SAN DIEGUITO VALLEY GROUNDWATER PROJECT UPDATE

May 31, 2023

OLIVENHAIN
Municipal Water District

Workshop Purposes

- Share FY 2023 Progress
- Discuss Project Feasibility
- Discuss Plan for FY 2024 and Beyond
- Discussion by Board of Directors

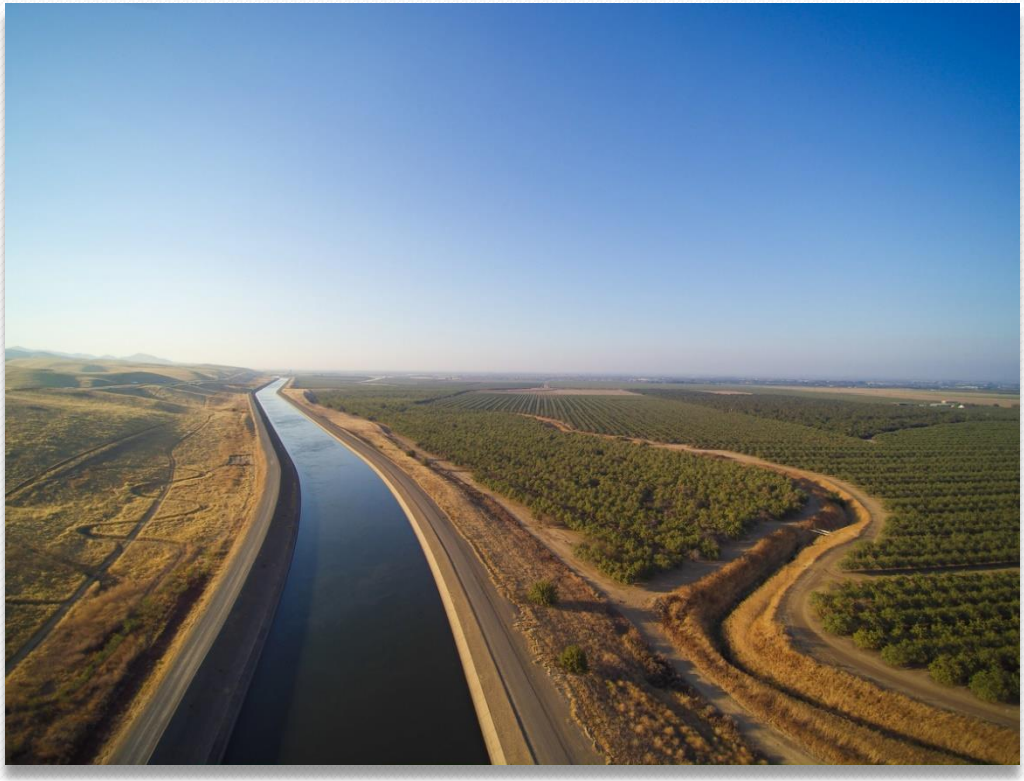
Agenda

- San Dieguito Project Background – OMWD Staff
- Hydrogeology – Consulting Engineer
  - Board Q & A
- Economic Analysis – Gillingham Water
  - Board Q & A
- Next Steps – OMWD Staff
  - FY 2024 Investigations
  - 5-Year Schedule & Budget
  - Questions March 30, 2022
  - Board Q & A
- Closed Session

Project Background

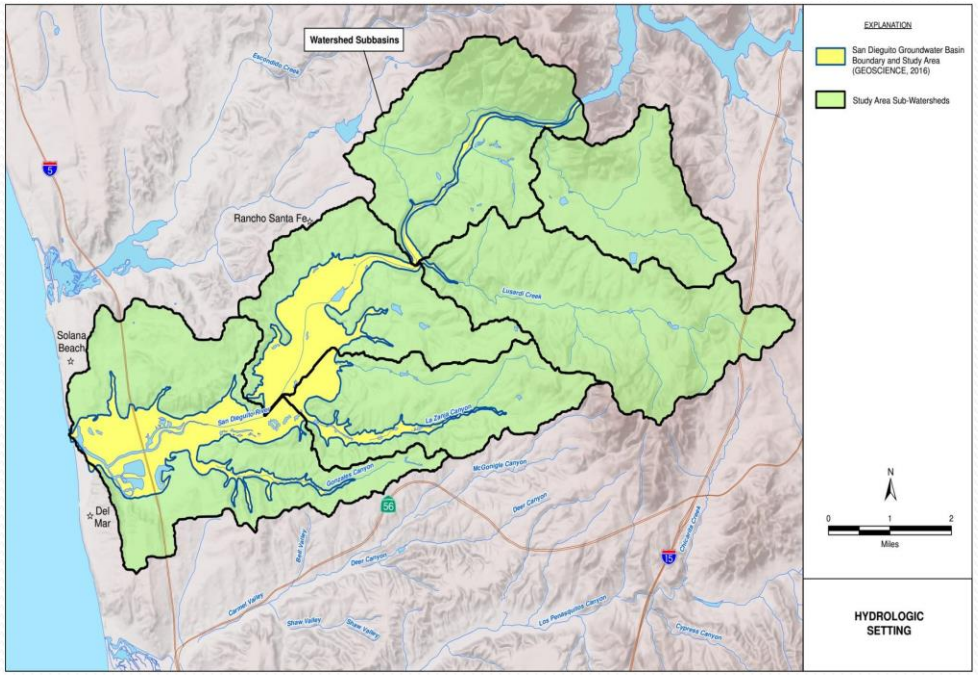
State of Water in California

- OMWD reliant on imported water
- Imported water increasingly expensive
- Imported water more vulnerable
- OMWD Goal – 1/3 local supply
- Groundwater
  - Drought-proof
  - Reliable
  - Cost-competitive
  - Local control
- OMWD 1 of 7 SD water agencies without local potable supplies

