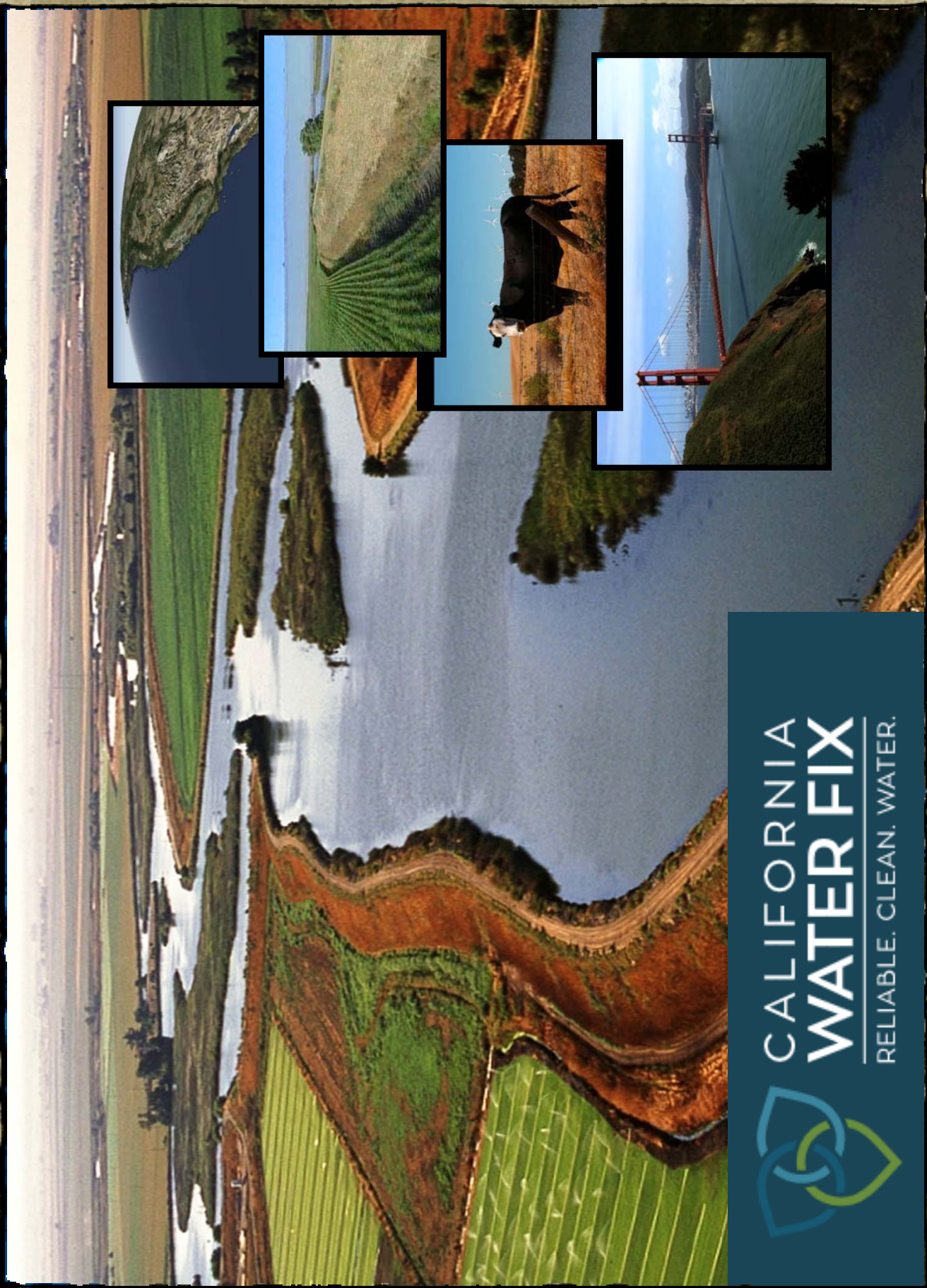
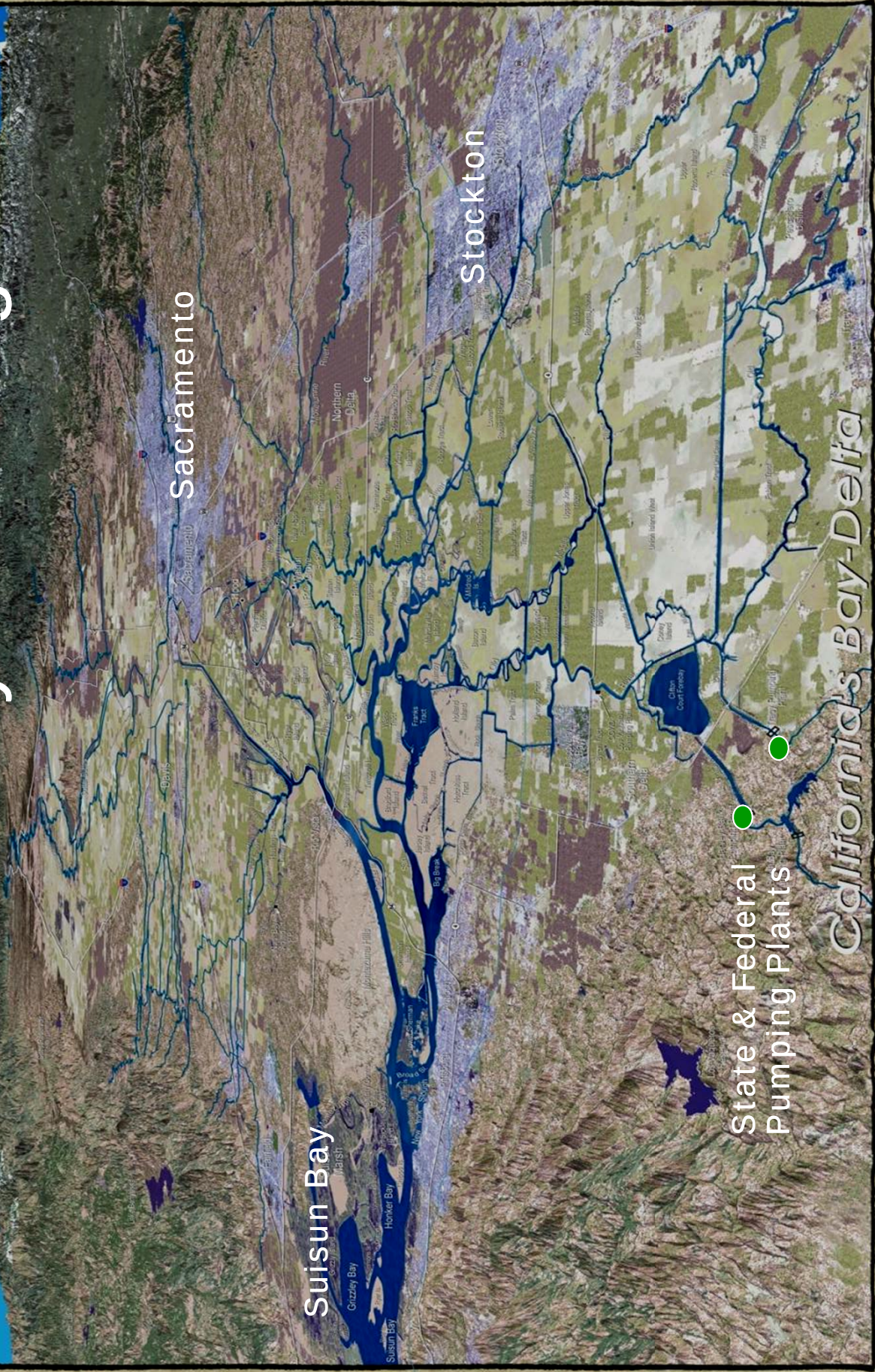


CALIFORNIA

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WATER FIX
RELIABLE. CLEAN. WATER.



California's Bay-Delta Region



Bay-Delta Efforts: A Long Road

1994 CalFed formed to resolve issue of transporting SWP water through the Delta

1994

2006 Bay-Delta Accord initiated long-term planning process to improve the Delta

2006

2007 CalFed published plan to fix Delta and address challenges over next 50 years

1994

2007

2000

2009

2003 State created California Bay Delta Authority to oversee implementation of CalFed's plan

2003

2013

2005 Little Hoover Commission found CalFed to be "costly, underperforming, unfocused and unaccountable."

2005

2014

2015 California WaterFix Released

2015

Legislature dissolves CBDA and California Natural Resources absorbed its functions

Bay Delta Conservation Plan process initiated

Delta Reform Act creates Delta Stewardship Council (Delta Plan) to achieve state mandated co-equal goals

Administrative Drafts of BDCP released

BDCP Public Comments Received

What is the BDCP?

- The BDCP is a joint Habitat Conservation Plan/Natural Communities Conservation Plan
 - Provides regulatory stability and assurances for 50-year term
- Purpose is to contribute to co-equal goals (ecorestoration and water supply reliability)
- Uses adaptive management and monitoring to adjust to changed conditions and new information

BDCP Review Process

- Years-long Board and staff education process on BDCP proposal and related issues
 - 20 public meetings since January 2013
- Intensive, multi-disciplinary staff analysis of BDCP environmental and planning documents
 - Year of extensive Board discussion
- Water Authority comment letters submitted May and July 2014



BDCP Plan and EIR/EIS



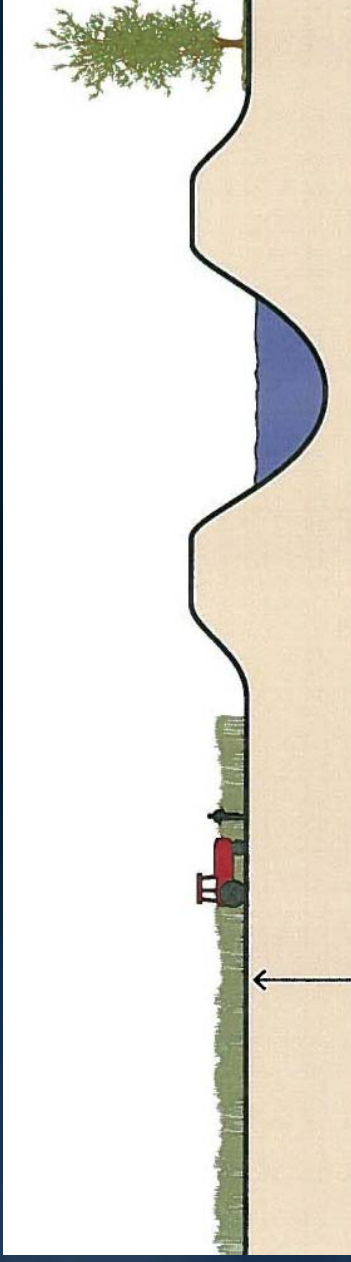
Water Authority's BDCP Analyses

Bay-Delta Efforts: A Long Road

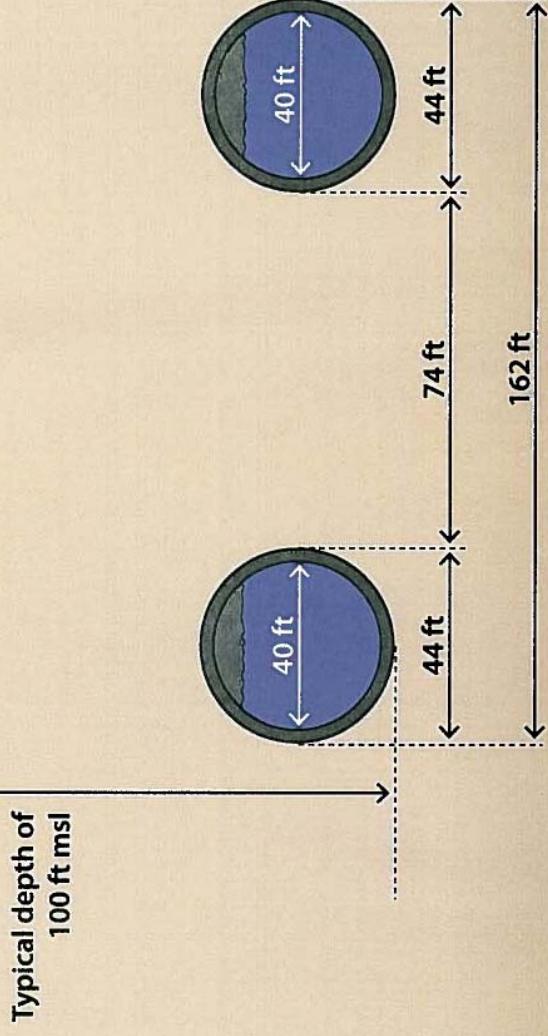
- Peripheral Canal approved by Californians in 1982
- Mired in controversy
- Supported by:
 - Senator Dianne Feinstein,
 - Former Governor Schwarzenegger,
 - Current Governor Jerry Brown
- Multiple alignments considered
- Costs of previous concepts: \$4.5 billion (2009)



