Stakeholder Workshop
September 15, 2017

Interlake Tunnel and Spillway Modification

Workshop venues

1. AG Commissioner's Conference Room, 1428 Abbot Street, Salinas – 9:30 – 11:30 AM. – July 13, 2017

2. Heritage Ranch, Lake Nacimiento – 2:00 – 4:00 PM – September 15, 2017

Stakeholder workshop agenda

1. Introductions
2. Meeting Purpose
3. Project Purpose \ Project Objectives
4. Project description overview
5. Accomplishments to date
6. Project status report
7. Project plan and cash flow forecast
8. Four month look ahead
9. Questions

Introductions

Project Owner

EPC Consultants, Inc

Program Management

HOLLENBECK CONSULTING

Phenix Environmental Planning

Horizon WATER and ENVIRONMENT

Environmental services

McMILLEN JACOBS ASSOCIATES

GEI Consultants

Engineering services

Purpose of meeting

1. Share information with the project stakeholders and public regarding the project status and planned activities.
2. Identify concerns of stakeholders to be addressed during project design.

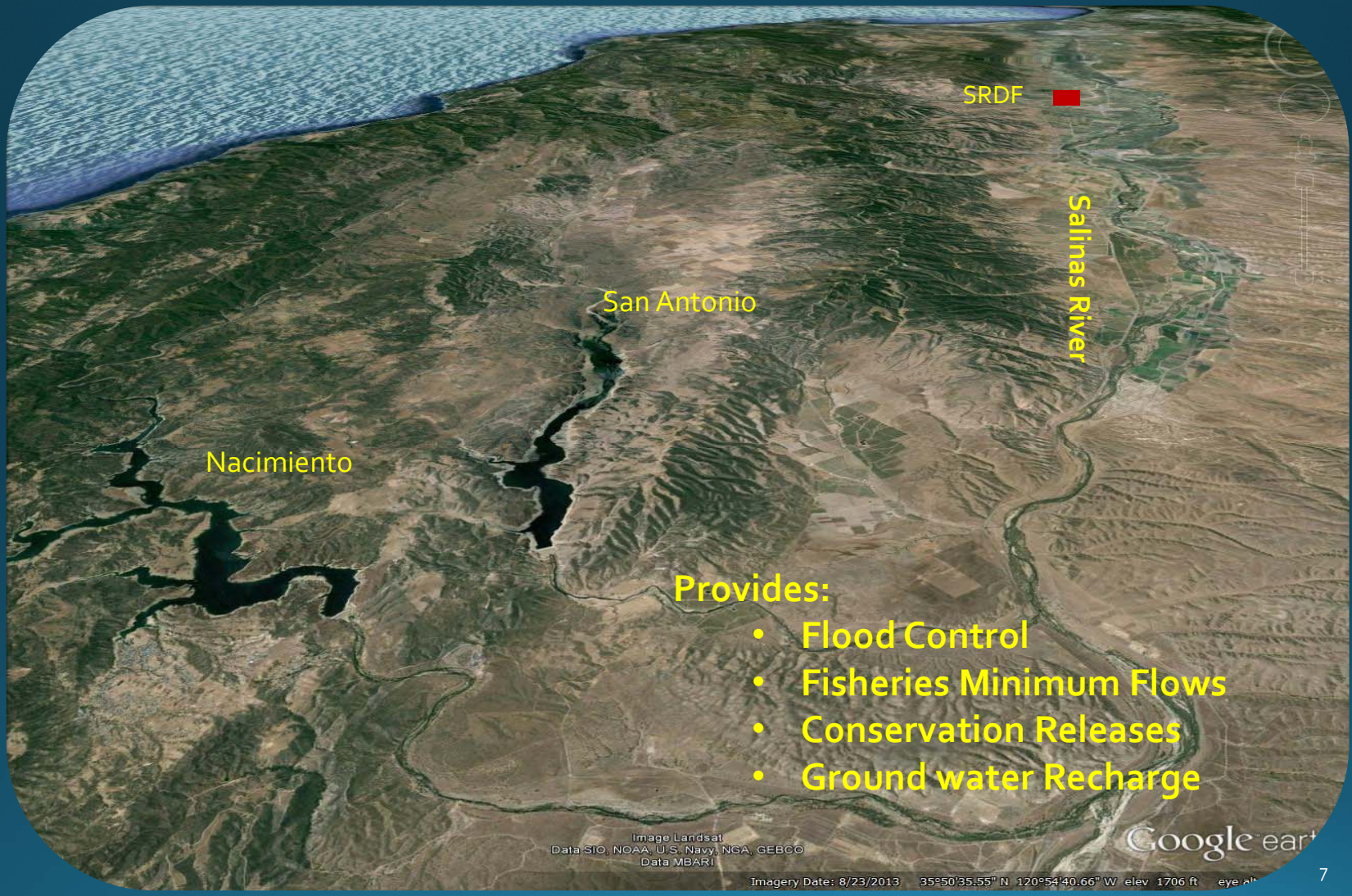
Purpose of the project

The Monterey County Water Resources Agency manages, protects, and enhances the quantity and quality of water and provides specified flood control services for present and future generations of Monterey County.

