

Update on Sacramento-San Joaquin Delta and the Delta Counties Coalition

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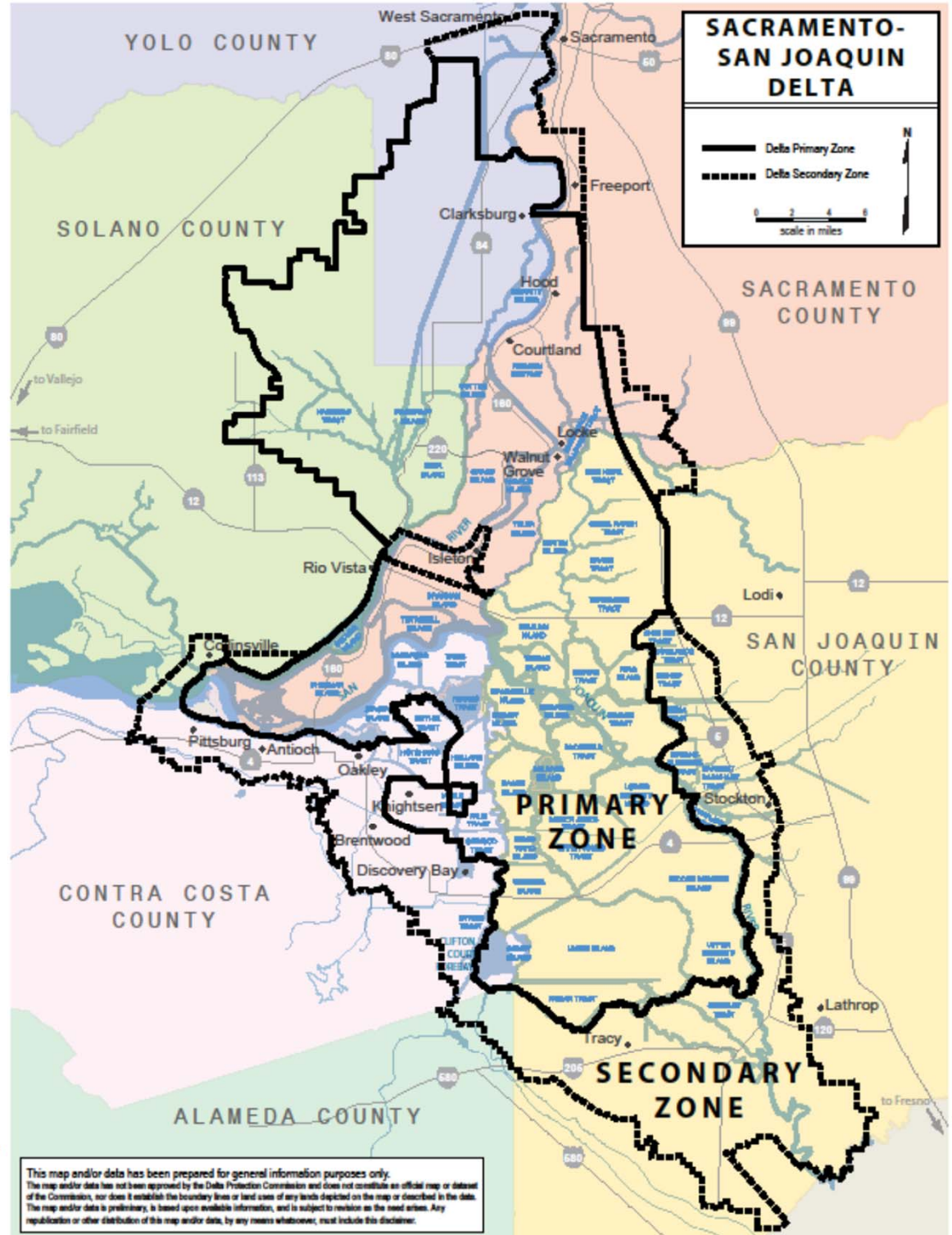
April 26, 2022
Contra Costa County Board of Supervisors



