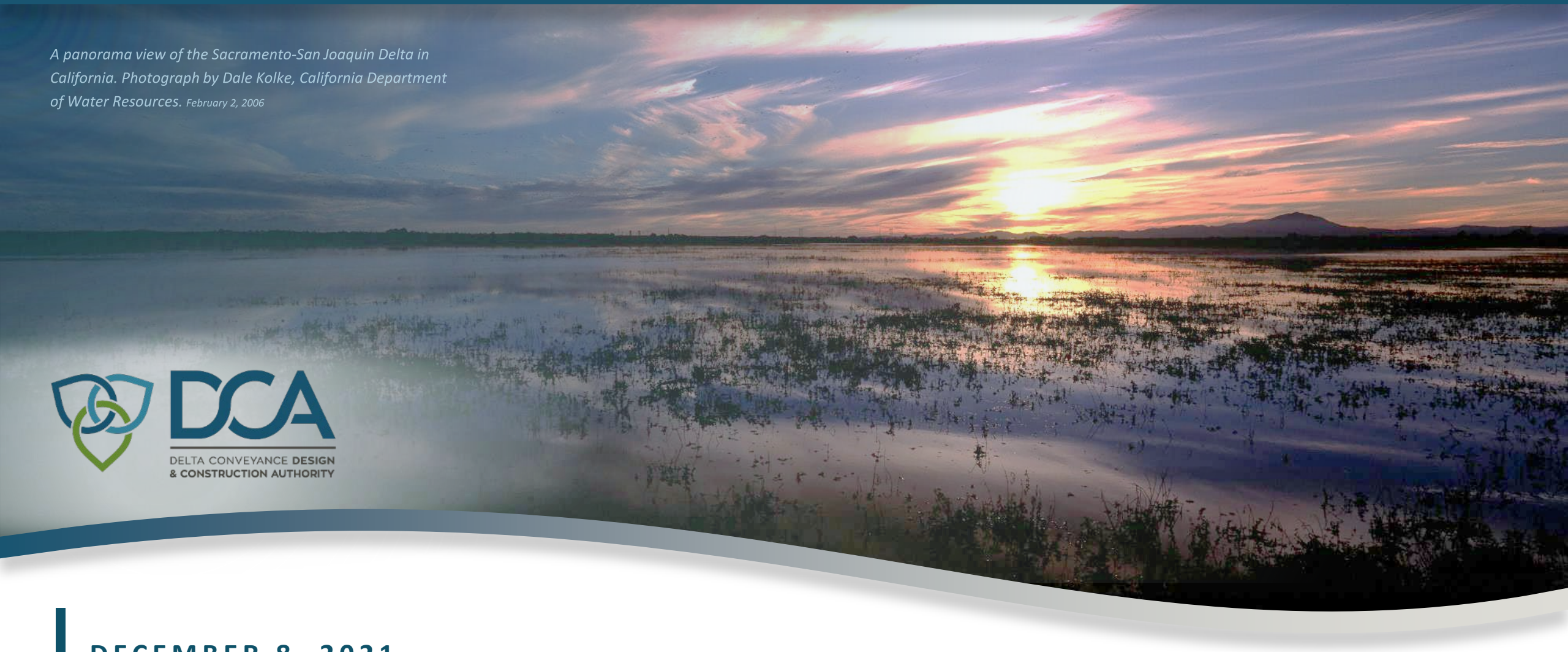


A panorama view of the Sacramento-San Joaquin Delta in California. Photograph by Dale Kolke, California Department of Water Resources. February 2, 2006

DELTA CONVEYANCE DESIGN & CONSTRUCTION AUTHORITY

DECEMBER 8, 2021

Stakeholder Engagement Committee Meeting

Meeting Agenda

1	**Welcome/ Call To Order**
2	***Roll Call***
3	***Minutes Review: September 22, 2021 Regular SEC Meeting***
4	***Updates & Committee Discussion***
	4a. DCA Review and Updates
	4b. DWR CEQA Status Update
	4c. SEC Questions or Comments on September 22nd Meeting Presentation
	4d. Public Comment on Item 4
5	***Presentations & Committee Discussion***
	5a. Updated Intake Conceptual Design
	5b. Overall Review of Conceptual Designs
	5c. Ongoing DCA Outreach Efforts
	5d. DWR Outreach Overview for 2022
	5e. Proposed SEC Sunset Process
	5f. Public Comment on Item 5
6	***Non-Agendized SEC Questions or Comments***
7	***Public Comment on Non-Agendized Items***

Item 3.

Minutes Review:

September 22, 2021
Regular SEC Meeting

Item 4a.

DCA Review and Updates

Item 4b.

DWR CEQA Status Update

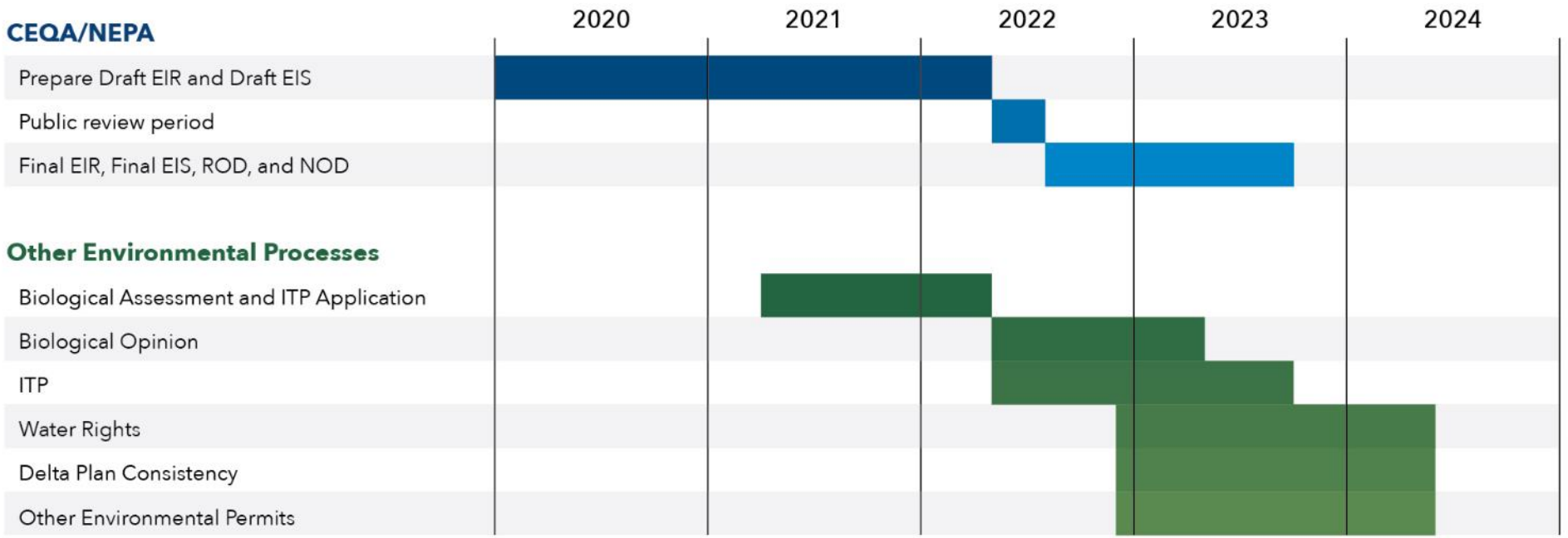
December 2021

Delta Conveyance Project: *Environmental Review Update*

Carrie Buckman
Environmental Program Manager

Current Project Schedule

Delta Conveyance Project Schedule



Environmental Planning Update

- California Environmental Quality Act (CEQA): technical studies, impact analysis, preparation of Draft EIR
- National Environmental Policy Act (NEPA): United States Army Corps of Engineers proceeding to develop EIS
- Soil Investigations: field work under Initial Study/Mitigated Negative Declaration on a winter break
- Section 404 of the Clean Water Act: proposed project amended to Bethany Alternative because it has fewer impacts to wetlands and waters

Item 4c.

