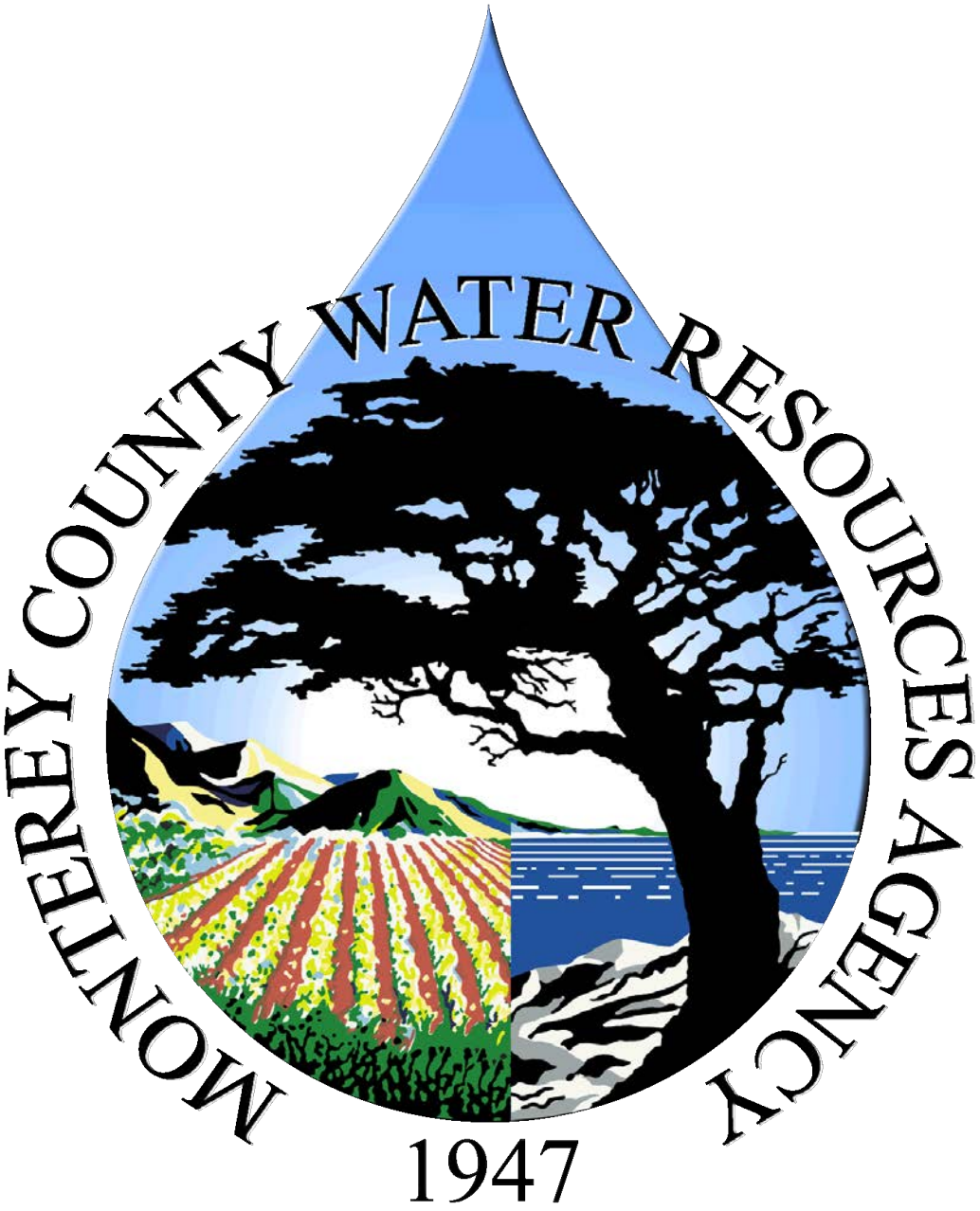

MONTEREY COUNTY WATER RESOURCES AGENCY
1947

Monterey County Water Resources Agency Board of Director's Workshop

Dam Safety & Operations Financial Strategy

July 9, 2025
10:00am

Dam Safety & Operations Financial Strategy

1. Goals of Dam Safety & Ops Financial Strategy
2. Review status of Dam Safety Projects and Grant Funding – San Antonio and Nacimiento
3. Review 2025-26 Fiscal-Year Dam Safety & Operations Budget
4. Review of the Agency's Existing Debt Obligations and Potential Long-Range Funding Options/Costs
5. Review of Dam Safety & Operations Potential Near-Term Funding Option
6. Current Examples of Cost Allocation Methods
7. Questions & Discussion

Introduction – Goals of Dam Safety & Operations Financial Strategy

The Agency's Mission:

"Manage water resources sustainably while minimizing impacts from flooding for present and future generations."

Achieving the Mission

Achieving the Mission

Achieving the Mission

Ensure Financial Sustainability

- Develop balanced budgets and Programs & Projects specific reserve targets;
- Develop financial forecasting, cost allocation, and recovery methods;
- Reevaluate Programs & Projects funding sources to ascertain potential revenue enhancements;
- Consider de-obligating un/under-funded activities to align remaining efforts with sustainable revenues;
- Develop funding strategies to support capital replacement and improvement;
- Expand grant writing and public funding capabilities.
- Timeframe: 3 years

Review status of Dam Safety Projects and Grant Funding – San Antonio

San Antonio Dam Safety Project Overview

- **SA Dam Safety List of Projects**
  - Overview of Cost Estimates
- **SA Dam Safety Project Descriptions**
  - San Antonio Spillway Replacement Project
    - Background
    - Update
    - Timeline
  - Low Level Outlet Works
  - Instrumentation Projects
  - Access Roads

San Antonio Dam Safety Projects

Project Schedule		Total Subproject Costs, 2023 Dollars	Total Subproject Costs, 2025 Dollars	Covered by Grants	Unfunded Need (2025)
San Antonio Subpojects					
1	Spillway Replacement	$ 76,776,780	$ 82,384,434	$ 3,800,000	$ 78,584,434
2	Butterfly Valve Hydraulic Operator Upgrade	$ 745,790	$ 800,261	$ 414,500	$ 385,761
3	Replace Intake Structure Bulkhead Gate	$ 409,810	$ 439,742	$ 448,000	$ -
4	Low Level Discharge Valve Maintenance	$ 279,270	$ 299,667	$ 305,000	$ -
5	Replace Combination Air Release Vacuum Valves	$ 241,820	$ 259,482	$ 219,200	$ 40,282
6	Install Access Hatch in Low Level Outlet Works Conduit	$ 780,030	$ 837,002	$ 348,600	$ 488,402
7	Replace Intake Structure Trash Racks	$ 1,002,590	$ 1,075,818	$ 278,750	$ 797,068
8	Interior and Exterior Paint of Low-Level Outlet Works Conduit	$ 4,579,600	$ 4,914,087	$ -	$ 4,914,087
9	Horizontal Drain Repair	$ 544,630	$ 584,409	$ 606,000	$ -
10	Toe Drain Repair	$ 272,850	$ 292,779	$ -	$ 292,779
11	Abutment Drain Repair	$ 680,520	$ 730,224	$ -	$ 730,224
12	New Piezometers	$ 1,898,180	$ 2,036,820	$ -	$ 2,036,820
13	Road Pavement Repair	$ 680,520	$ 730,224	$ -	$ 730,224
14	New Access Road	$ 3,787,800	$ 4,064,455	$ -	$ 4,064,455
15	Install Boat Barrier Buoy Line and Replace Spillway Log Boom	$ 544,630	$ 584,409	$ -	$ 584,409
San Antonio Total		**$ 93,224,820**	**$ 100,033,813**	**$ 6,420,050**	**$ 93,648,944**

SB104
(DWR Grant Agreement – San Antonio ONLY)

San Antonio Spillway Replacement

- Oroville 2017 (photo right)
- DSOD Spillway Condition Assessments 2017
- Rehab Investigation 2018-2022
  - Estimated at $1m+ expended
- DSOD Letter 2022
  - Formal mandate for full replacement
  - McMillen Contract BOD September 2023

San Antonio Spillway Replacement Project

1. Project completion extension granted to December 2031
2. Currently finalizing the Probable Maximum Flood (PMF) & Alternatives Analysis Report
3. Environmental analysis initiated summer 2025
4. Begin 30% Design Fall 2025

NOTE: Estimate $77 million

San Antonio Spillway Replacement Project
TIMELINE

- "Project Construction" includes project float
- Subject to DSOD review and approval
- Subject to permitting
- Subject to construction funding
- Schedule as of 7/7/25

San Antonio Spillway Project	Wed 9/18/24	Wed 12/31/31
PMF Update	Wed 9/18/24	Fri 8/15/25
DSOD Meeting	Wed 7/2/25	Wed 7/2/25
SASP PMF Resubmittal DELAY	Mon 5/19/25	Fri 8/15/25
DSOD PMF REVIEW Updated	Fri 8/15/25	Wed 10/15/25
SASP Alternatives Analysis	Mon 5/19/25	Fri 8/15/25
DSOD Alt Analysis Resubmittal	Fri 8/15/25	Wed 10/15/25
SASP 30% DSOD Design	Thu 10/16/25	Sun 11/16/25
30% Updated DSOD Submittal	Mon 11/17/25	Tue 2/17/26
MCWRA Revisions	Wed 2/18/26	Thu 3/19/26
SASP 60% DSOD Design Review	Fri 3/20/26	Mon 6/22/26
MCWRA Revisions	Mon 6/22/26	Wed 7/29/26
SASP 90% DSOD Design Review	Sat 8/1/26	Mon 11/2/26
MCWRA Revisions	Tue 11/3/26	Fri 12/4/26
SASP 100% DSOD Design Review	Sat 12/5/26	Thu 4/8/27
Project Construction	Sun 8/1/27	Wed 12/31/31

San Antonio Dam
Low Level Outlet Works (LLOW)

1. Boat Barrier Buoy Line Installation
2. Intake Structure Bulkhead Gate Replacement
3. Penstock Access Hatch
4. Butterfly Hydraulic Operator Upgrade
5. Intake Structure Trash Rack Replacement
6. Combination Air Release Vacuum Valves (6) replacements
7. Low Level Discharge Valve Assessment and Servicing
8. Penstock Recoating (downstream of BV)

NOTE: LLOW Combined Estimate $8 million

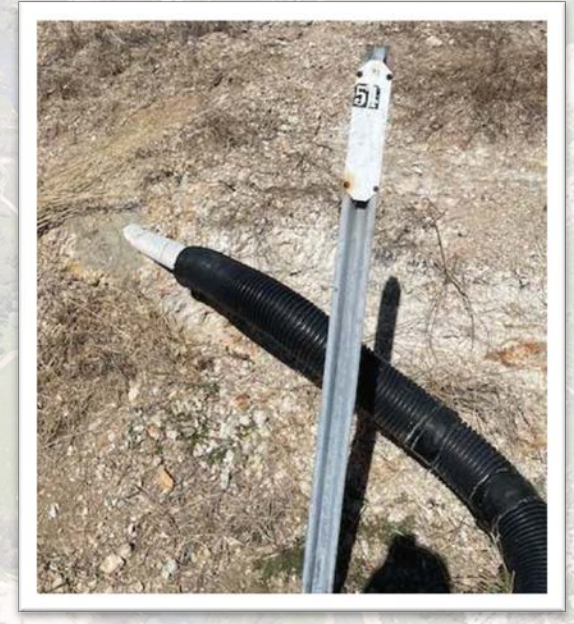
LLOW Intake 2015

San Antonio Dam Safety Projects

New Piezometers & Drains (Toe and Abutment):

SA contains all original monitoring instrumentation. Annually, the Agency is required to report bi-monthly readings of all instrumentation to DSOD for submission and review via the Annual Instrumentation Performance Report. Some piezometers have been requested to be investigated and repaired by DSOD. The costs associated with these projects includes condition assessments and repairs/replacements.

