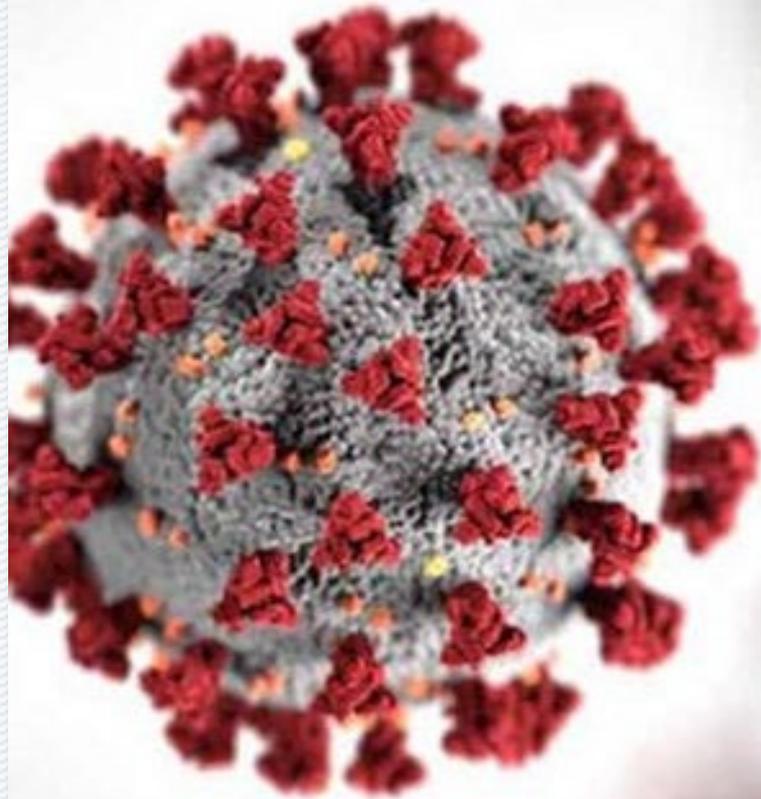


Global Pandemic



COVID-19
CORONAVIRUS DISEASE 2019

Human Right to Water



COVID Crushed California's Economy and State Revenue

San Francisco Chronicle

California doom: Staggering \$54 billion budget deficit looms

By ADAM BEAM, Associated Press | May 7, 2020 | Updated: May 7, 2020 4:46 p.m.



Los Angeles Times

CALIFORNIA

Coronavirus plunges California into worst budget deficit in state history

The New York Times

California Predicts \$54.3 Billion Budget Deficit Due to Coronavirus

By Reuters

May 7, 2020

SACRAMENTO, Calif. — California will face a budget deficit of \$54.3 billion due to a huge drop in revenue combined with increased expenses linked to the coronavirus pandemic, according to Bloomberg

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Politics

California Governor: Expect Budget Gap in 'Tens of Billions'

By Michael B Marois
May 1, 2020, 5:07 PM EDT



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State Lands Commission State Funding Application

“Closure of the inlet would have catastrophic impacts to the wetland habitat, its endangered species, and other valuable public resources, resulting in a significant net loss to the state’s coastal wetlands and endangering the \$151 million investment; closure may also cause flooding in the adjacent neighborhood and to a pre-existing on-site oil operation, a significant liability to the state.”