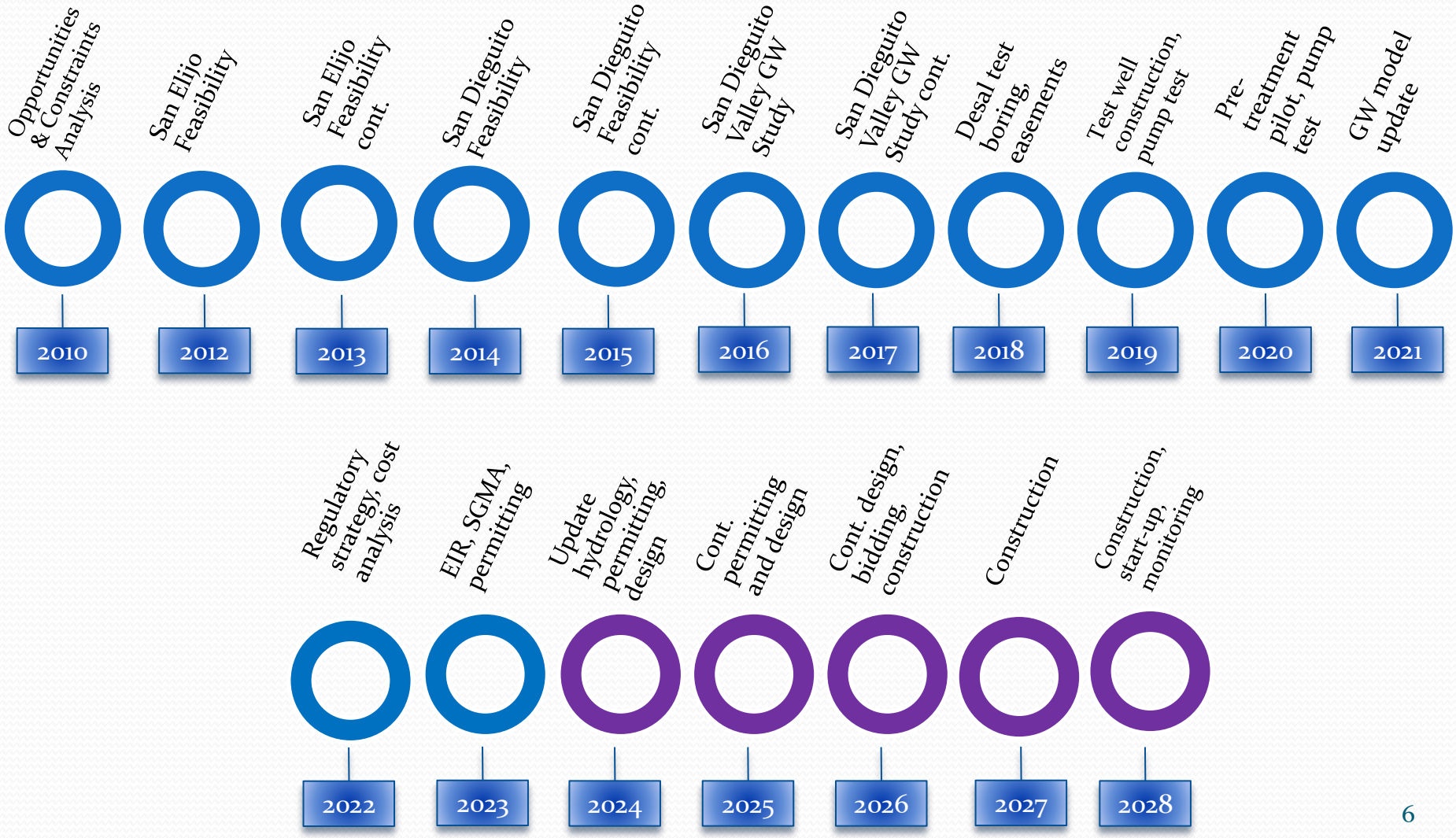


Project Background
2008-2016

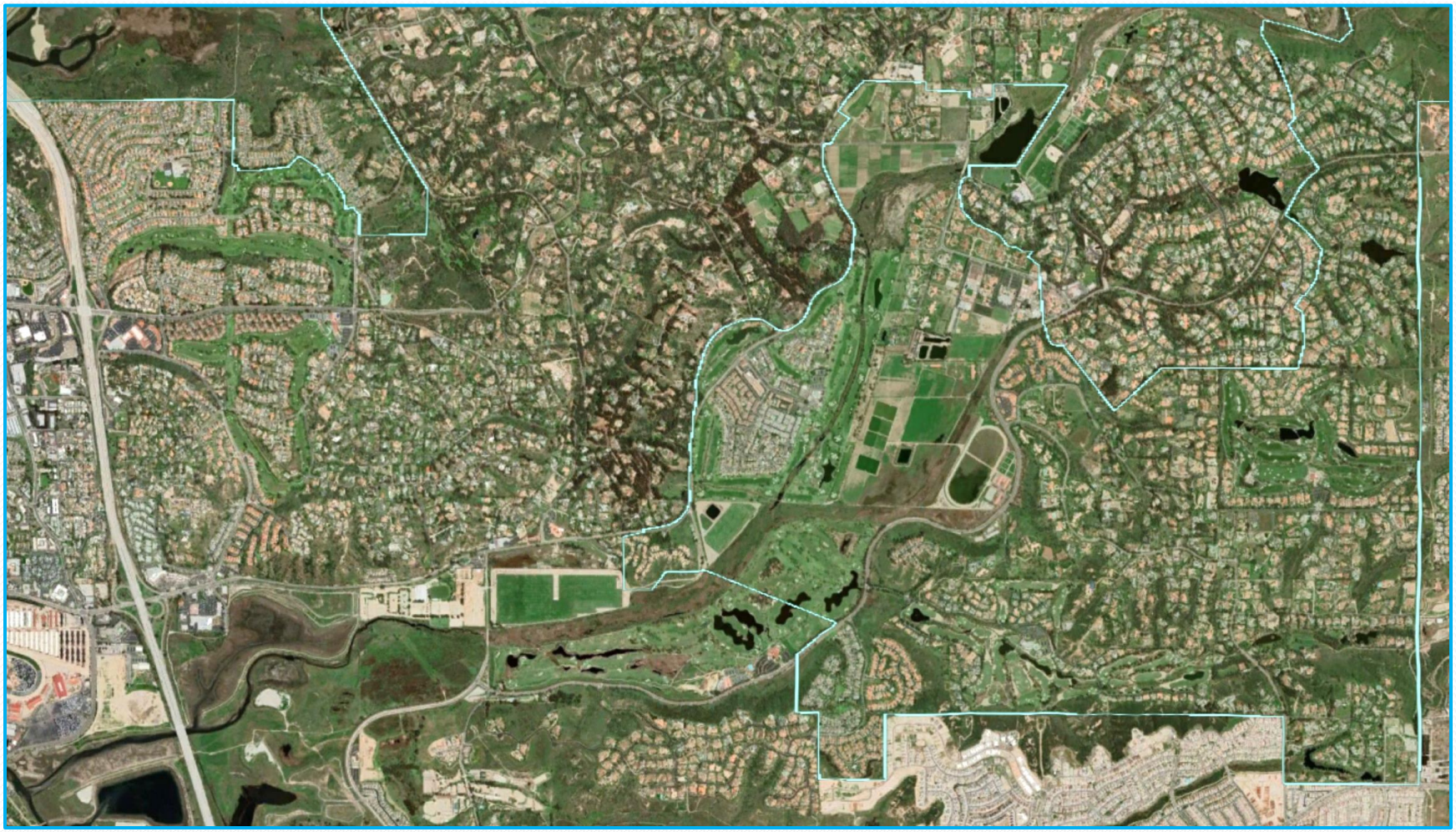
- 2008 board direction - brackish groundwater, rather than Carlsbad Desalination
- 2010 Opportunities & Constraints
  - San Elijo GW
  - San Dieguito GW
- 2016 San Elijo - potentially feasible (USBR funding)



Project Timeline

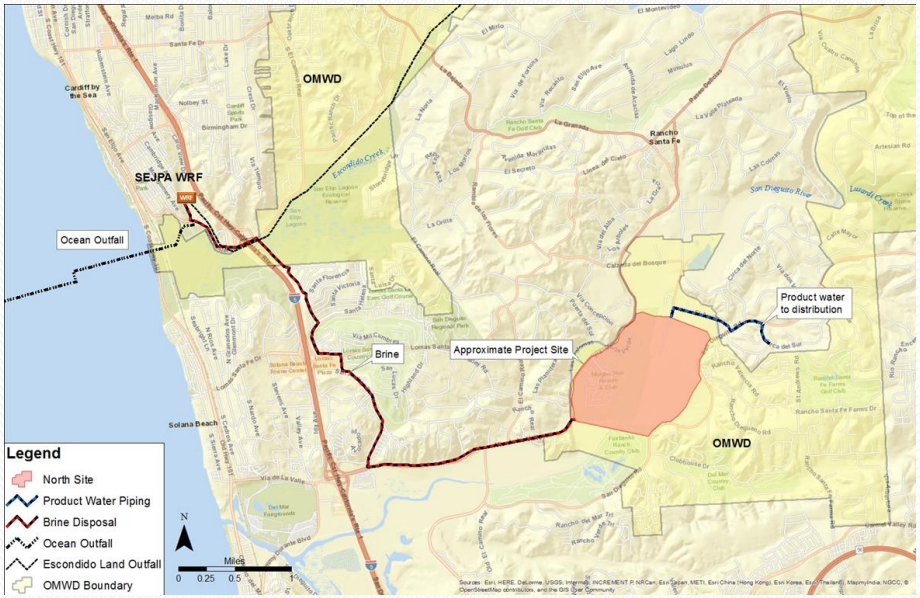


Study Area



2017 DWR San Dieguito Feasibility Study

- Project feasible and sustainable at 1 MGD or more
- Cost-competitive with imported water, less than desalinated seawater
- North Valley Wellfield preferred, not influenced by surface water
- Meet state and federal drinking water regulations
- Brine disposal via SEJPA ocean outfall, RWQCB preference



2021 DWR/MWD San Dieguito Pump Test

- Briefed board and stakeholders April 2021
- Confirmed feasibility study results
- Minor impacts to basin storage
- Impacts to local wells—mitigable

Summary of Environmental Constraints

- Clear path forward for environmental compliance and permitting
  - Standard suite of environmental studies and permits will be needed
- Difficulty of path depends on size and location of project
  - Proximity to San Dieguito River and its habitats will affect environmental requirements
- Next steps:
  - Siting study to define site alternatives
  - Begin CEQA compliance
    - Precursor to most permit submittals

Summary of Regulatory Strategy

- Clear path forward for regulatory compliance and permitting
  - No insurmountable regulatory hurdles – have identified well siting and treatment design considerations
- Next steps:
  - Siting study with hydrogeologic evaluation to determine:
    - *Optimum location of extraction sites.* Should be selected to provide highest well capacity
    - *Estimate time of travel for effects on shallow aquifer*. Consider distance of well setback from river to avoid classification of wells as GWUDI

Economic Findings & Recommendations

1. **Non-Cost Factors:** The project provides improved supply reliability, environmental sustainability, and local control

2. **Cost Factors:** With reasonable assumptions, the project is significantly less costly than the No Project alternative over a 30 period of analysis

3. **Next Steps:** The Non-Cost and Cost findings support advancing the project to final planning and agency coordination (SGMA et. al.)