Note: Estimate $1.9 million



San Antonio Dam Safety Projects

12” Horizontal Drain Repair

A 130 foot 12” CMP horizontal drain runs adjacent to the LLOW tunnel at the toe of the dam. The original pipe is deteriorated and is in need of repair/replacement. The repair will include inserting a smaller diameter pipe and backfilling the annular space with slurry. Design is 90% Complete. Primary remaining costs are for construction funding.

Note: Estimate $600,000

San Antonio Dam (access / private) Roads

Site Pavement Improvements:
Resurfacing of all site roads at the facility.

Access Road New Low Level Crossing:
During high flows, the access road would allow for crews to cross the downstream

NOTE: Some access roads will be part of the Spillway Replacement Project. Estimate $4 million

Review status of Dam Safety Projects and Grant Funding – Nacimiento

Nacimiento Dam Safety Projects

	Project Schedule	Total Subproject Costs, 2023 Dollars	Total Subproject Costs, 2025 Dollars	Covered by Grants	Unfunded Need (2025)
Nacimiento Subprojects					
1	Replacement of Three Low Level Outlet Valves and Discharge Piping	$ 1,328,940	$ 1,427,000	$ 350,000	
2	Spillway Evaluation, Investigation, and Maintenance Repairs	$ 3,811,340	$ 4,089,714	$ 850,000	
2A	Spillway Rehabilitation	$ 24,456,990	$ 26,243,290		
3	Spillway Plunge Pool Erosion Control	$ 23,140,890	$ 24,831,064	$ 13,000,000	
4	Low Flow Channel Sand Boil Prevention	$ 15,527,840	$ 16,661,969		
5	Modify Low-Level Outlet to Provide Flow Control and Energy Dissipation	$ 5,447,370	$ 5,845,237	$ 1,800,000	
6	Low Level Intake Valve Actuator Replacement	$ 500,000	$ 536,519	$ 500,000	$ 36,519
7	Dam Embankment Seismic Stability Evaluation and Implementation	$ 1,597,510	$ 1,714,190		$ 1,714,190
8	Spillway Bridge Maintenance	$ 574,590	$ 616,557		$ 616,557
9	Nacimiento Lake Drive Road Repair	$ 4,175,140	$ 4,480,086		$ 4,480,086
10	Protection of Powerplant Penstock from Adjacent Slope Failure	$ 1,760,150	$ 1,888,709	$ 300,000	$ 1,588,709
11	Security Upgrades	$ 1,524,750	$ 1,636,115		$ 1,636,115
Nacimiento Total		**$ 83,845,510**	**$ 89,970,449**	**$ 16,800,000**	**$ 73,170,449**

Nacimiento Dam Projects In Progress

$6.1 mil DWR Grant Funded (End Nov 30, 2027)

- Plunge Pool Erosion Protection Design
  - Geotechnical investigation in progress
- LLOW Flow Control Valve & Flow Meter
  - In design
- LLOW Intake Actuators
  - Installation scheduled FY26
- LLOW & Penstock Protection
  - Design start FY26

Other Projects Underway

- South Access Road Repair
  - Pursuing FEMA funding 2023 storm repair

Nacimiento Dam- LLOW Valve Installation

Nacimiento Dam- Partial Spillway Repair

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Nacimiento & San Antonio Dams

The Dam Safety Projects list identified $177 mil (2023) in project needs for both dams.

- $83.8 mil (2023) in projects for Nacimiento Dam, and
- $93.6 mil (2023) for San Antonio Dam.

A total of $22.2 mil in State Grant funds has been secured for dam safety projects through November 2027 (Nacimiento $16.8, San Antonio $6.4 mil).

Approximately $166.8 mil (2025) of the identified dam safety projects at both facilities remains unfunded.

The list of dam safety projects will continue to grow as additional needs are identified by Agency staff or as required by FERC and DSOD.

Review 2025-26 Fiscal-Year Dam Safety & Operations Budget

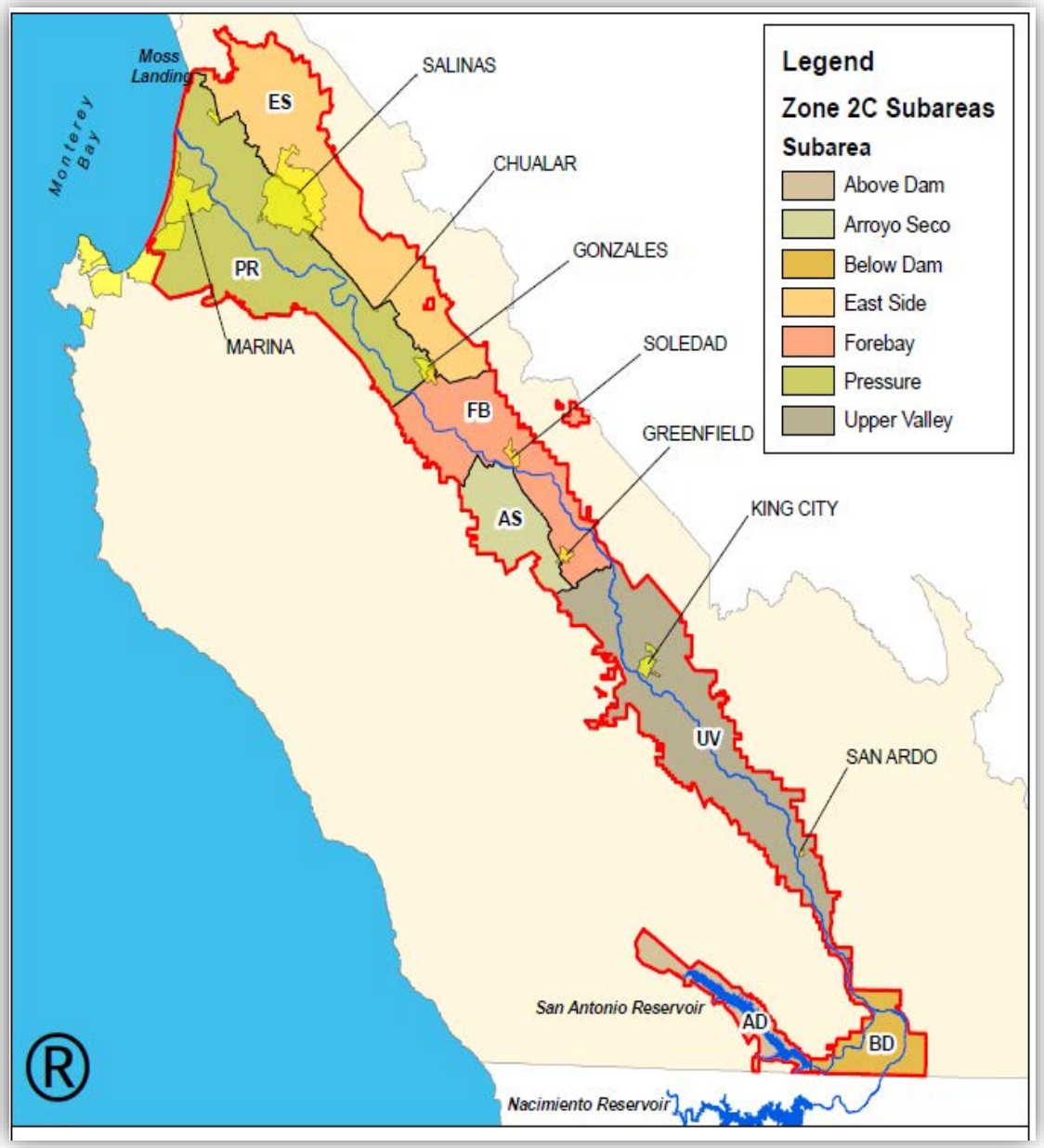
Nacimiento and San Antonio Dams' Funding History Summary

- **April 1948:** Zone 2 established for Nacimiento Dam and Reservoir Project

- **January 1960:** Zone 2A established (Resolution 60-2) for San Antonio Dam and Reservoir Project
- **June 1989:** Ordinances adopted that established water standby and availability charges to fund O&M
  - Ordinance 3397: for Zone 2 to fund Nacimiento O&M
  - Ordinance 3398: for Zone 2A to fund San Antonio O&M

- **July 2003:** Zone 2C established, funding O&M and capital projects (Ordinance 04203)
  - Confirms approval of Salinas Valley Water Project
  - Eliminated stand-by and water availability charged in Zones 2 and 2A
  - Locks future rates increases to the Consumer Price Index

Zone 2C Boundary



FY26 Rate : Zone 2C Operation & Maintenance

ZONE 2C BENEFIT ASSESSMENTS							
O&M of Nacimiento and San Antonio Dams							
Fiscal Year	2025-2026						
Subarea	Ext. Upper Valley Above Dam	Ext. Upper Valley Below Dam	Upper Valley	Forebay	Pressure	East Side	Arroyo Seco
Factor	Charge Per Acre						
A	12.60	13.53	12.16	12.62	26.65	14.47	4.65
B	12.60	13.52	12.16	12.62	26.65	14.47	4.65
C	1.22	1.37	1.20	1.22	2.61	1.46	0.46
D	0.13	0.17	0.13	0.13	0.24	0.17	0.05
I	-	-	-	-	-	-	-

A = Irrigated Agriculture

B = Residential (1-4 units), Apartments (over 4 units), Commercial, Institutional Land