Columbia University Megadrought Report

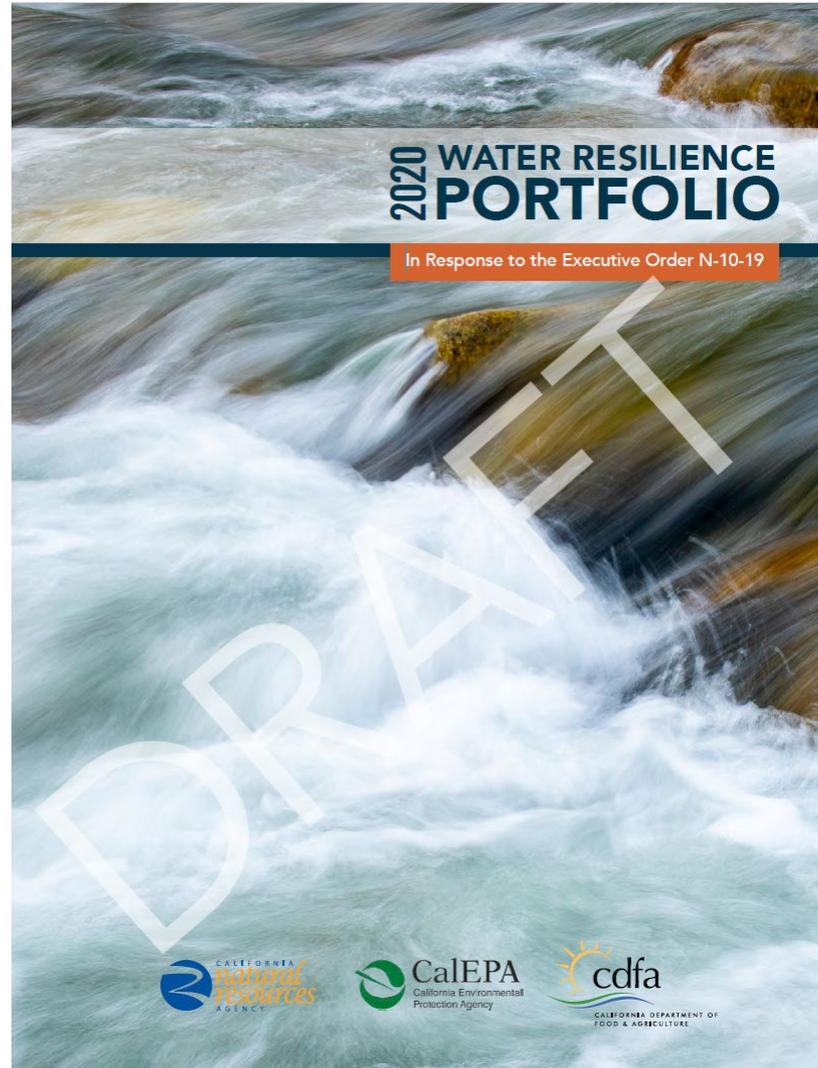
“This appears to be just the beginning of a more extreme trend toward megadrought as global warming continues”

– Columbia University

Abstract

Severe and persistent 21st-century drought in southwestern North America (SWNA) motivates comparisons to medieval megadroughts and questions about the role of anthropogenic climate change. We use hydrological modeling and new 1200-year tree-ring reconstructions of summer soil moisture to demonstrate that the **2000–2018 SWNA drought was the second driest 19-year period since 800 CE, exceeded only by a late-1500s megadrought.** ...

Gov. Newsom's Climate Resilience Plan



Preserving, Restoring and Enhancing Bolsa Chica



Need for Desalination – Tentative Order Findings

Excerpts from Tentative Order:

“The cost of the proposed Project’s water is a factor that water suppliers will likely consider, but it is not an issue that falls within the Santa Ana Water Board’s jurisdiction.” (TO Attachment G.2 p.10)

“...Environmental Organizations construe “need” too narrowly. As discussed previously, Poseidon Water has shown that the identified need for 56,000 AFY is consistent with the applicable water planning documents.” (TO Attachment G.2 p.16)

“staff recommends that the Santa Ana Water Board find that the Discharger has demonstrated that the identified need for 56,000 AFY of desalinated water is consistent with the MWDOC UWMP and other water planning documents.” (TO Attachment G.2 p.16)

Subsurface intakes are infeasible AT ANY SCALE

Excerpts from Tentative Order:

- *The need for 56,000 AFY of desalinated water is consistent with applicable water planning documents. The finding that subsurface intakes are not feasible was not based upon a design capacity in excess of the need for desalinated water. TO G-39 Finding 18.*
- *... the use of the small-scale slant well system in combination with a surface intake system would not result in any significant change to the intake and mortality of marine life when compared to the use of a surface water intake system alone.*
- *The Santa Ana Water Board finds subsurface intakes are infeasible for all reasonable intake design capacities. TO G-45 Finding 20.*