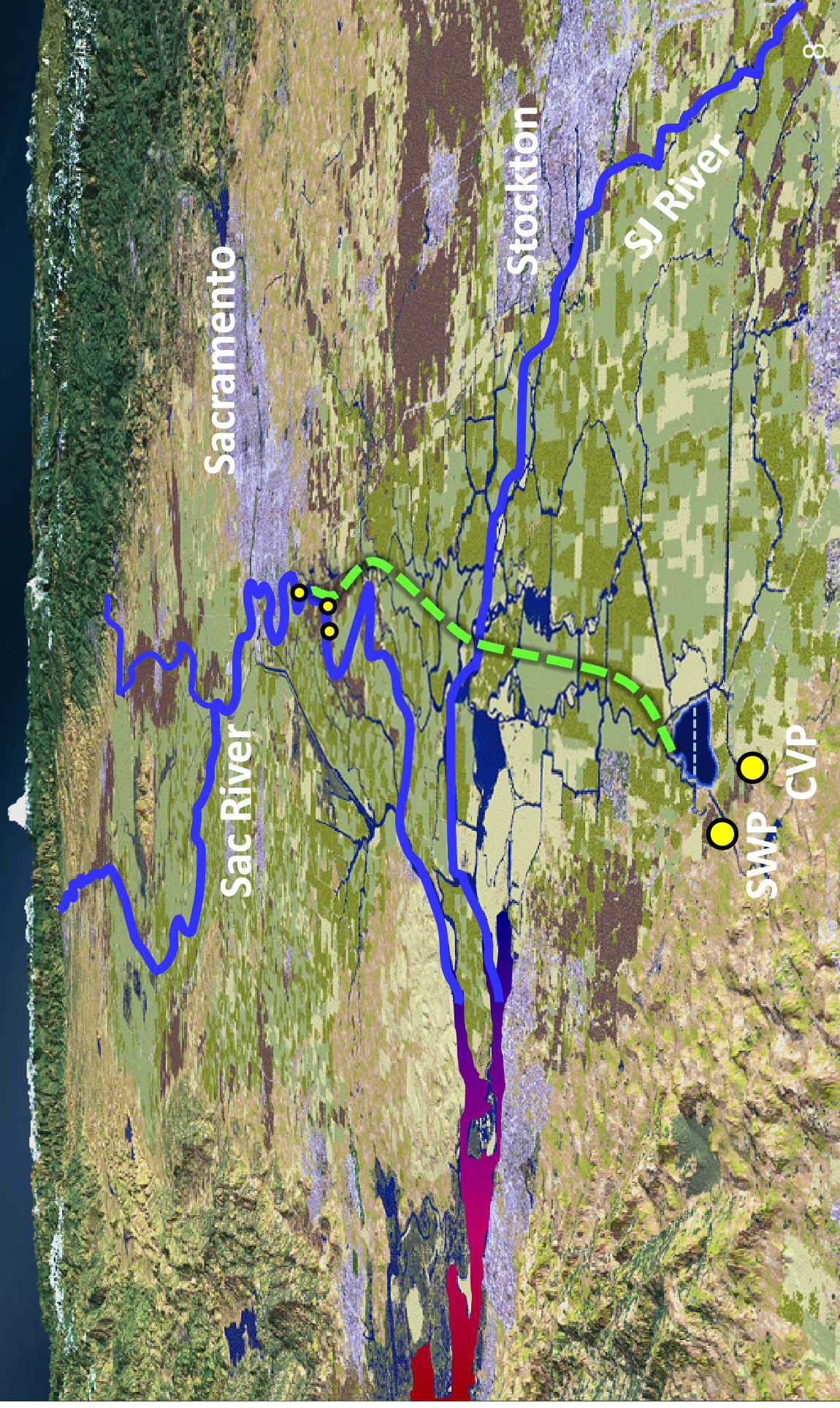
BDCP Preferred Project: Twin Tunnels



BDCP Estimate: \$25 billion



BDCP Preferred Project: Twin Tunnels



New Proposal: The Split-up



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WATER FIX
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- Protects water supplies through system upgrades
- Mitigation
 - ~15,600 acres of habitat
- Water contractor funded



CALIFORNIA
ECO RESTORE
A STRONGER DELTA ECOSYSTEM.

- Supports health of native fish & wildlife
- Habitat restoration
 - ~ 30,000 acres in 5 years
- Includes public funding

What is the California Water Fix?

- ▶ Approach to make physical and operational improvements to delivery system in Delta
 - Responds to unprecedented level of public review and comment
- ▶ Released July 10, 2015
- ▶ Lead agencies:
 - Department of Water Resources (CEQA)
 - Bureau of Reclamation (NEPA)
 - Cooperating Agencies:
 - National Marine Fisheries Services and US Fish and Wildlife Service (Section 7)
 - CA Fish and Wildlife (Permit after EIR/EIS Approval)





CALIFORNIA WATER FIX
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ALTERNATIVE 4A
JULY 20 15

california water fix (alternative 4a) public review & comment

The California Department of Water Resources and Bureau of Reclamation are proposing California Water Fix (Alternative 4A) as the preferred alternative to update California's primary water delivery system. The project would improve water delivery to the state's agricultural, urban, and industrial users, and protect the state's water resources. The project would be implemented in three phases: Phase 1 (improving water delivery to the state's agricultural users), Phase 2 (improving water delivery to the state's urban and industrial users), and Phase 3 (improving water delivery to the state's agricultural users). The project would be implemented in three phases: Phase 1 (improving water delivery to the state's agricultural users), Phase 2 (improving water delivery to the state's urban and industrial users), and Phase 3 (improving water delivery to the state's agricultural users). The project would be implemented in three phases: Phase 1 (improving water delivery to the state's agricultural users), Phase 2 (improving water delivery to the state's urban and industrial users), and Phase 3 (improving water delivery to the state's agricultural users).

The updated environmental analysis for California Water Fix (Alternative 4A) is now available for public review. The draft comment period begins Friday, July 10th.

California Water Fix (Alternative 4A) is being proposed because of project revisions and in consideration of public review and comment. It includes three new alternatives: the proposed California Water Fix (Alternative 4A), the proposed California Water Fix (Alternative 4B), and the proposed California Water Fix (Alternative 4C). The project would be implemented in three phases: Phase 1 (improving water delivery to the state's agricultural users), Phase 2 (improving water delivery to the state's urban and industrial users), and Phase 3 (improving water delivery to the state's agricultural users). The project would be implemented in three phases: Phase 1 (improving water delivery to the state's agricultural users), Phase 2 (improving water delivery to the state's urban and industrial users), and Phase 3 (improving water delivery to the state's agricultural users).

PUBLIC REVIEW PERIOD		ENVIRONMENTAL ANALYSIS	
PUBLIC REVIEW DOCUMENTS AND ADDITIONAL MATERIALS	ENVIRONMENTAL ANALYSIS	ENVIRONMENTAL ANALYSIS	ENVIRONMENTAL ANALYSIS
- California Water Fix (Alternative 4A) Fact Sheet - California Water Fix (Alternative 4B) Fact Sheet - California Water Fix (Alternative 4C) Fact Sheet	- California Water Fix (Alternative 4A) Fact Sheet - California Water Fix (Alternative 4B) Fact Sheet - California Water Fix (Alternative 4C) Fact Sheet	- California Water Fix (Alternative 4A) Fact Sheet - California Water Fix (Alternative 4B) Fact Sheet - California Water Fix (Alternative 4C) Fact Sheet	- California Water Fix (Alternative 4A) Fact Sheet - California Water Fix (Alternative 4B) Fact Sheet - California Water Fix (Alternative 4C) Fact Sheet

public review period

The revised environmental analysis for California Water Fix (Alternative 4A) is now available for public review and comment from July 10, 2015 through August 31, 2015.

Hard copies of the documents are available at the Department of Water Resources, 3500 Industrial Blvd., Room 117 West, Sacramento, CA 95811 and at the Bureau of Reclamation, 12201 River Road, Sacramento, CA 95825. The documents are available electronically at www.BayDeltaConservationPlan.com and at libraries throughout the state. Visit www.BayDeltaConservationPlan.com for a location near you. Electronic copies of the documents are available at the Department of Water Resources, 3500 Industrial Blvd., Room 117 West, Sacramento, CA 95811.

All submitted comments received will be responded to in the draft environmental analysis and considered in the decision-making process.

For more information, for additional information, please contact: Theresa Chen, Reclamation (916) 305-4679 (TTY 800-877-4359) or CaliforniaWaterFix@cms.dwr.ca.gov. For media inquiries, contact 916-305-4679.

public meetings

During the comment period, written comments may be submitted via:

- Email to BOCPCWaterFixComments@cms.dwr.ca.gov, PO Box 1919, Sacramento, CA 95812
- Call to [916-305-4679](tel:9163054679)
- At public meetings (see below)

public meetings

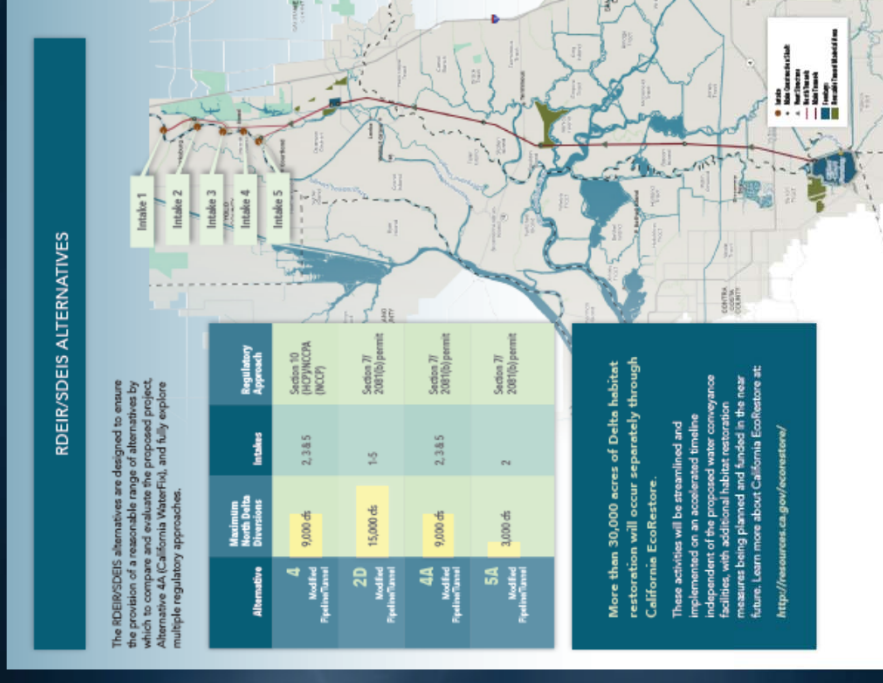
Sacramento – Tuesday, July 28, 2015, 3:00 – 7:00 p.m., 12201 River Road, Sacramento, CA 95825

Wardrobe – Wednesday, July 29, 2015, 3:00 – 7:00 p.m., 12201 River Road, Sacramento, CA 95825

14273 River Road, Walnut Grove, CA 95680.

BDCP vs. California Water Fix?

