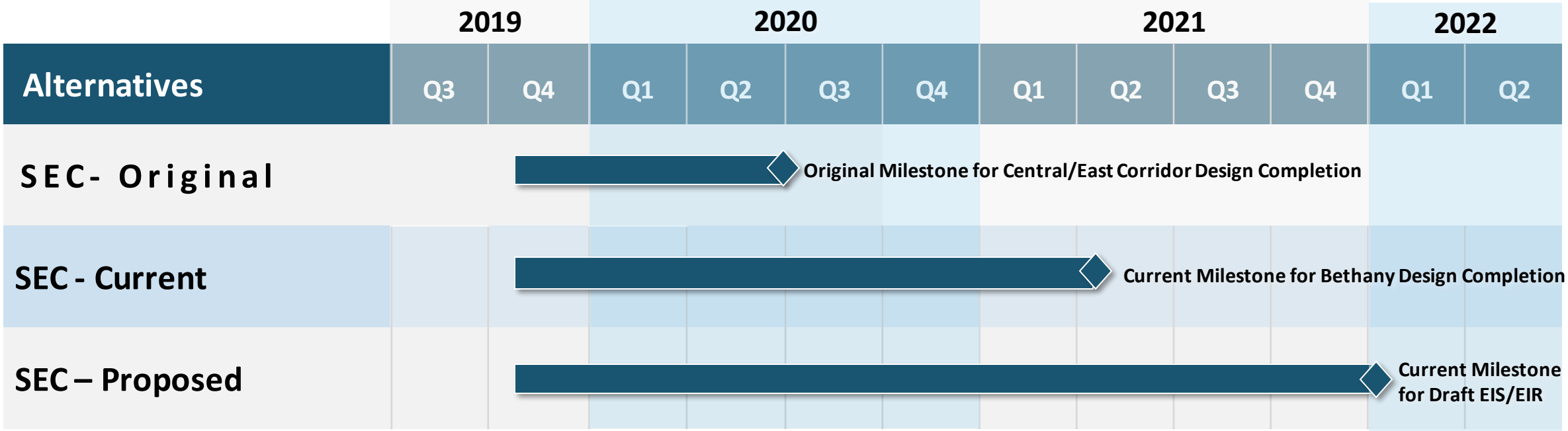
Item 5.

Future SEC Topics

Reminder - Original Charge of SEC (November 2019)

1. The DCA has a defined role in this Planning Phase that confines the areas of discussion within the SEC process.
2. The DCA endeavors to work collaboratively with the Delta Stakeholders to minimize the affects of construction of this project to the broader Delta community through engineering design, logistics optimization, and facility siting.
3. The byproduct of our engineering efforts and engagement with the Delta Community will be described in a DRAFT Concept Engineering Report to be delivered to DWR for their environmental review and assessment.
4. The case for the proposed project, the alternatives to be evaluated in the environmental documentation process, the flow and operating parameters of the proposed project, and the assessment of environmental impacts under the CEQA process, are all outside the purview of the DCA and thus outside the purview of this committee.

SEC Schedule



Proposed future SEC Topics:

- Continued update on Bethany Alternative
- Feedback on Community Benefits Program Framework
- Update on Geotech Studies
- Design Changes for Mitigations
  - Air Quality
  - Noise
  - Traffic
  - Terrestrial Resources
  - Agricultural Resources

December 9th SEC Meeting Topics

- *Bethany Update*
  - Traffic Impacts & Mitigations
  - Pump Station & Surge Basin
  - Bethany Reservoir Outlet Structure
- *Introduction to Community Benefit Program Framework*

Volunteers for SEC Report to DCA Board

Item 6.

Non-Agendized SEC Questions or Comments

Item 7.

Public Comment on Non-Agendized Items

Thank you