MWDOC 2018 Study – Changed Circumstances

2018 Water Supply Need ~ 22,000 AFY

Project	2018 Supply Assumptions	2020 Supply Assumptions	Comments
Sacramento Delta “Water Fix”	40,000 AFY	0 AFY	The Project faces significant challenges and Gov. Newsom has already downsized to 1 tunnel.
MWD Carson Regional Recycle Water Project	60,000 AFY	40,000 AFY	The project may not be extended to Orange County, and if so it will be in a later phase.
Santa Ana River Base Flows	53,000 AFY	34,000 AFY	OCWD is only entitled to 34,000 AFY Available flows may be reduced by drought and increased upstream diversion.
Total New Supply	153,000 AFY	74,000 AFY	79,000 AFY reduction in new supplies potentially available to OCWD
Potential Supply Gap	(22,000 AFY)	(101,000 AFY)	Potential supply gap in 2020 is 2018 supply gap of 22,000 AFY plus 79,000 AFY reduction in new supplies potentially available to OCWD

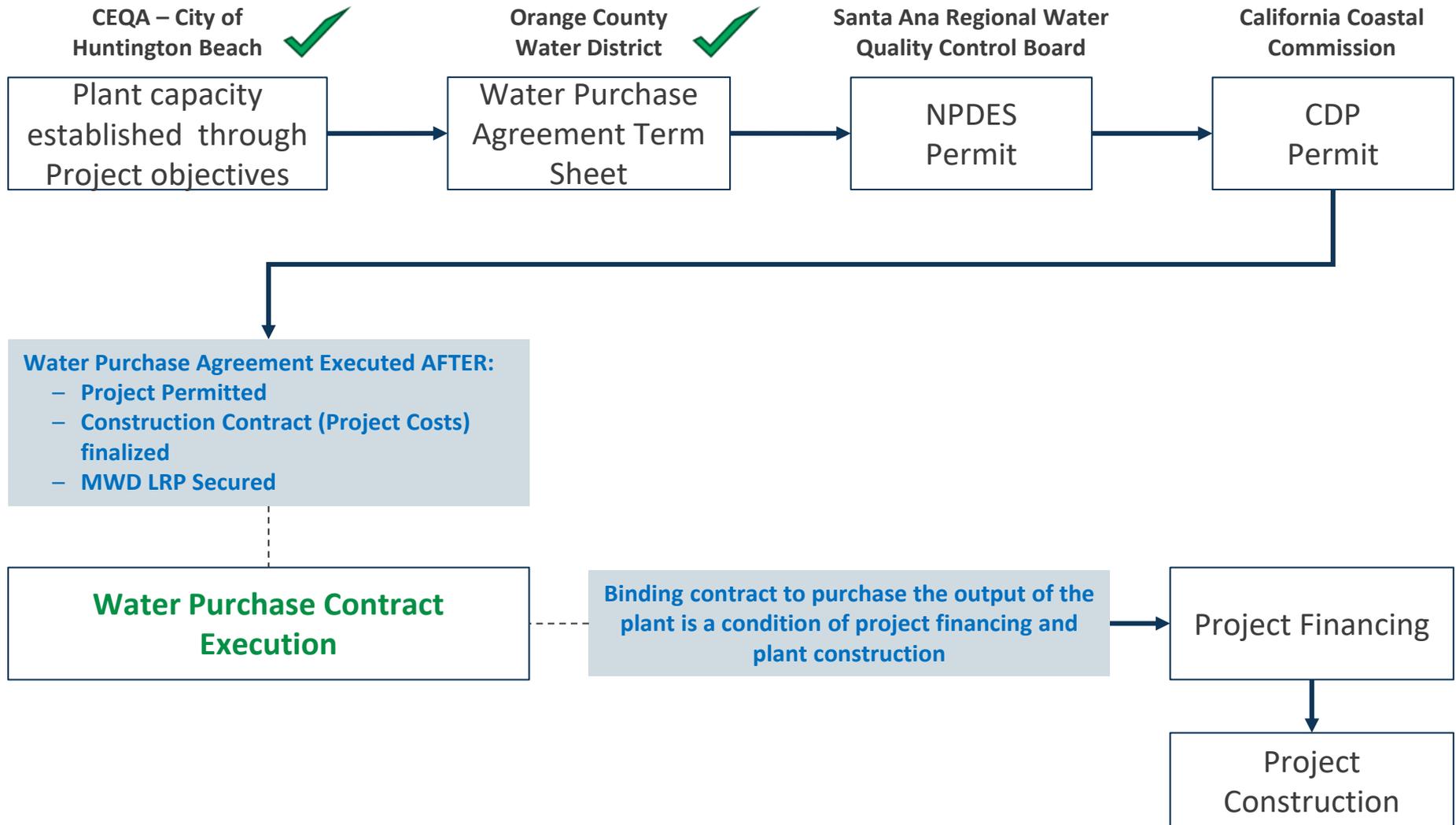
2020 Water Supply Need ~ 101,000 AFY

2018 MWDOC Reliability Study Section 7-1

“In the event that the twin tunnel Water Fix does not come to fruition, an update of the Study will be needed, and adaptive management actions will be sought to replace the lost supplies.”

– 2018 MWDOC Water Reliability Study

Construction Requires a Water Purchase Contract



Applicant Proposed NPDES Permit Condition

Prior to discharge, the Discharger shall provide the Regional Board with an executed water purchase agreement between the Facility and a water agency (or agencies), which would therefore demonstrate the need for the capacity from the Facility.