The Interlake Tunnel is a proposed beneficial project under the auspices of MCWRA to provide flood control and enhance the quantity of water supply for Monterey County.

Salinas Valley Surface Water Supply

2 reservoirs, Salinas River, & Salinas River Diversion Facility (SRDF)



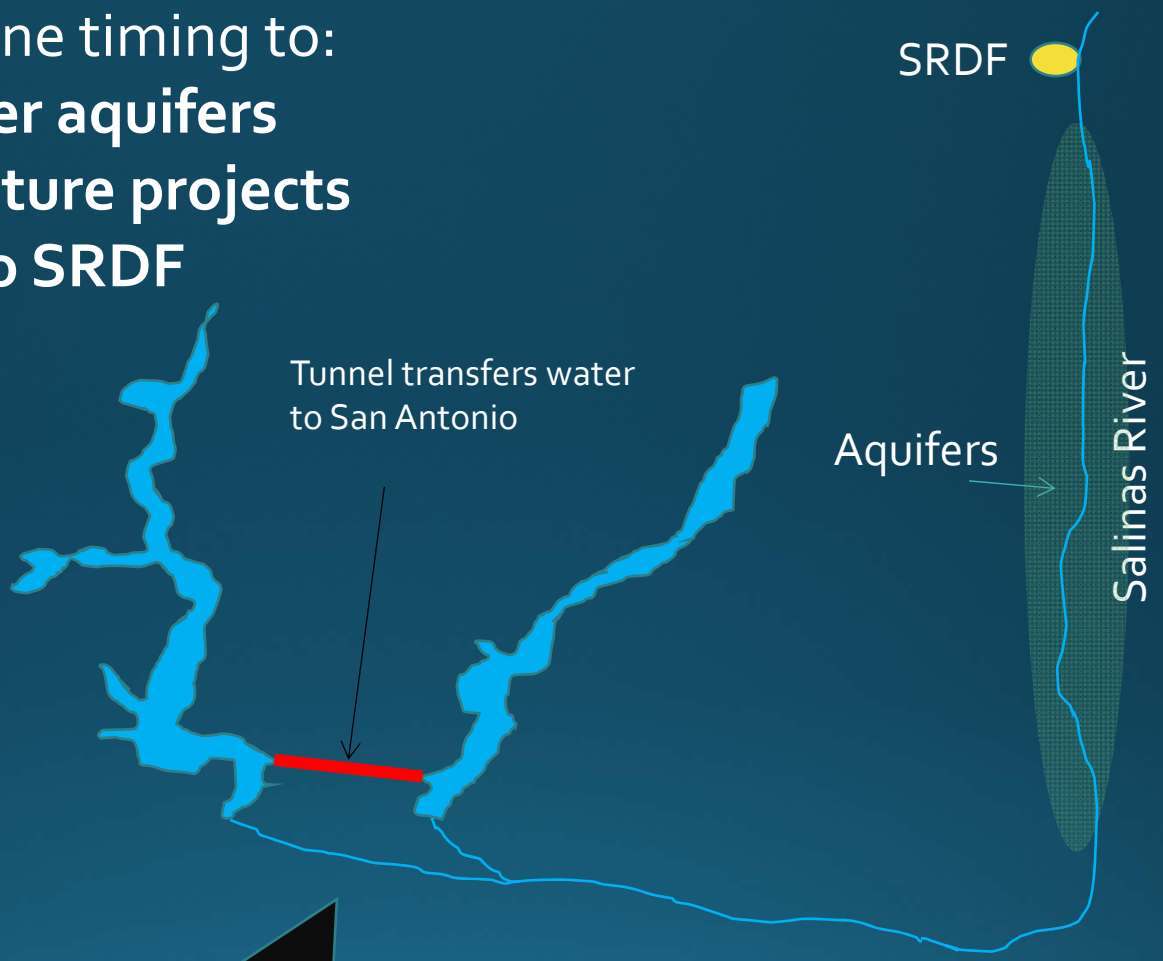
Water supply sustainability

Release water at opportune timing to:

1) **Recharge groundwater aquifers**
2) **Supply for possible future projects**
3) **Augment deliveries to SRDF**

Benefits Include

1) Increased flood control
2) Increased supply of surface water
3) Increased downstream flows for steelhead