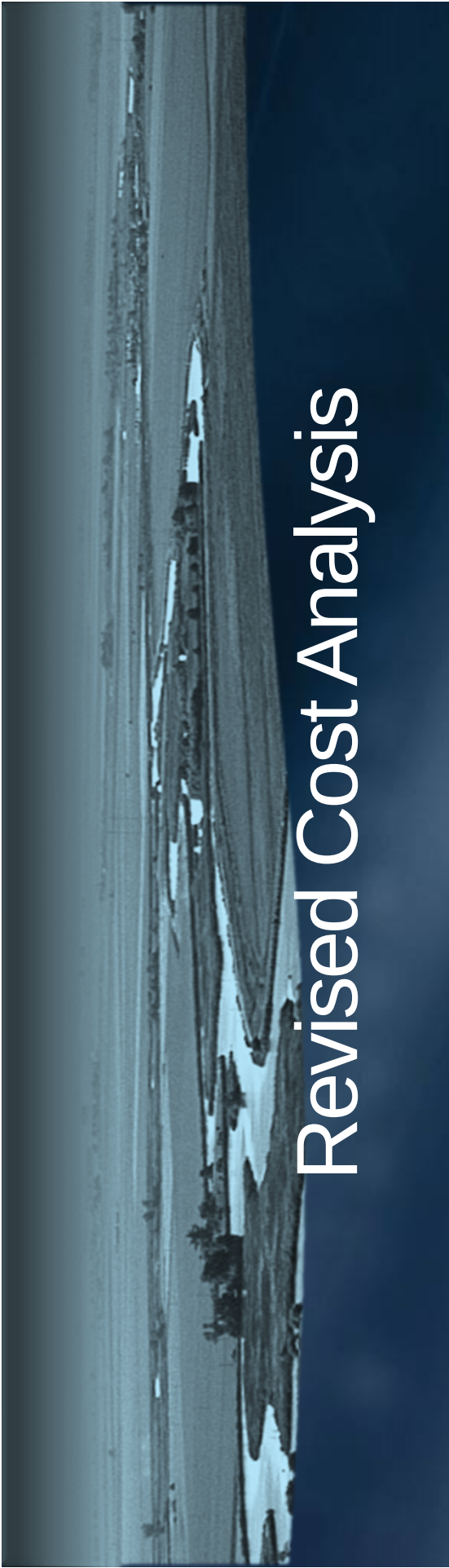
- ▶ BDCP's strategy (Alternative 4) proposed as a Habitat Conservation Plan (HCP)
 - 50-year permit assurances
 - Permit through ESA Section 10 and Natural Community Conservation Plan
 - Large-scale regional habitat restoration and new Delta water delivery infrastructure
- ▶ California Water Fix (Alternative 4A)
 - No long-term permit assurances (year-to-year)
 - Proposes Section 7 consultation and CESA Section 2081(b) permit process
 - Includes new Delta water delivery infrastructure, without HCP



What's Changed Since the 2013 BDCP?

Introduction of three new sub-alternatives

- Design Modification to Alternative 4 (BDCP Preferred Alternative)
- Updated environmental analysis
 - Fish and Aquatic Habitat
 - Water Quality
 - Effects Downstream of the Delta
 - Air Quality Health Risk Assessment, Traffic and Noise
 - Geotechnical Investigations
 - Inclusion of Additional NEPA Determinations
- Estimated cost: \$14.9 billion (2014)
- Public comment deadline: October 30, 2015



Revised Cost Analysis

IMPROVEMENTS	Capital	O&M (Total 50 Years)	TOTAL
Conveyance	\$14.99 B	\$1.46 B	\$16.45 B
Mitigation, Monitoring	\$0.56 to \$0.82 B	\$0.22 B	\$0.78 to \$1.04 B
TOTAL	\$15.55 to \$15.81 billion	\$1.68 billion	\$17.23 to \$17.49 billion

*Estimated costs from DWR; in undiscounted 2014 dollars with a 36% contingency
Metropolitan's share is approximately 25%*

What Hasn't Changed?

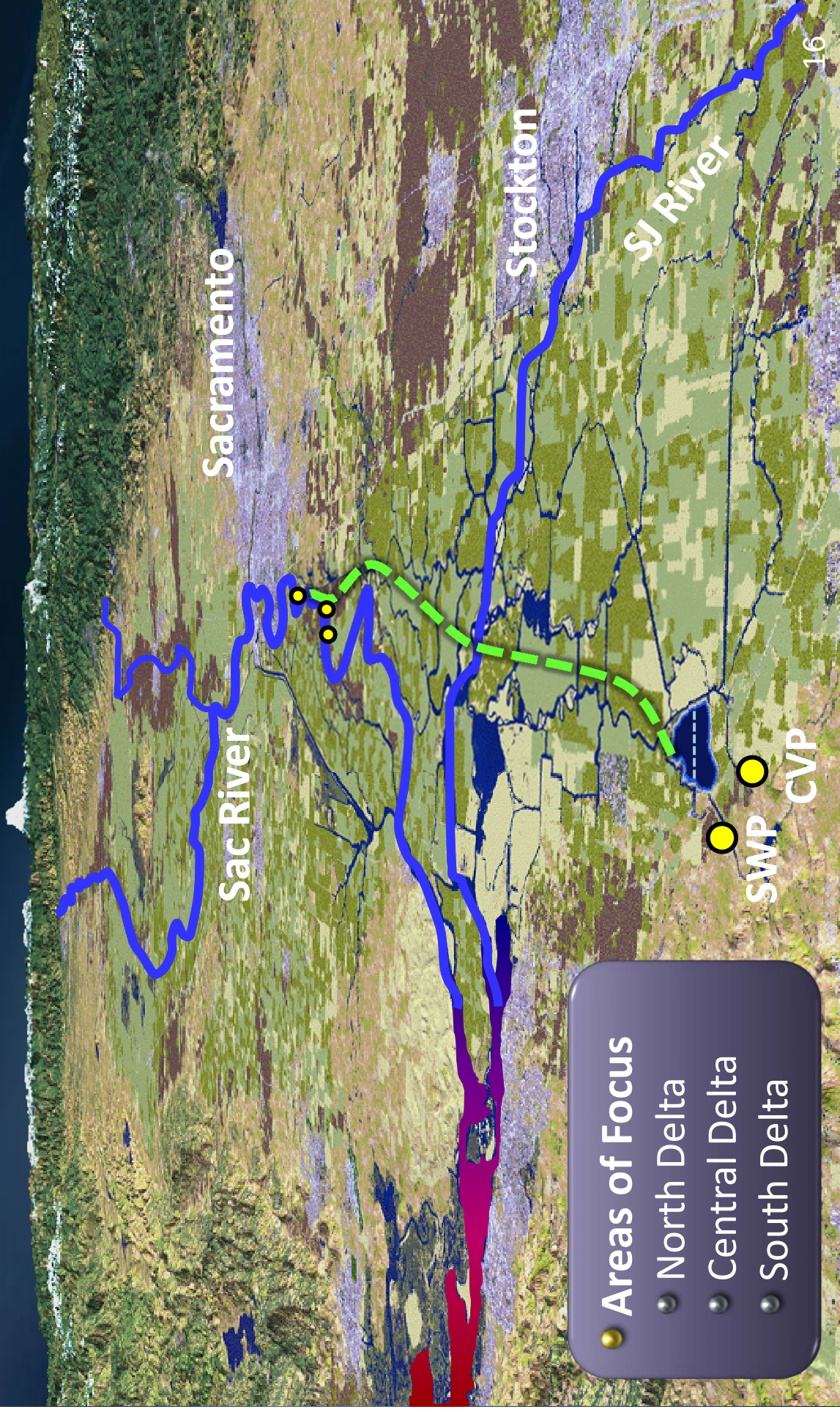
Key questions remain unanswered:

1. After accounting for local supply development, what is the real demand for water from the Delta?
2. What is the right-sized project to meet the demand?
3. Where is a financing plan to pay for the project?
4. Who is going to commit to pay for it?
5. Should the SWC's contractually commit to pay billions of dollars without further support from their customers?
6. Without such commitments, how will SWC's taxpayers and ratepayers be protected from shouldering a disproportionate cost burden in the future

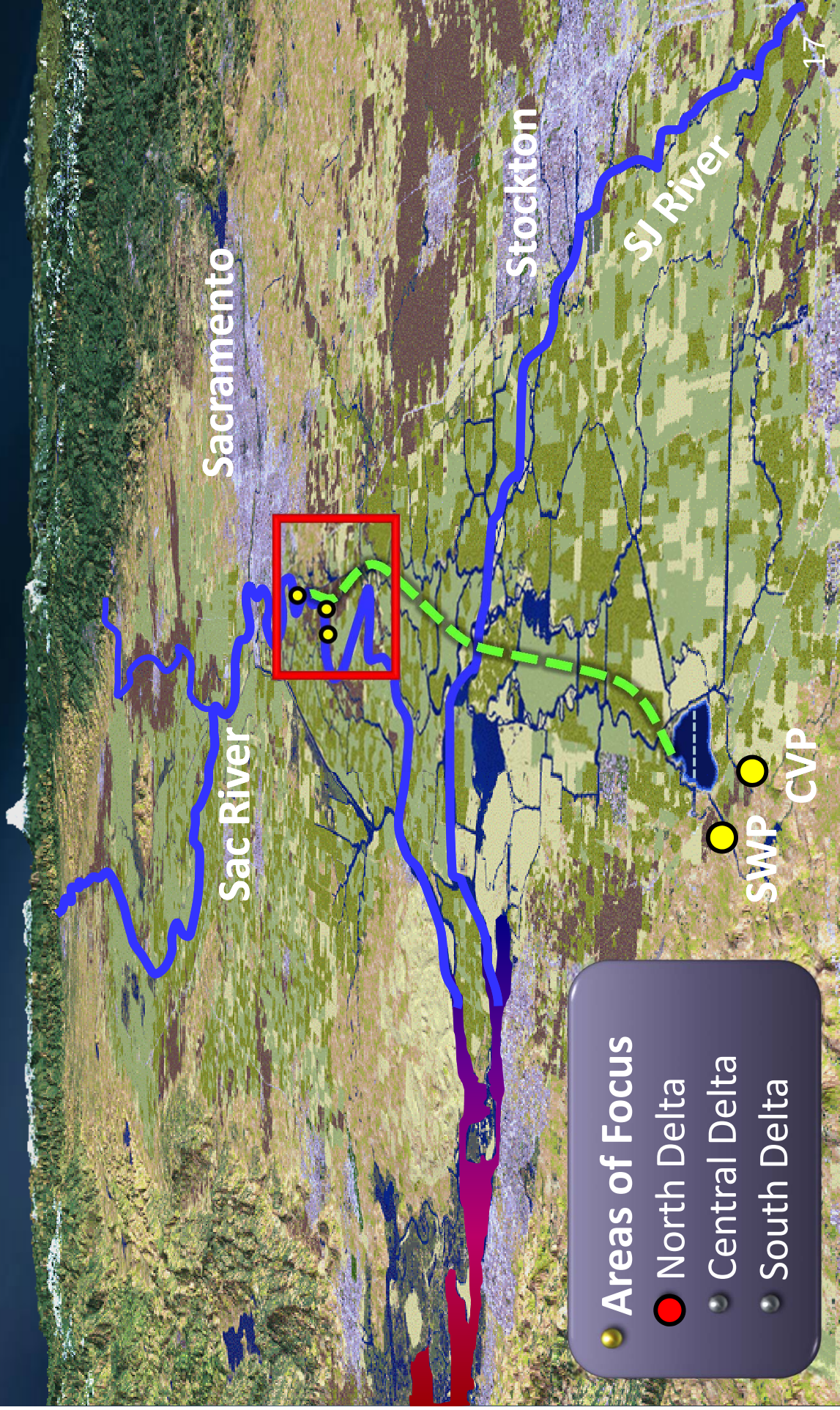
More Operation Details?