SEC Questions or Comments on September 22nd Meeting Presentation

Agenda:

- *Air Quality Analysis Methods*
- *Ongoing Outreach Efforts*
- *Engineering Updates*

Item 4d.

Public Comment on Item 4

Item 5. Updates & Committee Discussion

a. Updated Intake Conceptual Design

b. Overall Review of Conceptual Designs

c. Ongoing DCA Outreach Efforts

d. DWR Outreach Overview for 2022

e. Proposed SEC Sunset Process

Item 5a.

Updated Intake Conceptual Design

Sacramento River Flood Model

Purpose: Assess if new intake structures could cause river levels to increase during flood conditions

HECRAS 2D Model

- Terrain surface
  - Sacramento River Bathymetry 2019 & CVFED LiDAR
- Sacramento River Reach: Sac R08 (~26-Mi)
  - Upstream Boundary at Confluence Sacramento & American Rivers
  - Downstream Boundary at Sutter Slough

DCP Features

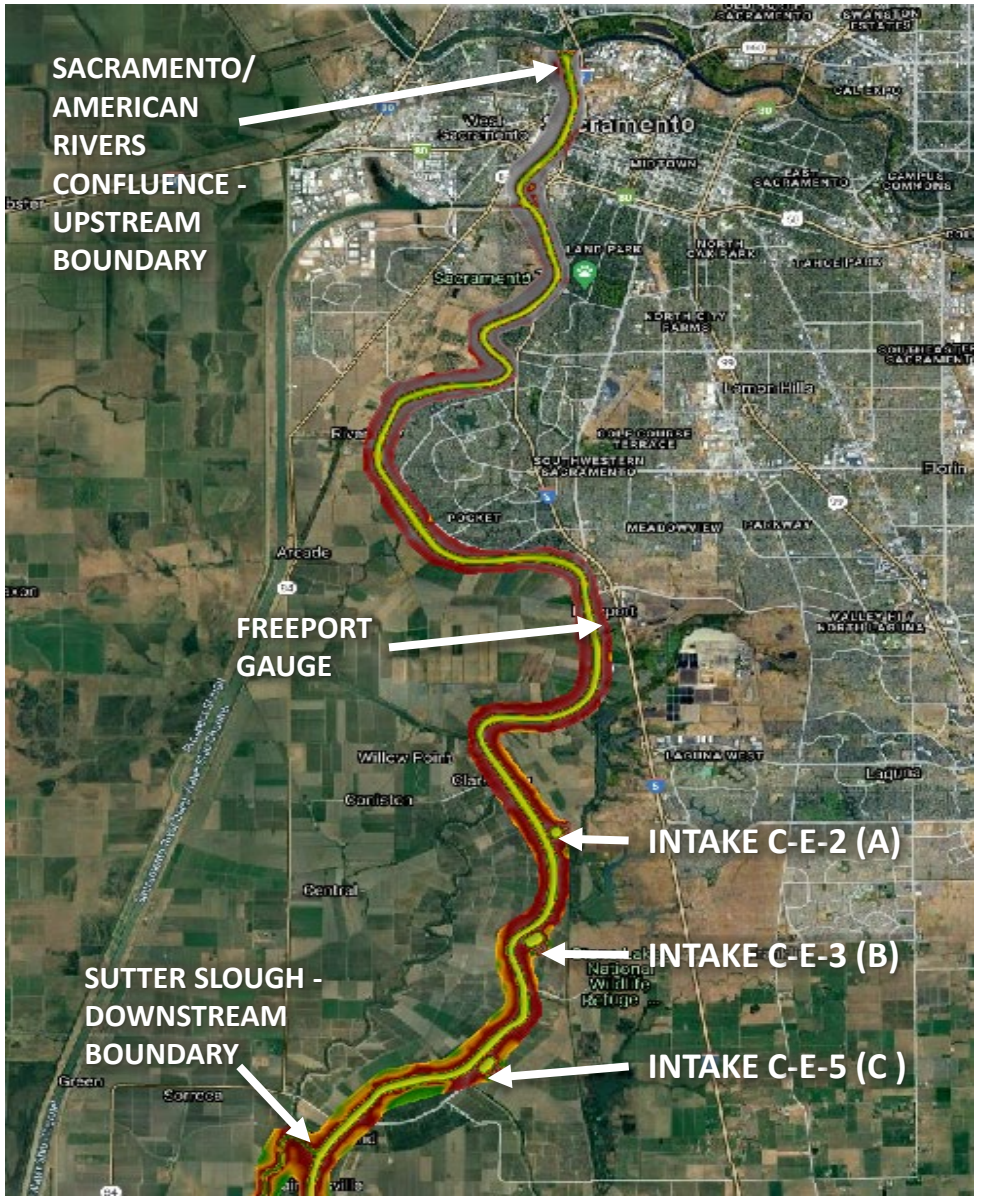
- Intake Structures
  - Cylindrical Tee Screen Configuration
  - Permanent and Construction Configurations

Flood Flow Scenarios

- USACE 1957 Design Flood Profile/Flow
- CVFPP 100/200-year Events
  - Existing and Future

Water Surface Increase Limitation Goal

- <0.1 Foot Maximum Increase in Water Surface Elevation
  - Based on Recommendations from USACE and CVFPB
  - Considered Insignificant Impact by USACE and CVFPB



Flood Modeling Conceptual Design Update

Compliance achieved for water surface increase < 0.1 foot

Compliance led to reduction in cofferdam size and moving intake structures back 15 feet landward versus the initial layout

- **Construction cofferdam was controlling case**
- **Permanent facility had even lower increase**

- **Intake structure change results:**
  - Nominally decreased sheet pile count (< 10 pairs/intake)
  - Increased excavation in river
  - Increased riprap placement in river

- **Increase excavation and riprap placement:**
  - Increase in barge trips
  - Previous estimate was 16 roundtrips per intake (3000 cfs capacity)
  - Two (2) barge roundtrips per day is unchanged
  - No barging on weekends is unchanged