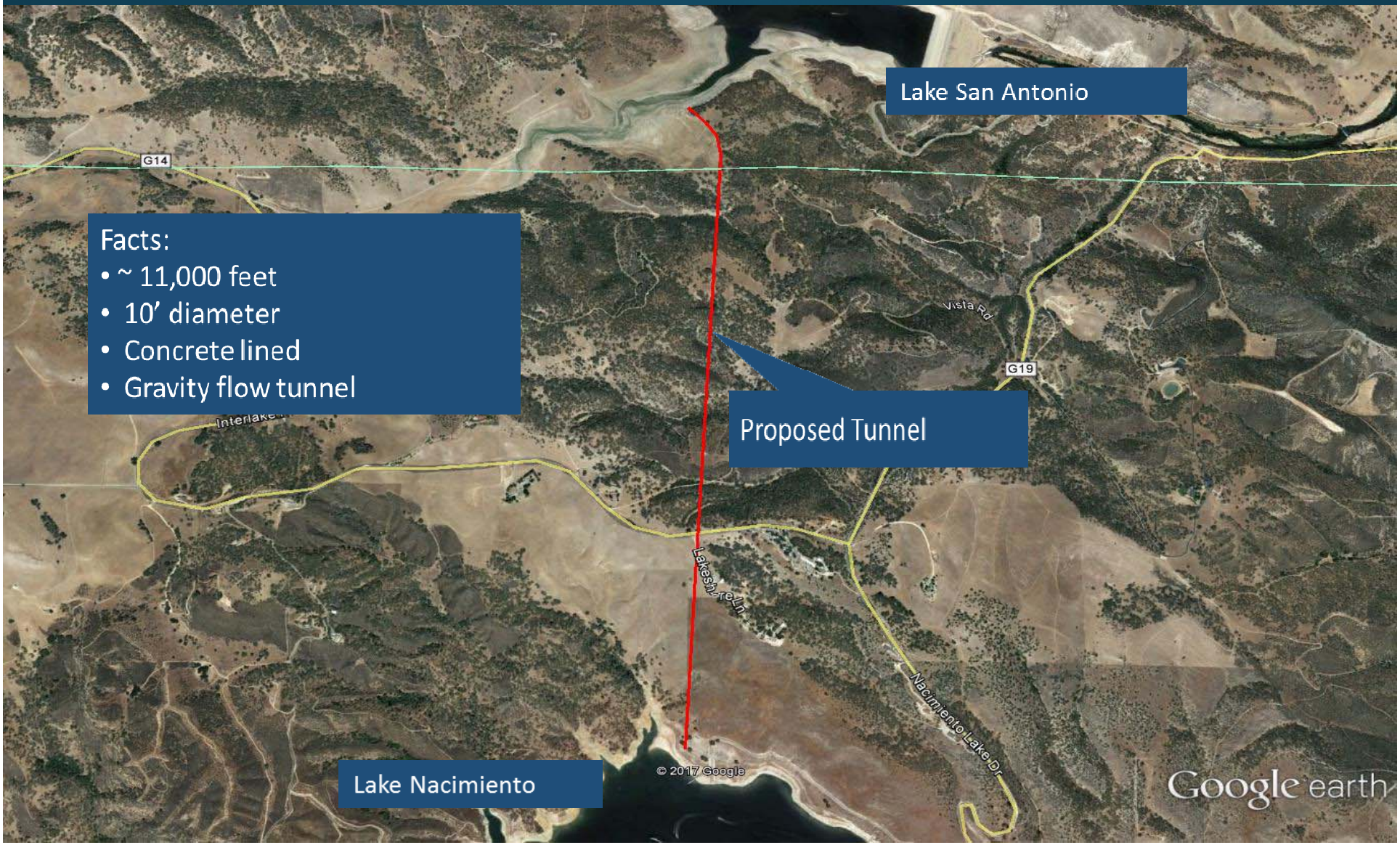


Additional water available for:
- Supply to future projects
- Recharge groundwater

Project objectives

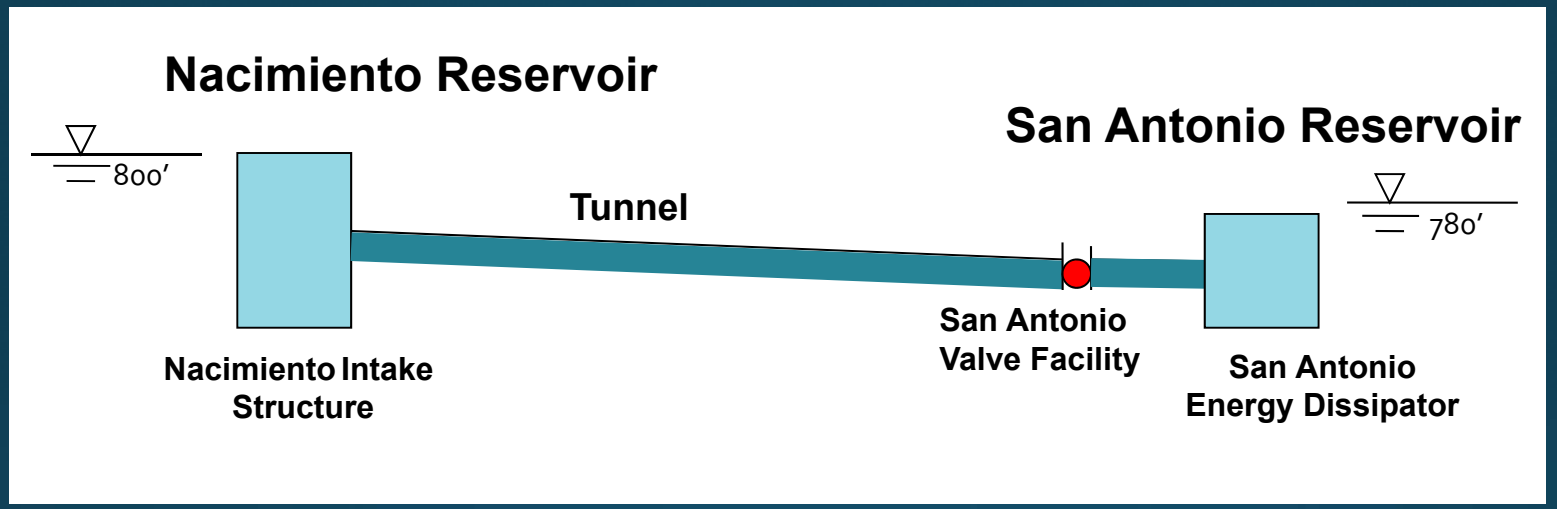
1. Minimize flood releases from Nacimiento reservoir and reduce associated downstream flood damages;
2. Increase the overall surface water supply available from Nacimiento and San Antonio reservoirs by maximizing the opportunity for water to be collectively stored in the reservoirs;
3. Improve the hydrologic balance of the groundwater basin in the Salinas Valley and reduce seawater intrusion;
4. Continue to meet environmental flow requirements
5. Minimize impact on existing hydroelectric production
6. Preserve recreational opportunities in the reservoirs
7. Protect agricultural viability and prime agricultural land