Presentation Outline

- Delta Counties Coalition
 - Priorities
 - Advocacy and Recent Congressional Tour
- Sacramento and San Joaquin River Flows
- Delta Tunnel Project
 - Bethany Alternative
- Water Quality, Salinity and Drought

Sacramento-San Joaquin Delta



April 26, 2022

Delta Counties Coalition



**Contra Costa - Sacramento - San Joaquin
Solano - Yolo**

2022 DCC Strategic Priority Goals

- #1** Ensure the health and sustainability of the Delta and its communities.
- #2** Advocate for improved water quality and Delta ecosystem while also being practical about the responsibility to provide reliable water supply for the State.

DCC Advocacy



Sacramento to Washington, DC - Local, State and Federal



Congressional Tour

April 6, 2022



April 26, 2022

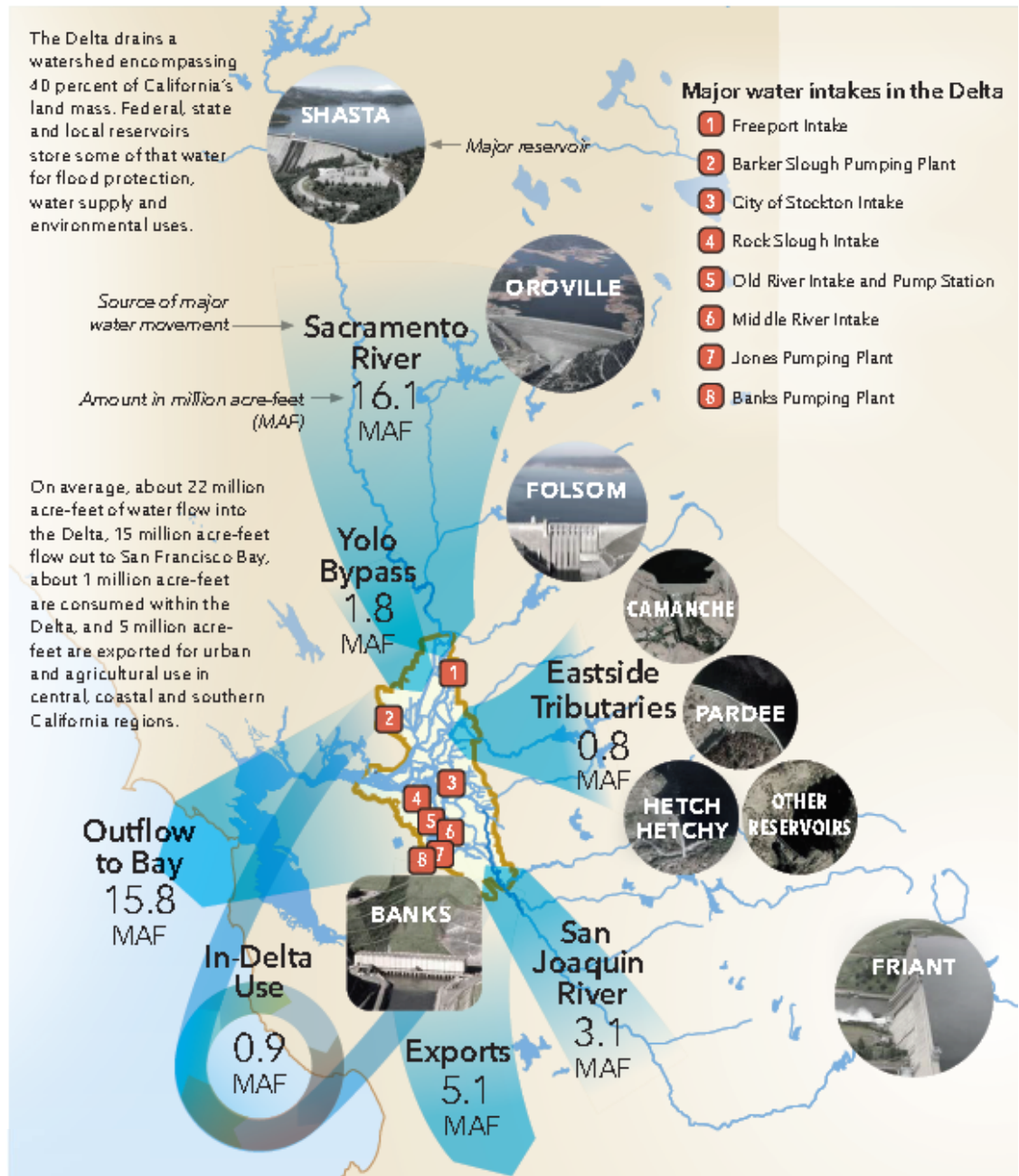
Flows and Water Quality

Average Annual Flows Utilized and Routed Through Delta

- 21.8 MAF Inflow
- 15.8 MAF Outflow to Bay
- 0.9 MAF In-Delta Use
- 5.1 MAF Avail. for Exports

Source: California Water Resilience Portfolio – July 2020

Note: During Drought Conditions Delta Inflow Values are Substantially Reduced in Comparison to Reductions of Delta Exports