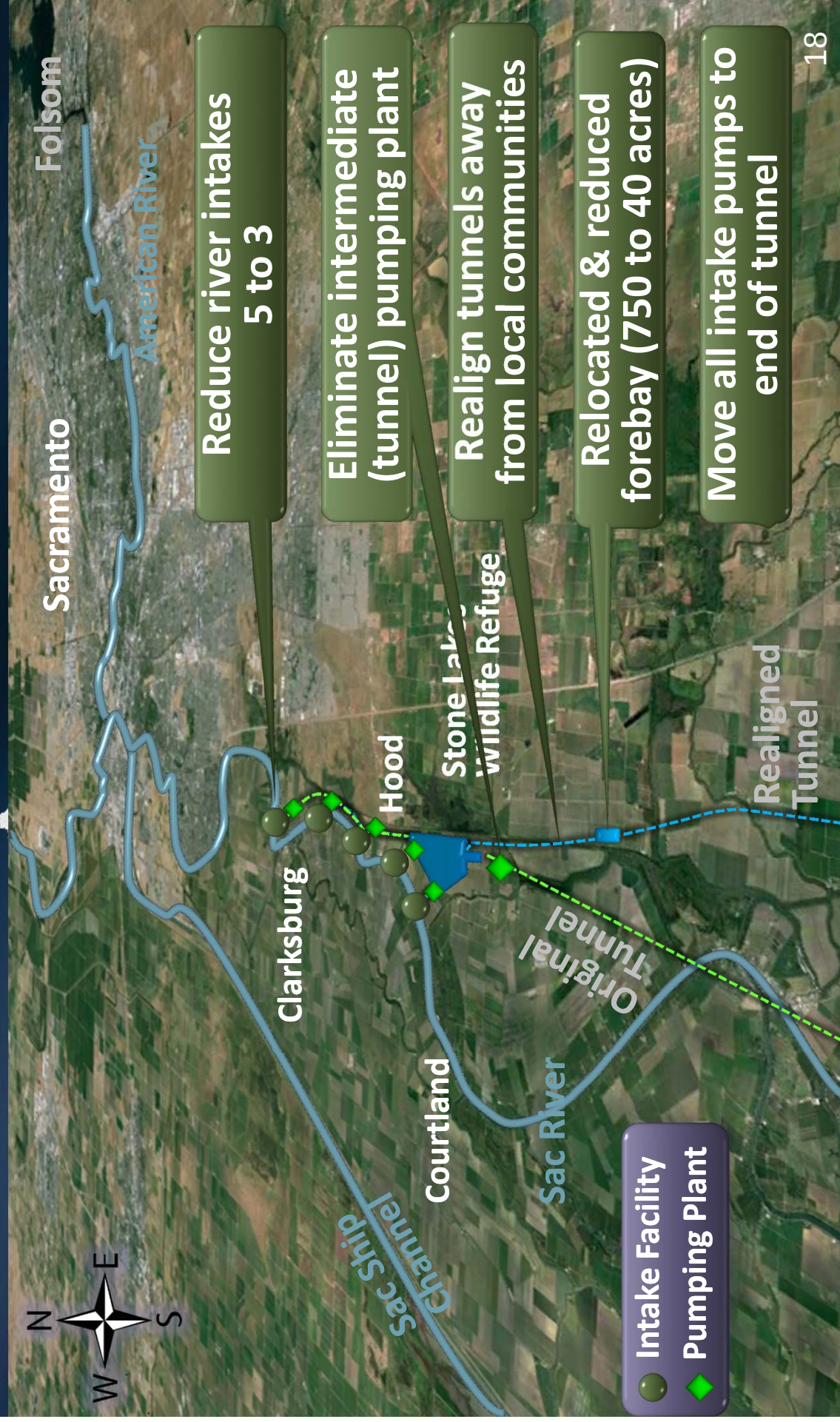
New Design: Refinements & Optimization



North Delta – Refinements & Continued Optimization



North Delta – Refinements & Continued Optimization





Eliminated buildings

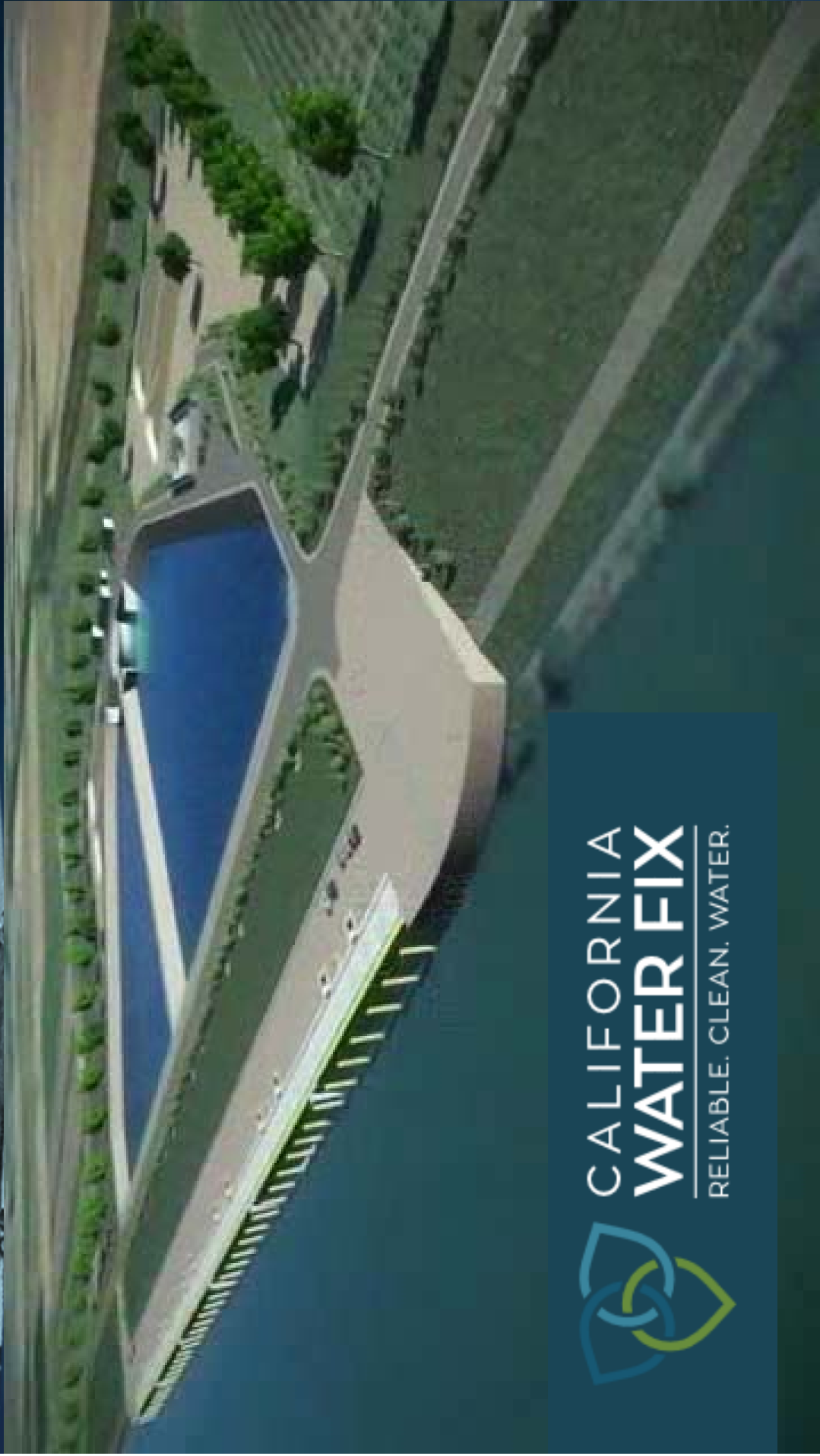
Eliminated
pump facilities

Eliminated high
voltage power lines

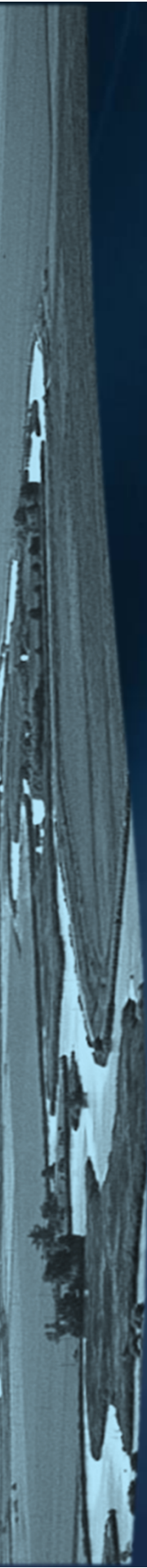
North Delta – Refinements & Continued Optimization