20-Year Permitting History

2002-2008

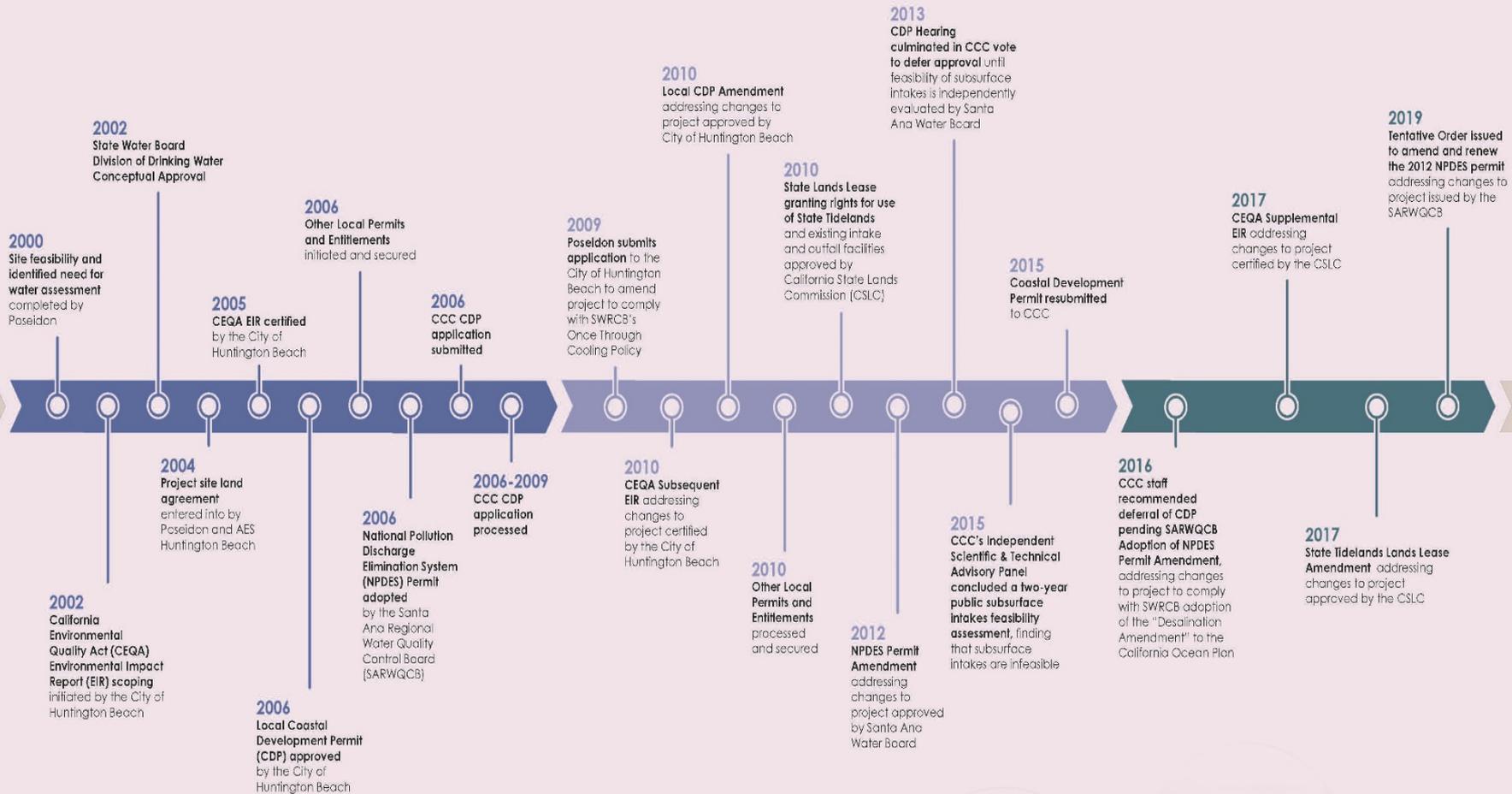
Applicants proposed project

2009-2015

Amendment to proposed project in response to changes in state regulations for cooling water intake systems

2016-Present

Amendment to proposed project in response to changes in state regulations for desalination facilities



Tentative Order Conclusions

- Supported by Water Board precedent and over a decade of Project investigation and findings by various regulatory agencies
- Amended Project with reduced intake volume, enhanced technology and Bolsa Chica mitigation
- Extensive and inclusive public participation
- Scientifically sound and legally defensible



ADDITIONAL SLIDES

Intake Site Cost Comparison

Intake Location – Annual O&M Cost Comparison

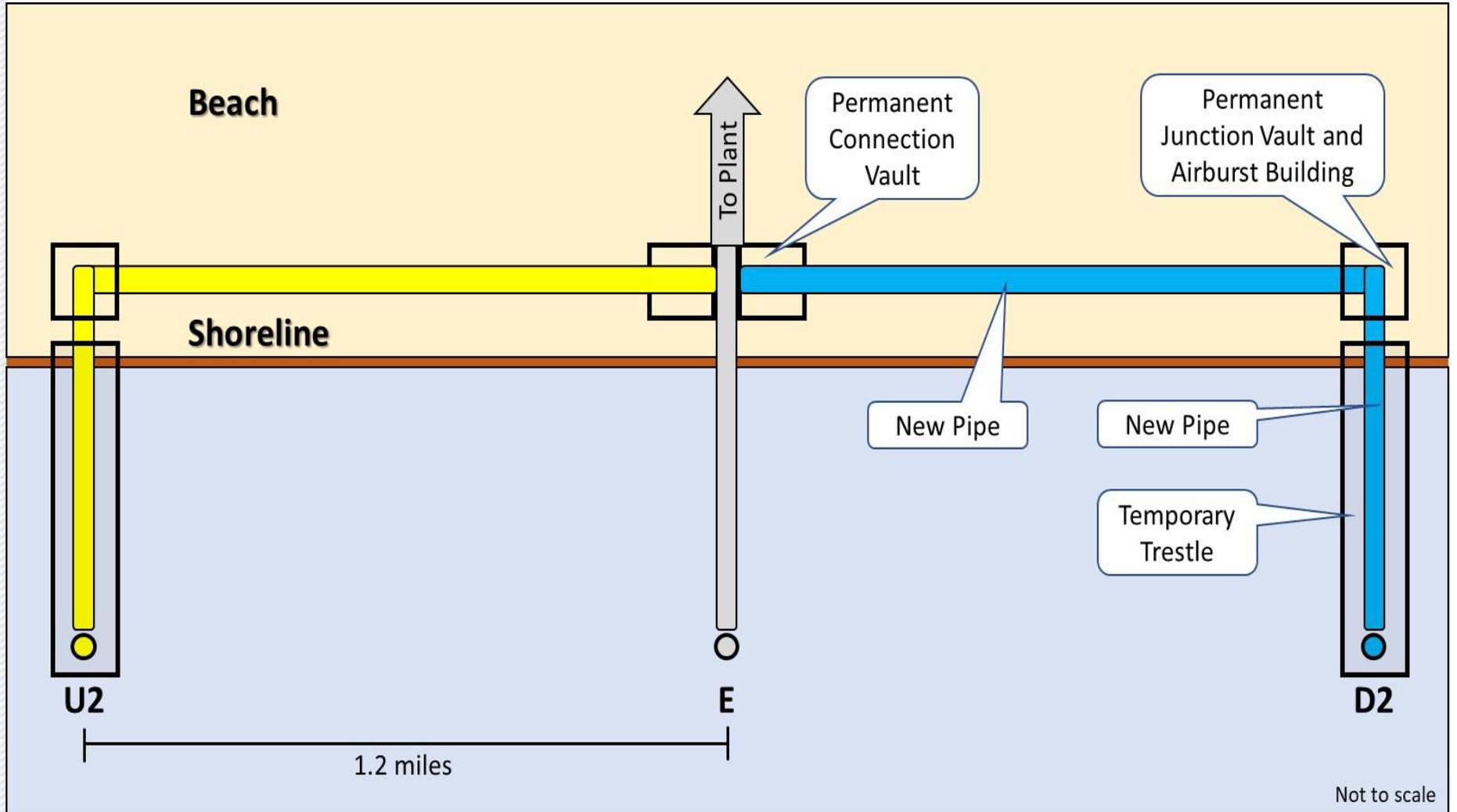
Intake Location	E	D2/U2
Intake Type	Stainless Steel Active 1-mm Wedgewire Screen	Stainless Steel Active 1-mm Wedgewire Screen
Upfront Capital Cost (from Appendix RRRRR)	\$93 million	\$474 million
First Year of Operations (“FYO”)	2025	2031
Operating Cost Build-Up (\$FYO)		
Intake Pump Station & Rotating Brush Electricity	\$0.9 million	\$1.3 million
Routine Cleaning & Inspections	\$0.7 million	\$0.8 million
Routine Maintenance	\$0.6 million	\$0.7 million
Total Annual Direct O&M Cost	\$2.2 million	\$2.8 million
SLC Lease	\$0.2 million	\$0.2 million
State Parks & Recreation Lease	\$0.0 million	\$0.2 million
Insurance	\$0.2 million	\$0.2 million
Project Management	\$0.3 million	\$0.3 million
Property Taxes	\$0.7 million	\$2.9 million
Total Annual O&M Cost	\$3.6 million	\$6.6 million
Debt Service & Associated Costs	\$5.4 million	\$27.4 million
Total Annual Cost	\$9.0 million	\$34.0 million