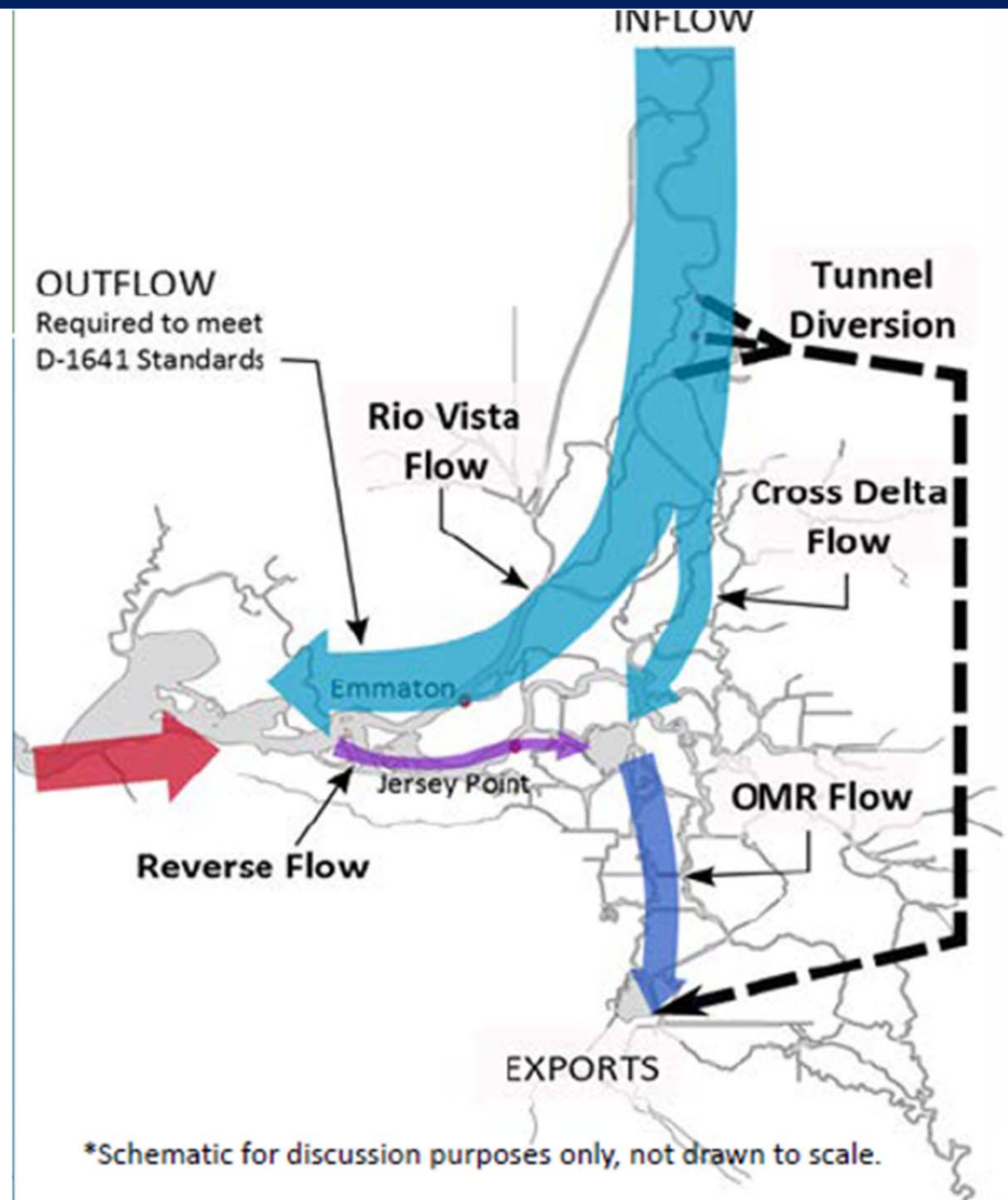


What is the Delta Tunnel?

The Delta tunnel project is the latest version of a massive State water infrastructure project that would divert water around the Delta.

Previous names and programs associated with the concept include:

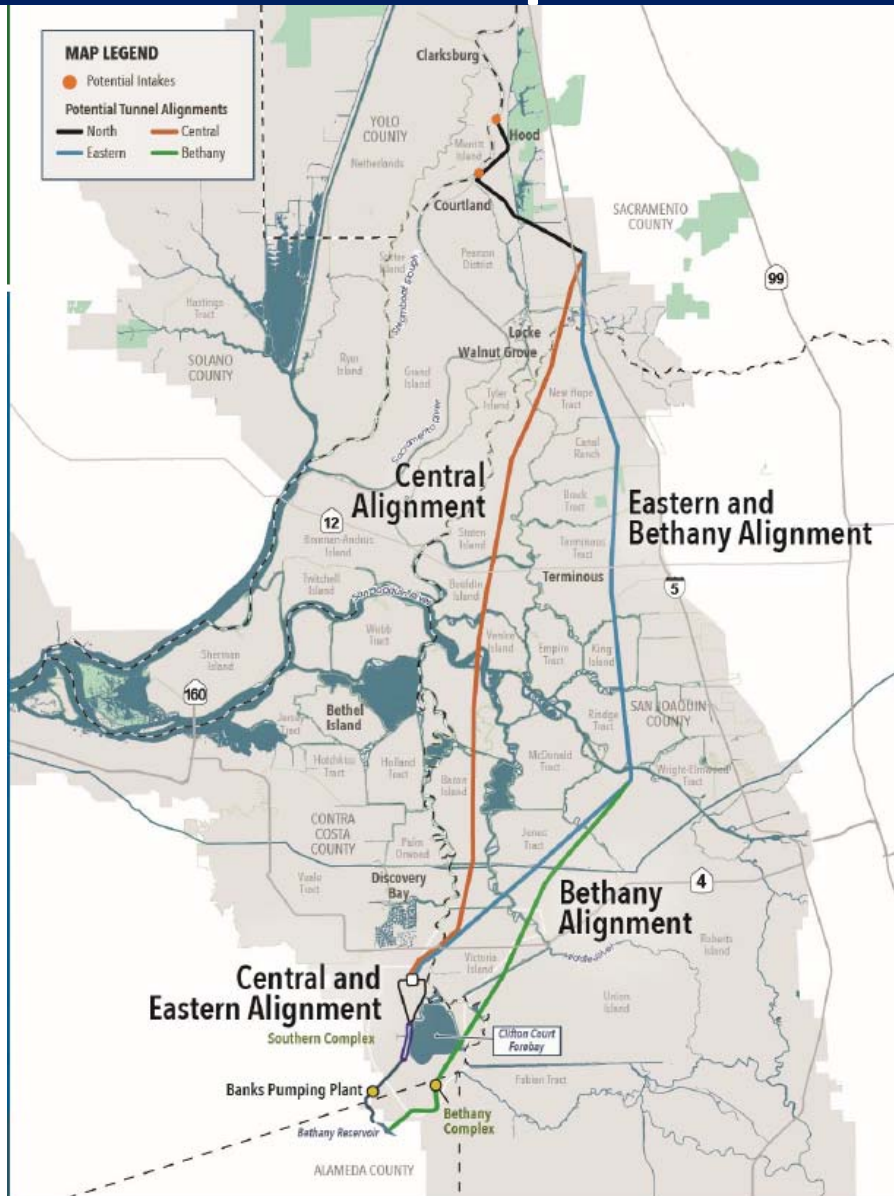
- Peripheral Canal (1940-1982)
- CALFED (1990-2000)
- Bay Delta Conservation Plan (2008-2014)
- California WaterFix (2015-2019)
- Delta Conveyance Project (Current)