C = Dry Farming, Grazing, Vacant Lot

D = River Channels and Lands with Frequent Flooding

I = Land receiving no charge

FY26 Rate : Zone 2C Administration

ZONE 2C BENEFIT ASSESSMENTS							
Administration							
Fiscal Year	2025-2026						
Subarea	Ext. Upper Valley Above Dam	Ext. Upper Valley Below Dam	Upper Valley	Forebay	Pressure	East Side	Arroyo Seco
Factor	Charge Per Acre						
A	1.85	1.85	1.85	1.85	1.85	1.85	1.85
B	1.85	1.85	1.85	1.85	1.85	1.85	1.85
C	0.15	0.15	0.15	0.15	0.15	0.15	0.15
D	-	-	-	-	-	-	-
I	-	-	-	-	-	-	-

A = Irrigated Agriculture

B = Residential (1-4 units), Apartments (over 4 units), Commercial, Institutional Land

C = Dry Farming, Grazing, Vacant Lot

D = River Channels and Lands with Frequent Flooding

I = Land receiving no charge

FY26 Rate : Zone 2C
Spillway Modification (Debt Payment)

ZONE 2C BENEFIT ASSESSMENTS							
Nacimiento Spillway Modification (NO COLA)							
Fiscal Year	**2025-2026**						
Subarea	**Ext. Upper Valley Above Dam**	**Ext. Upper Valley Below Dam**	**Upper Valley**	**Forebay**	**Pressure**	**East Side**	**Arroyo Seco**
Factor	**Charge Per Acre**						
A	1.82	1.28	1.04	1.14	2.86	2.18	0.46
B	1.82	1.28	1.04	1.14	2.86	2.18	0.46
C	0.18	0.12	0.10	0.10	0.28	0.22	0.04
D	0.02	-	-	-	0.02	0.02	-
A = Irrigated Agriculture							
B = Residential (1-4 units), Apartments (over 4 units), Commercial, Institutional Land							
C = Dry Farming, Grazing, Vacant Lot							
D = River Channels and Lands with Frequent Flooding							

FY26 Rate : Zone 2C
Diversion Facility Construction (Debt Payment)

ZONE 2C BENEFIT ASSESSMENTS							
Diversion Facility Construction (NO COLA)							
Fiscal Year	2025-2026						
Subarea	Ext. Upper Valley Above Dam	Ext. Upper Valley Below Dam	Upper Valley	Forebay	Pressure	East Side	Arroyo Seco
Factor	Charge Per Acre						
A	-	-	-	-	6.18	5.14	-
B	-	-	-	-	6.18	5.14	-
C	-	-	-	-	0.62	0.52	-
D	-	-	-	-	0.06	0.04	-
A = Irrigated Agriculture							
B = Residential (1-4 units), Apartments (over 4 units), Commercial, Institutional Land							
C = Dry Farming, Grazing, Vacant Lot							
D = River Channels and Lands with Frequent Flooding							

Fund 116 - FY26 Adopted Budget

REVENUES	AMOUNT
AD VALOREM TAXES	-
SPECIAL ASSESSMENTS	4,544,261
PROGRAM REVENUE - (~~GMP~~, BDA, LU)	654,577
GRANTS - LOCAL, STATE AND FEDERAL	4,504,834
SLO COUNTY REIMBURSEMENT	750,000
INTERESTS AND OTHER INCOME	55,341
AGENCY & COUNTY INTERFUND TRANSFERS	700,000
TOTAL REVENUES	11,209,013

EXPENSES	AMOUNT
EMPLOYEE COST - SALARIES AND BENEFITS	3,862,893
GL & POLLUTION INSURANCES	1,123,755
SERVICE CHARGES - COUNTY DEPARTMENTS	400,665
CONTRACTORS/CONSULTANTS	770,870
CONTRACTORS/CONSULTANTS - GRANT FUNDED	4,610,000
EQUIPMENT & VEHICLES	372,007
SERVICES & SUPPLIES - EXTERNAL	695,415
FUND TRANSFER OUT	-
DEBT PAYMENTS (SVWP, CSIP, SVRP)	-
TOTAL EXPENDITURES	11,835,605

IMPACT TO FUND BALANCE	(626,592)

ESTIMATED BEGINNING FUND BALANCE	1,581,192
ESTIMATED ENDING FUND BALANCE	954,601

- Agency staff totals **18** Full-Time equivalents
- Operations & Maintenance includes:
  - Inspections, Reporting and Regulatory Compliance
  - Salinas River Operations Habitat Conservation Plan Development
  - Salinas River Stream Maintenance support
  - Property Management
  - Boat Dock Program
  - Sandbar Management
  - SA Drain Repairs
  - Flood Monitoring

Projects funded by Grants include:

- *SA Outlet Works and Spillway Design*
- *Naci Low Level Outlet Design and Maint.*
- *Naci Plunge Pool Protection Design*
- *Reservoir Operations Tool Development*

Funding Augmentations(from other funds):

- Fund 111 – Bond Payments
- Fund 130 - $700K for regulatory compliance cost

Fund 116 - Trend

FUND 116	2022 Actual	2023 Actual	2024 Actual	2025 Estimate	2026 Proposal
Expenses	4,957,841	7,496,878	10,002,724	9,278,432	11,835,605
Revenue	5,306,237	9,536,842	7,505,243	9,159,217	11,209,013
Employee Cost - Salaries and Benefits	2,411,915	2,915,179	3,207,116	3,732,913	3,862,893
GL & Pollution Insurances	428,496	367,247	500,538	1,051,235	1,123,755
Services - County Departments	753,713	392,857	1,120,627	510,769	400,665
Contractors/Consultants	860,328	2,291,688	1,230,057	2,858,028	770,870
Contractors/Consultants - Grant Funded	-	582,895	1,198,303	-	4,610,000
Equipments & Vehicles	147,980	334,840	417,165	420,017	372,007
Services & Supplies - External	442,356	612,172	1,428,918	600,470	695,415
Fund Transfer Out	(86,947)	-	900,000	105,000	-
TOTAL EXPENDITURES:	4,957,841	7,496,878	10,002,724	9,278,432	11,835,605
Ad Valorem Taxes	-	-	-	-	-
Special Assessments	3,939,339	4,163,975	4,321,086	4,472,324	4,544,261
Program Revenue-Lease, Boat Dock	347,085	597,800	585,064	642,754	654,577
GRANTS - Local, State and Federal	69,358	469,462	940,869	2,193,428	4,504,834
SLO County Reimbursement	608,860	582,468	614,071	786,699	750,000
Interests and Other Income	41,595	86,975	222,939	214,012	55,341
Agency & County Interfund Transfers	300,000	3,636,162	821,214	850,000	700,000
TOTAL REVENUEs	5,306,237	9,536,842	7,505,243	9,159,217	11,209,013
Beginning Fund Balance	2,125,081	2,368,478	4,302,888	1,700,407	1,581,192
Use of Fund Balance (Draw)	243,397	1,934,410	(2,602,481)	(119,215)	(626,592)
Estimate Ending Fund Balance *^~	2,368,478	4,302,888	1,700,407	1,581,192	954,600

Fund 116 – Fund Balance Explained

- FY2021-22 Actual – $0.24 million added to Fund Balance
  - Revenue:
    - $0.30 million transfer from Fund 130 Hydro plant

- FY2022-23 Actual – $1.93 million added to Fund Balance
  - Expense:
    - $1.83 million Nacimiento Plunge pool repair & debris removal caused by 2023 winter storm events
  - Revenue:
    - County Strategic Reserve $3.00 million
    - $0.12 million transfer from Fund 130 Hydro plant

- FY2023-24 Actual – $2.60 million draw from Fund Balance
  - Expense
    - Cost Plan (COWCAP) $.86 million
    - Spillway work $1.18 million (Naci and SA)
    - $0.90 million transfer of County Strategic Reserve to Pajaro
  - Revenue
    - $0.77 million transfer from Fund 426 (ILT) seed money payback
    - $0.06 million transfer from Fund 130 Hydro plant

Fund Balance Summary

MCWRA FY26 Unassigned Fund Balance Summary								
Fund	Fund Name	Zone	FY25 Estimated Use	FY26 Estimated Beginning Balance	FY26 Budgeted Expense	FY26 Budgeted Revenue	FY26 Budgeted Use	FY26 Estimated Ending Balance
111	Administration Fund		252,281	4,493,354	5,311,321	4,563,908	(747,413)	3,745,941
112	Pajaro Levee - Zones*	1 & 1A	381,365	1,344,805	891,499	687,003	(204,496)	1,140,309
116	Dam Operations	2C	(119,215)	1,581,193	11,835,605	11,209,013	(626,592)	954,601
121	Soledad Storm Drain	8	9,464	313,172	109,379	112,180	2,801	315,973
122	Reclamation Ditch	9	(14,932)	1,286,180	2,176,631	1,843,282	(333,349)	952,831
124	San Lorenzo Creek	12	459	37,057	56,033	49,898	(6,135)	30,922
127	Moro Cojo Slough	17	(27,703)	383,567	686,838	365,508	(321,330)	62,237
130	Hydro-Electric Ops		73,014	2,150,896	1,817,087	1,172,726	(644,361)	1,506,535
131	CSIP Operations	2B & 2Y	(881,069)	1,558,255	6,664,214	6,423,278	(240,936)	1,317,319
132	SVRP Operations	2B & 2Z	(257,966)	2,397,420	6,891,960	6,161,150	(730,810)	1,666,610
134	SRDF Operations		(388,424)	2,281,255	3,233,462	2,432,777	(800,685)	1,480,570
303	CSIP Debt Service		-	770,672	1,650,000	1,650,000	-	770,672
313	SVWP Debt Service		6,543	1,043,288	1,759,714	1,759,714	-	1,043,288
426	Interlake Tunnel		(60,977)	148,454	121,798	5,236	(116,562)	31,892
Total:			**(1,027,160)**	**19,789,568**	**43,205,541**	**38,435,673**	**(4,769,868)**	**15,019,700**

Review of the Agency's Existing Debt Obligations and Potential Long-Range Funding Options

Disclaimer

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These materials include an assessment of current market conditions, and include assumptions about interest rates, execution costs, and other matters related to municipal securities issuance or municipal financial products. These assumptions may change at any time subsequent to the date these materials were provided. The scenarios presented herein are not intended to be inclusive of every feasible or suitable financing alternative.