Funding Review

- Feasibility Study
  - $500k
  - $250k Funded by DWR Grant
- Pilot Test Well
  - $1.3M ($650k Funded by DWR Grant)
  - $175 MWD/SDCWA Iron and Manganese Removal Pilot Testing
- Ultimate Project (if approved)
  - Board approved budget $42M
  - CIP Fund/ Future Grants

Funding Awarded to Date

Year	Agency	Program	Project Phase	Amount
2018	MWD	Future Supply Action	Iron and Manganese Removal Pilot Testing	$175,000
2017	DWR	Water Desalination Grants Program Round 4	Pilot Test Well	$650,000
2014	DWR	Water Desalination Grants Program Round 3	San Dieguito Feasibility Study	$250,000
2012	USBR	WaterSMART (Title XVI)	San Elijo Feasibility Study	$150,000
2010	DWR	Prop 84/IRWM Round 1	Initial Feasibility Study	$145,000

Funding Opportunities Under Pursuit

- Community Projects Funding in Congressional Appropriations Bill
  - Working with legislators, primarily Scott Peters' office, for $2.5 million in funding to support FY 24 work (Environmental Impact Report/Environmental Impact Study, analysis of Sustainable Groundwater Management Act issues, and calibration of the hydrogeologic model)

Future Funding Opportunities

- USBR's Title XVI Water Reclamation and Reuse/Desalination program
- Water Infrastructure Improvements for the Nation Act
- DWR's Water Desalination Grant Program
- DWR's Sustainable Groundwater Management Grant Program
- California Office of Planning & Research's Integrated Climate Adaptation and Resilience Program
- MWD's Local Resources Program
- Drinking Water State Revolving Fund
- California Infrastructure and Economic Development Bank

Potential Partnerships

- Santa Fe ID
- City of San Diego
- City of Del Mar
- Community Services Districts
- Private Entities – Water Supply

Community Outreach

- RSFFPD (3/16/2017) – Feasibility Study Outreach
- Solana Santa Fe Elementary (10/17/2017 + 12/4/2018) – Community Meeting & Public Workshop
- Del Mar City Council (4/1/2019) – Project Summary
- Whispering Palms CSD (10/8/2019) – Project Summary
- Public Webinar (4/27/2021) – Project Status Update
- Met WD Future Supply Actions Program (10/17/21) – Project Summary
- SD River JPA (3/4/2022) – Project Summary
- OMWD (3/30/2022) – Board of Directors Workshop
- SFID (7/21/2022) – Project Status

Board Questions, Discussion, Input

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Municipal Water District
A Public Agency

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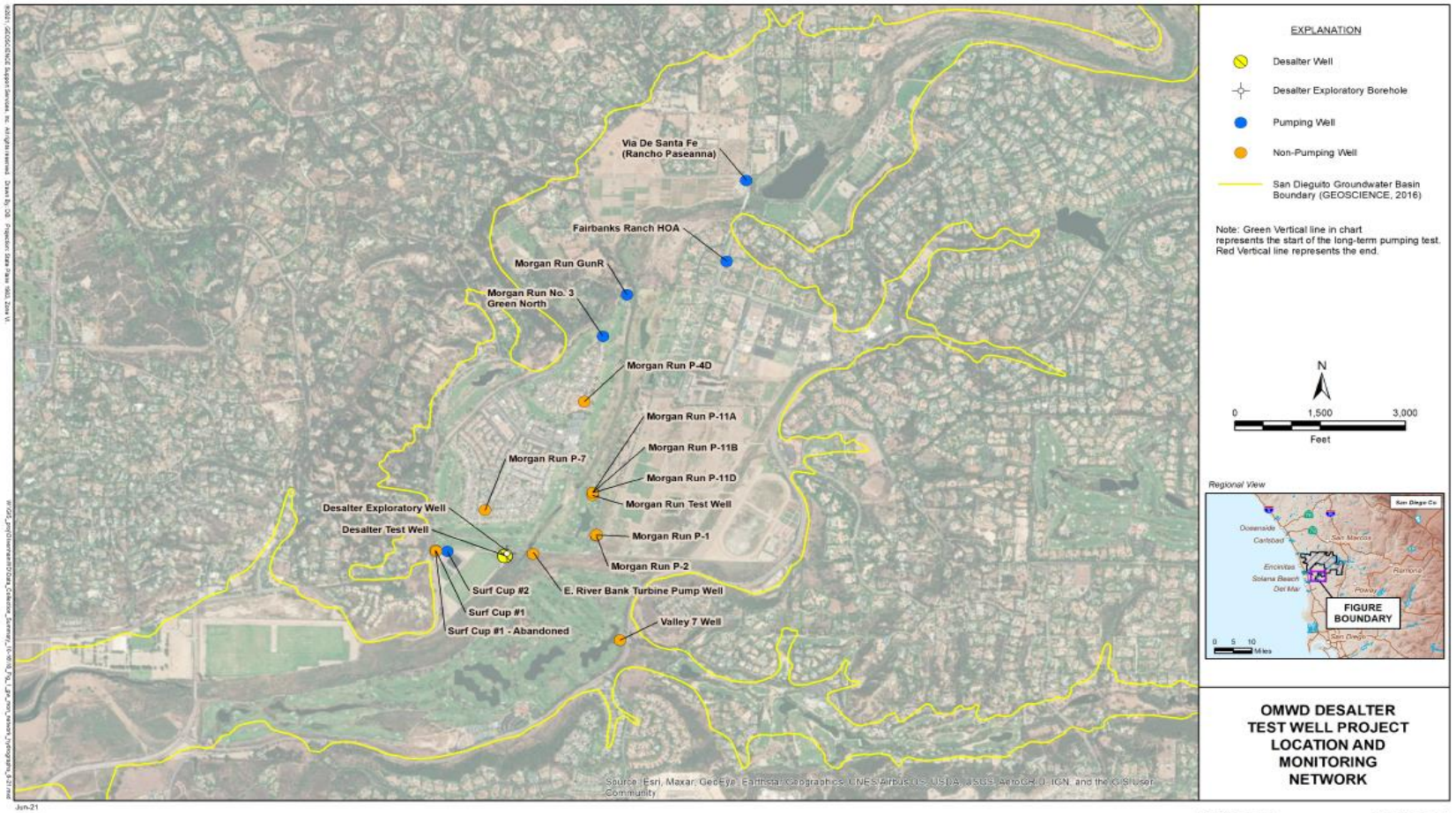
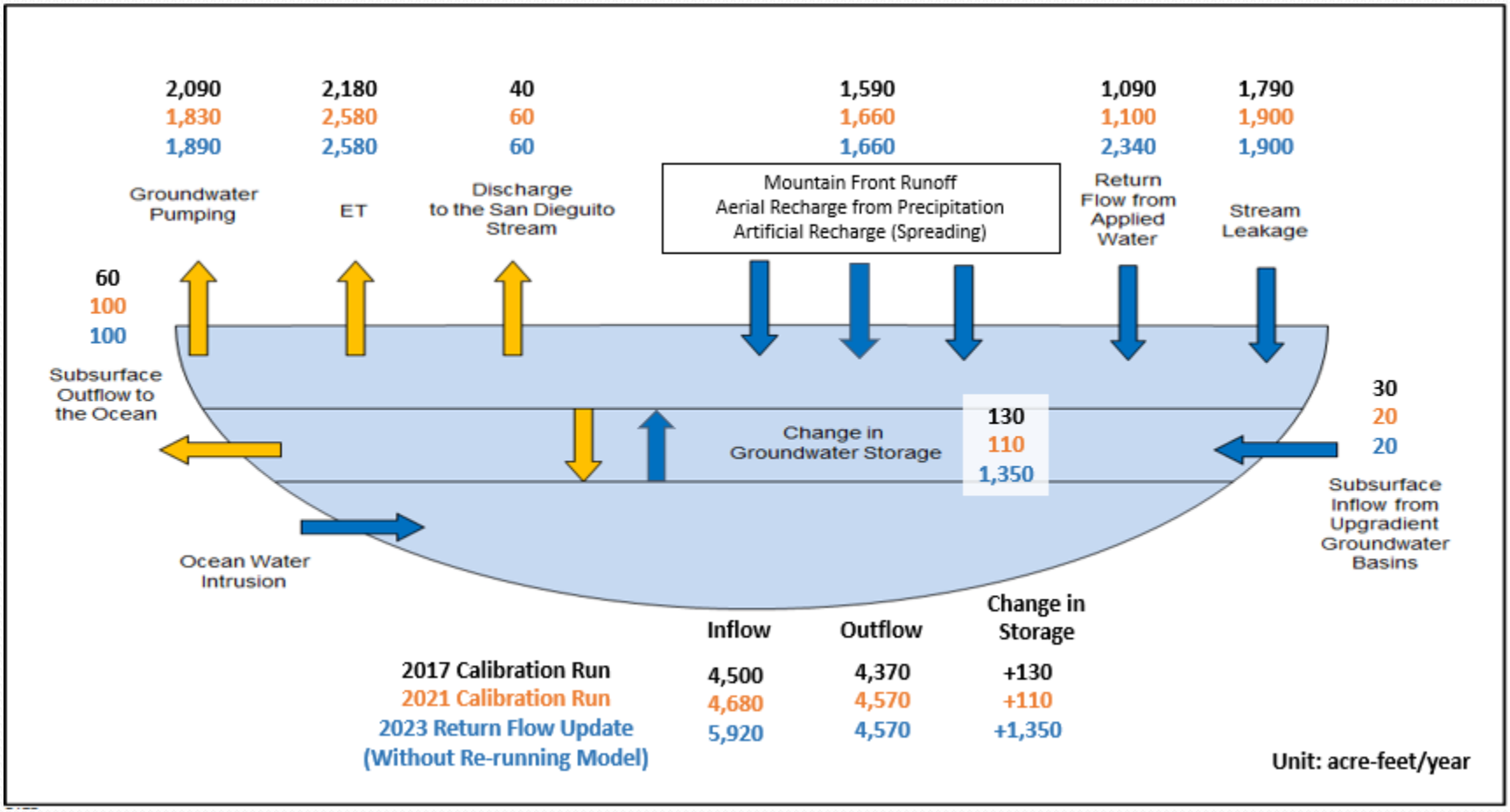
FY 2023 Hydrogeologic Program