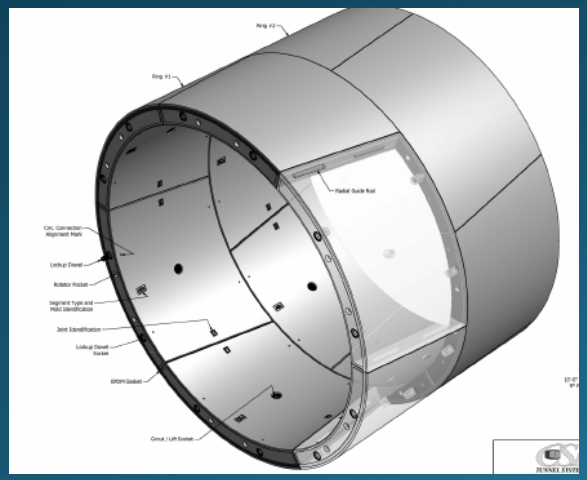
Project orientation

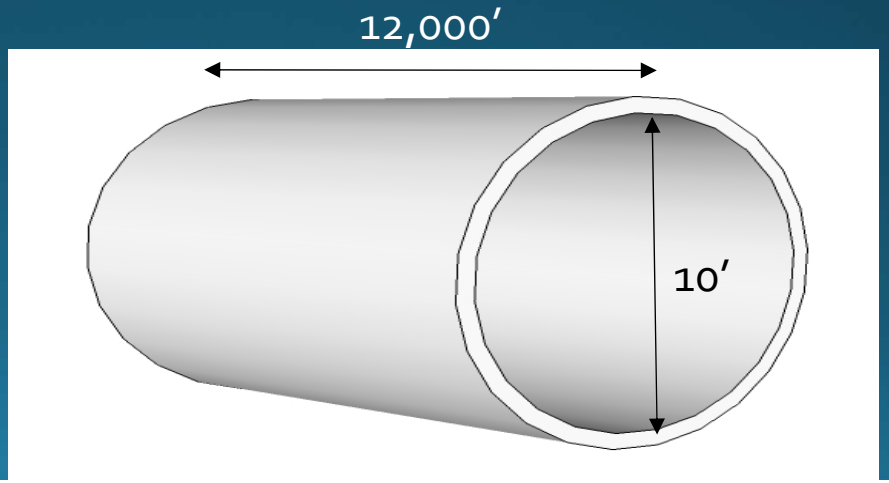


Interlake Tunnel Concept

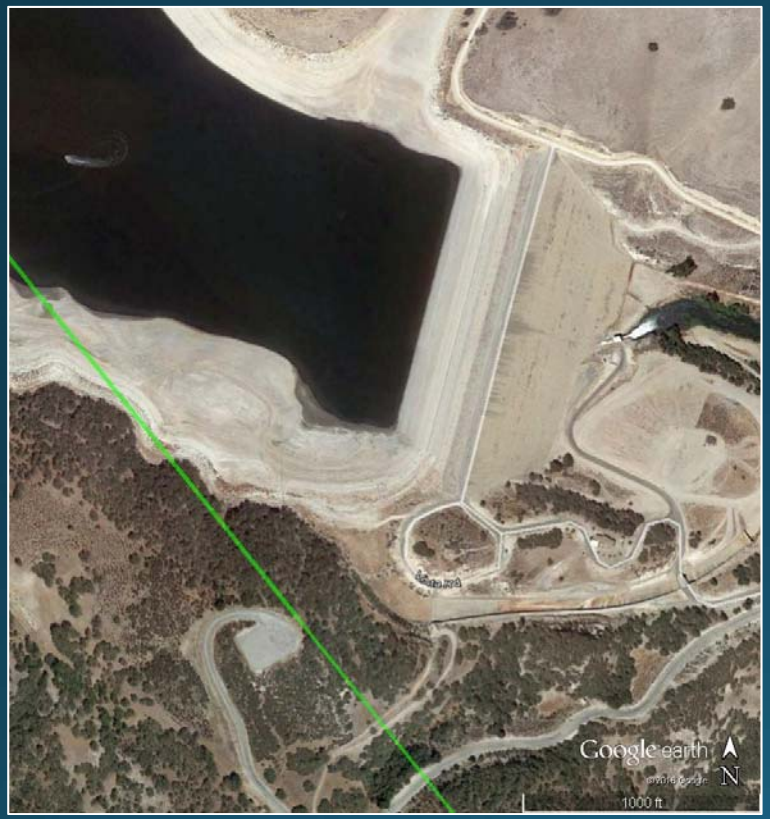
Tunnel maximum flow capacity ~ 1,700 CFS