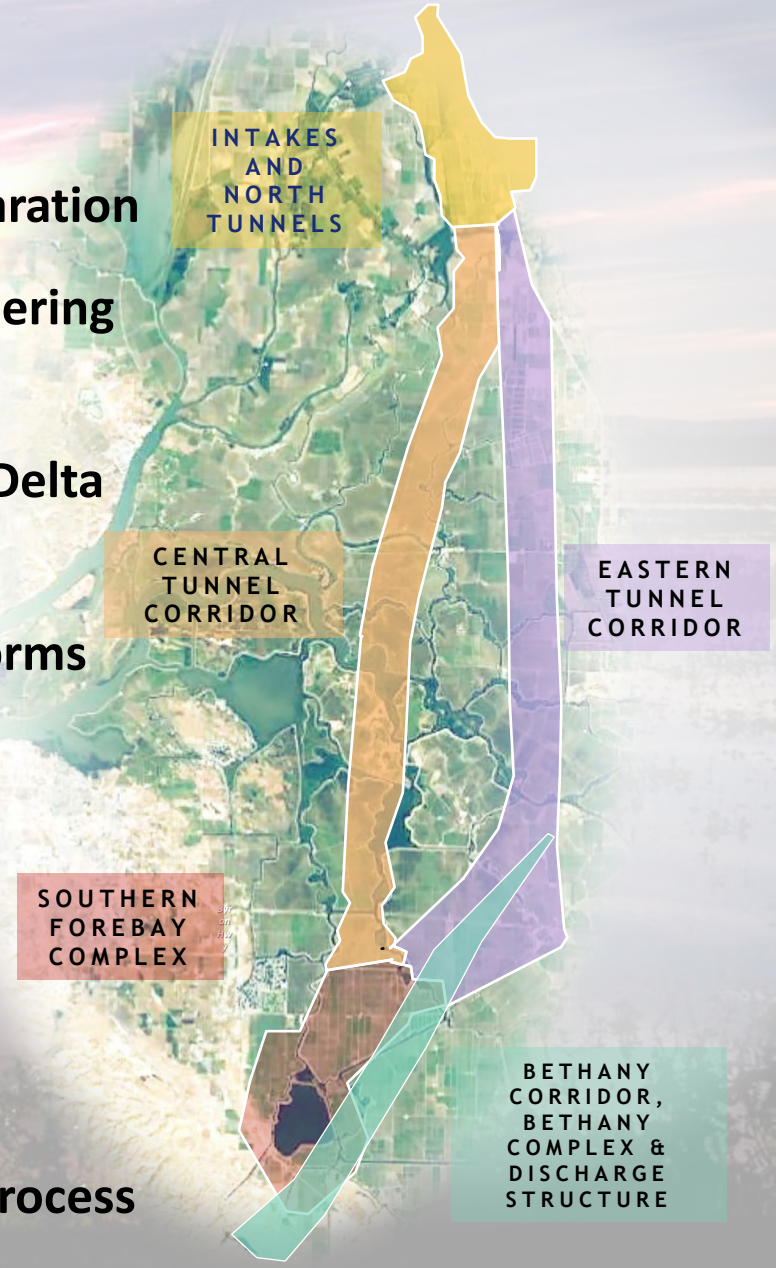
Intake	Intake C-E-2	Intake C-E-3	Intake C-E-5	
Design Capacity	1500 cfs	3000 cfs	1500 cfs	3000 cfs
Total Barge Roundtrips	21	47	27	34

Item 5b.

Overall Review of Conceptual Designs

Conceptual Design Objectives

- Work started with the proposed corridors included in the Notice of Preparation
- At DWR's request, DCA set out to develop conceptual designs and engineering information for CEQA analyses
- Conceptual designs would attempt to minimize effects of the project on Delta communities and terrestrial and aquatic habitats
- Develop conceptual designs that reflect community input, through platforms such as the SEC and community meetings, with emphasis placed on:
  - Siting of facilities
  - Better understanding potential traffic and waterway effects
  - Reducing construction-related effects
  - Minimize disturbance to existing lands used for farming, wildlife habitats, communities, etc.
- Focus on engagement and transparency through the conceptual design process



Implementation of the Stakeholder Engagement Committee

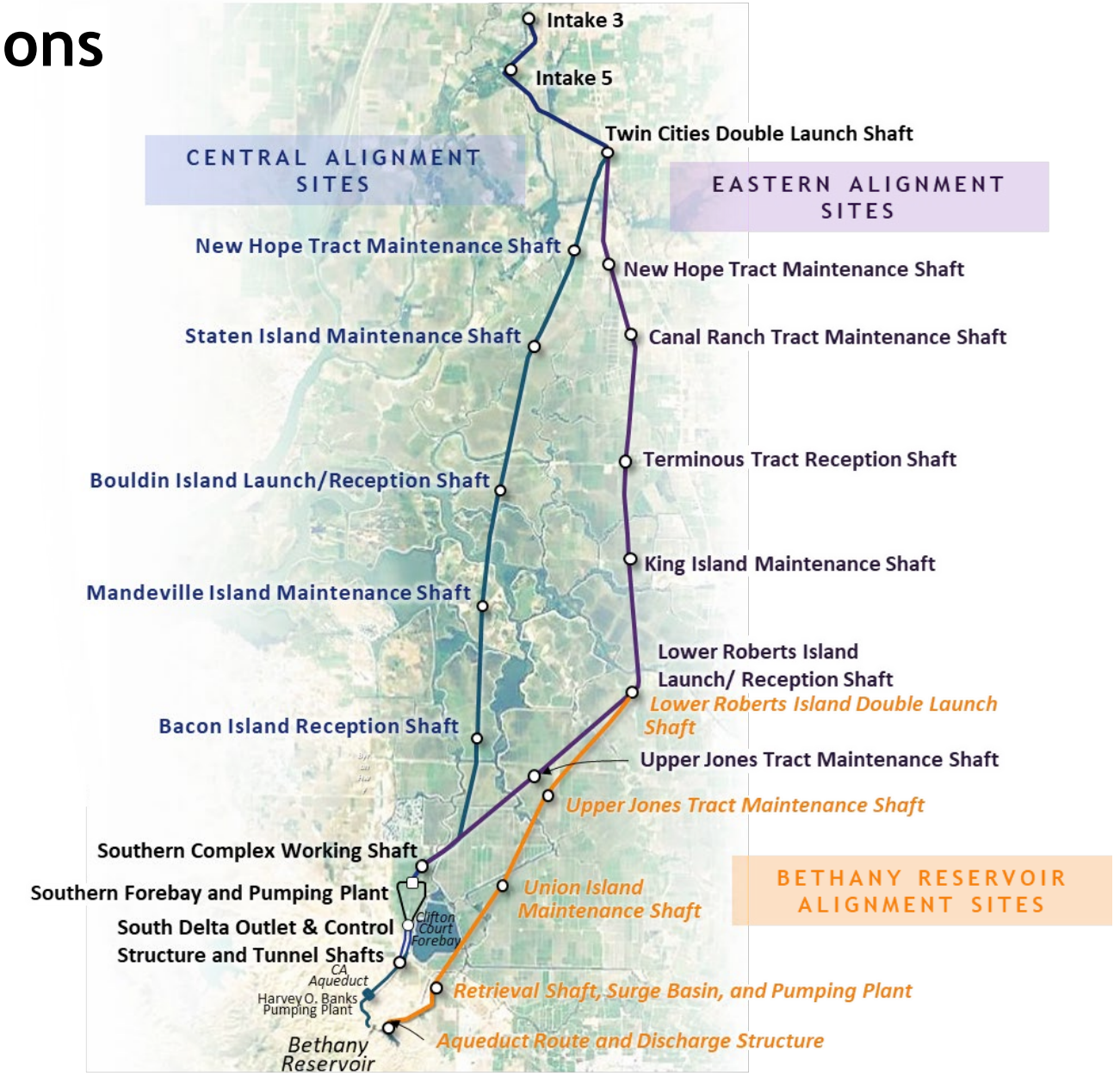
- The DCA Board unanimously approved Resolution No. 19-12 on September 19, 2019, which outlined the SEC's purpose, scope, and membership.
- Up to 20 Committee Members participated in the SEC
- Represent wide array of interests and geographies
- DCA Board Representatives
  - Chair Sarah Palmer
  - Vice Chair Barbara Keegan
- 19 SEC Committee Meetings
- November 2019 thru December 2021
- Over 65 agendized SEC presentations