North Delta – Refinements & Continued Optimization



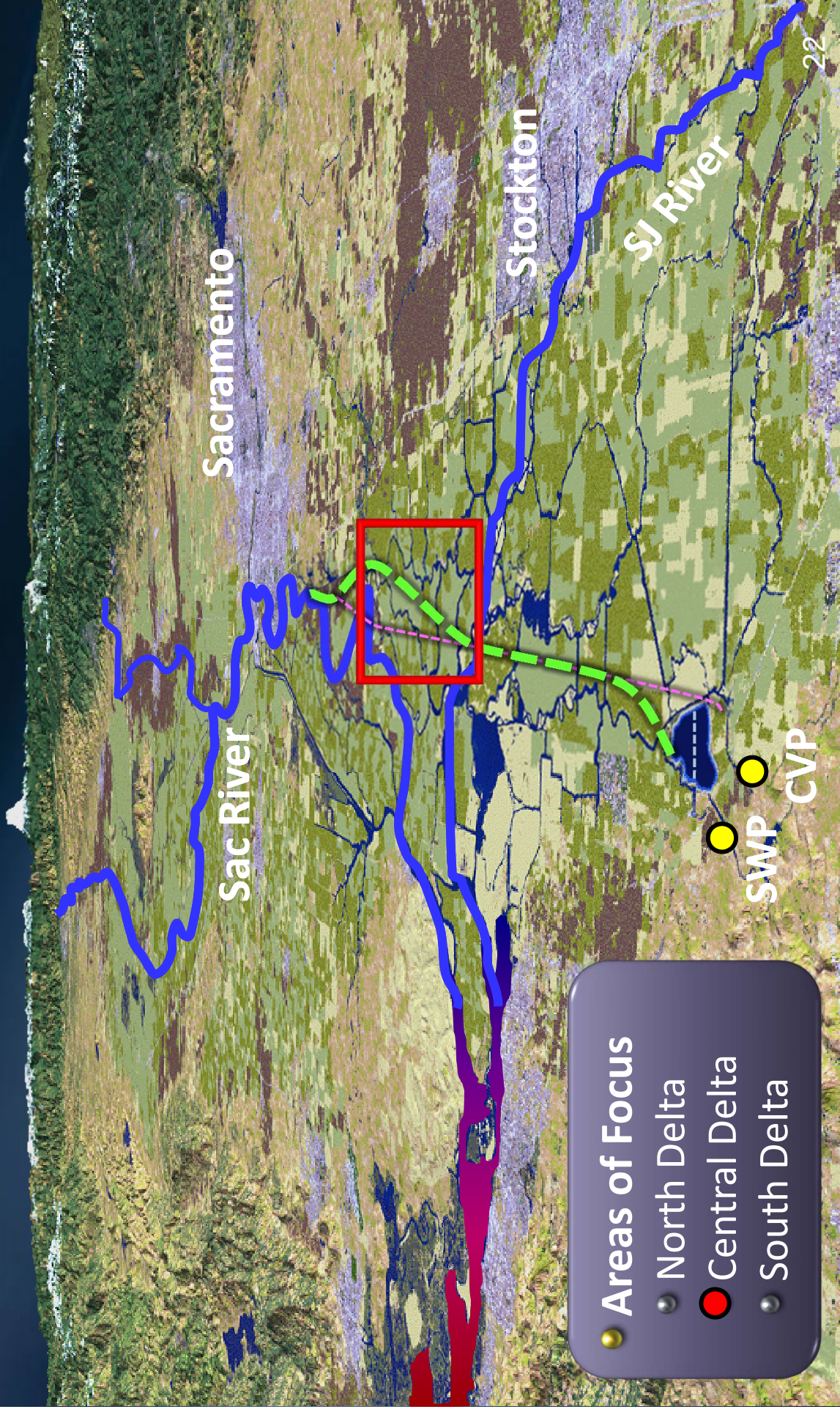
North Delta – Refinements & Continued Optimization



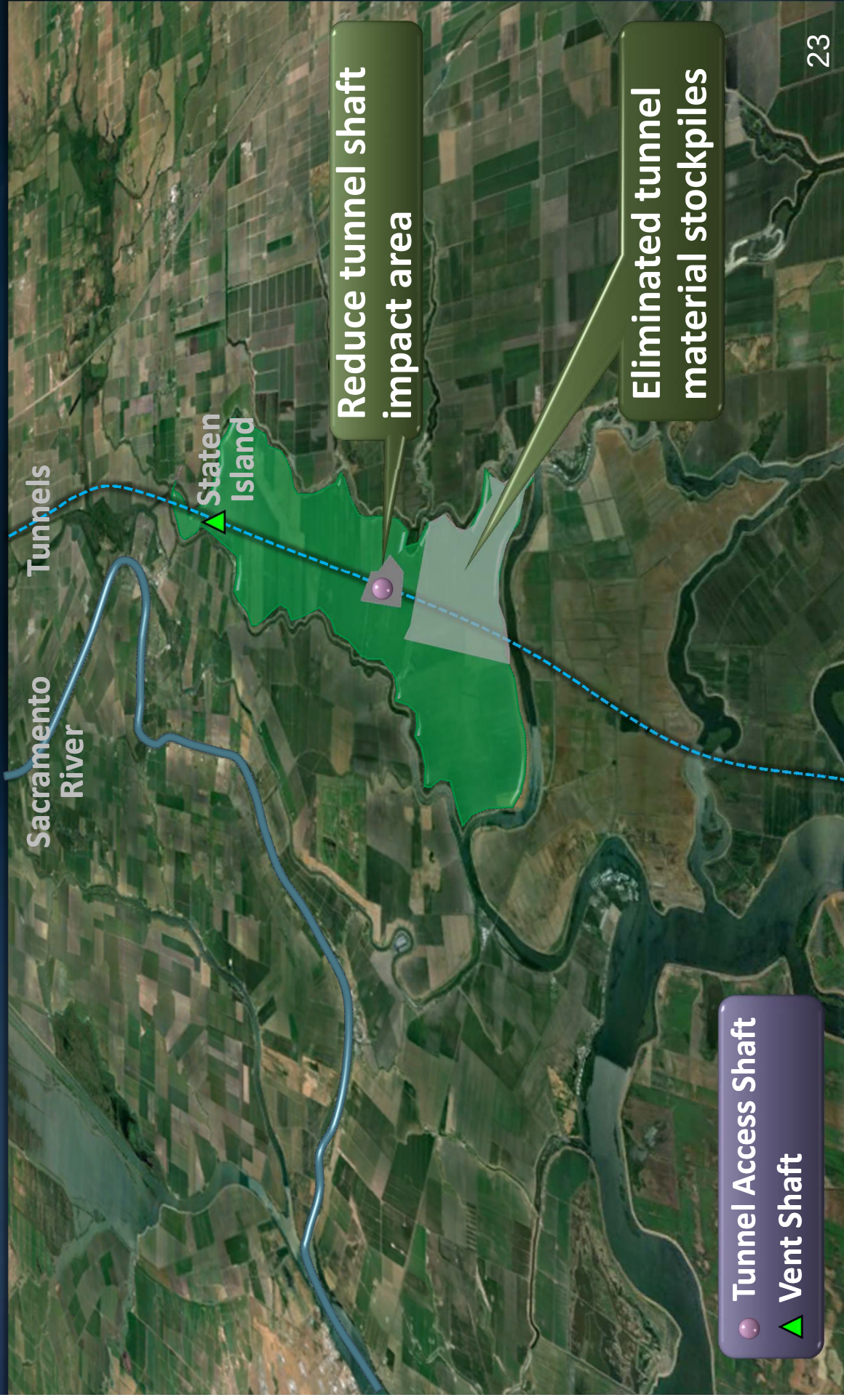
Summary – North Delta

- Initial Refinements
 - Reduced overall capacity (15,000 to 9,000 cfs)
 - Eliminated 2 river intakes and pumping plants
 - Eliminated 1 intermediate (main-tunnel) pumping plant
 - Relocated & reduced size of North Delta forebay from 750 to 40 acres
- Continued Optimization
 - Eliminated all remaining North Delta pumping plants (moved & consolidated pumping ops to end of tunnel)
 - Eliminated permanent high voltage power at intakes

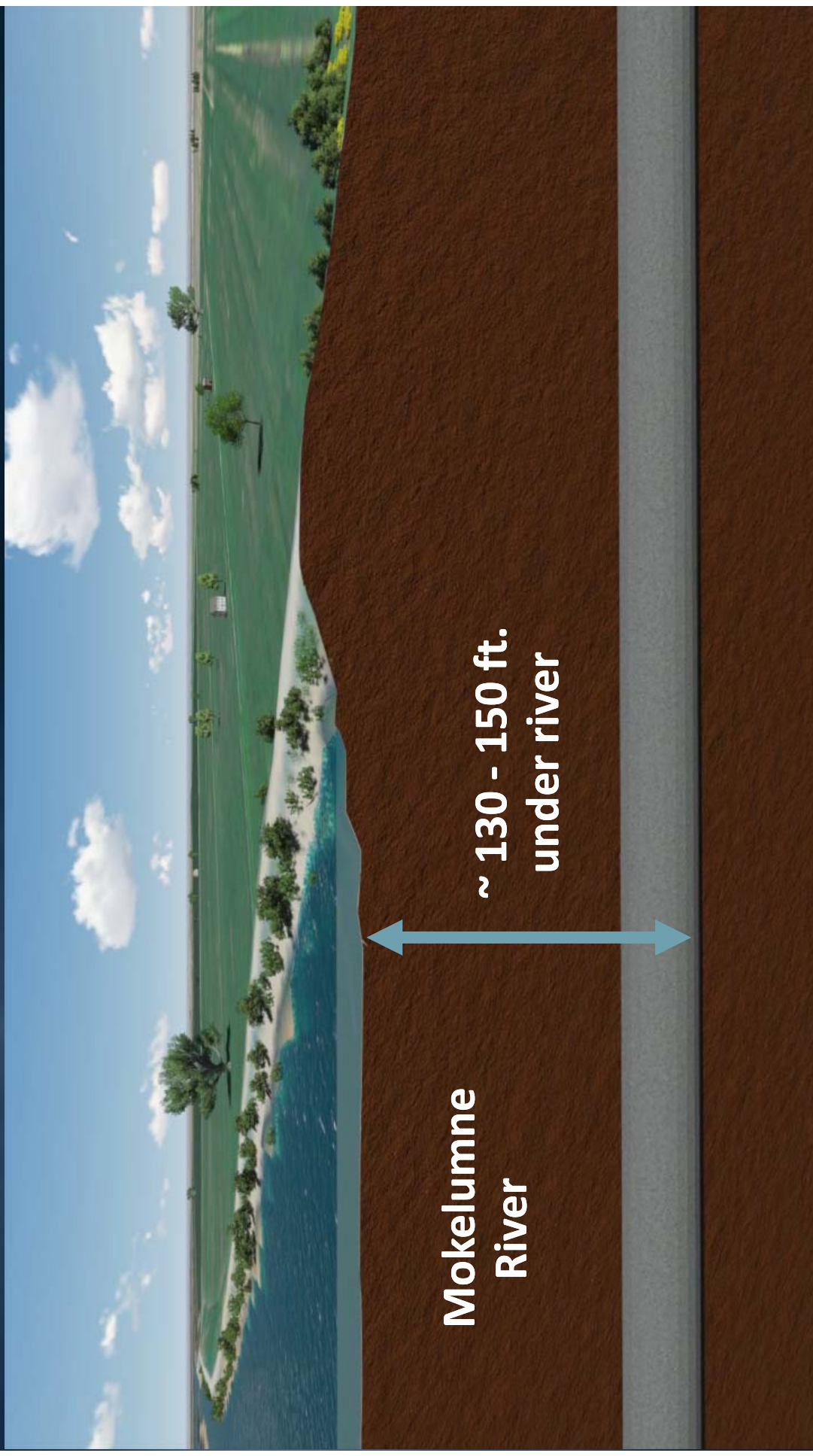
Central Delta – Refinements & Continued Optimization



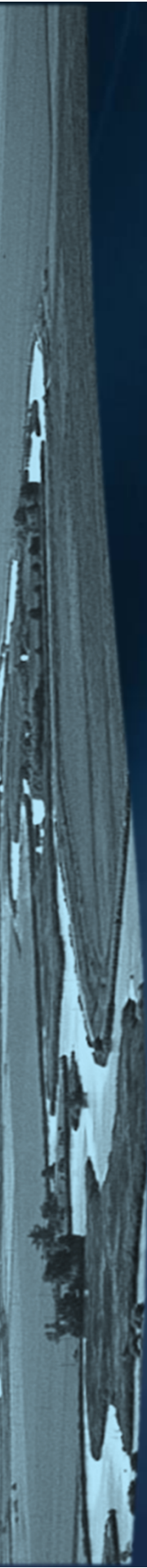
Central Delta – Refinements & Continued Optimization