Keep Water Flowing Through the Delta

- Isolated conveyance (tunnel) is a threat
- Tunnel takes fresh water out of the Delta bypassing the ecosystem, so less water goes through the Delta
- Export water quality (WQ) improves at the expense of water quality for those who live and work in the Delta

Possible Tunnel Routes Considered by the CA Department of Water Resources



Project would include:

- Two 3,000 cubic feet per second intakes at Hood and Courtland (each almost 1 mile long)
- 40+ miles of 40' in diameter tunnel buried 150 feet down
- 14 years of construction
- Heavy truck trips on I-5 and local roads (200,000+ truck trips)

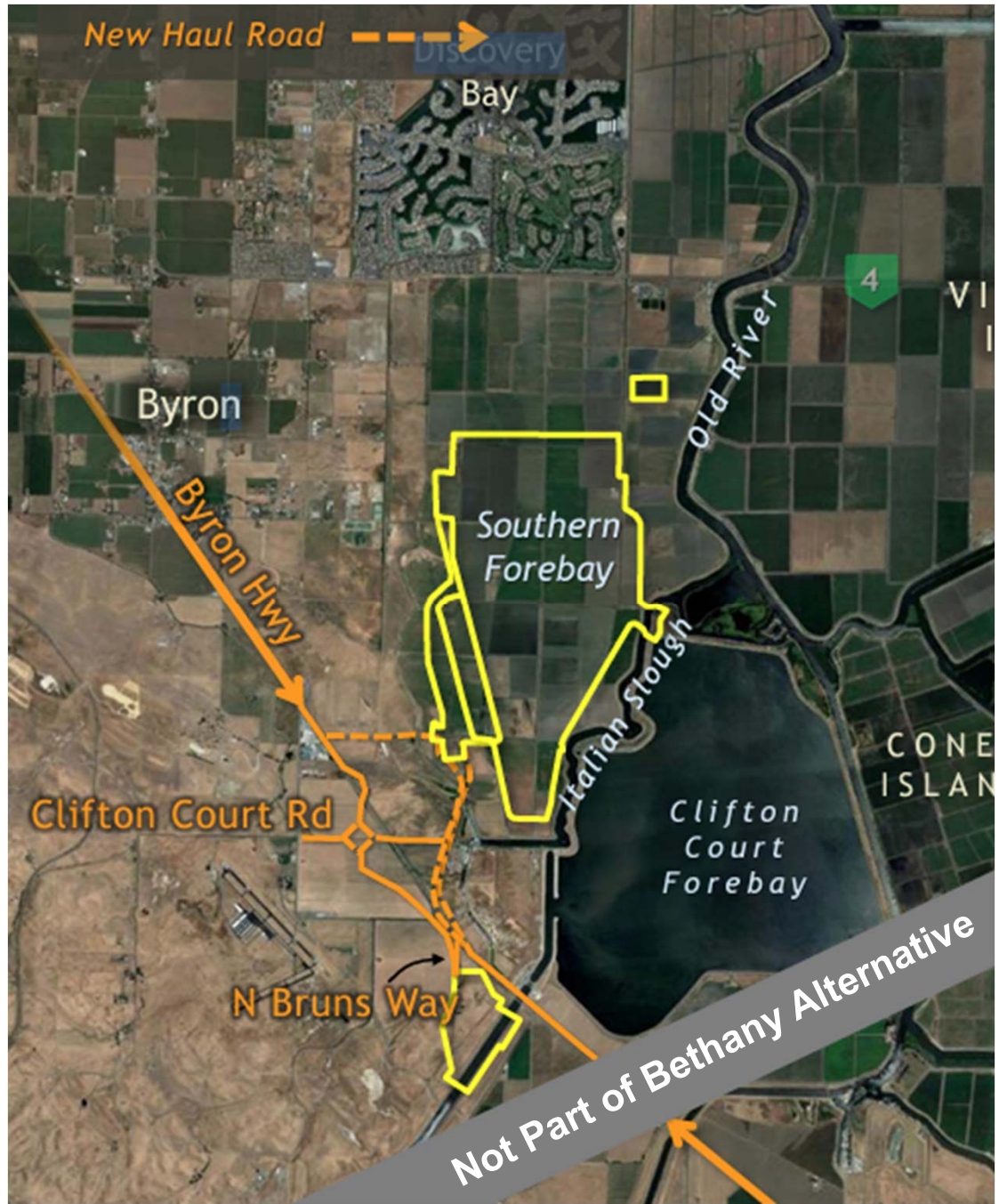
Project does not include:

- Any local benefits (e.g., water supplies)

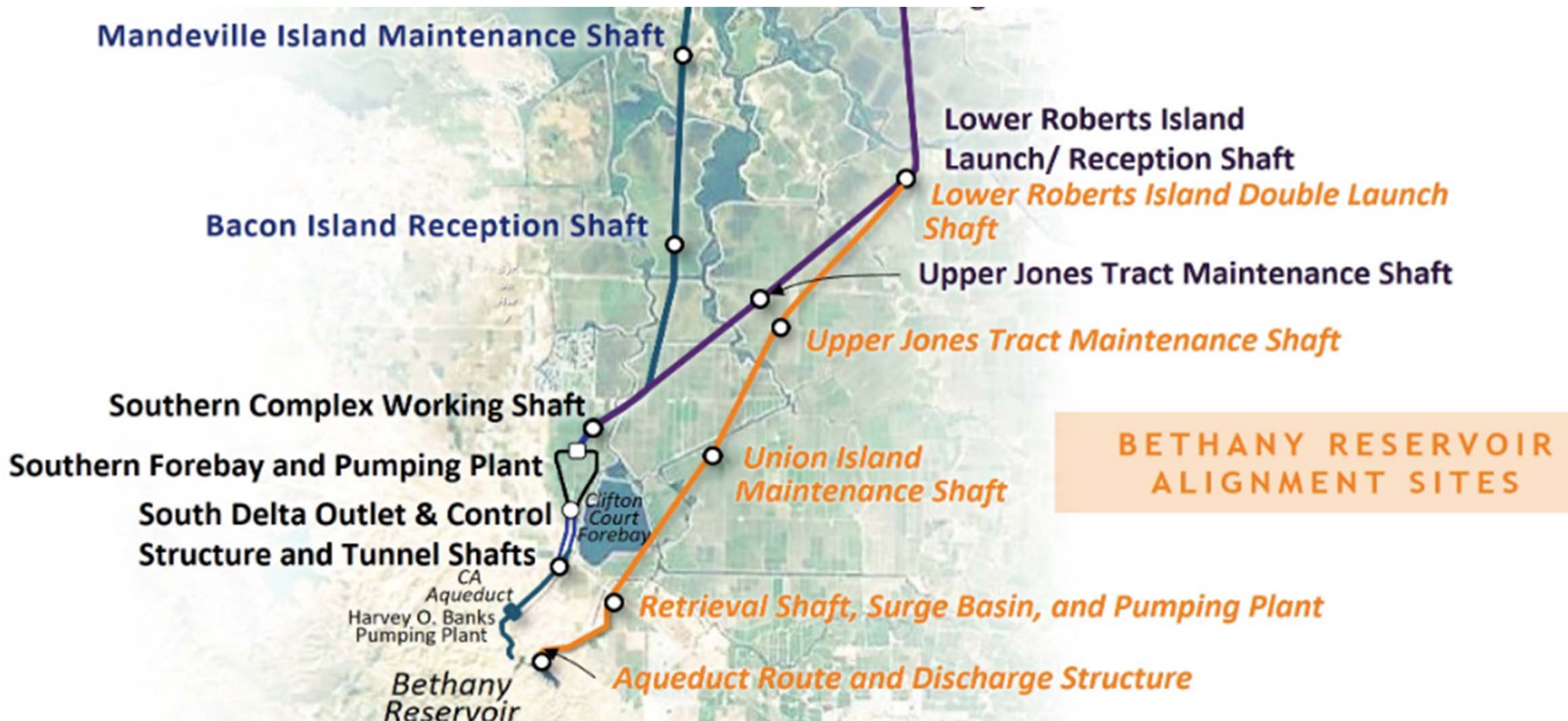
Cost:

\$16 billion +

Southern Forebay Central- Eastern Alternative



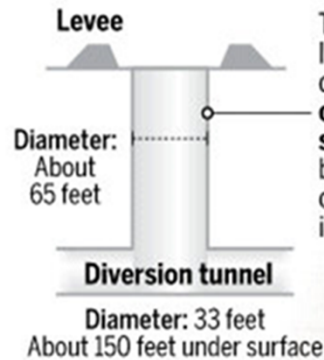
Central, Eastern and Bethany Alternative



Construction

BUILDING TUNNELS

Constructing a tunnel is one of the most complex challenges in civil engineering. It can require extensive analysis and huge tunnel-boring machines. TBMs come in different types: Some chip through rock, but a Delta water diversion tunnel would require the version that can worm through soil and muck. The project, which could take about a decade to complete, would require multiple TBMs similar to this.



The TBMs would be lowered in pieces down **temporary construction shafts**, each ringed by new levees in case of a Delta island levee failure.

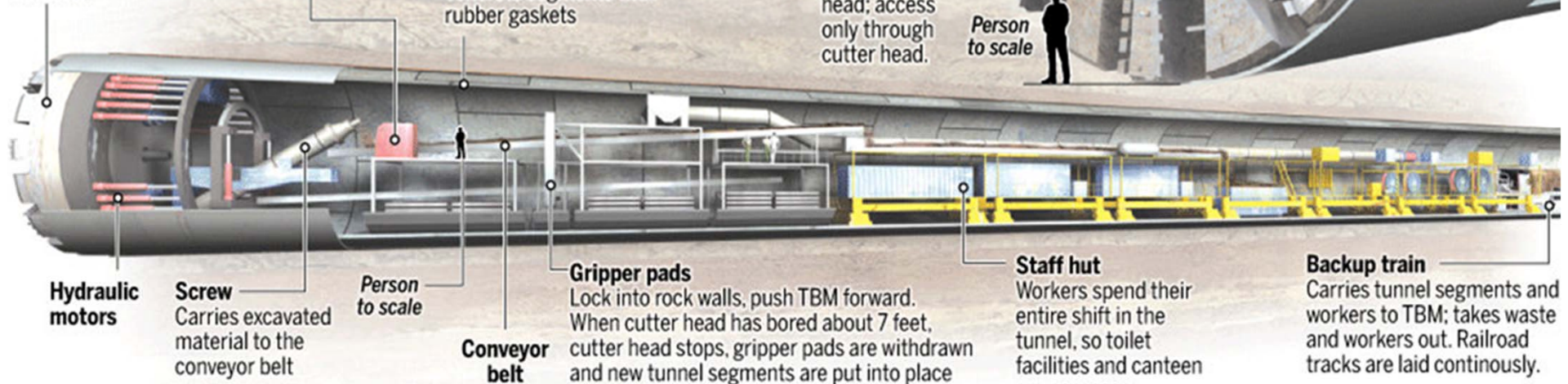
Cutter head
Sizes vary; a 33-foot diameter finished tunnel would require a TBM about 38 feet in diameter

Cockpit
Boring controlled from here

Lining
Tunnel wall is lined with segments as the TBM moves forward. Lining could be made of precast concrete segments with rubber gaskets

Cutter head
Rotates at one to 10 rounds per minute. Cutter disks can be changed only from the front of the cutter head; access only through cutter head.