The SEC represented a wide array of interests and geographies in the following 18 areas:

- Agriculture
- Recreation
- Sports Fishing
- Environmental NGO - Terrestrial
- Environmental NGO - Aquatic
- Environmental Justice
- North Delta Local Business
- South Delta Local Business
- Delta History & Heritage
- Tribal Government Representative
- Delta Water District
- At Large – Yolo County
- At Large – Solano County
- At large – San Joaquin County
- At Large – Sacramento County
- At Large – Contra Costa County
- Public Safety
- Ex-Officio

SEC Conceptual Design Presentations

- Introduction to the Proposed Delta Conveyance System
- Detailed review of key project elements:
  - Intakes
  - Tunnel and Shafts
  - Southern Facilities
  - Bethany Complex
- Siting Alternative Studies
- Construction Footprints
- Logistics and Traffic
  - Proposed roads, barge landings and rail spurs
  - Routes to each site
- RTM Management
- Ongoing design changes

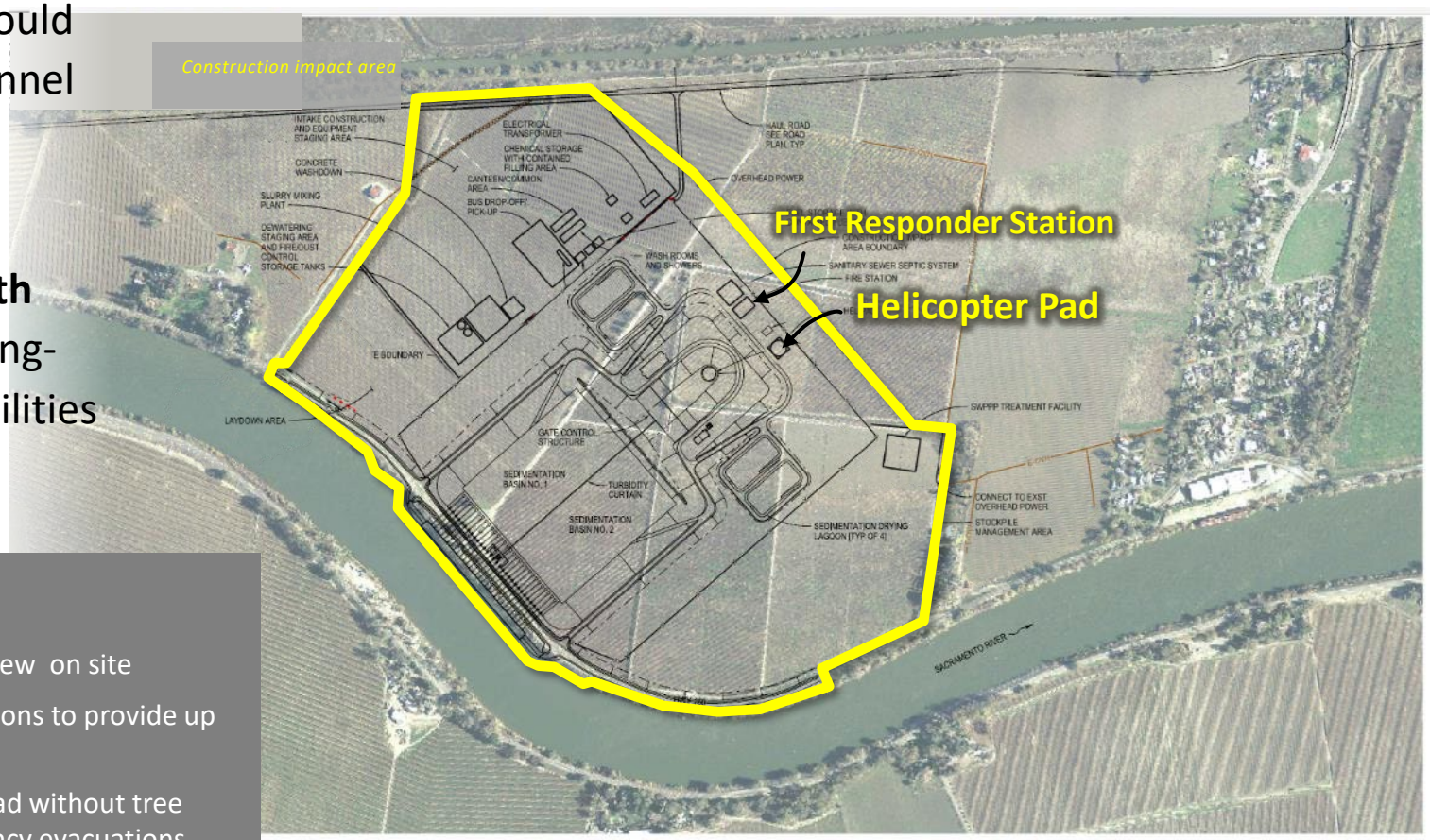


Summary of Conceptual Design Efforts to Minimize Community Effects

1	Avoid increasing demand for existing emergency services in the Delta
2	Manage flood risks to the project facilities and existing land uses
3	Manage seismic risks to people and property
4	Minimize activities that produce noise, dust, greenhouse gas emissions, traffic, and land use disturbances
5	Minimize construction effects to existing infrastructure or other community resources
6	Minimize construction traffic and associated effects
7	Minimize disturbance to existing land uses, including agricultural land, residences, and wildlife habitat
8	Minimize disturbance to sensitive wildlife and protected habitat areas
9	Minimize effects on Delta water-based recreation and navigation
10	Minimize noise during construction and operations

1 Avoid increasing demand for existing emergency services in the Delta

- **Emergency response facilities** would be constructed at the intakes, tunnel launch shaft sites, Southern Complex/Bethany Complex
- **Facilities could be developed with communities** to increase their long-term emergency response capabilities



Intake 3 (B)

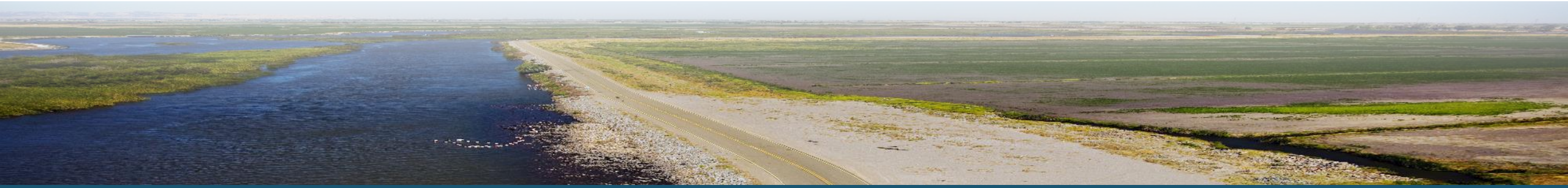
Ambulance, Recue Boat, Fire Truck and crew on site

Fire Water On-site storage at 300,000 gallons to provide up to 2,500 gallons/minute for 2 hours

Space for a 60-foot diameter paved helipad without tree coverage would only be used for emergency evacuations