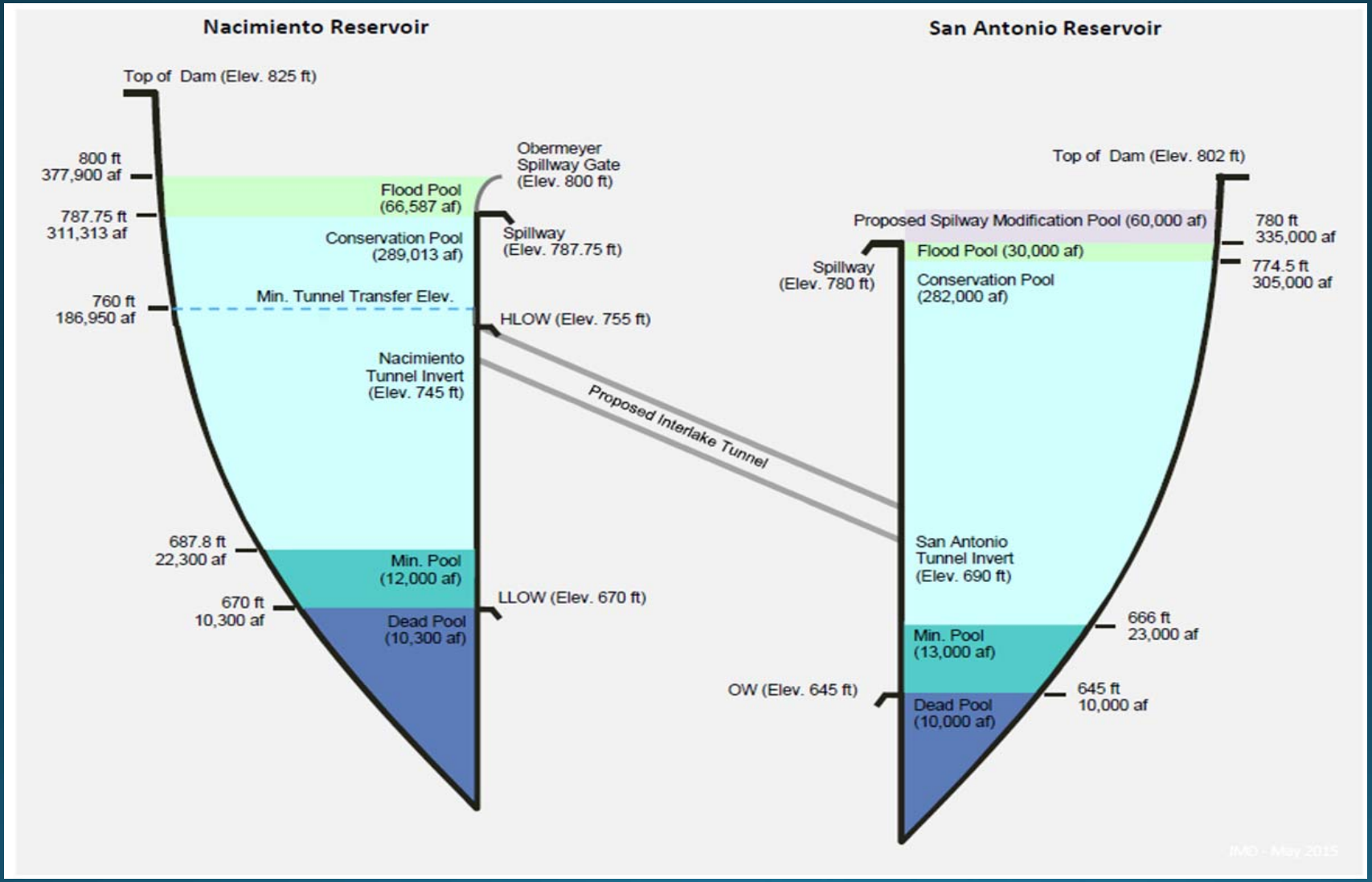


San Antonio Spillway Modification



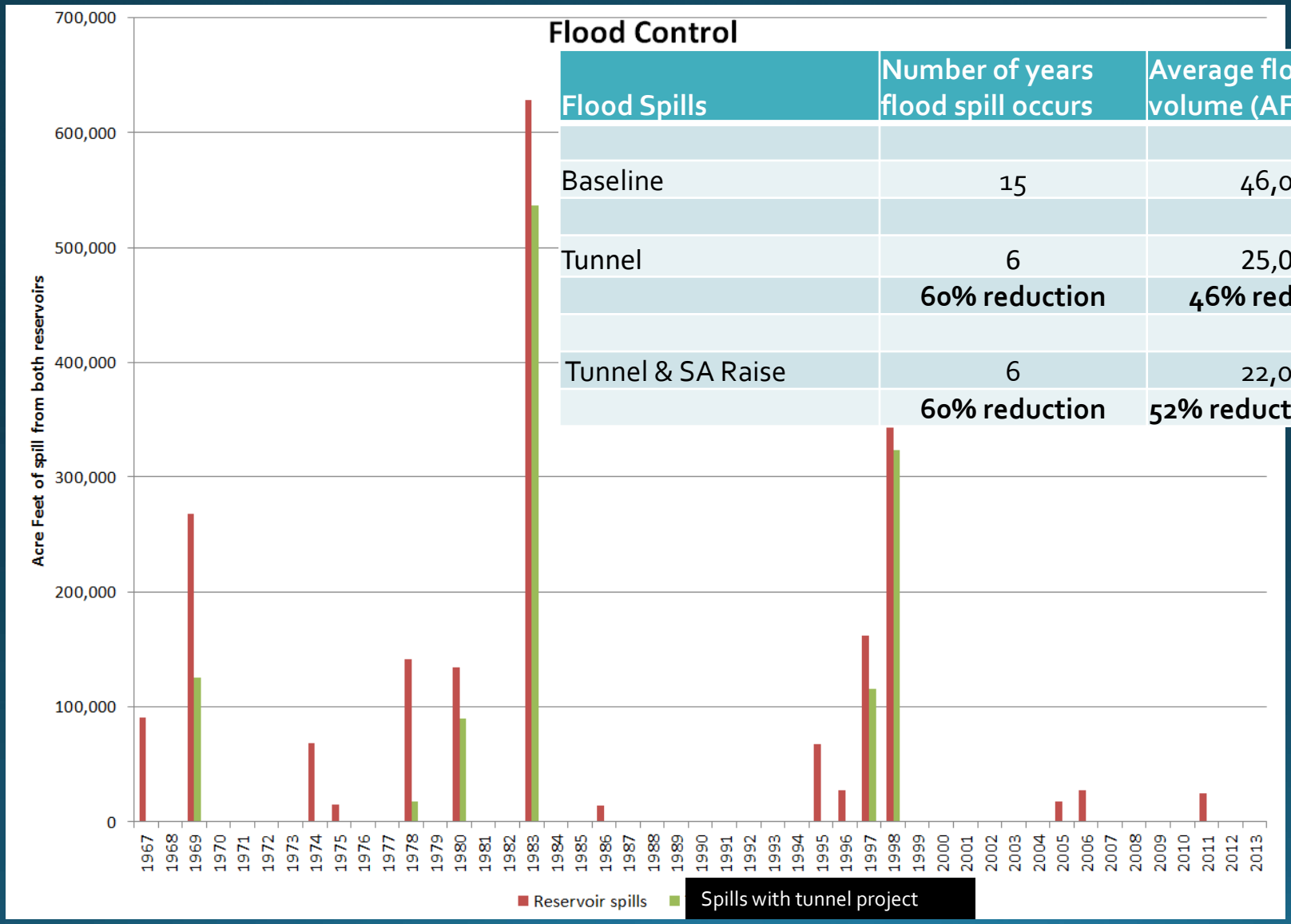
Increases storage to San Antonio Reservoir

Project hydraulics



In 2017 the tunnel would have moved 88,000 ACFT from Nacimiento to San Antonio of the 192,000 ACFT that was spilled to the ocean.

Flood Control Benefit



Flood Spills	Number of years flood spill occurs	Average flood volume (AFY)
Baseline	15	46,000
Tunnel	6	25,000
	60% reduction	**46% reduction**
Tunnel & SA Raise	6	22,000
	60% reduction	**52% reduction**

Interlake Tunnel Project
Preliminary Operational Modeling Results

(Water years 1967 - 2013)
(Average Acre Feet/Year)

	Reduction in Spills	Increase in Total Controlled Releases	Tunnel Transfers
Tunnel	7,736	5,390	50,493
Tunnel & SA spillway mod*	11,857	8,101	53,840

Flood Spills	Number of years flood spill occurs	Average flood volume (AFY)
Tunnel	**60% reduction**	**46% reduction**
Tunnel & SA spillway mod	**60% reduction**	**52% reduction**

* (Adds 59,000 AF of reservoir storage to San Antonio)

Does not include operating scenario to maximize beneficial use

Major accomplishments to date

- Initiated EIR process and completed scoping and NOP process.
- Completed environmental field studies.
- Collected groundwater / well information.
- Initiated project design and geotechnical exploration.
- Meetings with regulatory agencies to address permitting and white bass issue resolution.
  - NMFS
  - DSOD
  - CDFW
- Secured $10 million grant funding from DWR
- Basin hydrologic historical model (USGS) will support future modeling