Person to scale



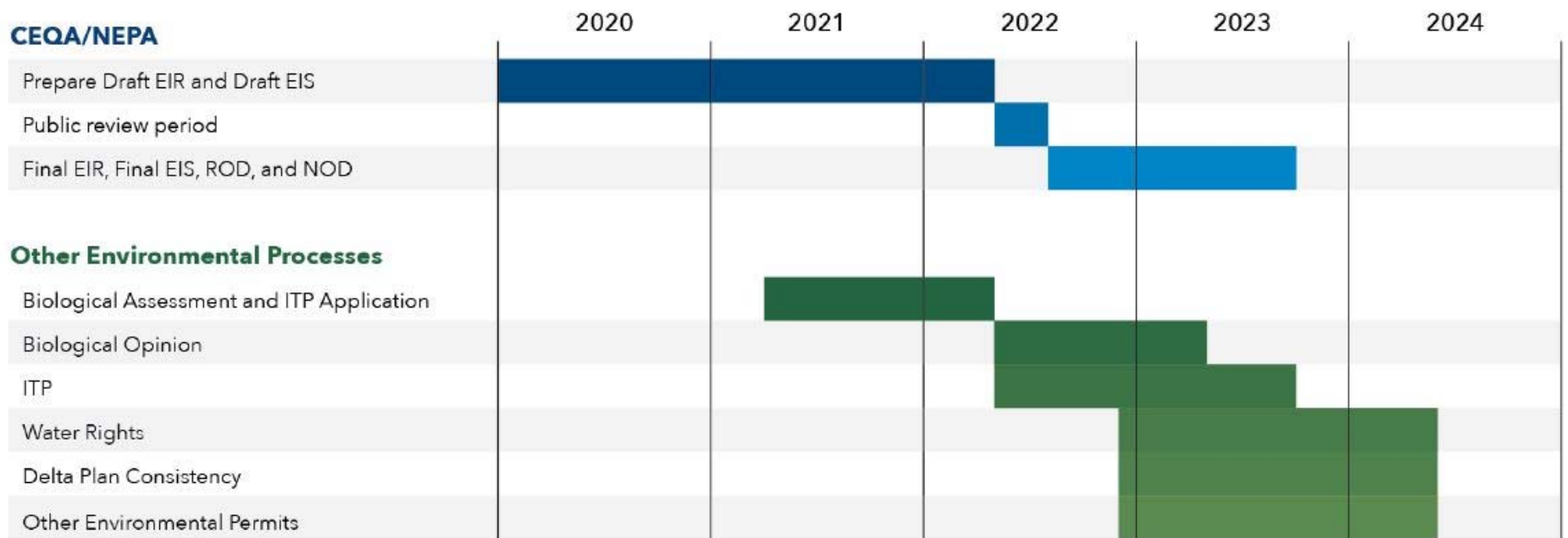
Sources: Malmotunnel.se; Great Belt; Lovat; professor Christian Frenzel, Colorado School of Mines; California Department of Water Resources

Sacramento Bee, McClatchy Tribune

Department of Water Resources' Review and Permitting Timeline for Delta Tunnel Project

Opportunities to Get Involved and Be Heard Coming Up

Delta Conveyance Project Schedule



WQ, Drought and Salinity Barrier



West False River Barrier Location



West False River Barrier



Construction on April 6, 2022
Barrier approved until November 2022



Questions?

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References

Delta Counties Coalition

<https://delta.saccounty.gov/content/Pages/delta-counties-coalition.aspx>

Department of Water Resources

<https://water.ca.gov/deltaconveyance>

Delta Conveyance Design & Construction Authority

<https://water.ca.gov/deltaconveyance>