2 Manage flood risks to the project facilities and existing land uses

- Design **all project facilities for 200-year flood elevation** with Sea Level Rise and Climate Change projected for year 2100
- Provide **structural and non-structural flood risk mitigations** throughout the project
- **Avoid use of levee roads** for heavy construction traffic and maintain setback from existing levees for fill placement
- **Maintain Sacramento River flood management criteria** at the intakes
  - Intake structure would be positioned to limit increase of maximum water surface elevation
  - Provide continuous flood protection during construction
- Design Southern Forebay/Bethany Discharge Structure to **CA Division of Safety of Dams standards**

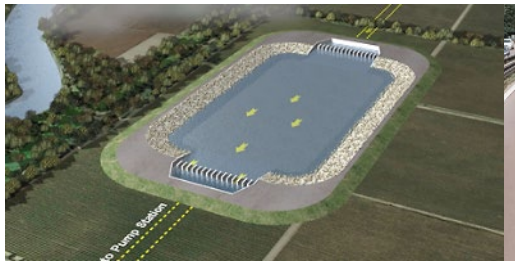


3 Manage seismic risks to people and property

- **Use seismic design criteria** specialized to relevant features of the project
- Consider the West Tracy Fault, Bethany Fault, and **soil conditions in facility siting**
- **Enhanced ground improvement** for intakes and Southern Forebay for soft/loose ground
- **Use tunnels to deliver water from Southern Forebay** to existing Banks Pumping Plant approach channel

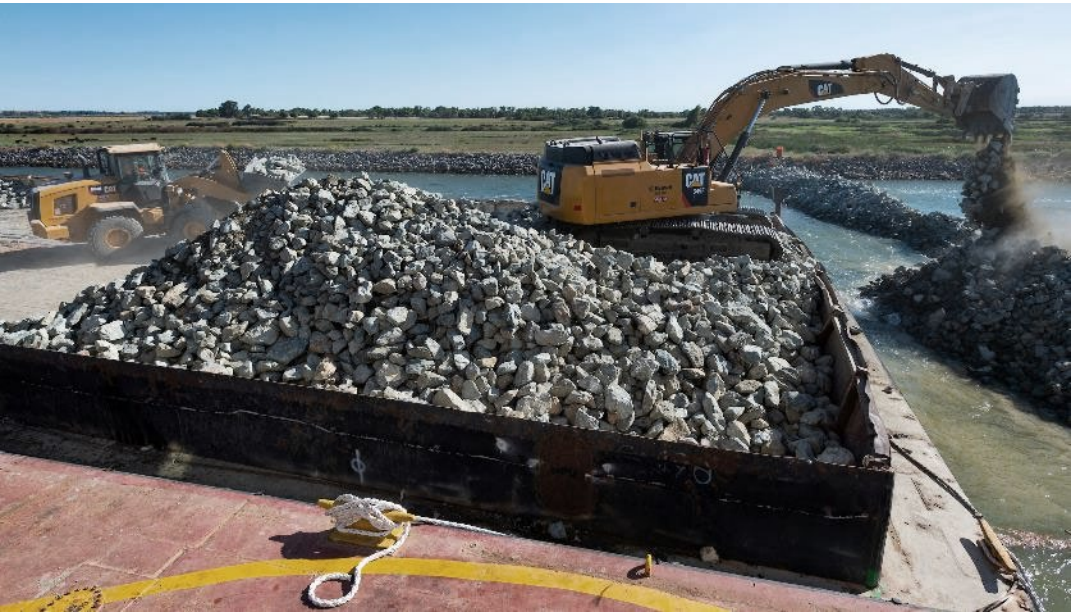
https://www.raitoinc.com/technologies/multi-auger-soil-mixing/

4 Minimize activities that produce noise, dust, greenhouse gas emissions (GHG), traffic, and land use disturbances




NOISE	DUST	GHG	TRAFFIC	LAND USE DISTURBANCES
■ Minimize the use of impact pile driving at intakes	■ ■ ■ ■ Do not launch TBMs from intakes	■ ■ ■ ■ ■ Reduce tunnel shaft pad area and height		
■ Minimize nighttime construction	■ ■ ■ ■ ■ Manufacture precast tunnel liner segments offsite	■ ■ ■ ■ ■ Facilitate RTM reuse		
■ ■ ■ Pave access roads, cover stockpiles, and use enclosures	■ ■ ■ ■ ■ Consider access requirements as part of siting	■ ■ ■ ■ ■ Eliminate the Intermediate Forebay		
■ ■ ■ ■ No concrete batch plants at intakes	■ ■ ■ ■ ■ Balance soil excavation and fill needs with onsite soil material sources and RTM	■ ■ ■ ■ ■ Reduce the number of shafts		
		■ ■ ■ ■ ■ Consider soil conditions in siting to minimize ground improvement		

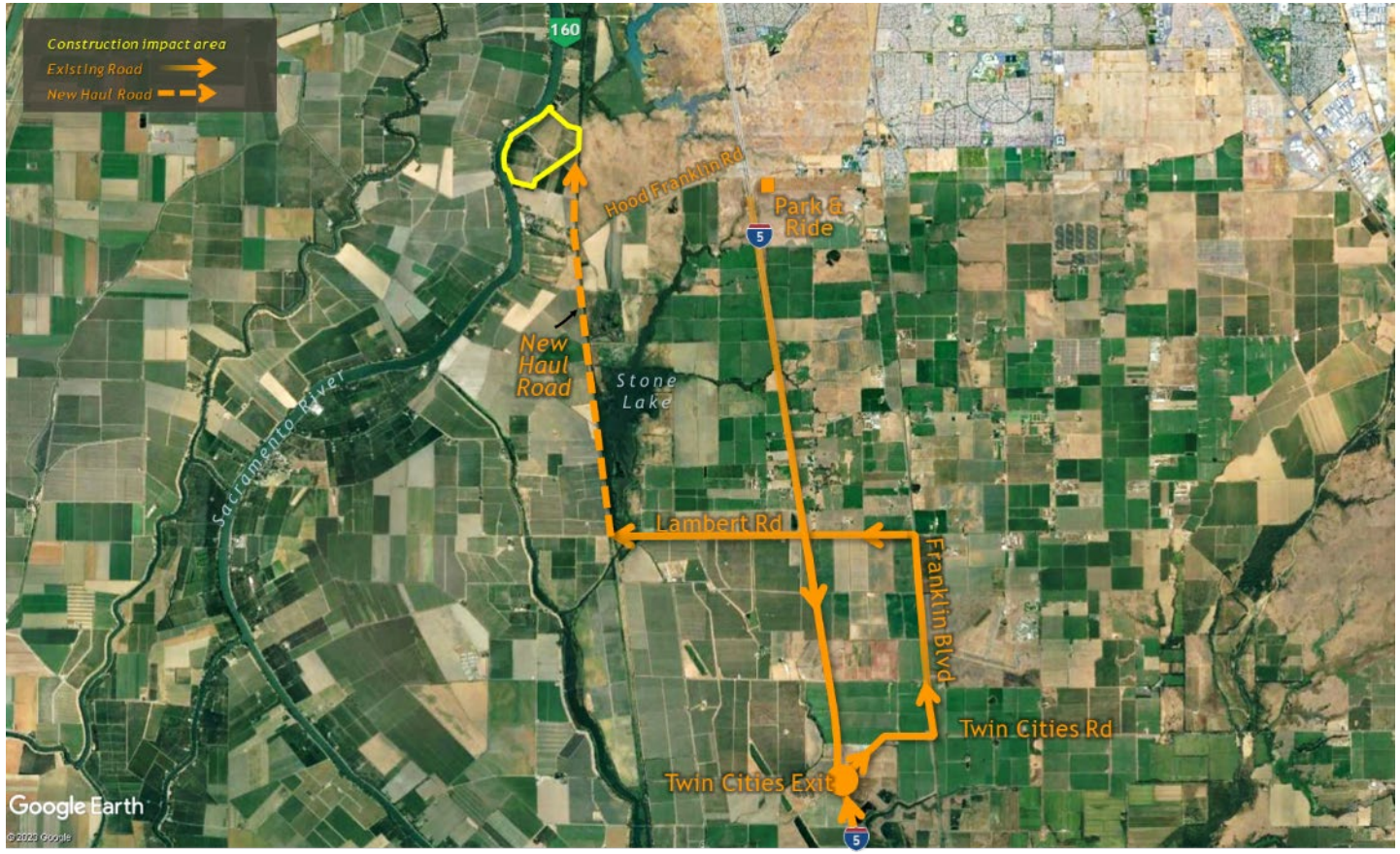
5 Minimize construction effects to existing infrastructure or other community resources