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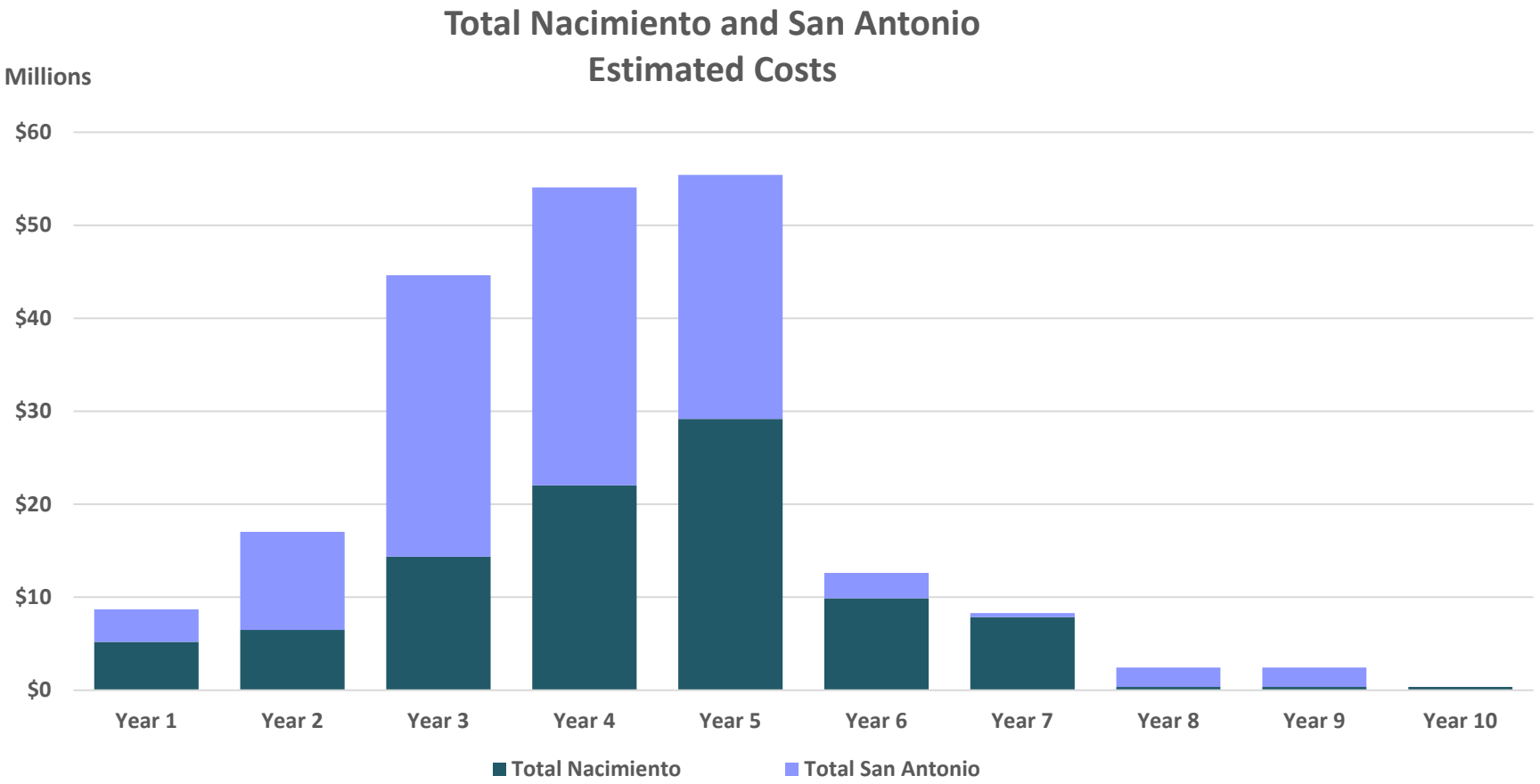
Introduction

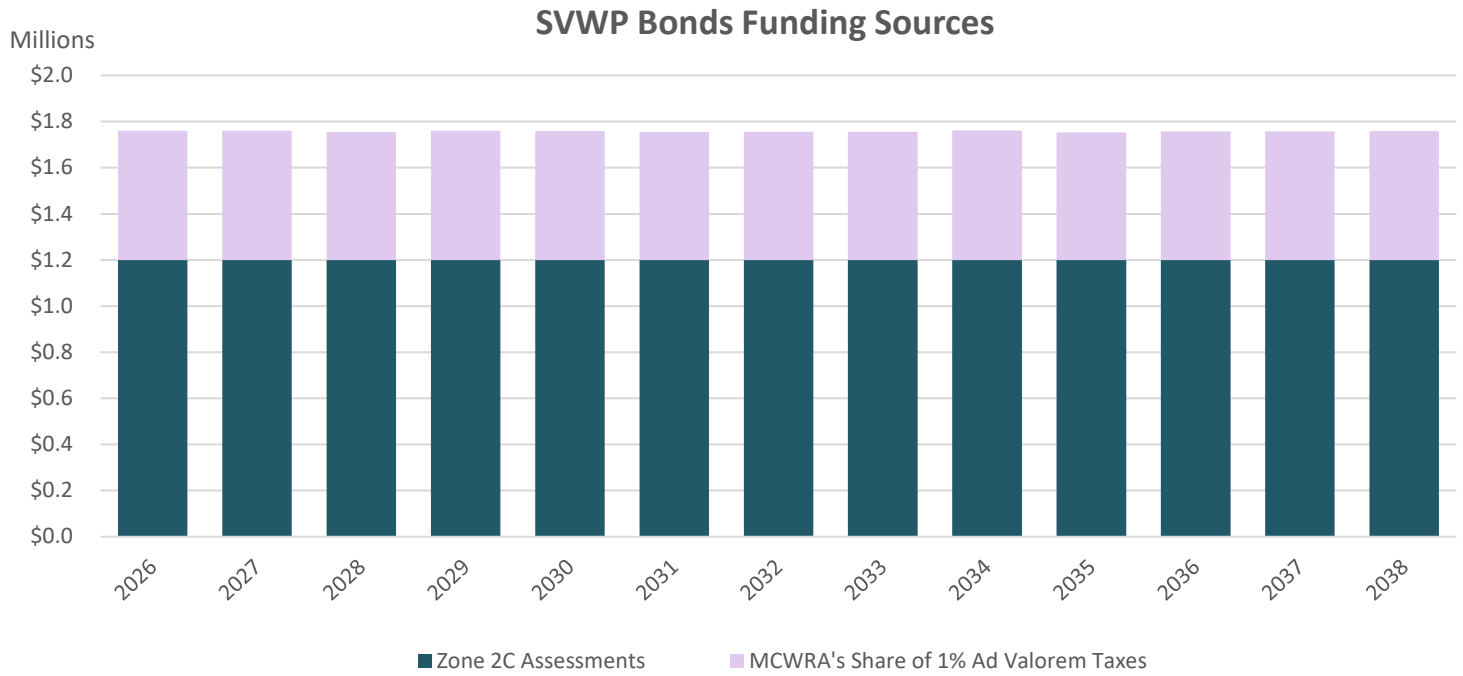


Sources: The Agency.

Overview of SVWP Bonds

- **Salinas Valley Water Project Bonds Pledged Revenues**
  - Assessments (Zone 2C – Fund 111)
  - Ad Valorem Property Taxes (Fund 111)
  - Hydroelectric Facility Net Revenues (Unutilized for Bond Payment)
  - Annexation Fees (Unutilized for Bond Payment)
- **Bonds are rated "AA-" by S&P**

- **Covenants**
  - Gross Revenue Pledge
  - Cannot Issue Parity Debt
  - Callable September 1, 2028
  - Remaining Revenue = ~$3 Million
    - Does Not Cover Cost of Dam Safety Projects



Sources: 2018 (SVWP) Official Statement.

Current Fund 116 Cash Flow

Existing Dam Funding (Fund 116)

Current Revenue

- Zone 2C Assessments
- Royalties - SLO Reimbursement
- Annexation/Permits & Fees
- Interest & Rent Income
- Grant Revenue and Federal Aid
- Other Miscellaneous Revenues
- Inter-Fund Transfers – Hydroelectric Net Revenues

Existing O&M

Capital Funded by One-Time Grant Revenues

Question:
How to generate additional revenue for a ~$200 million* capital project?

*Preliminary, subject to change.

Fund 116 Potential Funding Sources*

Proposed Dam Funding (Fund 116)

New Revenue (Assessments or Taxes)

↓

Project O&M

↓

Project Debt Service

↓

Repair & Replacement Costs

Approximately $200 million for Nacimiento and San Antonio Dams replacement/rehabilitation/repair

- How can MCWRA fund capital and O&M?

Capital Funding Options
- Assessment Bonds
- General Obligation Bonds
- Government Loans
- Hybrid(1)

O&M Funding Options
- User Fees
- Assessments

(1) A combination of financing sources may be the most cost effective.

*Preliminary, subject to change.

Capital Financing Options

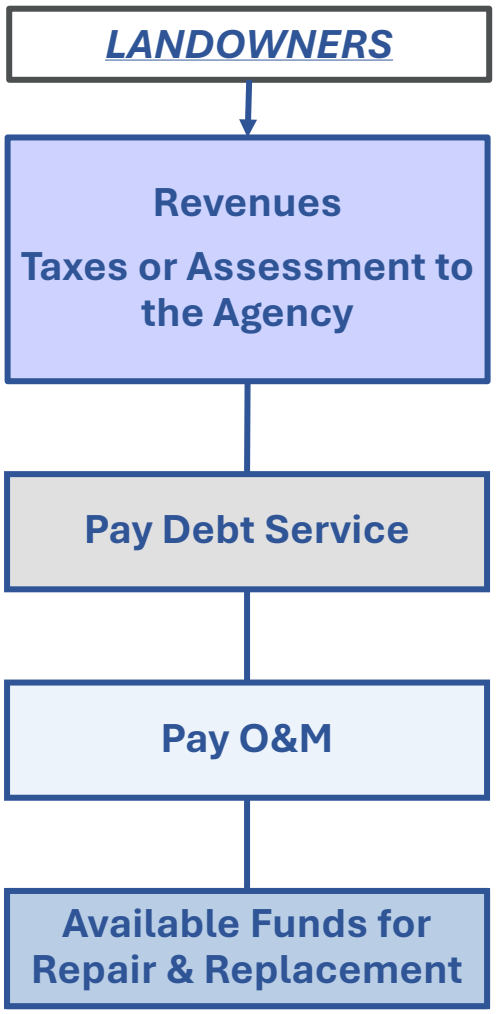
- Debt financing is reviewed in conjunction with funding provided by grants