Intake Siting Criteria in OPA – M.2.b.(7)

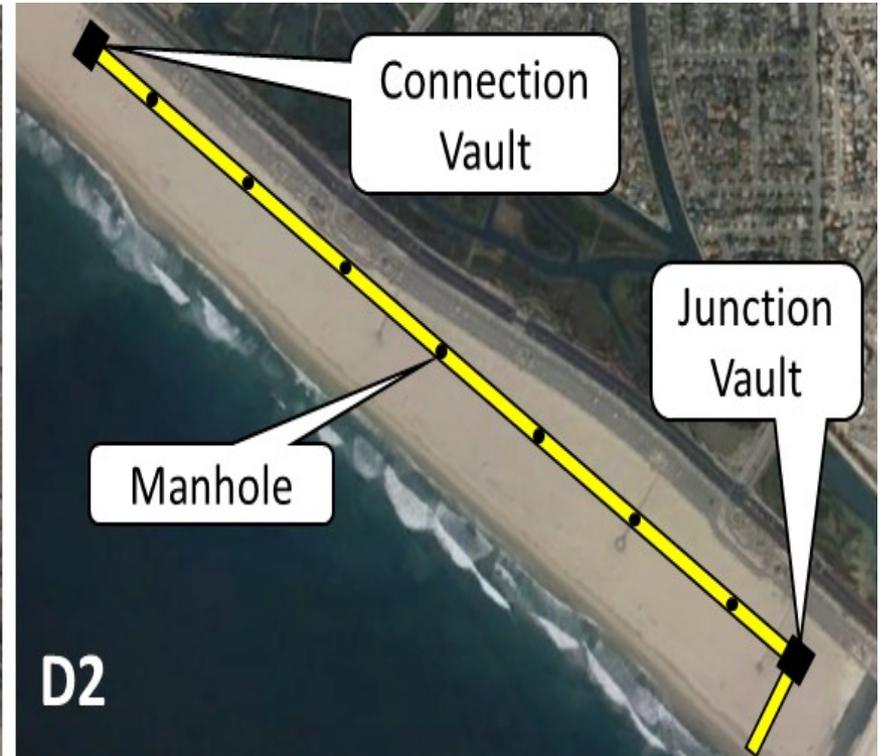
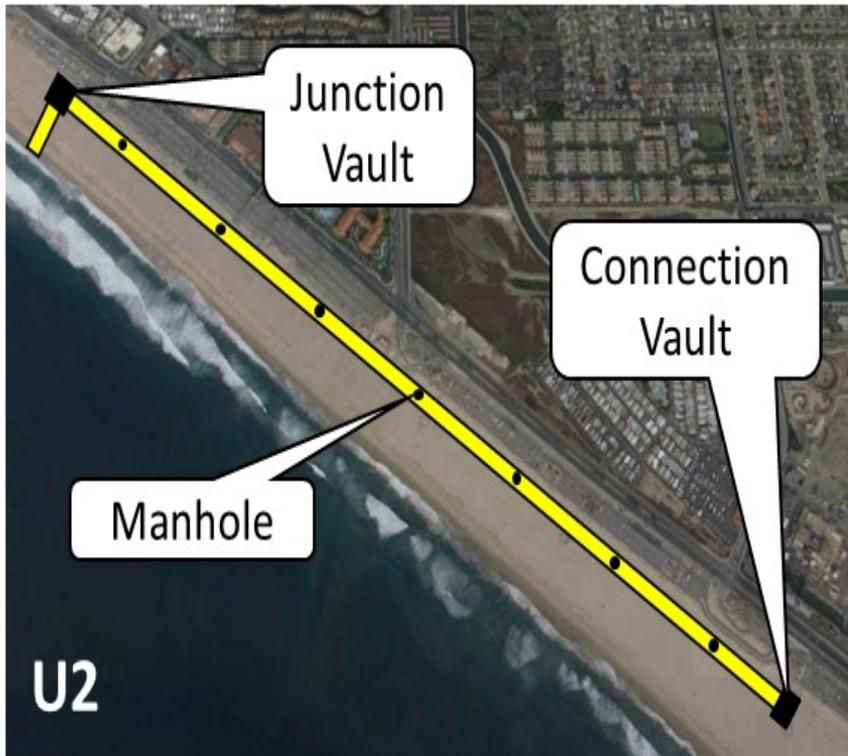
Ensure that the intake and discharge structures are not located within a MPA or SWQPA ... To the extent feasible, surface intakes shall be sited so as to maximize the distance from a MPA or SWQPA.

- Merriam-Webster defines distance as *“the degree or amount of separation between two points, lines, surfaces, or objects.”*

Alternative Intake Sites



Temporary and Permanent Beach Impacts



Crowd dispersion during the Great Pacific Airshow



Crowd dispersion during US Open of Surfing



Intake Site Feasibility Summary

Feasibility Criteria	Site U2	Site E	Site D2
Timing	11-plus years	4.5 years	11-plus years
Technical	Significant construction impacts	Insignificant construction impacts	Significant construction impacts
Economic	\$1.5 Billion construction costs	\$1.0 billion construction costs	\$1.5 Billion construction costs
Environmental	Increased benthic impacts and GHG emissions	Least benthic impacts and GHG emissions	Increased benthic impacts and GHG emissions
Social	Impacts to recreational resources	No impacts	Impacts to recreational resources

Alternative 1-mm Screened Intake Site Conclusions

- **Regional Board has already determined the proposed intake site complies with CWC 13142.5(b).**
- **Proposed intake site is best to minimize intake and mortality of all forms of marine life.**
 - **Propose site has lowest ecological risk and there is no scientifically defensible ecological justification for moving the intake site**
- **Moving the 1-mm screened intake fails the infeasible test.**
 - **Does not avoid or substantially lessen impacts and no ecological benefit can be ascribed to relocating the intake. Additional ~\$500M construction costs cannot be associated with any significant benefits provided by the alternatives in reducing impacts on all forms of marine life.**