- **Use tunnels to deliver water from Southern Forebay** to existing Banks Pumping Plant approach channel
- **Consider existing infrastructure** as part of facility siting
- **Use cutoff walls** to minimize effects on groundwater during construction and operations
- **Treat and reuse water** generated during construction activities
- **Maintain irrigation and drainage systems** for areas surrounding project sites

6 Minimize construction traffic and associated effects

- **Limit routes** used for construction traffic:
  - Limited construction traffic allowed on SR 160 and SR 4
  - Worker shuttle buses on Hood-Franklin Rd
  - Limited Construction traffic in Solano and Yolo County
- **Construct park and ride lots** to facilitate employee carpools and truck staging areas
- **Develop designated access routes** and construct new dedicated haul roads
- **Develop rail depots** to transport bulk materials from select sites



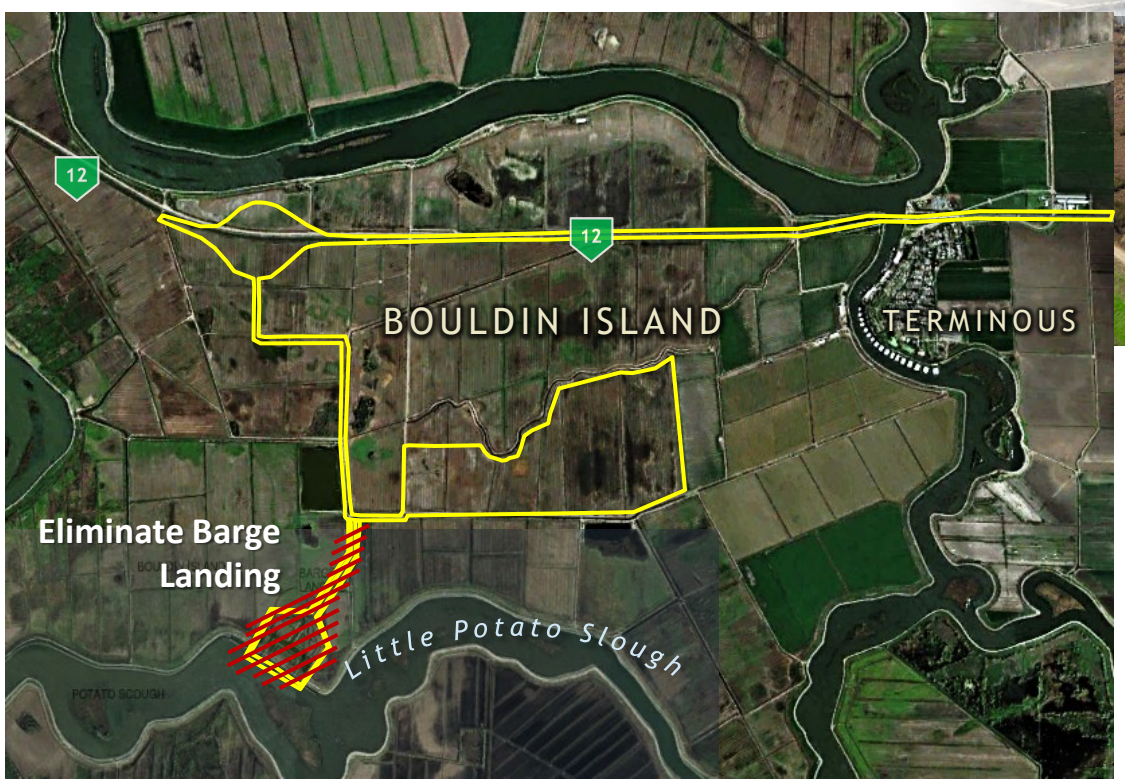
7 Minimize disturbance to existing land uses, including agricultural land, residences, and wildlife habitat

- **Use tunnels to deliver water from Southern Forebay** to existing Banks Pumping Plant approach channel
- **Use cylindrical tee screens** at the intakes
- Consider existing structures, number of ag parcels, and nearby communities as part of **facility siting**
- **Minimize nighttime construction** disturbance
- Include plans for **post-construction reclamation of agricultural land** disturbed during construction
- **Maintain irrigation and drainage systems** for areas surrounding project sites

8 Minimize disturbance to sensitive wildlife and protected habitat areas

- Implement strategies to **minimize effects on** Stone Lakes National Wildlife Refuge, Woodbridge Ecological Reserve, and other **protected areas**
- **Consider greater sandhill cranes** in facility siting and power line alignments
- **Reroute and realign facilities** to avoid wetlands
- **Avoid conservation easements** in siting of key features
- **Limit barge use** for project construction
- **Use tunnels to deliver water from Southern Forebay** to existing Banks Pumping Plant approach channel

9 Minimize effects on Delta water-based recreation and navigation



https://marinas.com/view/marina/8qc5n5_Windmill_Cove_Resort_and_Marina_Stockton_CA_United_States