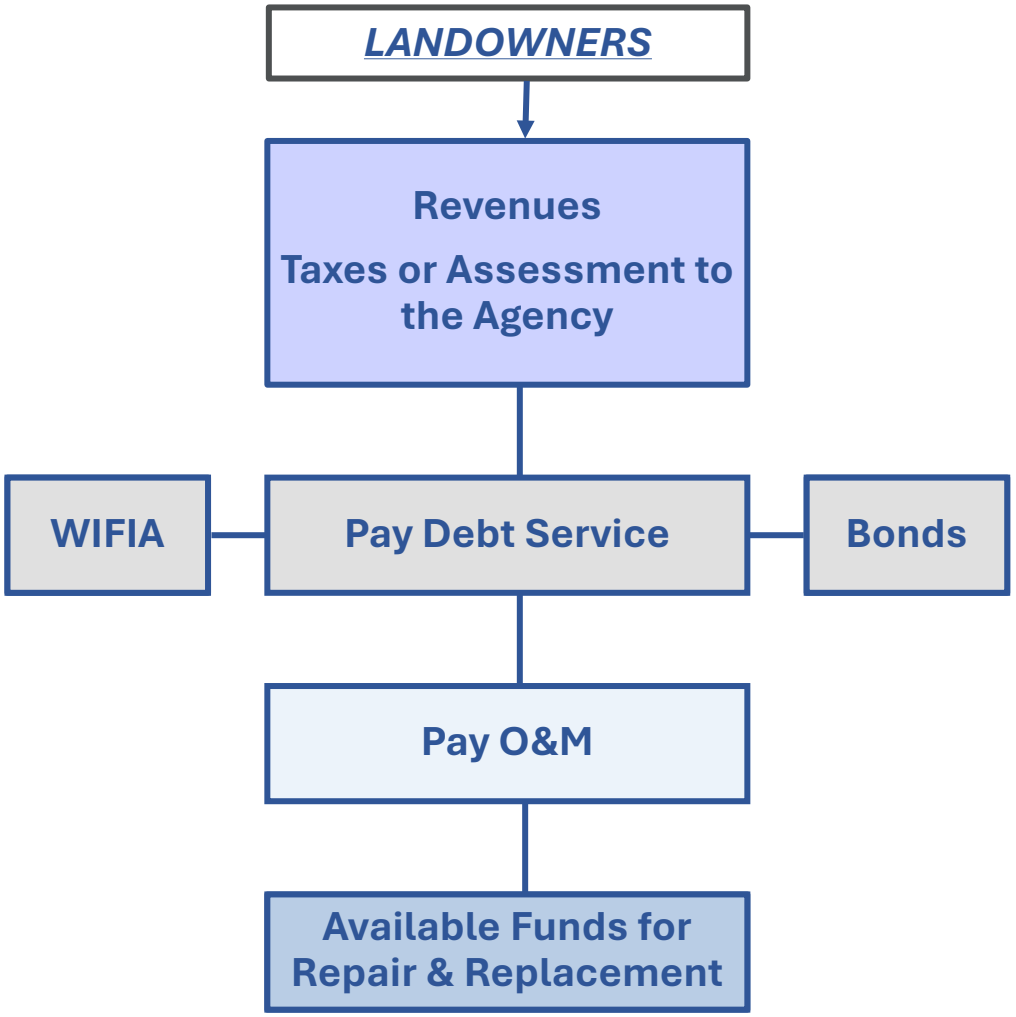
	Tax Exempt Loans / Bonds	WIFIA / CWIFP	SRF Loan (1)
Lien Priority	Issuer's Option (Senior)	Senior or Subordinate	Senior
Borrowing	100%	49%	Up to 100% (2)
Prepayment	Usually, 10 years after closing	Annually, $500,000 minimum	Only with consent in the sole discretion of SWRCB
Rate Reset	NA	Permits 1 rate reset	NA
Amortization	Typically, 30 years	35 Years after Project Completion	Between 20-30 years
Timing to Receive Funds (3)	Approximately 12-14 months	Approximately 2 years	2-3 Years, depending on the State
Timeline of Board Approval of Revenue	In advance of document approval; nearly final during credit rating process	In advance of OMB & EPA Credit Council approval	In advance of loan closing

(1) SWRCB indicates the construction or rehabilitation of dams is an ineligible project cost unless there are some dam rehabilitation costs solely for the benefit of providing drinking water that may be eligible, and such would require consultation with EPA for potential project eligibility.
(2) Depends on available funding allocations from the SWRCB.
(3) Time remaining from initial Board approval to proceed with debt financing.

Sources: U.S. EPA, U.S. ACE, and State Water Resources Control Board.

Capital Funding: Single Source vs. Hybrid





Special Benefit Assessment Bonds

- Pledge of revenues received from Prop 218 approved special benefit assessments
- Similar to the Agency's structure for existing Zone 2C assessments
- Requires engineers report and review of benefits
- Credit will review any limitations to the receipt of revenues from benefit assessments (i.e., ability to increase rates, term of assessment, landowner base)

- Typical revenue bonds covenants:
  - 30-year term
  - Standard 10-year par call
  - Repayment sculpted to borrowers needs
  - Rate covenant (120% - 125% is standard, but 110% may be acceptable)
  - Structure rate covenant as gross revenue pledge

Procure Finance Team and Public Outreach

2-3 months

Engineering firm, banking and legal teams, and trustee

Create Bond Documents and Obtain Credit Rating

2 months

Disclosure document, legal covenants and not-to-exceed parameters

Bond Sale and Closing

1 month

Underwriter coordinates bond sale with Municipal Advisor

Bond Closing

6 months

Create a special benefits report for Board approval

Create Engineers Report

Approve legal documents and authorize Bonds

2 months

Board approval

General Obligation (GO) Bonds

Two-thirds voter-approved long-term debt obligations that are secured by an *ad valorem* tax on all taxable property within the Agency's boundary

Ad valorem (percentage based) taxes create a new revenue stream for the Agency

Unlimited ability to raise taxes provides investors with greatest security and lowest borrowing cost to the Issuer

Commonly issued by states, and local governmental units

GO Bond Process*

Before Election:

- Survey/Election Consultant coordination
- Creation of a Zone covering entire Agency/County area
- Project, location and engineering estimate must be declared by resolution for the election
- The Board must adopt a resolution for election; tax rate must be estimated, and bond amount identified
- Submit statement to County Elections Department

After Election:

- Begin work on legal documentation to describe form of the bonds and participating Zones
- Bonds shall be issued by the Board in one or more series and final maturity shall not exceed 40 years
- Approval of bond documents by Board

Bond Sale:

- Selection of Underwriter / Banking Team
- Bond Market Research with Underwriter
- Underwriter manages bond sale with Municipal Advisor
- Finalize bond prices

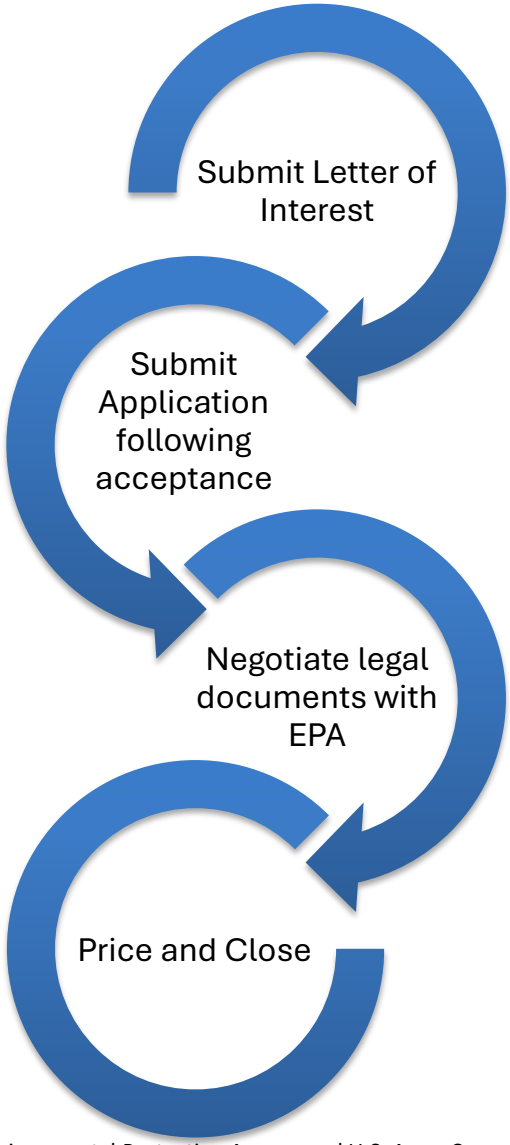
Review Tax Rate/Continuing Disclosure:

- Construction, rehabilitation, or replacement of Agency facilities
- Annual disclosure to market including annual Audit and update of certain information from disclosure document

*As required based on the State law and Agency Act.

WIFIA / CWIFP Program Terms

- **WIFIA loans offer a low, fixed interest rate**
  - A single fixed rate is established at closing. Based on U.S. Treasury rate on the date of closing calculated using the weighted average life of the loan, plus 0.01%.
  - Rate is not impacted by borrower's credit or loan structure.
  - Investment grade rating required.
- **WIFIA loans provide flexible financial terms**
  - Customized repayment schedules.
  - Maturity date: Must be the earlier of 35 years after the date of substantial completion of the project, or the useful life of the project.
  - Payments may be deferred up to 5 years after the project's substantial completion.
  - Prepayable at any time ($500,000 - $1,000,000 minimum).
  - Subordination under certain circumstances, WIFIA may take a subordinate position in payment priority, increasing coverage ratios for senior bond holders.
  - Maximum federal involvement: 80% of total project costs.
  - 49% of eligible costs can be funded by WIFIA.
  - Secure 51% funding from cash, SRF Loan, or traditional debt.



Source: U.S. Environmental Protection Agency and U.S. Army Corps of Engineers.