- Continued water level monitoring
- Studies and investigations – optimal well sites
  - Geophysical work in progress
  - Complete early in FY 2024
- Estimate return flow
  - That portion of imported water supplied by OMWD, SFID, San Diego, and Del Mar to their customers, that flows past the landscape root zone and recharges the groundwater.
  - Agencies have the right to recover.
  - A portion of the project supply.

Groundwater Level, Quality, and Flow



Water Balance Components



Return Flow Methodology

- Applied to Temecula Creek and Santa Margarita River Area
- Rancho California WD, Fallbrook PUD, Camp Pendleton
- Closely scrutinized, accepted, defendable
- Checked using local water meter records
- Adjust for declining demands

Data Collection

RCEPARCE	SOURCEADDR	GSSISOURCETYPE	GSSIACCOUNT	GSSITYPE	SOURCE	MATC	PARCEL_GSSI	ADDRESS_GSSI	X_COORD_GSSI	Y_COO
3050910600	6871 Farms View CT	POTABLE	FIRE	POTABLE: FIRE	OMWD	1	3050910600	6871 FARMS VIEW CT	6279017.446	
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3050910700	6896 Farms View CT	POTABLE	RESIDENTIAL	POTABLE: RESIDENTIAL	OMWD	1	3050910700	6896 FARMS VIEW CT	6278951.889	
3050910800	6886 Farms View CT	POTABLE	FIRE	POTABLE: FIRE	OMWD	1	3050910800	6886 FARMS VIEW CT	6278792.841	
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2992320600	1726 COAST BLVD DEL MAR CA	POTABLE	RESIDENTIAL	POTABLE: RESIDENTIAL	DELMAR	1	2992320600	1726 COAST BLVD	6249556.967	
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2991471900	1804 COAST BLVD DEL MAR CA	POTABLE	RESIDENTIAL	POTABLE: RESIDENTIAL	DELMAR	1	2991471900	1804 COAST BLVD	6249566.948	
2991471200	138 18TH ST DEL MAR CA 9201	POTABLE	RESIDENTIAL	POTABLE: RESIDENTIAL	DELMAR	1	2991471200	138 18TH ST	6249477.372	
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2991471001	1808 OCEAN FRONT DEL MAR C	POTABLE	RESIDENTIAL	POTABLE: RESIDENTIAL	DELMAR	1	2991471001	1808 OCEAN FRONT	6249385.329	
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OMWD: APN & Address
Jan 2008 – Dec 2021

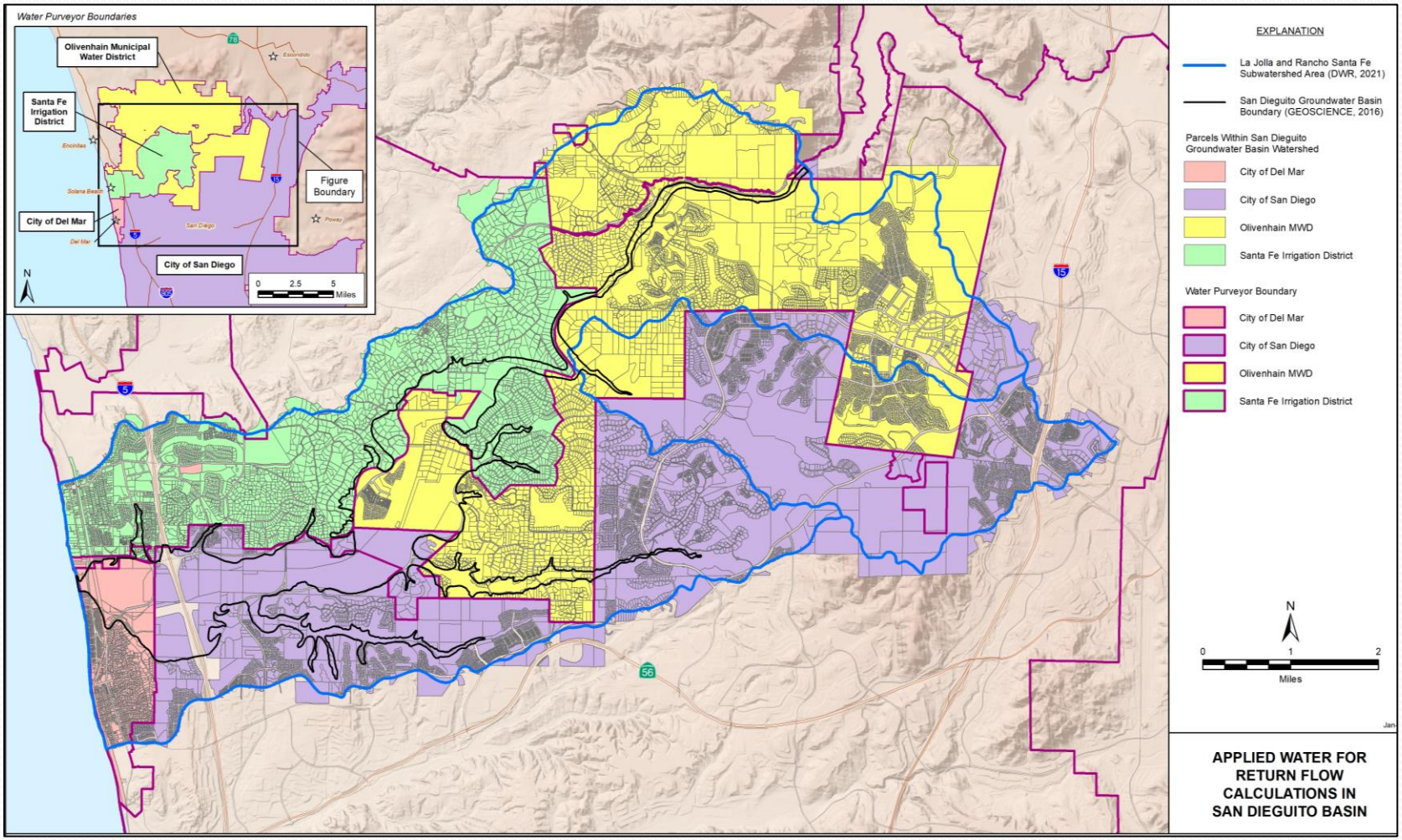
Del Mar: Address Only
Jan 2010 – Dec 2020