Central Delta – Refinements & Continued Optimization



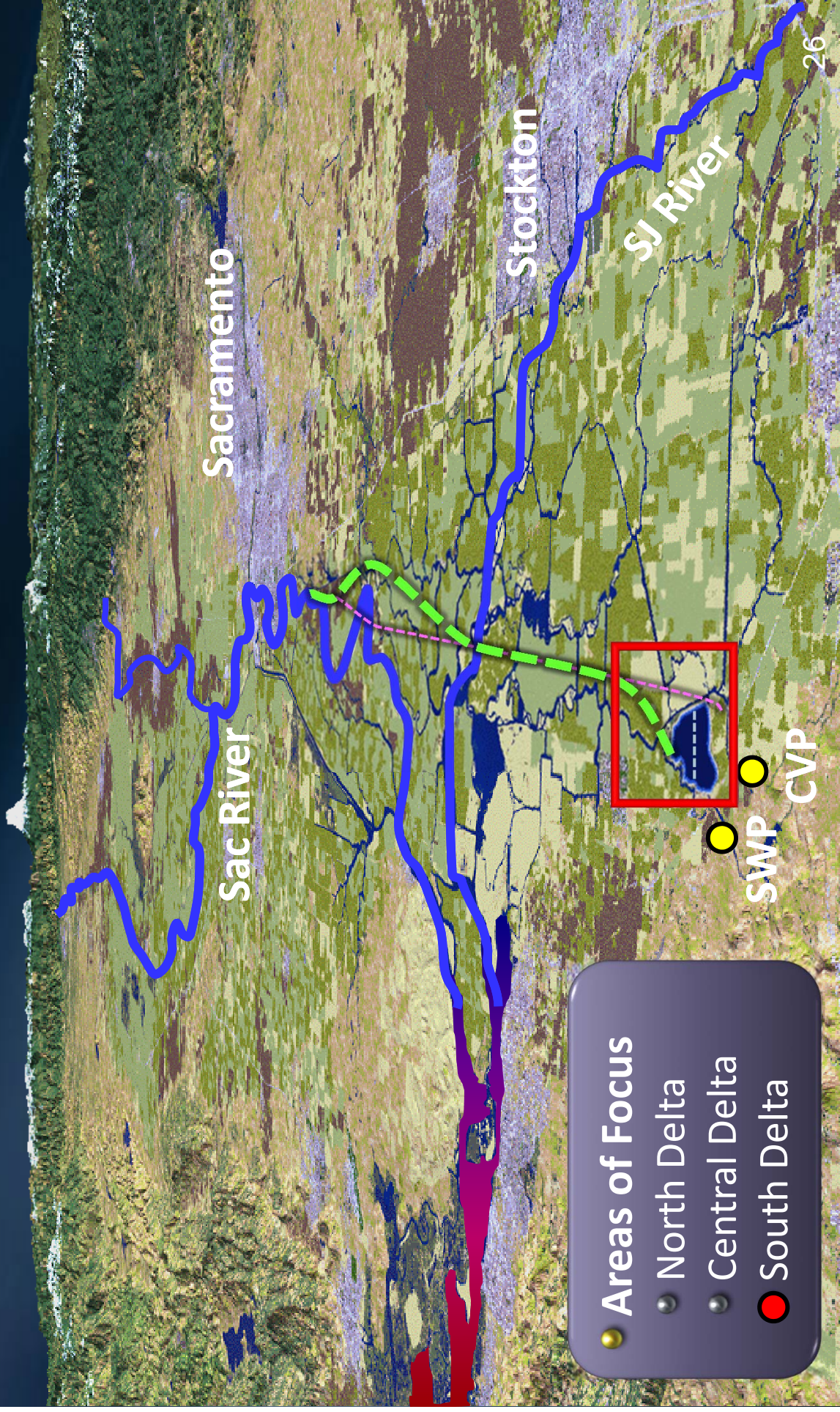
Central Delta – Refinements & Continued Optimization



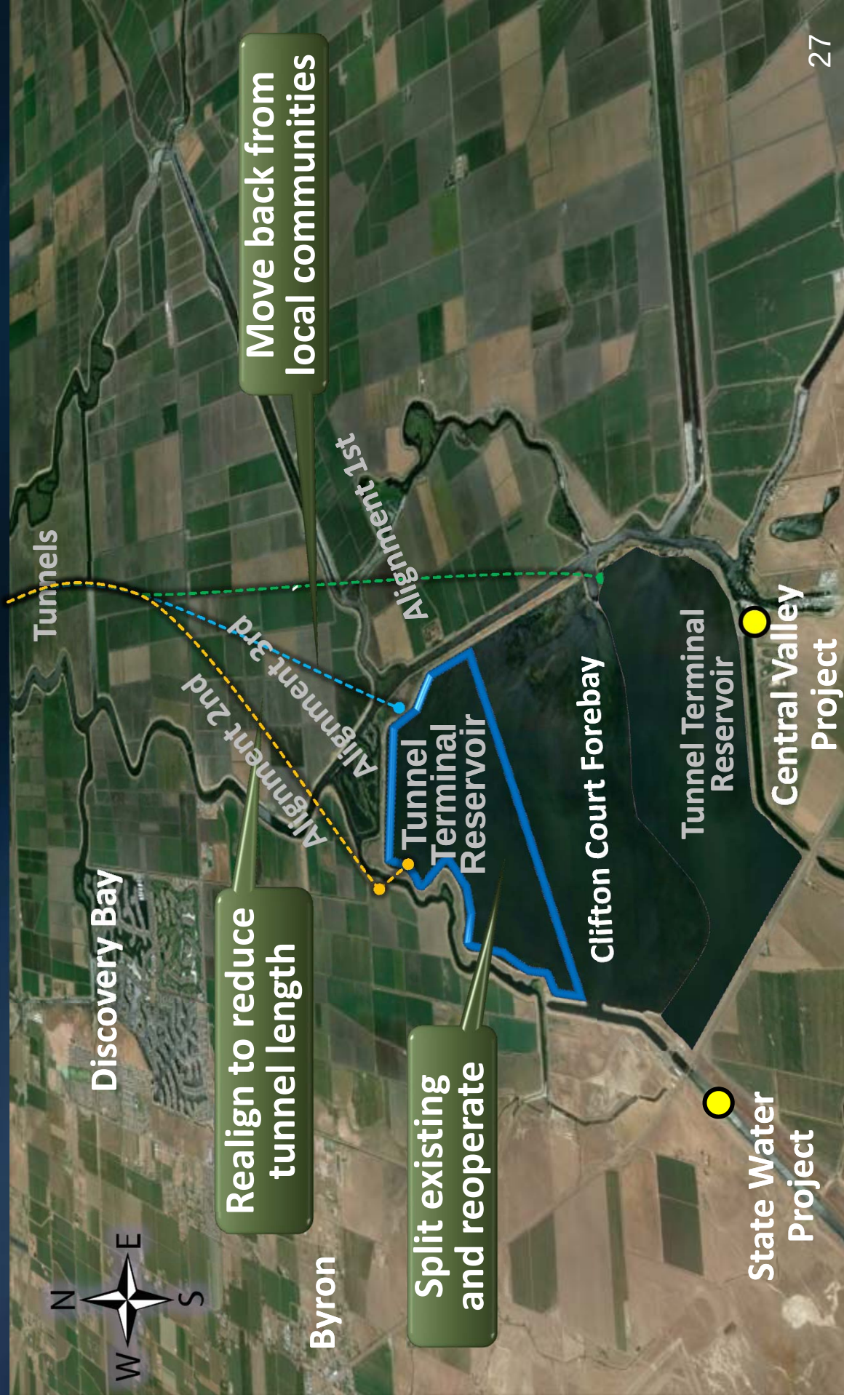
Summary – Central Delta

- Initial Refinements
 - Moved tunnel alignment away from local communities (from under Tyler Island to Staten Island)
 - Moved forebay away from local communities (from Pierson to Glanville Tract)
- Continued Optimization
 - Minimized construction activities and permanent footprint on Staten Island
 - Eliminated tunnel material stockpiles on Staten Island

South Delta – Refinements & Continued Optimization



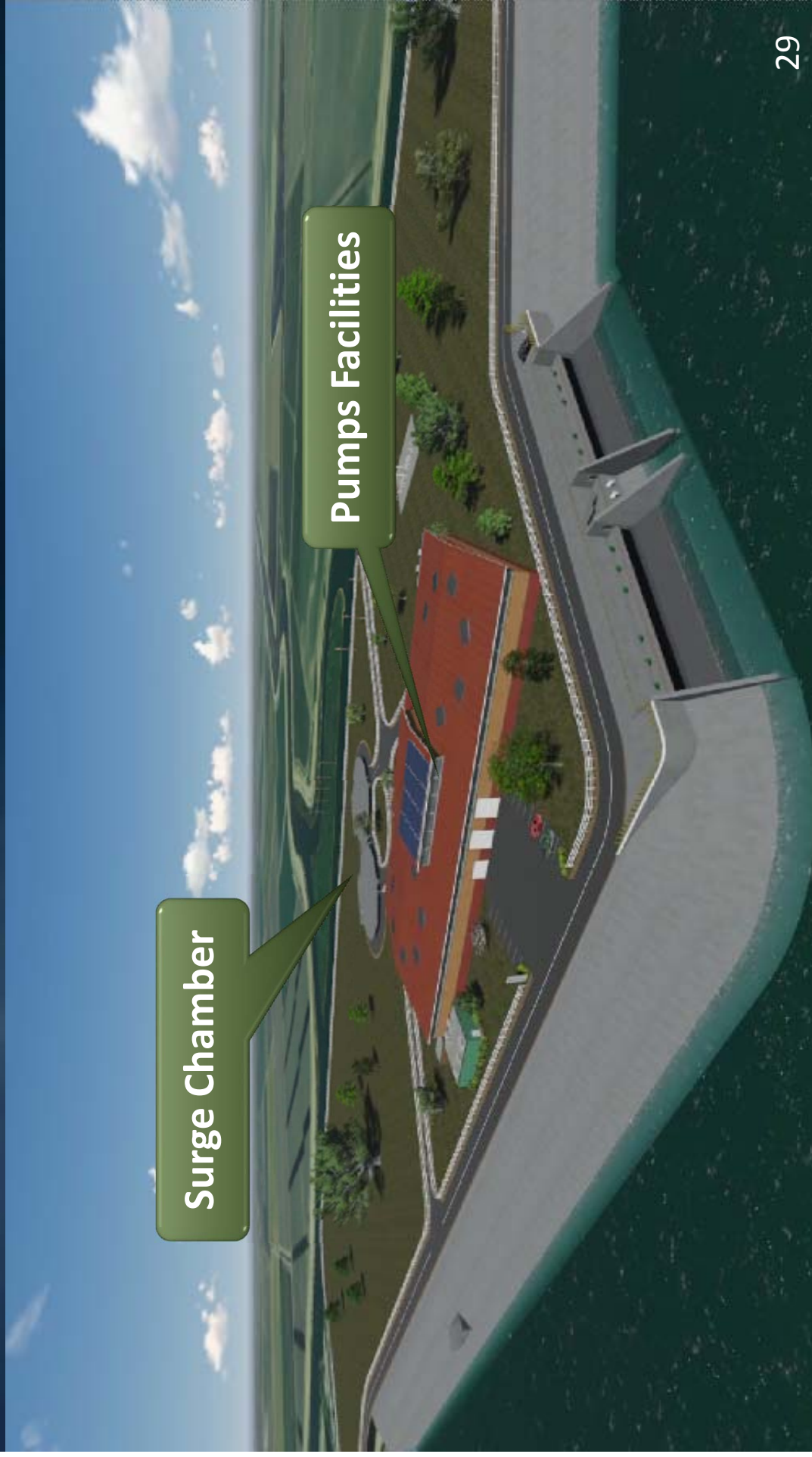
South Delta – Refinements & Continued Optimization