Estimated Financial Costs

Summary of Financing Options*

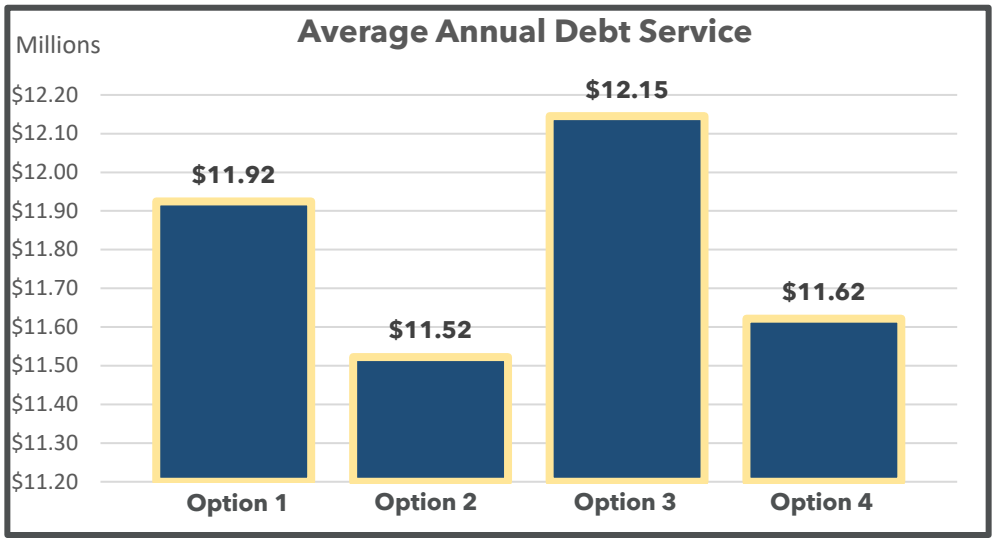
Fieldman proposes consideration of the following financing options for the Agency:

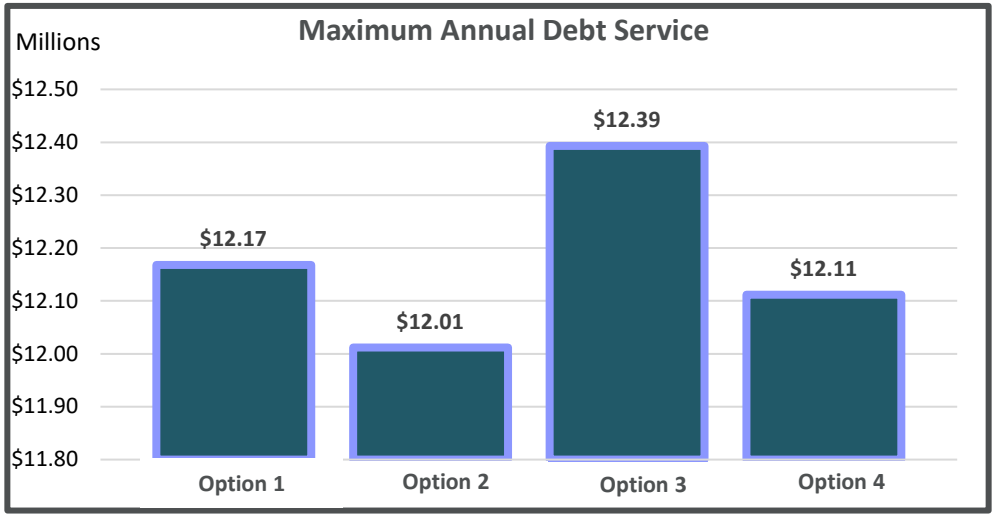
OPTION 1
- Issue 30-Year GO Bonds for 100% of project funds

OPTION 2
- Issue 30-Year General Obligation Bonds for 51% of project funds, and 35-Year WIFIA Loan for the remaining 49% of project funds

OPTION 3
- Issue 30-Year Special Benefit Assessment Bonds for 100% of project funds

OPTION 4
- Issue 30-Year Special Benefit Assessment Bonds for 51% of project funds, and 35-Year WIFIA Loan for the remaining 49% of project funds





** Preliminary, subject to change. Estimated based of market conditions as of June 20, 2025. Assumes Project Funds of $200 million. Assumes GO Bond rating of "Aa1", and Assessment Bond rating in "AA" category.*

Debt Comparisons*

OPTION 1: GO Bonds	
Bond Statistics & Financing Assumptions	
Arbitrage Yield	4.43%
True Interest Cost (TIC)	4.50%
All-In TIC	4.52%
Term	30 Years
Call Feature	10 Years
Total Interest	$177,754,725
Average Annual Debt Service	$11,924,669
Maximum Annual Debt Service	$12,168,225
Total Debt Service	**$369,664,725**
NPV Total Debt Service	**$209,201,195**

OPTION 3: Assessment Bonds	
Bond Statistics & Financing Assumptions	
Arbitrage Yield	4.58%
True Interest Cost (TIC)	4.65%
All-In TIC	4.67%
Term	30 Years
Call Feature	10 Years
Total Interest	$181,041,500
Average Annual Debt Service	$12,145,048
Maximum Annual Debt Service	$12,393,350
Total Debt Service	**$376,496,500**
NPV Total Debt Service	**$213,066,603**

OPTION 2: Hybrid (GO Bonds & WIFIA)	
Bond Statistics & Financing Assumptions	
Arbitrage Yield	4.67%
True Interest Cost (TIC)	4.70%
All-In TIC	4.72%
Term	30 & 35 Years
Call Feature	10 Years & Anytime
Total Interest	$233,763,362
Average Annual Debt Service	$11,522,666
Maximum Annual Debt Service	$12,011,877
Total Debt Service	**$437,861,304**
NPV Total Debt Service	**$218,230,126**

OPTION 4: Hybrid (Assessment Bonds & WIFIA)	
Bond Statistics & Financing Assumptions	
Arbitrage Yield	4.75%
True Interest Cost (TIC)	4.78%
All-In TIC	4.80%
Term	30 & 35 Years
Call Feature	10 Years & Anytime
Total Interest	$236,288,276
Average Annual Debt Service	$11,621,528
Maximum Annual Debt Service	$12,111,519
Total Debt Service	**$441,693,077**
NPV Total Debt Service	**$220,155,338**

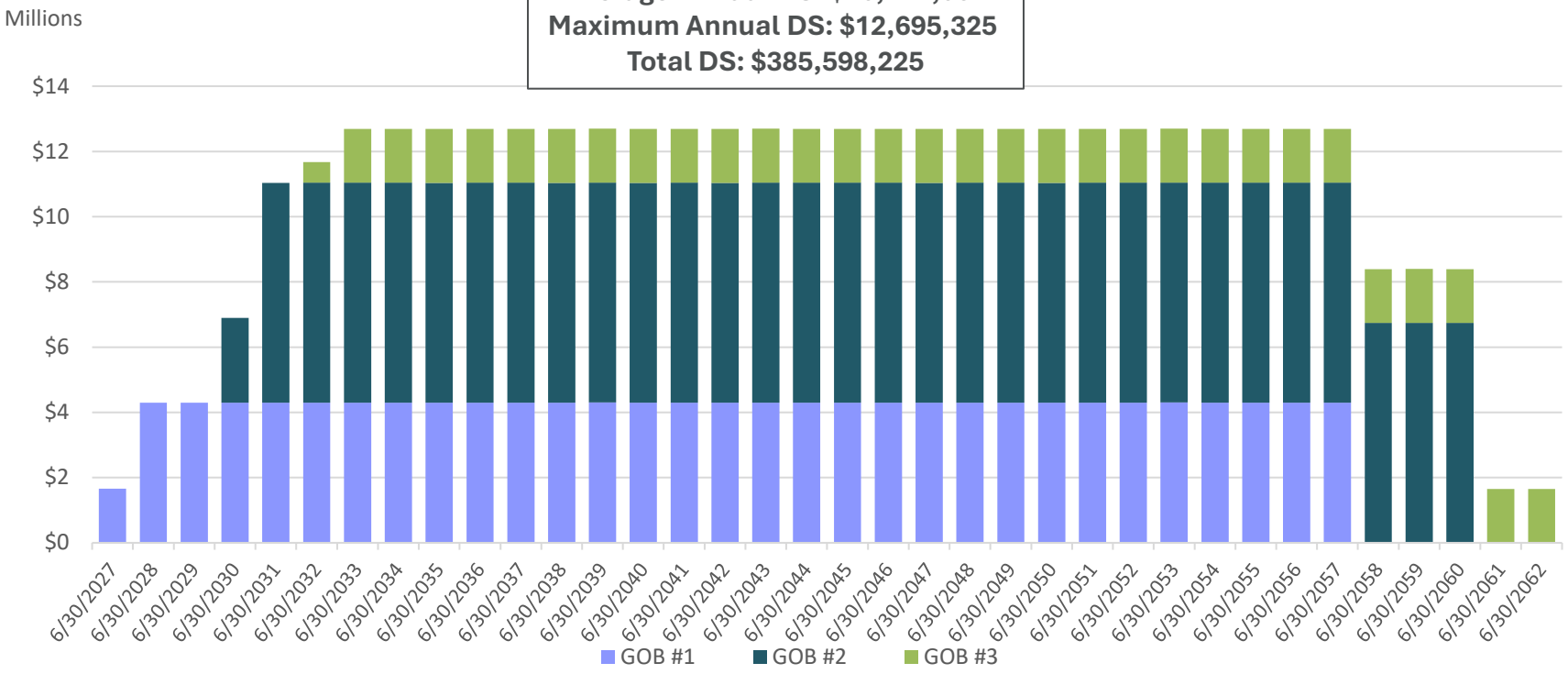
**Preliminary, subject to change. Estimated based of market conditions as of June 20, 2025. Assumes a Project Fund of $200 million. NPV assumes 3.91% discount rate.*

Option 1A Debt Financing Strategy

GOB Issuance #1 Debt Service	GOB Issuance #2 Debt Service	GOB Issuance #3 Debt Service
$70,349,700 Project Fund	***$109,488,770*** Project Fund	***$26,167,750*** Project Fund
Expected Issuance Date: 9/1/2026	Expected Issuance Date: 9/1/2029	Expected Issuance Date: 9/1/2031