SFID: APN & Address*
Jul 2019 – Jun 2021

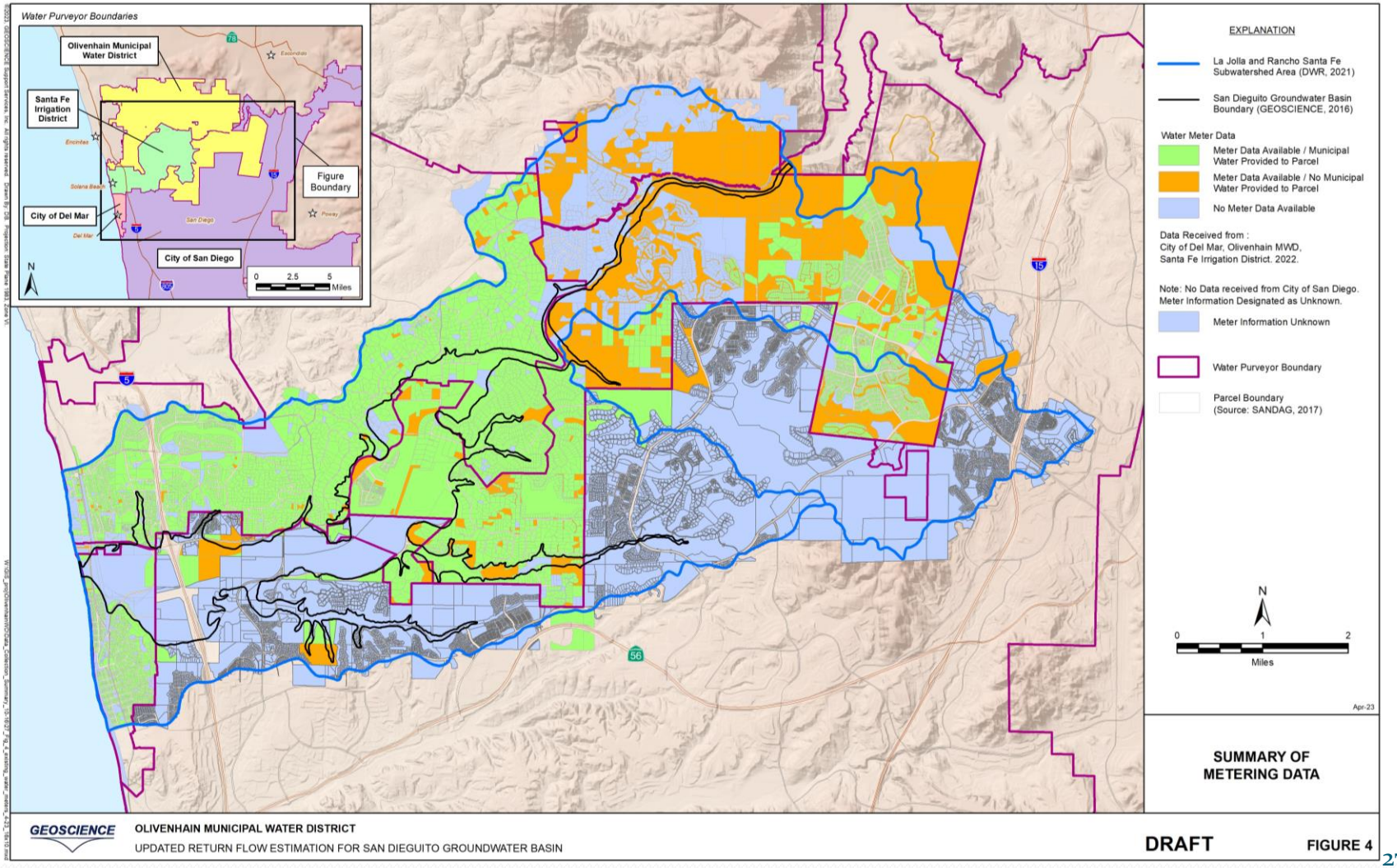
City of SD: No Data

	OMWD	City of Del Mar	SFID	City of SD	Total
Watershed Area	37.9%	3.4%	19.6%	39.1%	37,750 parcels
Total Metered Parcels	5,871	1,474	4,427	-	11,563
Total Metered w/ Non-Zero Data	5,870	1,474	4,424	-	11,556

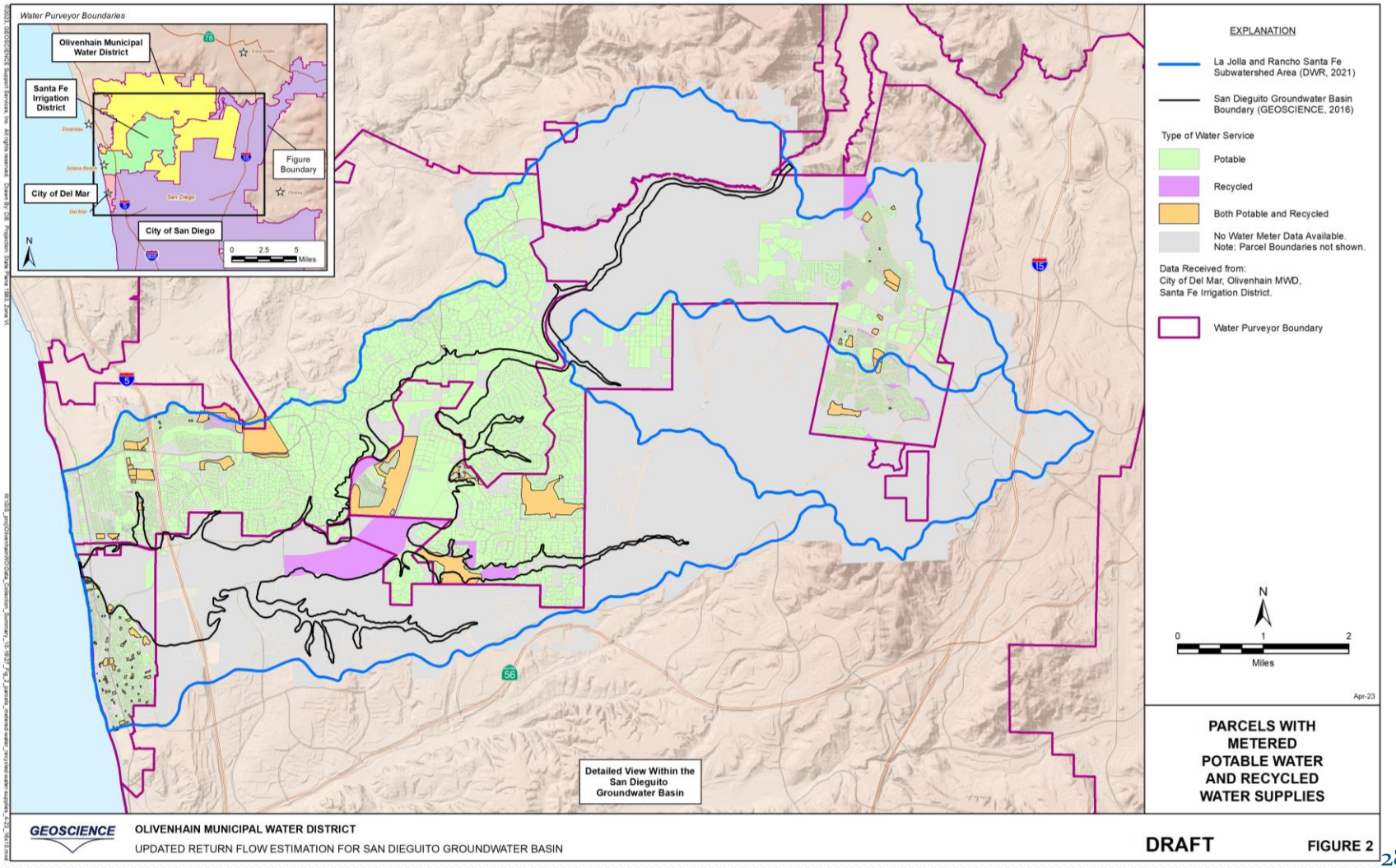
Summary of Data Collection – Service Area