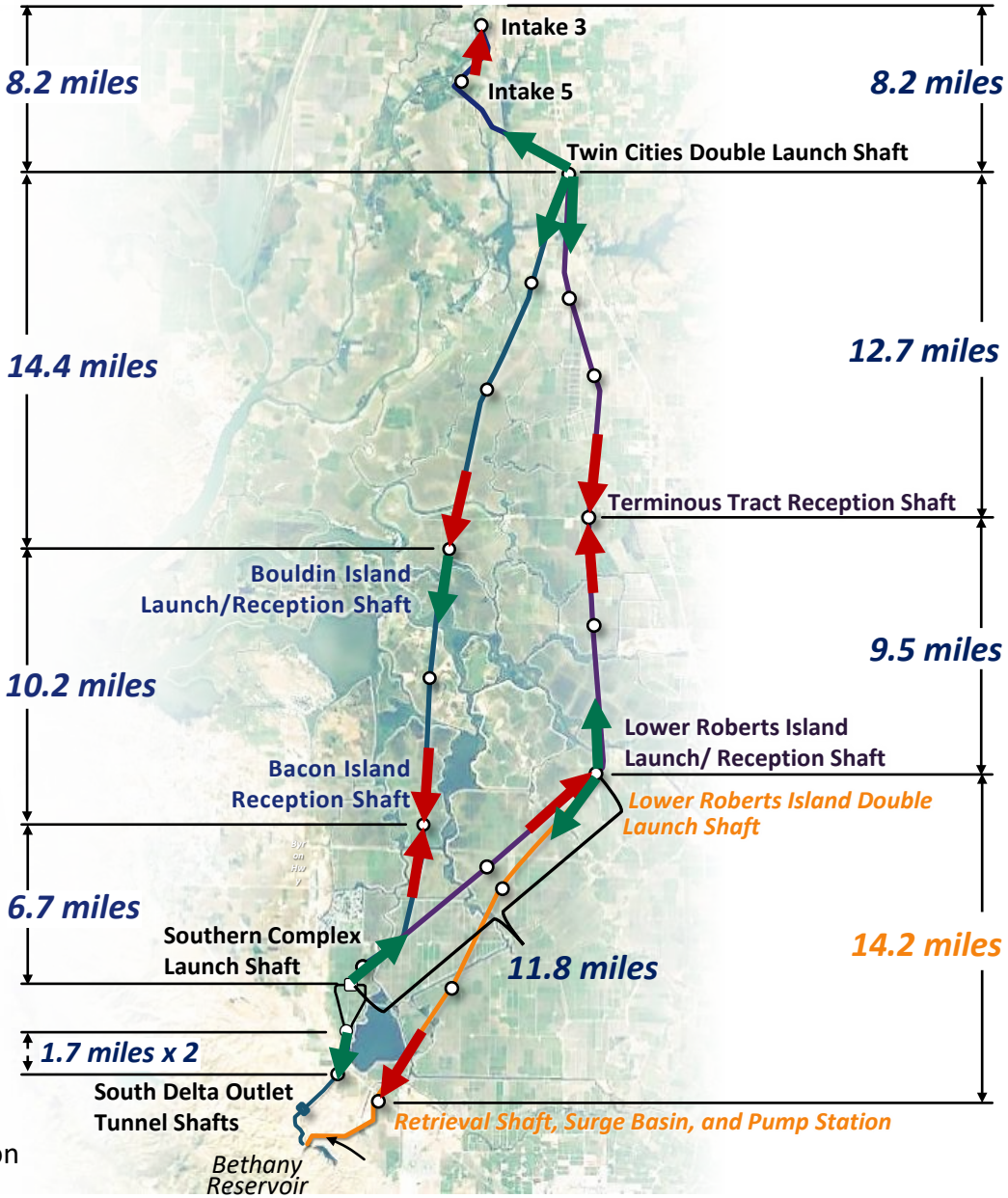
- **Limit barge use** for project construction to Intakes only
- **No barge landings**
- **Reconfigure the Lower Roberts Island shaft site** access road to be further away from Windmill Cove Marina

10 Minimize noise during construction and operations

- **Use cylindrical tee screens** at the intakes
- **Include noise reduction methods**
  - use noise-limiting enclosures
  - locate fans/ductwork inside buildings rather than on exterior
  - enclose RTM dryers and portions of concrete batch plants
  - use temporary sound barriers and shrouds during construction
- **Minimize nighttime construction** disturbance

Current Project Review

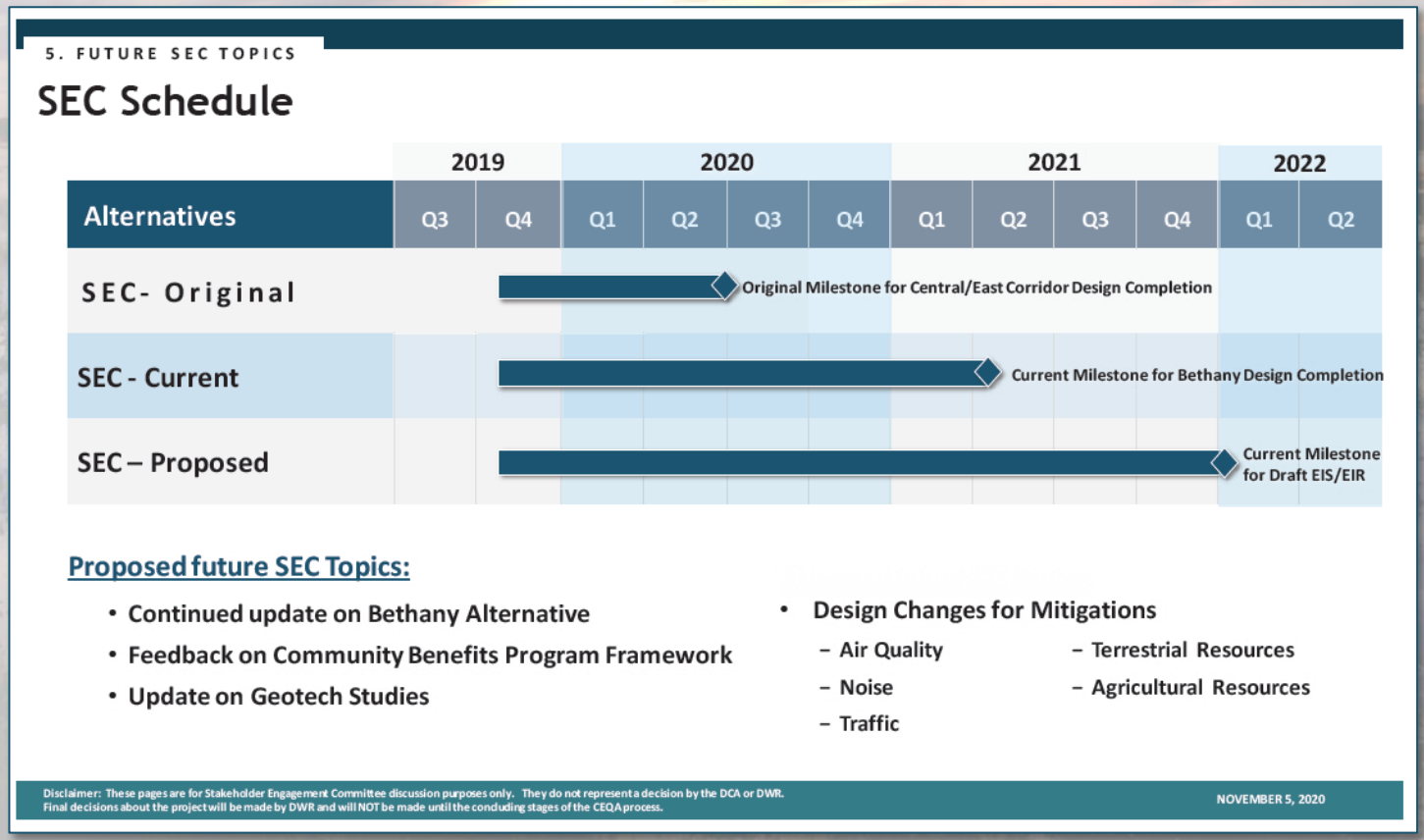
- **Intakes: All alignments use same northern facilities; # of intakes varies depending on capacity (6,000 cfs shown)**
- **Main Tunnel Shafts:**
  - **Central: 3 Launch Shafts (1 double + 2 singles), 3 Maintenance Shafts, and 3 Reception Shafts**
  - **Eastern: 3 Launch Shafts (1 double + 2 singles), 4 Maintenance Shafts, and 3 Reception Shafts**
  - **Bethany: 2 Launch Shafts (2 doubles), 5 Maintenance Shafts, and 3 Reception Shafts**
- **Tunnel Drive Distances:**
  - **Central: 42.9 miles**
  - **Eastern: 45.6 miles**
  - **Bethany: 44.6 miles**
- **South Delta Connections:**
  - **Central/Eastern connects to SWP upstream of Banks PP; requires add'l tunnels and shafts to connect from Southern Forebay**
  - **Bethany requires 3 miles of aqueduct pipelines (# of pipelines varies by capacity) and discharge structure directly into Bethany Reservoir**



Key Takeaways from Conceptual Design Process

- DCA completed conceptual designs for Central, Eastern and Bethany alignments in 2021
- Extended SEC through 2021 to provide design updates
- SEC provided forum for valuable input and dialogue about Delta issues/concerns

Image from November 2020 SEC meeting noting intention to extend to end of 2021




Questions?