Projected Debt Service (30-Year Term)*

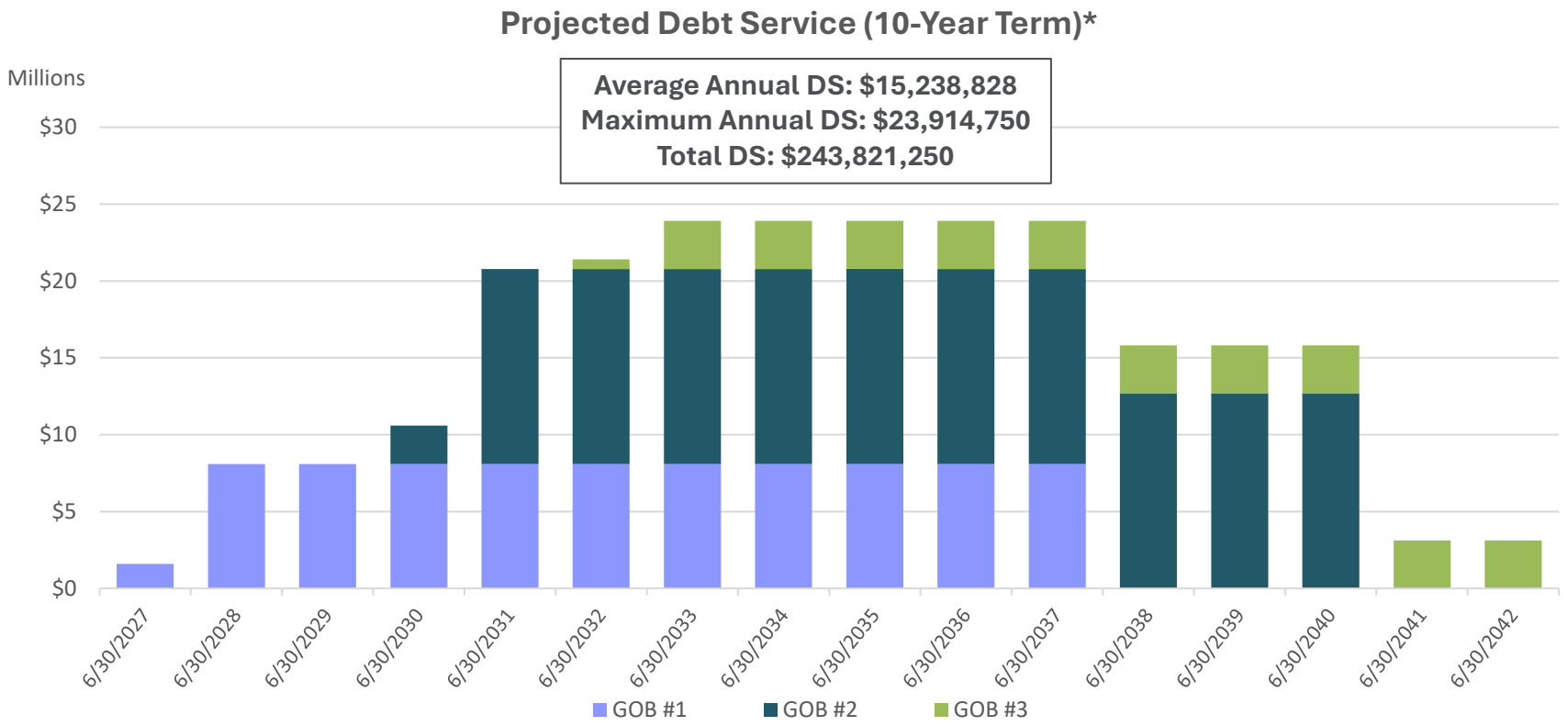
Average Annual DS: $10,711,062
Maximum Annual DS: $12,695,325
Total DS: $385,598,225



** Preliminary, subject to change. Estimated based of market conditions as of June 20, 2025. Assume GO Bond rating of "Aa1" and project fund of $206 million funded between three bond issuances. Each bond issuance reflects a 30-year term.*

Option 1B Debt Financing Strategy

GOB Issuance #1 Debt Service	GOB Issuance #2 Debt Service	GOB Issuance #3 Debt Service
$70,349,700 Project Fund	***$109,488,770*** Project Fund	***$26,167,750*** Project Fund
Expected Issuance Date: 9/1/2026	Expected Issuance Date: 9/1/2029	Expected Issuance Date: 9/1/2031



** Preliminary, subject to change. Estimated based of market conditions as of June 20, 2025. Assume GO Bond rating of "Aa1" and project fund of $206 million funded between three bond issuances. Each bond issuance reflects a 10-year term.*

Next Steps

- Begin detailed analysis for debt issuance strategy, starting with survey and election consultants (Option 1, 2, 3, or 4)
- Rating evaluation with S&P (preparation of financial policies and debt funding options)
- Determination of proceeding with a WIFIA Loan
- Complete separate audited financial statements for MCWRA (resolved for FY 2026 audited financial results)

Review of Dam Safety & Operations
Potential Near-Term Funding Option

Near-Term Dam Safety & Operations Regulatory Fee

- The Agency owns 3 regulated dams:
  - o Nacimiento is regulated by:
    - Federal Energy Regulatory Commission (FERC), and
    - California Department of Water Resources Division of Safety of Dams (DSOD)
  - o San Antonio – DSOD
  - o Salinas River Diversion Facility – DSOD

Near-Term Dam Safety & Operations Regulatory Fee

- In addition to significant FERC-DSOD oversight of dam operations, maintenance, and safety, the Agency is also regulated directly and indirectly by:
  - CA Department of Fish and Wildlife
  - CA Environmental Protection Agency
  - CA State Water Resources Control Board
  - US Army Corps of Engineers
  - US Department of Commerce National Oceanic and Atmospheric Administration's National Marine Fisheries Service
  - US Department of Interior Fish and Wildlife Service, and
  - US Environmental Protection Agency

Near-Term Dam Safety & Operations Regulatory Fee

- The Agency's activities to comply with regulations span the entirety of the organization – administration, engineering, finance, hydrology, maintenance, and operations. Examples include:
  - Dam operations
  - Energy production
  - Environmental management
  - Flood management
  - Inspections
  - Reporting
  - Streamgaging
  - Water supply & diversion monitoring
  - Water quality sampling

Near-Term Dam Safety & Operations Regulatory Fee

- In 2003, Agency Ordinance 04203:
  - Eliminated stand-by and water availability charges for Zones 2 (Nacimiento) and 2A (San Antonio)
  - Established a new special benefits Zone 2C to provide funding for:
    - Operations & Maintenance of the dams
    - Repayment of debt – Salinas Valley Water Project
    - Funding increases limited to Consumer Price Index
  - The 2003 Salinas Valley Water Project Engineer's Report
    - Does not account for the proposed projects' regulatory costs
    - Underestimates O&M cost of the proposed projects

Near-Term Dam Safety & Operations Regulatory Fee

- In FY26, funding is set aside to initiate a Prop 26 regulatory fee nexus study for Dam Safety & Operations (DSO)
- The study will analyze resources necessary for regulatory compliance, including:
  - Staff time
  - Consultants
  - Equipment & Supplies
- Aim is to implement new DSO fee in FY27

Current Examples of Cost Allocation Methods:

2021 Unadopted Zone 2D Engineer's Report

2021 Unadopted Zone 2D Engineer's Report

UNADOPTED

DRAFT
Engineer's Report

For the

Monterey County Water Resources Agency

Assessment District Formation
Zone 2D – Nacimiento and San Antonio Dams:
High Priority Capital Asset Management Program

State of California

December 13, 2021

Prepared by:

Wallace Group
a California Corporation
612 Clarion Court
San Luis Obispo, California 93401

WALLACE GROUP

Nacimiento Reservoir and Dam

- Subproject 1: Replacement of Three Low Level Outlet Valves and Discharge Piping
- Subproject 2: Spillway Evaluation, Investigation, and Maintenance Repairs
  - Subproject 2A: Spillway Rehabilitation
- Subproject 3: Spillway Plunge Pool Erosion Control
- Subproject 4: Low Flow Channel Sand Boil Prevention
- Subproject 5: Modify Low Level Outlet to Provide Flow Control and Energy Dissipation
- Subproject 6: Low Level Intake Valve Actuator Replacement
- Subproject 7: Dam Embankment Seismic Stability Evaluation and Implementation
- Subproject 8: Spillway Bridge Maintenance
- Subproject 9: Nacimiento Lake Drive Road Repair
- Subproject 10: Protection of Powerplant Penstock from Adjacent Slope Failure
- Subproject 11: Security Upgrades

San Antonio Reservoir and Dam

- Subproject 1: Spillway Rehabilitation/Replacement
- Subproject 2: Butterfly Valve Hydraulic Operator Upgrade
- Subproject 3: Replace Intake Structure Bulkhead Gate
- Subproject 4: Low Level Discharge Valve Maintenance
- Subproject 5: Replace Combination Air Release Vacuum Valves
- Subproject 6: Install Access Hatch in Low Level Outlet Works Conduit
- Subproject 7: Replace Intake Structure Trash Racks
- Subproject 8: Interior and Exterior Paint of Low Level Outlet Works Conduit
- Subproject 9: Horizontal Drain Repair
- Subproject 10: Toe Drain Repair
- Subproject 11: Abutment Drain Repair
- Subproject 12: New Piezometers
- Subproject 13: Road Pavement Repair
- Subproject 14: New Access Road
- Subproject 15: Install Boat Barrier Buoy Line and replace Spillway Log Boom

2021 Unadopted Zone 2D Engineer's Report

Table ES-1. Total Subproject Cost with Inflation

Description	Present Day Cost Estimate	Subproject Costs + 7% Inflation
Nacimiento	$76,365,600	$81,716,000
San Antonio	$72,356,750	$77,429,000
Total	$148,722,350	$159,145,000

- The cost of 4 years of inaction = $41,282,000

Current Examples of Cost Allocation Methods:

2025 Historical Benefits Analysis Update:
> Hydrologic & Economic Analyses

HBA Update Purpose

- Develop an updated analysis that evaluated construction and operation of existing projects
  - Nacimiento and San Antonio Reservoirs/Dams
  - Monterey County Water Recycling Projects
    - Castroville Seawater Intrusion Project
    - Salinas Valley Reclamation Plant
  - Salinas Valley Water Project

HBA Update Purpose

- Evaluate three categories of benefits associated with the Projects
  - **Hydrologic:** groundwater levels and pumping
  - **Flood control:** frequency and severity of flood events
  - **Economic:** monetary benefit to stakeholders stemming from infrastructure or hydrologic and flood control benefits

Some history…

- **April 1998** – Salinas Valley Historical Benefits Analysis (HBA) Final Report was prepared by Montgomery Watson
  - Purpose was to identify and quantify benefits to the Salinas Valley from construction and operation of Nacimiento and San Antonio Reservoirs

Some history…

- **2021** – Public comments received during Agency consideration of an Engineer's Report for Zone 2D included concerns about reliance on the 1998 HBA because it did not include all present-day projects.

- **April 2023** – Agency initiated an HBA Update, partnering with consultants West Yost and One Water Econ.

Study Background

- Hydrologic and flood control benefits modeling utilized the Salinas Valley Integrated Hydrologic Model (SVIHM)
- Economic benefits analysis relied, in part, on results from the SVIHM
- Study period of October 1967 - September 2018 (Water Year 1967-2018)
- Study area is Agency Zone 2C

Study Background

- Benefits of the Projects are assessed as a comparison between modeling scenarios with the Projects (Historical Scenario) and without the Projects (No Projects).
  - Differences between scenarios are the effect of the Projects.

- Technical approach followed that of the 1998 HBA wherever possible.

Hydrologic Benefits – Groundwater Levels

- Pressure, East Side, and Arroyo Seco Subareas
  - Groundwater levels declined over the study period

- Forebay and Upper Valley Subareas
  - Groundwater levels largely unchanged or have risen

- Without the Projects, the decline would have been more severe and widespread.

Other Hydrologic Benefits

- HBA Update evaluates groundwater and surface water budgets which include:
  - Groundwater recharge from the surface water system
  - Change in groundwater storage
  - Seawater intrusion

- Also looked at impacts to wells from changing groundwater levels.

Flood Control Benefits

- Streamflow data were used to develop a statistical distribution of peak annual streamflow at the Salinas River at Bradley.