South Delta – Refinements & Continued Optimization



South Delta – Refinements & Continued Optimization



South Delta – Refinements & Continued Optimization



South Delta – Refinements & Continued Optimization

Optimized to reduce
visual impacts

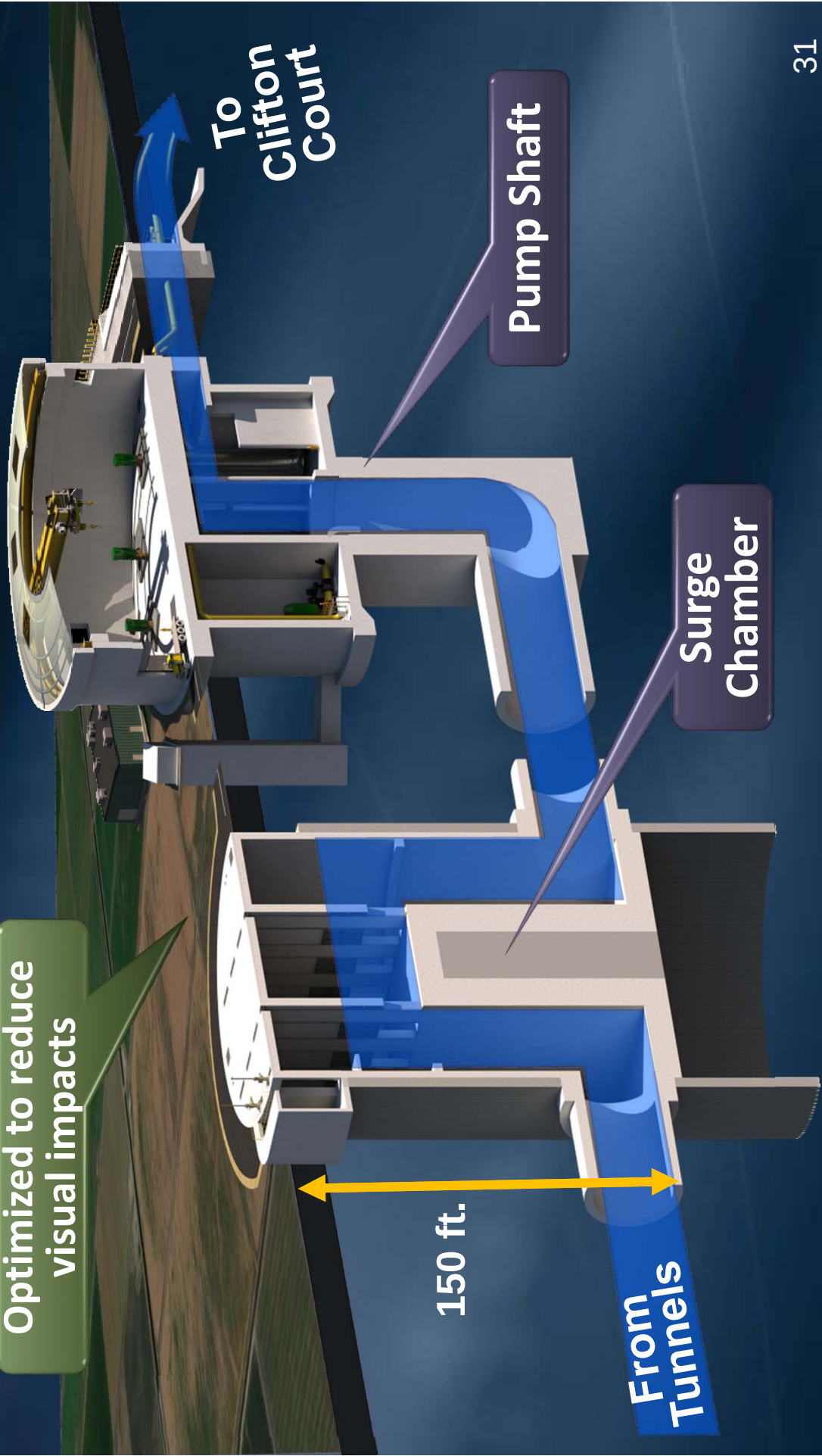
150 ft.

From
Tunnels

Surge
Chamber

Pump
Shaft

To
Clifton
Court



South Delta – Refinements & Continued Optimization

Summary – South Delta

- Initial Refinements
 - Eliminated tunnel drive shafts on Victoria & Bacon Islands
 - Removed tunnel soil stockpiles on Victoria & Bacon Islands
- Continued Optimization
 - Optimized use of public lands (moved tunnel terminus & project pump station onto existing DWR property)

Summary of Benefits

- **Environmental & Community**

- Reduced overall facility footprint by one-half since 2013
- Reduced intakes on Sacramento River from 5 to 3
- Eliminated all north Delta pump plants & high voltage lines
- Reduced visual impacts near the town of Hood
- Moved forebay away from Courtland and reduced size
- Reduced construction activities on Staten Island (Sandhill Crane habitat)
- Removing tunnel launch facilities, large reusable tunnel material storage areas, barge landing site, & high voltage transmission lines

Summary of Benefits

- **Operational & Other**

- Consolidated pumps in the south Delta to reduced tunnel operation & maintenance, and improve long-term reliability
- Optimized use of DWR-owner property for less footprint
- Standardized tunnel segment design
- Shortened main tunnels

More on Ecosystem?



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Flows & Fish: Enhanced Flexibility

North Delta

- Modern intake screens allow fish to bypass without salvage
- Flexibility to divert excess flood flows & reduce fish impacts during low flow periods

South Delta

- Reduces reverse flows in river
- Less fish salvage at pumps

SWP Pumps ●
CVP Pumps ●

Flows & Fish: New Constraints

North Delta

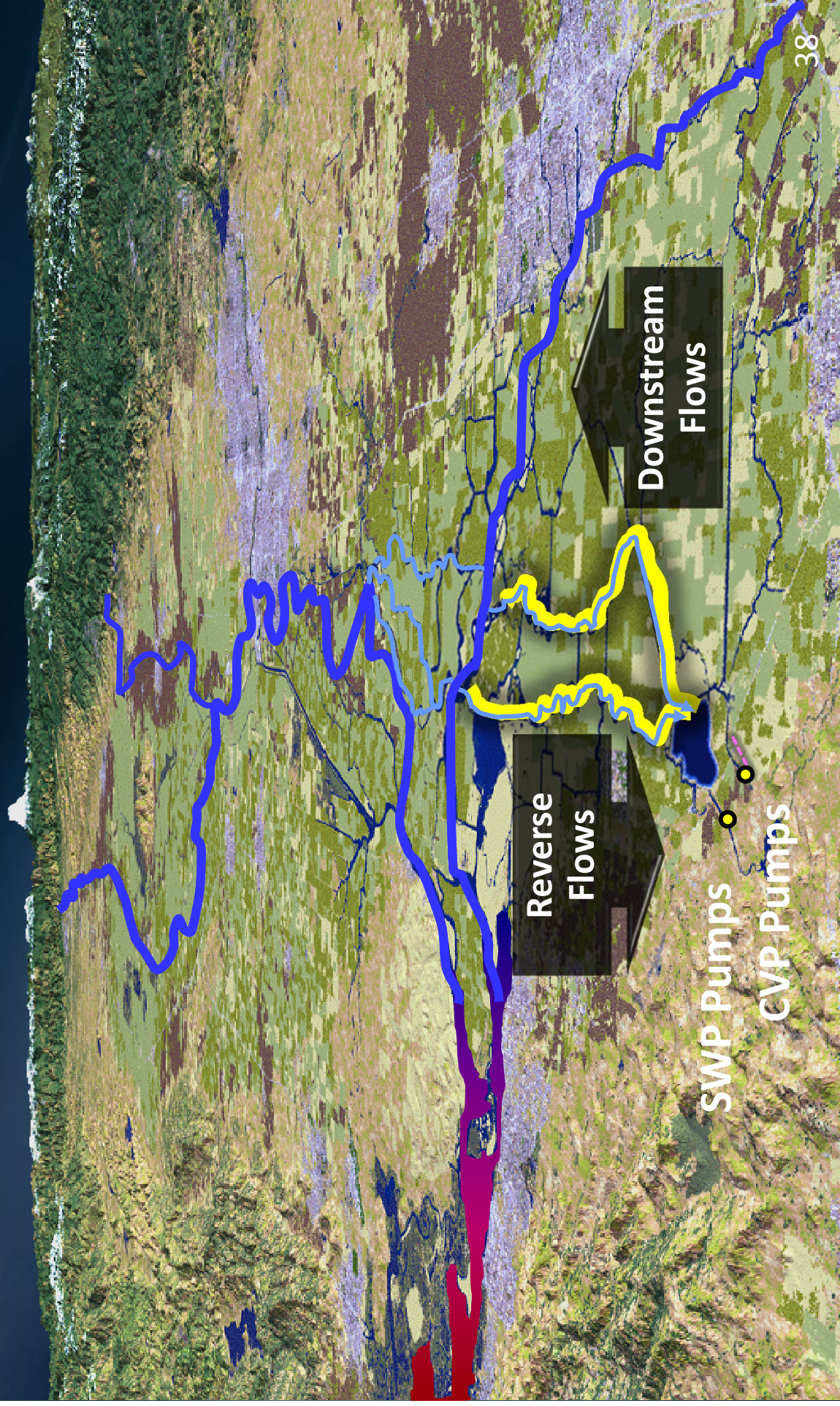
- Diversions limited during fish migration & lower river flows
- Mandated intake bypass flows
- New Rio Vista minimum flow std.
- Additional Spring outflow regs.