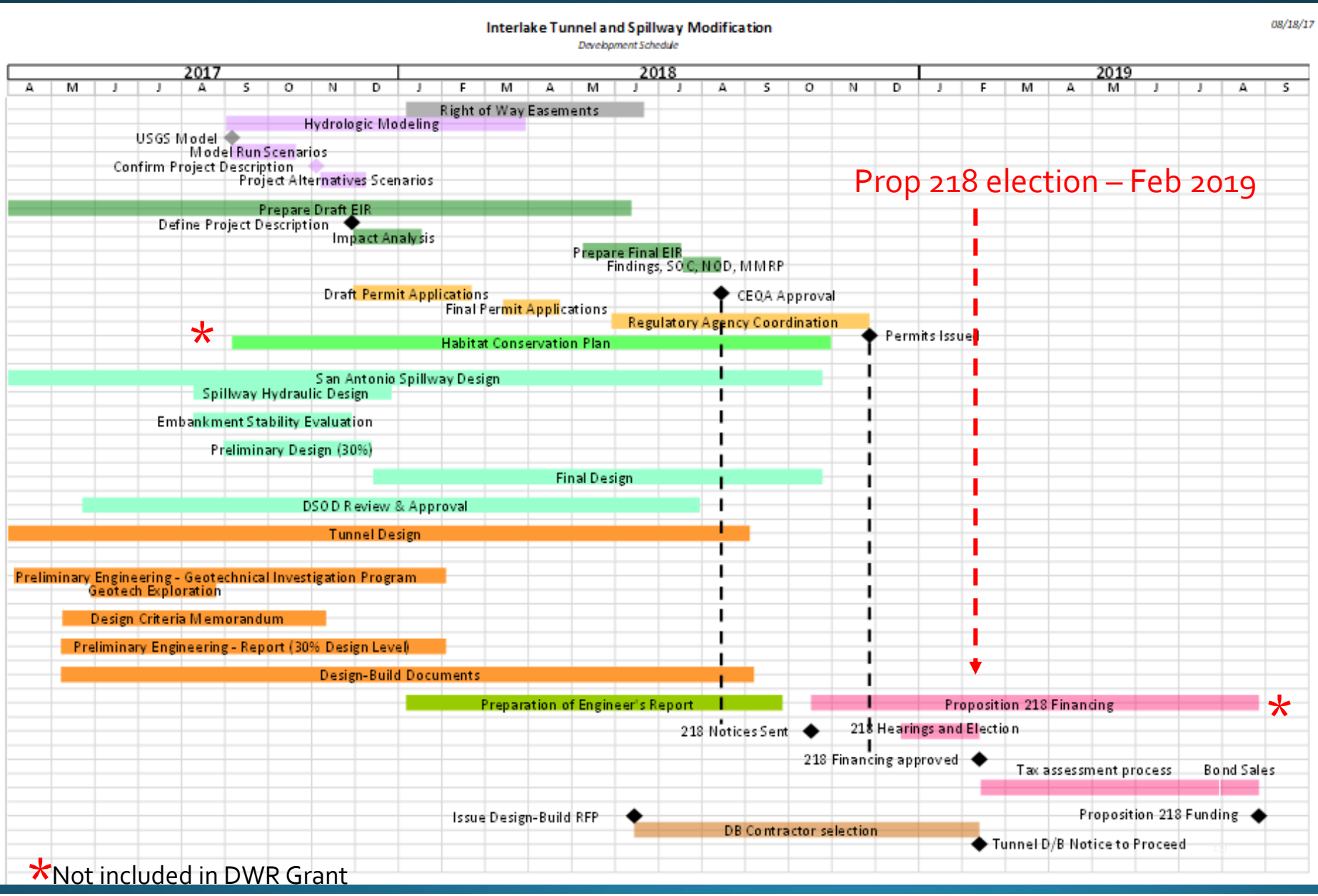
Project Status report

1. **Environmental clearance and permitting**
   - Regulatory approval status
     - NMFS – implementing HCP to fully address protection of endangered species.
     - CDFW – developing fish screen alternatives for white bass exclusion from the tunnel and related MOU with CDFW.
   - EIR progress
     - Defining project description and viable alternatives for impact analysis.
2. **Engineering and design status**
   - Confirmed location and design concept for Nacimiento intake structure
     - Evaluation of alternatives to address white bass issues with CDFW
   - Coordination meetings with DSOD and submittals to obtain permits for geotechnical exploration and project design development.

Project Status report – cont.