- A HEC-RAS model was used to simulate the effects of selected peak flows.
  - 10-year, 25-year, and 100-year events

- Analyzed changes to flood frequency, peak flow inundation, velocity, and depth across the study area.

Flood Control Benefits

- Reservoirs have reduced the:
  - magnitude of peak flows
  - extent of inundation
  - depth of flooding
  - velocity of flows within the inundated area

- Reservoirs have the largest impact during flood events that occur more frequently, such as 10-year or 25-year events

Economic Benefits – Key Findings

- Higher groundwater levels have reduced the need to replace groundwater wells.
  - Avoided $107.4M in well replacement costs over the study period.

- Higher groundwater levels have reduced the energy required to pump groundwater in many areas.
  - Saved $67.9M over the study period.

Economic Benefits – Key Findings

- Increase in groundwater storage has decreased seawater intrusion and the acreage of farmland that has been impacted.
  - Benefit has largely accrued since operation of the Castroville Seawater Intrusion Project (CSIP) began.
  - Avoided impacts to crops of $21.7M - $86.9M

Economic Benefits – Key Findings

- Reservoirs have reduced flooding along the Salinas River
  - Avoided damages to buildings of $210.5M over the study period
  - Avoided damages to agricultural crops of $211M over the study period

Economic Benefits – Key Findings

- Reservoirs have resulted in recreational benefits
  - Close to $800M from 1985-2018

- Generation of hydropower at Nacimiento Dam from 1987-2018
  - Generated power valued at $59.1M
  - Avoided health-related costs resulting from clean hydropower valued at $16M

Economic Benefits Summary Table

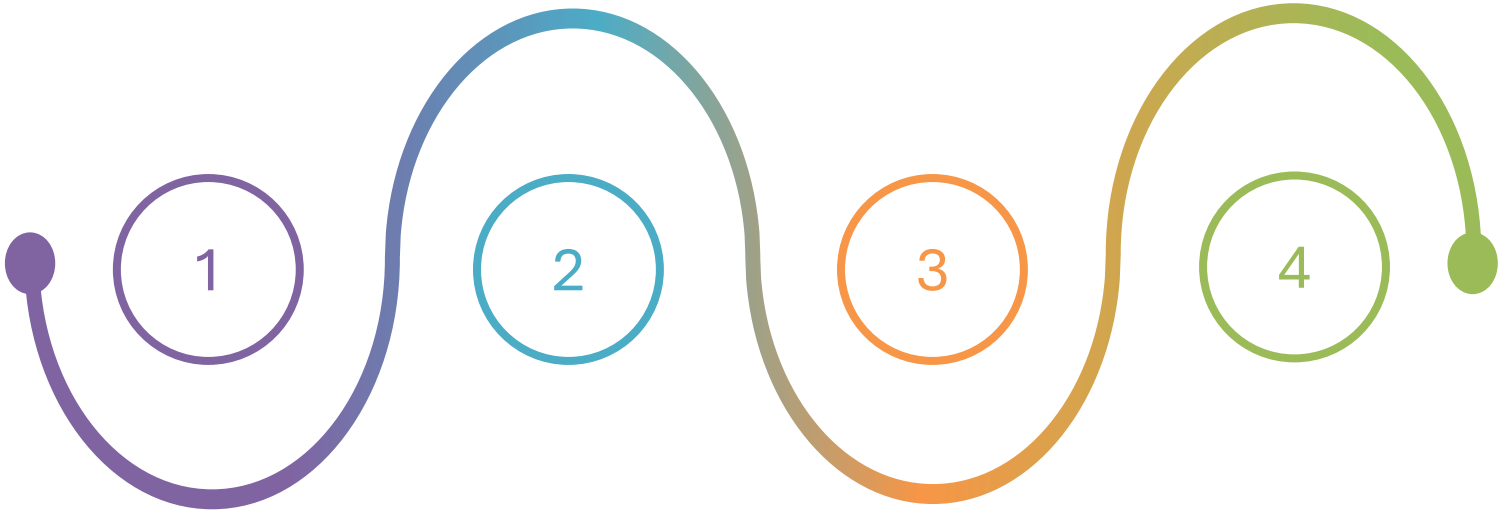
Benefit	Average annual value ($M)	Total Value (51-year period, $M)
Water Supply		
Avoided well replacement costs	$2.11	$107.4
Avoided costs from reduced agricultural pumping and pumping lift	$1.3	$67.9
Reduced seawater intrusion	--	$53.6 (with range of $21.8M to $86.9M)
Flood risk reduction		
Avoided damages to buildings and structures	$4.13	$210.5
Avoided damages to agricultural crops	$4.14	$211.0
Recreation	$23.5*	$797.4
Hydropower		
Power generation	$1.85#	$59.1#
Avoided pollutant emissions	$0.5	$16.0
TOTAL	**$37.53**	**$1,522.9**

* Over a 35-year period for which data were available.
\# Value of hydropower generated

Current Examples of Cost Allocation Methods:

2025 Interlake Tunnel Project DRAFT Engineers Report

Getting to the draft engineer's report



1998 HISTORICAL BENEFITS ANALYSIS

This analysis didn't include all currently constructed and operating Agency projects.

2025 HBA UPDATE

Partnering with two consultants, the Agency developed an updated analysis of historical hydrologic, flood control, and economic benefits of current projects.

MODELING

Modeling results from the Project and HBA Update provided data for the draft Project Assessment Engineer's Report

DRAFT REPORT

Draft Assessment Engineer's Report for the Project available for submittal to DWR

Cost Allocation Options

- The draft Assessment Engineer's Report for the Project presents three methodologies for reasonable ways to allocate Project benefits.

- There may be others to consider also in future discussions about this Project or other Agency projects.

United States Geological Survey

Publication of the Salinas Valley Hydrologic Models

Hydrologic Modeling Tools

- The HBA Update utilized modeling tools developed by the U.S. Geological Survey (USGS) to provide data about groundwater and surface water conditions.
  - The Agency, County of Monterey, and Salinas Valley Basin GSA partnered on development of the models.

- Model data also informed the Draft Engineer's Report for the Interlake Tunnel Project.

Hydrologic Modeling Tools

- The full suite of modeling tools and documentation have been published by the USGS and are available to the public.

- Model data and files:
  - https://www.usgs.gov/centers/california-water-science-center/news/new-data-salinas-valley-hydrology

- Model report:
  - https://eartharxiv.org/repository/view/8900/

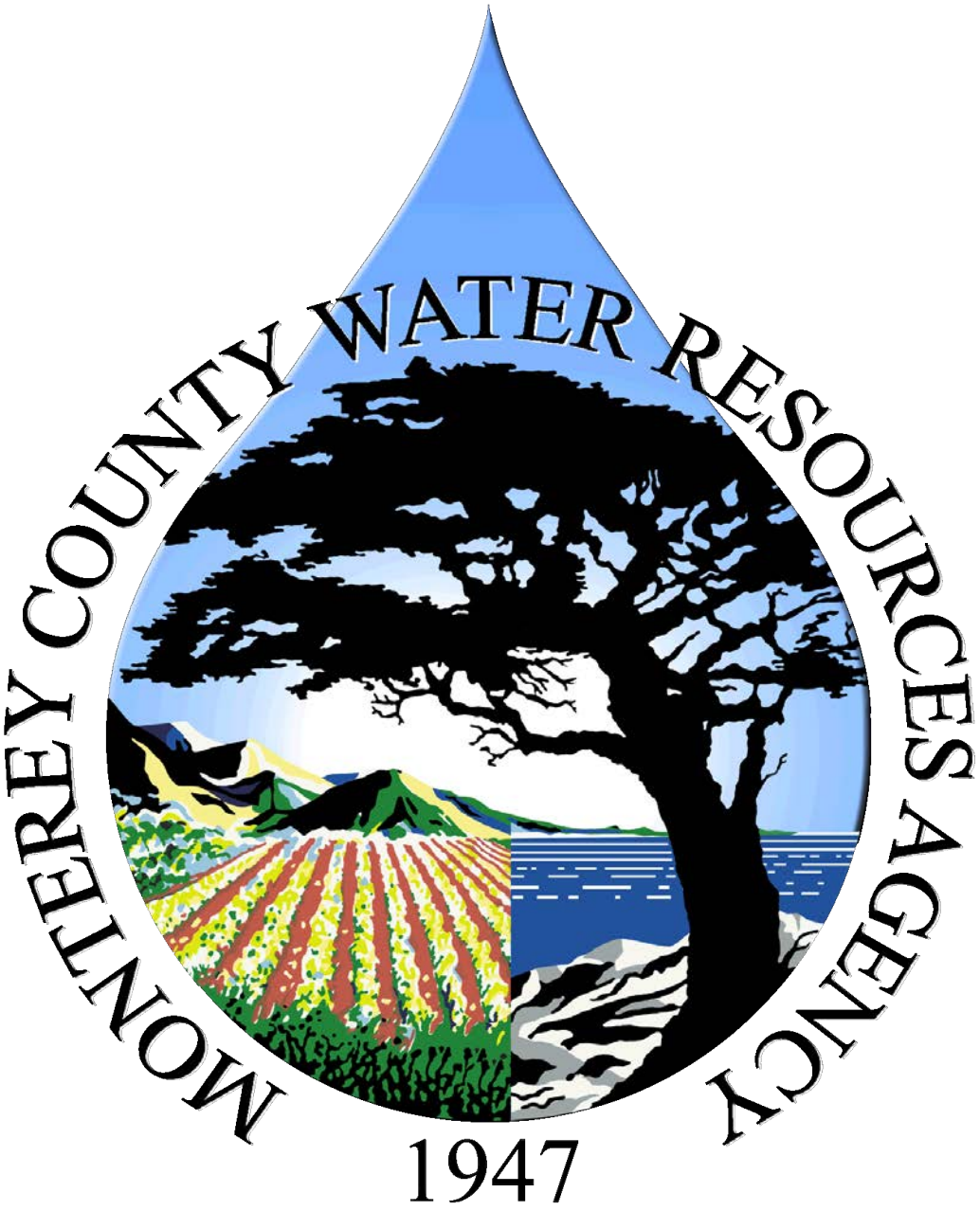
Public Comments

- For stakeholders wishing to submit written comments on the:
  - 2021 Unadopted Zone 2D Engineer's Report
  - 2025 Historical Benefits Analysis Update
  - 2025 Interlake Tunnel Project DRAFT EngineersReport USGS Salinas Valley Hydrologic Models
  - Today's Dam Safety & Operations Financial Strategy Workshop

Please do so by September 1, 2025, by email to:

WoodrowA@countyofmonterey.gov

Questions & Discussion


MONTEREY COUNTY WATER RESOURCES AGENCY
1947