South Delta

- More restrictive reverse flow limits in Old & Middle River
- New Head of Old River barrier

SWP Pumps
CVP Pumps

Reverse Flow & Fish Take Reduction





State & Federal Project Supplies

History of Regulatory Restrictions



State & Federal Project Supplies

Annual Average (in 2025)

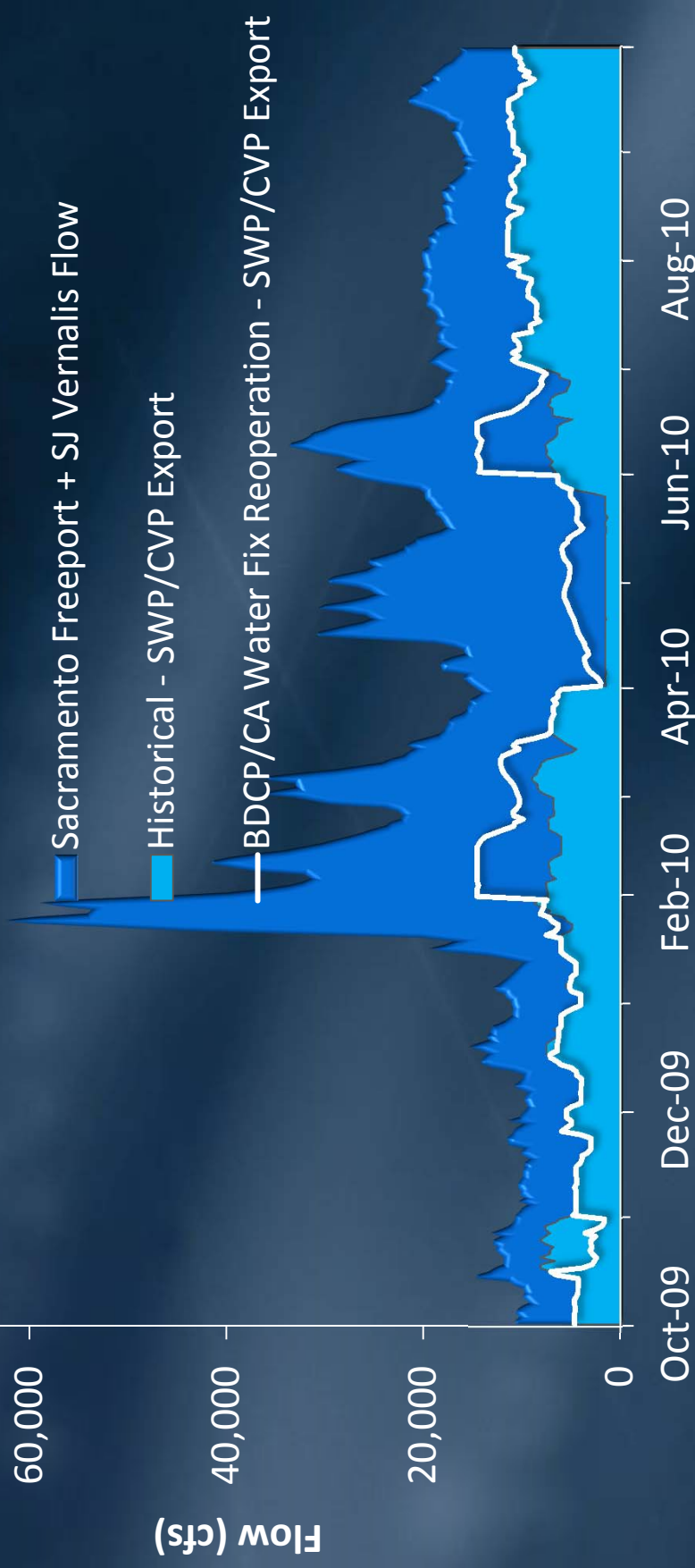


Data based on hydrological period (1922-2003); indicates average annual SWP & CVP water supply exports with climate change in 2025

- 4.7 maf/yr – Existing Regulations (No Action Alternative) represents no new conveyance and no new/additional restrictions
- 3.5 maf/yr – BDCP Proposed Regulations without Northern Intake (Existing Conditions High Outflow Scenario); BDCP Chapter 9
- 1.5 maf/yr – Earthquake scenario BDCP Chapter 9; analyzed by Dr. David Sunding; minimal exports 1.5 to 3 years after earthquake
- 4.7 – 5.3 maf/yr – NEW BDCP / Cal Water Fix Preferred Alternative (evaluated in Draft EIR/S as Alternative 4A H3-H4)

Excess Storm Flows – WY 2009-2010

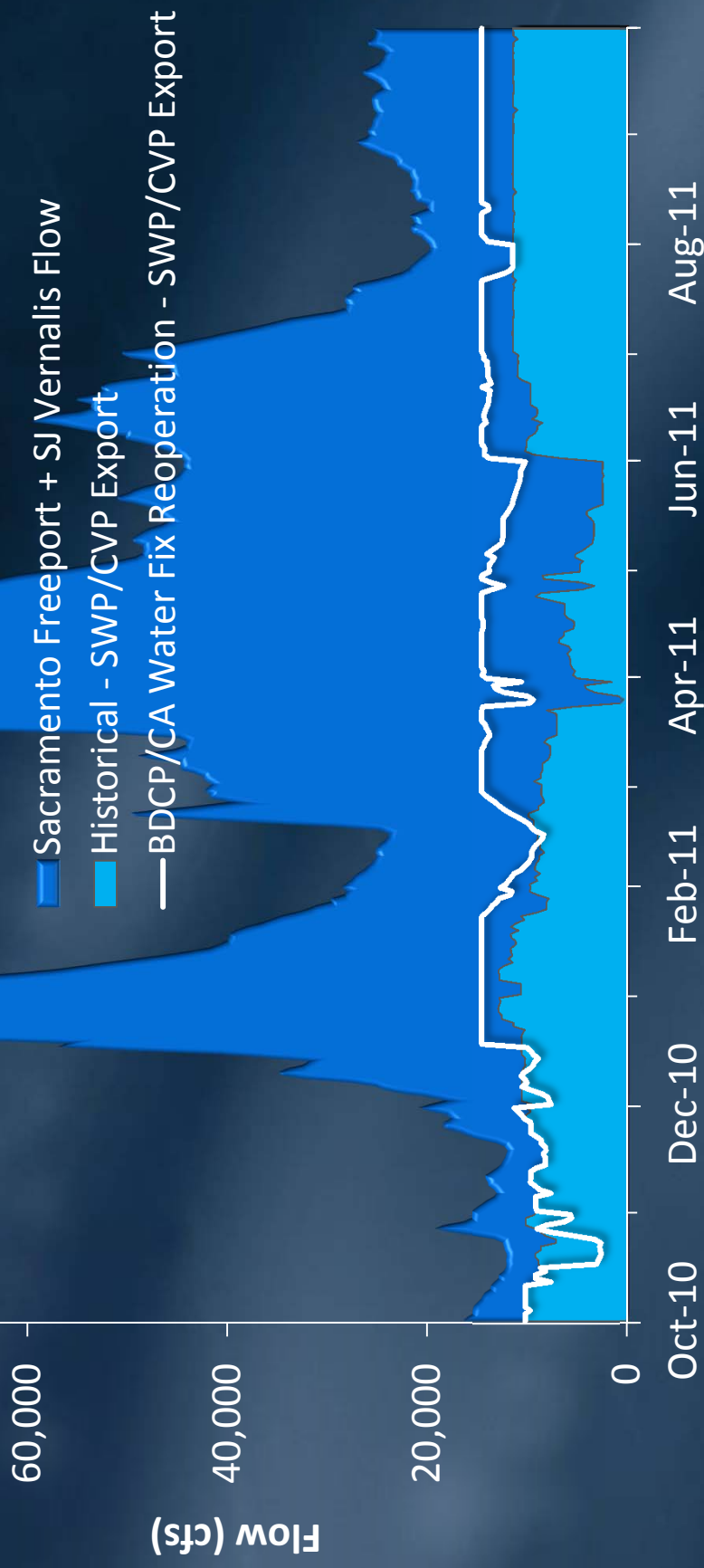
Reoperation Analysis with BDCP Cal Water Fix Alt. 4A



Water Year	Year Type	Excess Flow Period	Reoperation Benefit
2009-2010	Below Normal	1/20/2010 - 3/16/2010	450,000 AF

Excess Storm Flows – WY 2010-2011

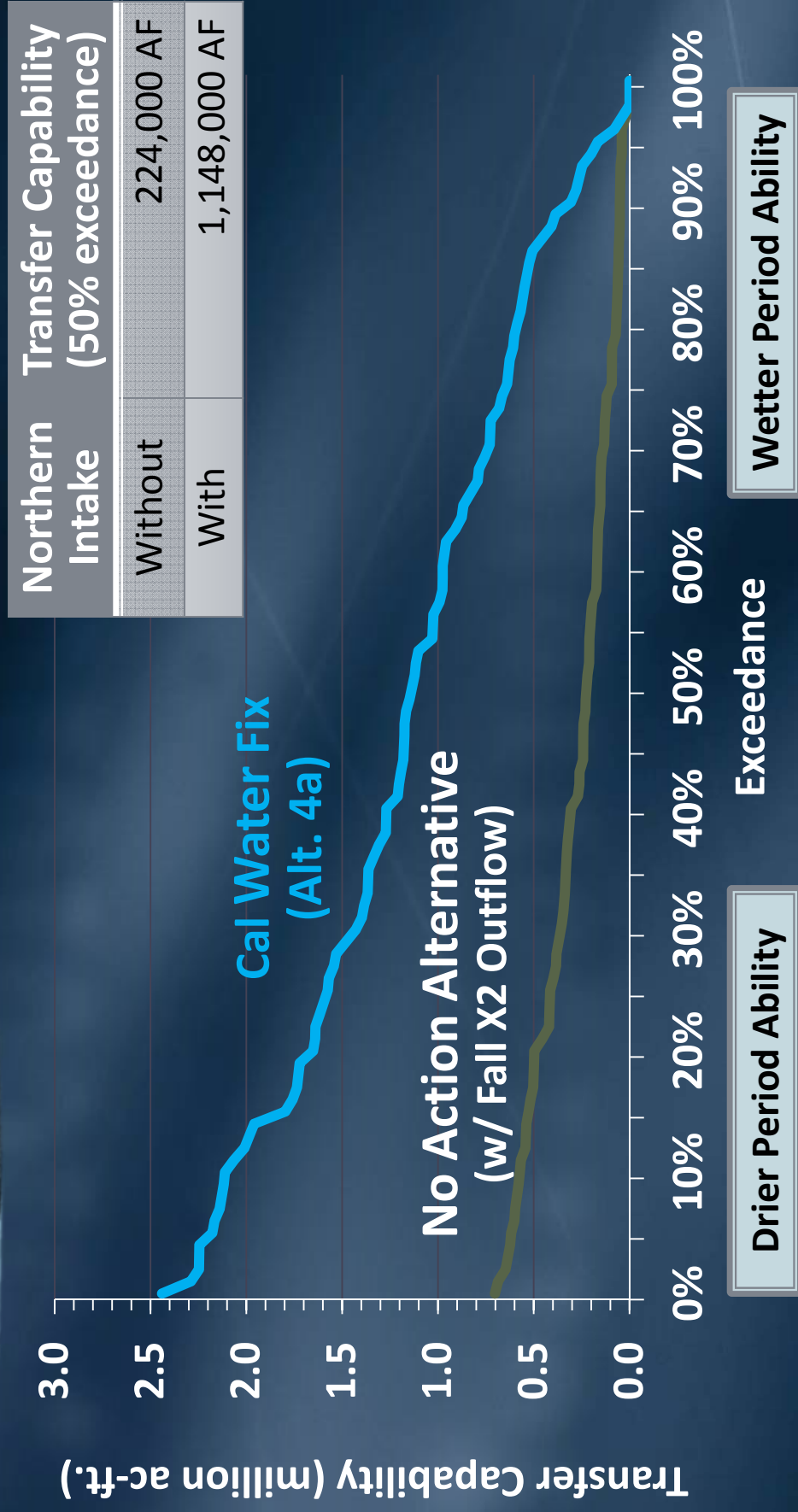
Reoperation Analysis with BDCP Cal Water Fix Alt. 4A



Water Year	Year Type	Excess Flow Period	Reoperation Benefit
2010-2011	Wet	12/07/2010 - 7/11/2011	2,530,000 AF

State & Federal Project Supplies

Water Transfer Capability



- Data represents modeled transfer capability; Seller willingness & actual deliveries not represented



Possible Next Steps

- 2015
 - Draft EIR/S Public Comments Deadline (Oct 30, 2015)
 - Assess impacts on water resources & financial plans
 - Assess costs & business case for continued investment
- 2016
 - Final EIR/EIS
 - Record of Decision/Notice of Determination
 - Section 7 Biological Opinion and 2081 Permit
 - Other state & federal permits
 - Approval of associated agreements

More Resources?



www.baydeltaconservationplan.com