Summary of Data Collection – Metering Data



Summary of Data Collection – Water Type



Return Flow Assumptions

Table D1 2005 Return Flow Application Rate

	Indoor (%)	Outdoor (%)	WUF (AF/AC)	Adjusted WUF for 5.3% System Loss (AF/AC)	% Not Consumed (%)	Available for Recovery (AF/AC)	75% Return to GW (AF/AC)	25% Return to SW (AF/AC)	12.5% loss of SW (AF/AC)	Total Return Flow (AF/AC)	Total Return Flow as % Applied (%)
Agricultural	0	100	2.31	2.43	20	0.49	0.36	0.12	-0.06	0.43	18%
Residential	47	53	1.50	1.58	25	0.21	0.16	0.05	-0.03	0.18	12%
Commercial	41	59	1.29	1.36	25	0.20	0.15	0.05	-0.03	0.18	14%
Multi-Family	57	43	4.27	4.50	25	0.48	0.36	0.12	-0.06	0.42	10%
Parks/Golf	0	100	3.01	3.17	20	0.63	0.48	0.16	-0.08	0.55	18%

Table D2 2006 Return Flow Application Rate

	Indoor (%)	Outdoor (%)	WUF (AF/AC)	Adjusted WUF for 4.6% System Loss (AF/AC)	% Not Consumed (%)	Available for Recovery (AF/AC)	75% Return to GW (AF/AC)	25% Return to SW (AF/AC)	12.5% loss of SW (AF/AC)	Total Return Flow (AF/AC)	Total Return Flow as % Applied (%)
Agricultural	0	100	2.47	2.58	20	0.52	0.39	0.13	-0.06	0.45	18%
Residential	43	57	1.57	1.64	25	0.23	0.18	0.06	-0.03	0.20	13%
Commercial	40	60	1.32	1.38	25	0.21	0.16	0.05	-0.03	0.18	14%
Multi-Family	53	47	4.39	4.59	25	0.54	0.40	0.13	-0.07	0.47	11%
Parks/Golf	0	100	3.58	3.74	20	0.75	0.56	0.19	-0.09	0.66	18%

Table D3 2007 Return Flow Application Rate

	Indoor (%)	Outdoor (%)	WUF (AF/AC)	WUF for 6.9% System Loss (AF/AC)	% Not Consumed (%)	Available for Recovery (AF/AC)	75% Return to GW (AF/AC)	25% Return to SW (AF/AC)	12.5% loss of SW (AF/AC)	Total Return Flow (AF/AC)	Total Return Flow as % Applied (%)
Agricultural	0	100	2.79	2.98	20	0.60	0.45	0.15	-0.07	0.52	19%
Residential	39	61	1.68	1.80	25	0.27	0.21	0.07	-0.03	0.24	14%
Commercial	37	63	1.32	1.41	25	0.22	0.17	0.06	-0.03	0.19	15%
Multi-Family	49	51	4.63	4.95	25	0.63	0.47	0.16	-0.08	0.55	12%
Parks/Golf	0	100	3.94	4.21	20	0.84	0.63	0.21	-0.11	0.74	19%

Table D9 2013 Return Flow Application Rate

	Indoor (%)	Outdoor (%)	WUF (AF/AC)	Adjusted WUF for 5.6% System Loss (AF/AC)	% Not Consumed (%)	Available for Recovery (AF/AC)	75% Return to GW (AF/AC)	25% Return to SW (AF/AC)	12.5% loss of SW (AF/AC)	Total Return Flow (AF/AC)	Total Return Flow as % Applied (%)
Agricultural	0	100	1.90	2.01	20	0.40	0.30	0.10	-0.05	0.35	18%
Residential	51	49	1.30	1.37	25	0.17	0.13	0.04	-0.02	0.15	11%
Commercial	41	59	1.01	1.07	25	0.16	0.12	0.04	-0.02	0.14	14%
Multi-Family	61	39	4.50	4.75	25	0.46	0.35	0.12	-0.06	0.41	9%
Parks/Golf	0	100	2.57	2.71	20	0.54	0.41	0.14	-0.07	0.47	18%

Table D10 2014 Return Flow Application Rate

	Indoor (%)	Outdoor (%)	WUF (AF/AC)	Adjusted WUF for 3.9% System Loss (AF/AC)	% Not Consumed (%)	Available for Recovery (AF/AC)	75% Return to GW (AF/AC)	25% Return to SW (AF/AC)	12.5% loss of SW (AF/AC)	Total Return Flow (AF/AC)	Total Return Flow as % Applied (%)
Agricultural	0	100	2.08	2.16	20	0.43	0.32	0.11	-0.05	0.38	18%
Residential	50	50	1.32	1.37	25	0.17	0.13	0.04	-0.02	0.15	11%
Commercial	42	58	1.06	1.10	25	0.16	0.12	0.04	-0.02	0.14	13%
Multi-Family	60	40	4.74	4.92	25	0.49	0.37	0.12	-0.06	0.43	9%
Parks/Golf	0	100	2.65	2.75	20	0.55	0.41	0.14	-0.07	0.48	18%

Table D11 2015 Return Flow Application Rate

	Indoor (%)	Outdoor (%)	WUF (AF/AC)	Adjusted WUF for 2.6% System Loss (AF/AC)	% Not Consumed (%)	Available for Recovery (AF/AC)	75% Return to GW (AF/AC)	25% Return to SW (AF/AC)	12.5% loss of SW (AF/AC)	Total Return Flow (AF/AC)	Total Return Flow as % Applied (%)
Agricultural	0	100	1.56	1.60	20	0.32	0.24	0.08	-0.04	0.28	18%
Residential	66	34	0.91	0.93	25	0.08	0.06	0.02	-0.01	0.07	8%
Commercial	53	47	0.83	0.85	25	0.10	0.08	0.03	-0.01	0.09	11%
Multi-Family	76	24	3.70	3.80	25	0.23	0.17	0.06	-0.03	0.20	5%
Parks/Golf	0	100	2.05	2.10	20	0.42	0.32	0.11	-0.05	0.37	18%

Agricultural: 18% - 19%

Residential: 8% - 14%

Commercial/Industrial: 11% - 15%

Multi-Family: 5% - 12%

Parks/Golf Course: 18% - 19%

Return Flow Calculations

Land Use	OMWD (Jan 2008 - Dec 2021)	City of Del Mar (Jan 2010 - Dec 2020)	SFID (July 2019 - Jun 2021)	City of San Diego	TOTAL
			Return Flow (acre-ft/year)		
Agricultural	33	2	31	38	104
Residential	538	40	567	135	1,280
Commercial	105	28	49	83	265
Multi-Family	3	7	25	54	89
Parks/Golf	366	18	132	83	599
TOTAL	**1,044**	**95**	**804**	**393**	**2,337**
			Average Return Flow Factors (Return Flow / Applied Water)		
	12%	**11%**	**9%**	**11%**	**11%**

Note: The return flow was calculated based on metered applied water and estimated applied water for unmetered parcels.

FY 2023 Geophysical Program

- Non-invasive
- Vertical and horizontal extent of the basin
- Seismic reflection
- Sting electrical resistivity tomography

Board Questions, Discussion, Input

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Charting Local Waters:
San Dieguito Groundwater Study
An OMWD Sustainable Supplies Project

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Municipal Water District

Feasibility Assessment (Economics and More)