Item 5c.

Ongoing DCA Outreach Efforts

DCA Outreach and Engagement Next Steps

- **Continue to expand access to current engineering information**
  - **Community Engineering Briefings**
  - **Local library materials distribution**
  - **Expanded access to Virtual Tours**
- **Support DWR outreach and engagement efforts**

WAYS TO STAY INFORMED

Web
- water.ca.gov/deltaconveyance
- dcdca.org

Project Hotline
866.924.9955

DWR Twitter
@CA_DWR

DCA Twitter
@dcdcainfo

Email
DWR: DeltaConveyance@water.ca.gov
DCA: info@dcdca.org


Questions?

Item 5d.

DWR Outreach Overview for 2022

December 2021

Delta Conveyance Project
2022 Public Outreach & Community Engagement

Janet Barbieri
Communications Manager

Public outreach in 2022 will focus on the release of the Draft Environmental Impact Report (DEIR)

Public Information

Provide informational resources to help the public review, understand and react to the DEIR.

Public Outreach + Engagement

Proactive outreach to inform and engage, and encourage and assist in participation.

Public Participation + Notification

Provide meaningful opportunities to access public review documents and respond through formal public input processes.

PUBLIC INFORMATION

Timing: Before and after release of the DEIR

Progress & Planning	**2021 Progress Report, 2022 outreach engagement plan and blog**
How to Participate in DEIR Public Review Process / What to Expect	**Blogs, short video series, fact sheets, FAQ's**
Project Purpose / Need / Details	**Story Map, deep dive videos, stakeholder toolkits, graphic series**
Ongoing / General	**Videos, website updates, fact sheets, graphics, social media, FAQs, eBlasts**

PUBLIC OUTREACH + ENGAGEMENT

Timing: Before and after release of the DEIR

Audiences

- Tribes (AB 52 & non-AB 52) & Tribal Communities
- EJ Communities
- Local Communities
- Statewide Orgs
- SWP Service Area Orgs
- Public Water Agency Boards
- State, Local Electeds and Orgs
- NGOs

Types

- Calls and Emails
- Briefings/Presentations
- Community Events
- Meetings
- Conferences
- Tabling

PUBLIC PARTICIPATION + NOTIFICATION

Timing: After release of the DEIR; public review and comment

Public Meetings	**Virtual Public Meetings**
Public Comment Period	**Comment submittal: online (dedicated email, website comment form), mail, meetings. Questions/additional information & clarification: facilitate two-way interactions with technical experts**
Notification	**Letters, eBlasts, newspaper ads, flyers, postcards, website, social media, stakeholder outreach**
Document Access	**Website, companion materials**
Distribution/Availability	**Flash drives, website, libraries, translations, ADA accessible**

ONGOING ACTIVITIES

Timing: Ongoing

Community Benefits Program

1. Information sharing, including events and materials
2. Information gathering, including public and small group meetings and workshops
3. DEIR-specific

Environmental Justice & Disadvantaged Community Outreach

1. Continued and proactive engagement with EJ/DAC communities
2. DEIR-specific
3. Public participation for the DEIR designed to be responsive to EJ needs
4. Incorporate outreach best practices and lessons learned

Tribal Consultation & Outreach

1. Formal consultation
2. DEIR-specific
3. Informal outreach and discussions
4. Tribal Engagement Committee
5. Annual Tribal Informational Meeting
6. Assist with federal process Tribal outreach, as appropriate

Agency Coordination

1. Ongoing collaboration with various federal and state regulatory agencies
2. Engage with agencies for processes already in motion and initiate contact when appropriate for upcoming actions

Questions?


Questions?

Item 5e.

Proposed SEC Sunset Process


Questions?

Item 5f.

Public Comment on Item 5

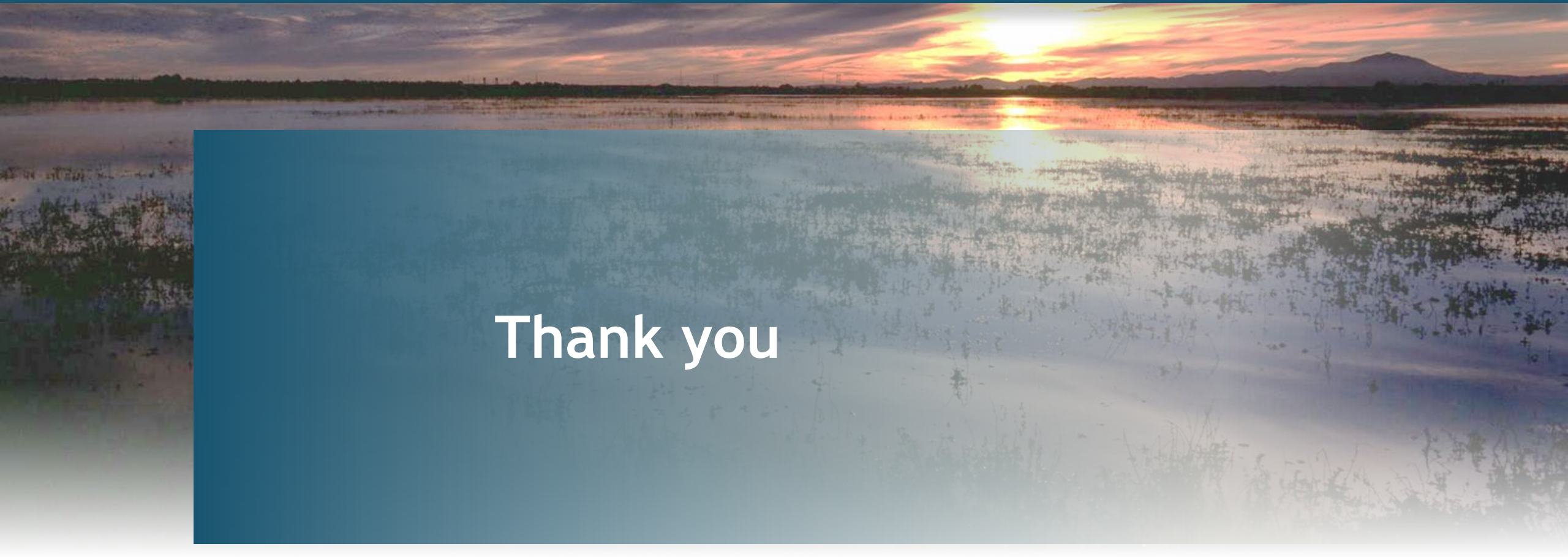
Item 6.

Non-Agendized SEC Questions or Comments

Item 7.

Public Comment on Non-Agendized Items

Questions?



Thank you