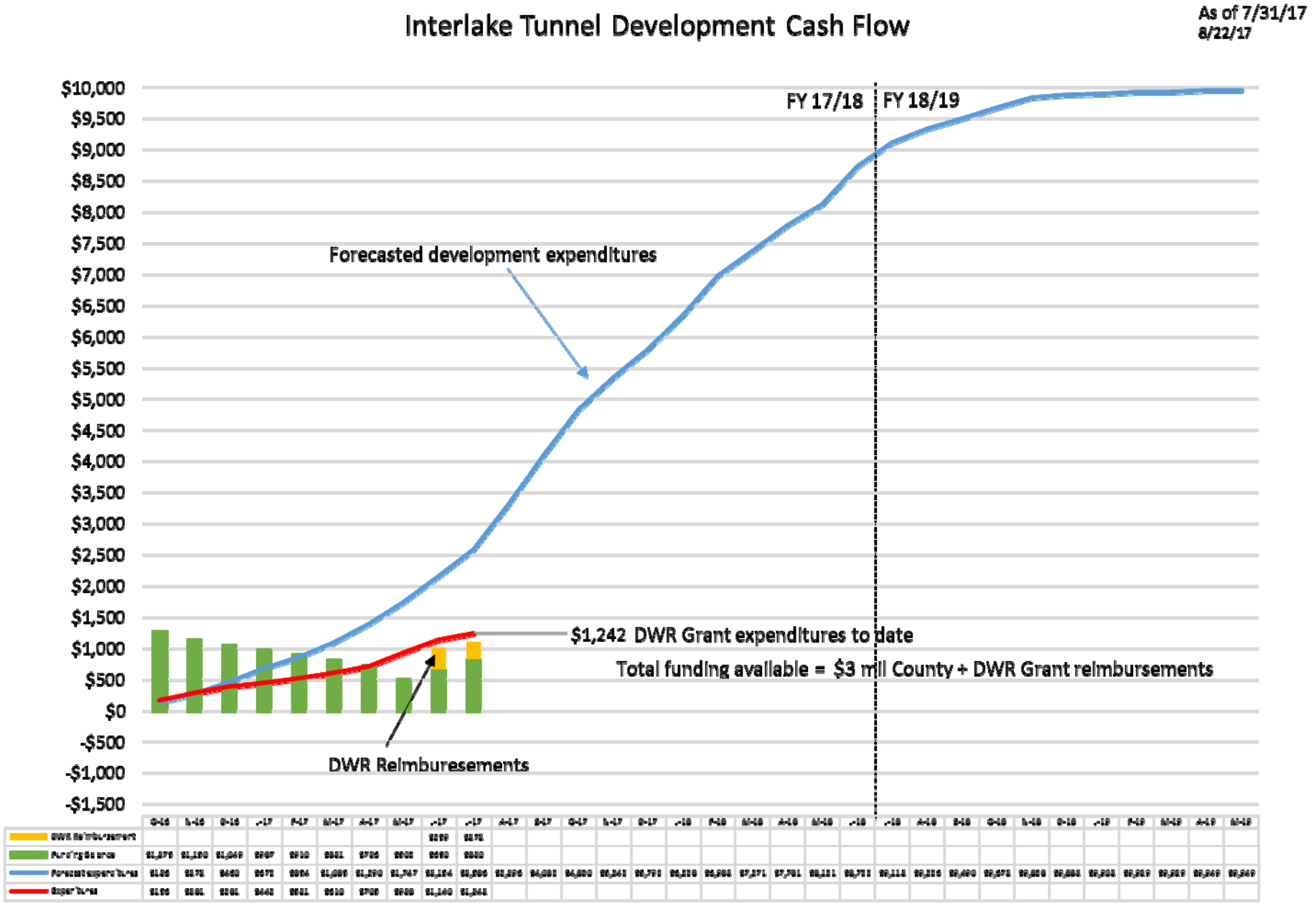
3. **Hydrologic modeling status**
   - Basin wide surface water/ground water model being developed by USGS for another project
     - Tunnel Project will utilize new basin wide model for benefits analysis
   - Consultant selected to operate USGS model
   - Developing scenarios and rules for model runs to define hydrologic performance of project.

Development schedule to Prop 218



*Not included in DWR Grant

Project development cash flow



Project Capital Budget

Interlake Tunnel Cost History As of August 18, 2017

Budget

	Dec 2015	August 2017
Conceptual Engineering	$ 314,952	$ 1,110,000
Environmental clearance and permits	1,198,400	$ 1,834,598
Tunnel design and geotechnical investigations	1,310,800	$ 2,834,097
Spillway engineering and final design		$ 1,766,692
ROW acquisition and water rights permit applica	244,000	$ 244,000
Financing	342,000	$ 462,000
Tunnel construction	32,206,000	$ 32,506,000
San Antonio Spillway Modification	15,000,000	$ 15,000,000
Fish Screen		$ 5,000,000
Program Management	1,386,695	$ 2,866,919
Construction Management	1,200,000	$ 1,200,000
Contingency	9,800,000	$ 10,290,000
Capitalized interest during construction		$ 3,400,000
Broker / Financing fees		$ 1,400,000
PLA Negotiations (EPC only)		$ 36,860
Habitat Conservationn Plan (tunnel focused)		TBD
Total	$ 63,002,847	$ 79,951,166

Four Month Look Ahead

1. Perform hydrologic modeling to complete project description and impact analysis for Draft EIR
2. Complete geotechnical investigations
3. Advance preliminary engineering on tunnel and spillway modification
4. Advance development of Habitat Conservation Plan (HCP)
5. Continued collaboration with regulatory agencies
6. Initiate water rights analysis for revised points of diversion and added storage
7. Complete MOU with CDFW regarding white bass solution

Geotechnical exploration plan

Tunnel:

5 borings

Spillway:

4 borings

Questions