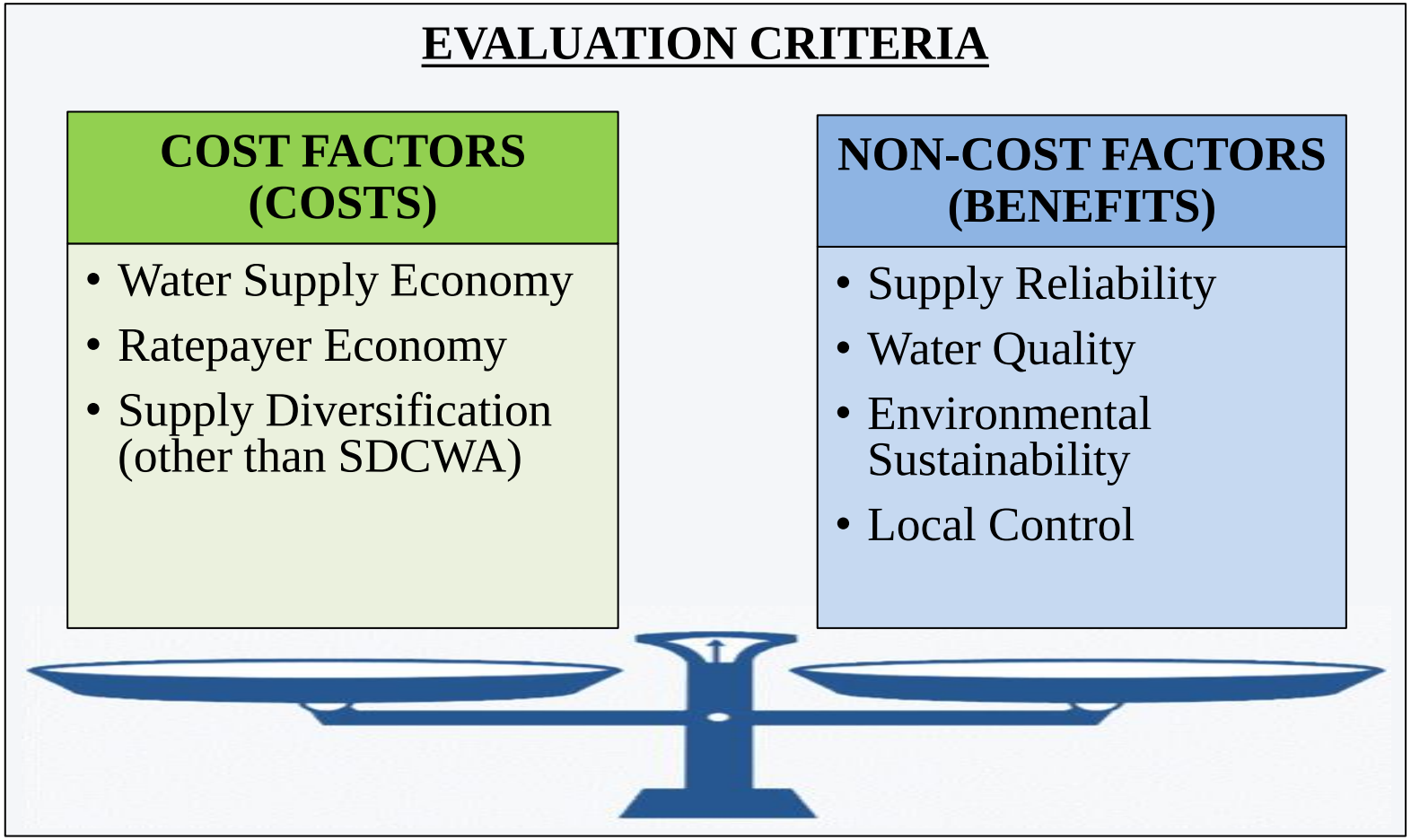
GILLINGHAM WATER
Gillingham Water Planning and Engineering, Inc.

Point of Comparison: Weigh project costs and benefits against those of the No Project alternative

PROJECT vs. NO PROJECT

PROJECT	NO PROJECT
	

Evaluation Criteria: Consider both cost and non-cost factors

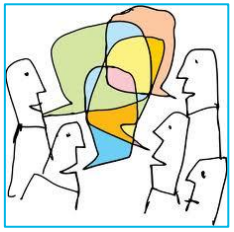


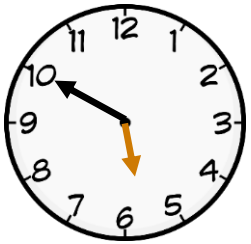
AGENDA:

1. **Non-Cost Factors:** The project provides improved supply reliability, environmental sustainability, and local control

2. **Cost Factors:** With reasonable assumptions, the project is significantly less costly than the No Project alternative over a 30 period of analysis

3. **Next Steps:** The findings support advancing the project into preliminary design and environmental documentation





Non-Cost Factors: The Project fares very well

CRITERIA	Project vs. No Project
• Supply Reliability	
• Water Quality	
• Local Control	
• Environmental Sustainability	
• Reduced Bay-Delta Reliance	
• Reduced Colorado River Reliance	
• Reduced Energy Footprint / GHG	

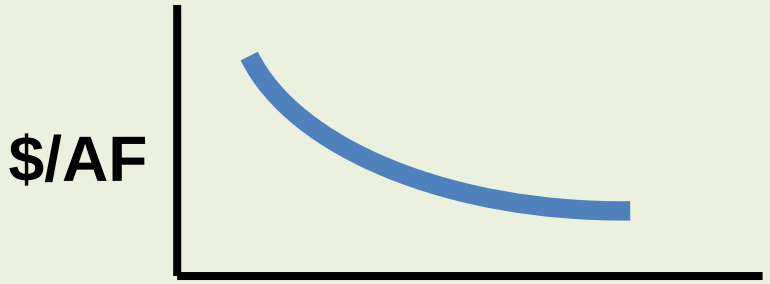
Legend: Better:  Neutral:  Worse: 

Economic Analysis: Anticipated costs have increased. So have anticipated benefits . . . and by a bigger margin.

Capacity	Adopted Budget (1.0 MGD)	Anticipated Budget (2027 $)	Increase
1.0 mgd	**$42.8M**	$4.6M + $46.4M = **$51.2M**	**$8.4M**
1.5 mgd	$42.8M	$4.6M + $54.0M = **$58.6M**	**$15.8M**

Benefits

CY2024 + 13%



Economic Analysis: 30-Year Net Present Value

(1.5 MGD Plant producing 1,600 AF/yr of treated water)

NPV Cost Summary -- Project vs. No Project, in 2023 Dollars

PROJECT	NO PROJECT	
	Cost Component	**NPV**
	SDCWA Purchases (raw)	$105M
	Incremental Treatment Costs	$5M
	TOTAL (Rounded)	**$109M**

Economic Analysis: 30-Year Net Present Value

(1.5 MGD Plant producing 1,600 AF/yr of treated water)

NPV Cost Summary -- Project vs. No Project, in 2023 Dollars

PROJECT	
Cost Component	**NPV**
Capital Cost	$51M
Grant Funding	-$13M
O&M Cost	$44M
LRP Funding	-$4M
TOTAL (Rounded)	**$78M**

NO PROJECT

Economic Analysis: 30-Year Net Present Value

(1.5 MGD Plant producing 1,600 AF/yr of treated water)

NPV Cost Summary -- Project vs. No Project, in 2023 Dollars

PROJECT	
Cost Component	**NPV**
Capital Cost	$51M
Grant Funding	-$13M
O&M Cost	$44M
LRP Funding	-$4M
TOTAL (Rounded)	**$78M**

NO PROJECT	
Cost Component	**NPV**
SDCWA Purchases (raw)	$105M
Incremental Treatment Costs	$5M
TOTAL (Rounded)	**$109M**

Project Cost Advantage = **$31M**

The Project fares very well

Economic Analysis: Key Assumptions – Yield

User Inputs	
Project Sizing and Production Capacity	
Production Capacity Plant design capacity	1.5 MGD
Plant Capacity Factor (On-line time) Default = 94%	94%
Production Volume at specified Plant Capacity Factor	1,580 AF/yr
Groundwater Pumping Pumping needed to support production volume	1,980 AF/yr

- Project costs exhibit strong economies of scale. 1.5 MGD fares better than 1.3 MGD, which fared better than 1.0 MGD.
- 1.8 MGD would fare even better, but would require pumping of 2,400 AF/yr, and likely would require a project partner

Economic Analysis: Key Assumptions – SDCWA

User Inputs

SDCWA Rate Escalation

Escalation Scenario (See SDCWA worksheet)	Mid-Range
Rate Cap (Raw) (2023 $) (See SDCWA worksheet)	$2,500/AF

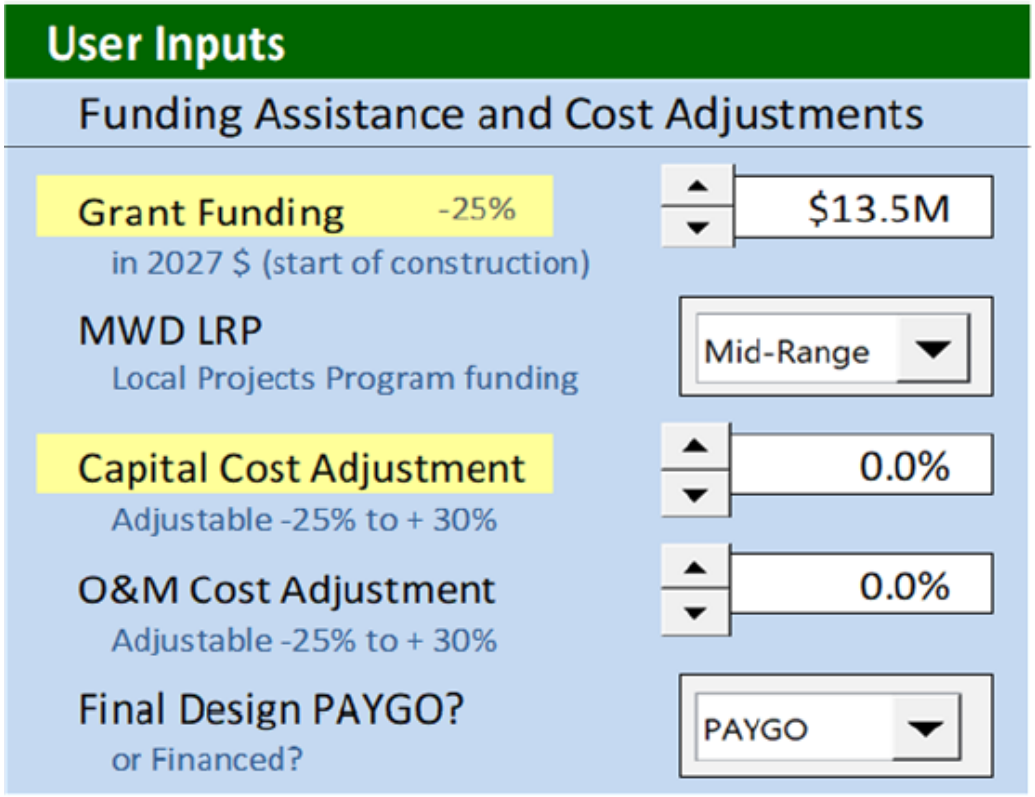
- SDCWA draft projected CY24 All-In raw water rate = **$1,784/AF**
- **+13%**

"All-In" Rate Adjustments

	CY '23	CY '24	CY '25	CY '26	CY '27	CY '28	CY '29	CY '30	CY '31	10 Yr CAGR
2D - High	11.3%	9.7%	10.3%	7.5%	6.4%	5.2%	4.8%	4.4%	4.4%	7.07%
2D - Low	5.9%	3.7%	5.3%	4.5%	3.0%	3.5%	2.6%	2.7%	4.1%	3.91%

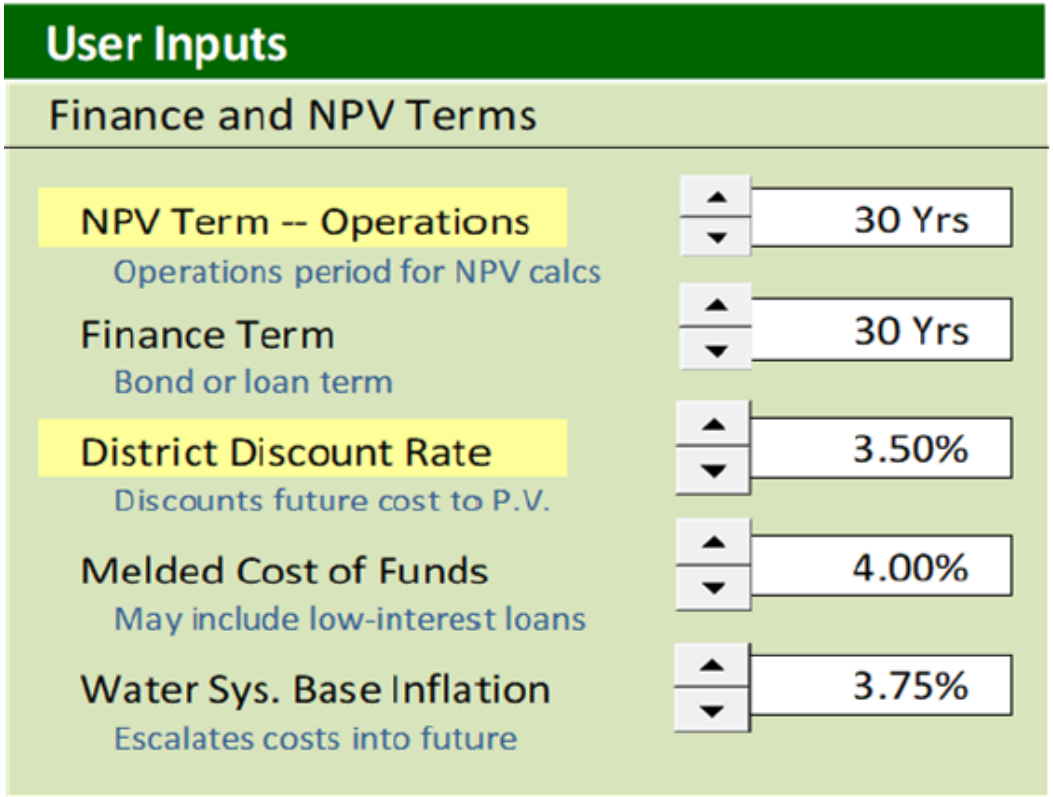
- Through CY2031 we have used SDCWA Low, Mid, and High forecasts.
- Post 2031 we assume only water system inflation plus 0.0% for Low, 0.5% for Mid-Range, and 1.0% for High escalation scenarios

Economic Analysis: Key Assumptions – Funding



- GRANT FUNDING: Project is very well positioned. Funding at 25 percent of capital is a reasonable mid-range assumption.
- MWD LPP: Our mid-range assumption is the LPP subsidy amount is cut in half.

Economic Analysis: Key Assumptions – Finance



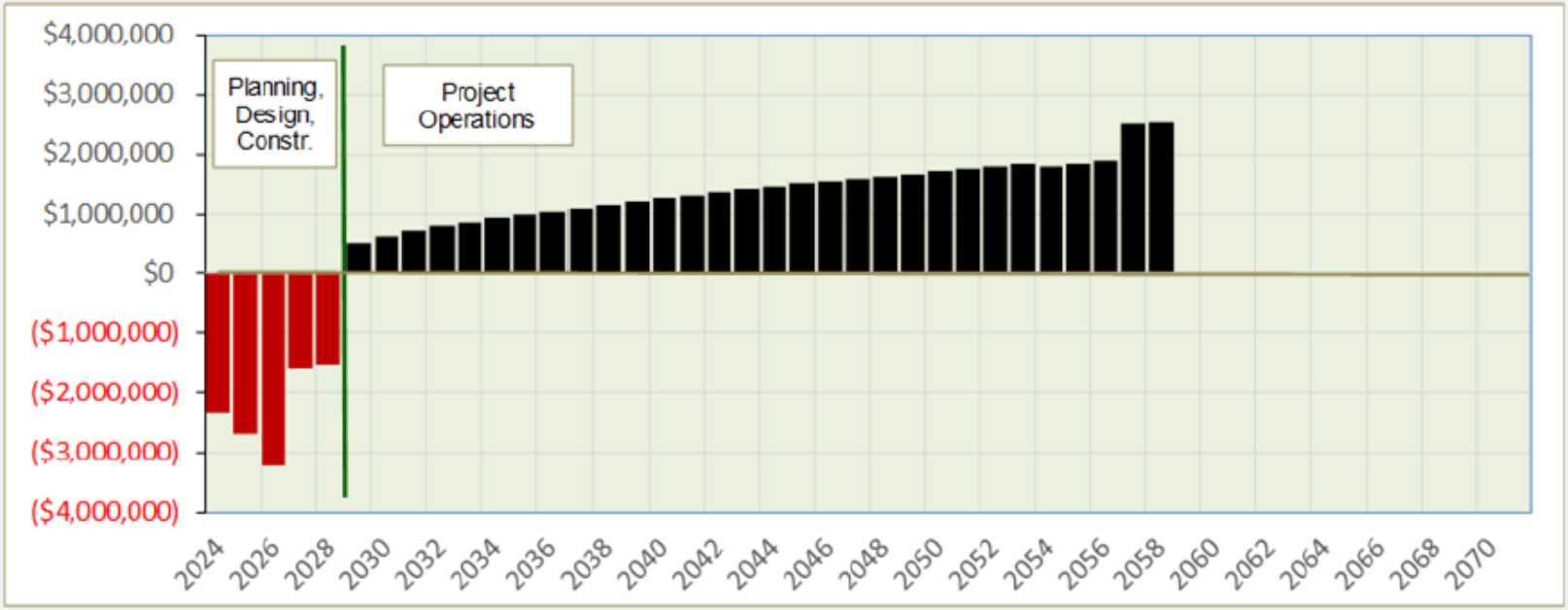
- NPV TERM: 30 years is common but not etched in stone. Longer terms produce greater NPV benefits
- RATE FACTORS: Mostly move in common with inflation. Discount rate is analogous to minimum Rate of Return on investments.

Economic Analysis: Costs and Benefits Over Time

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$13.5M	30 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2042	Payback pd.: 15 Yrs



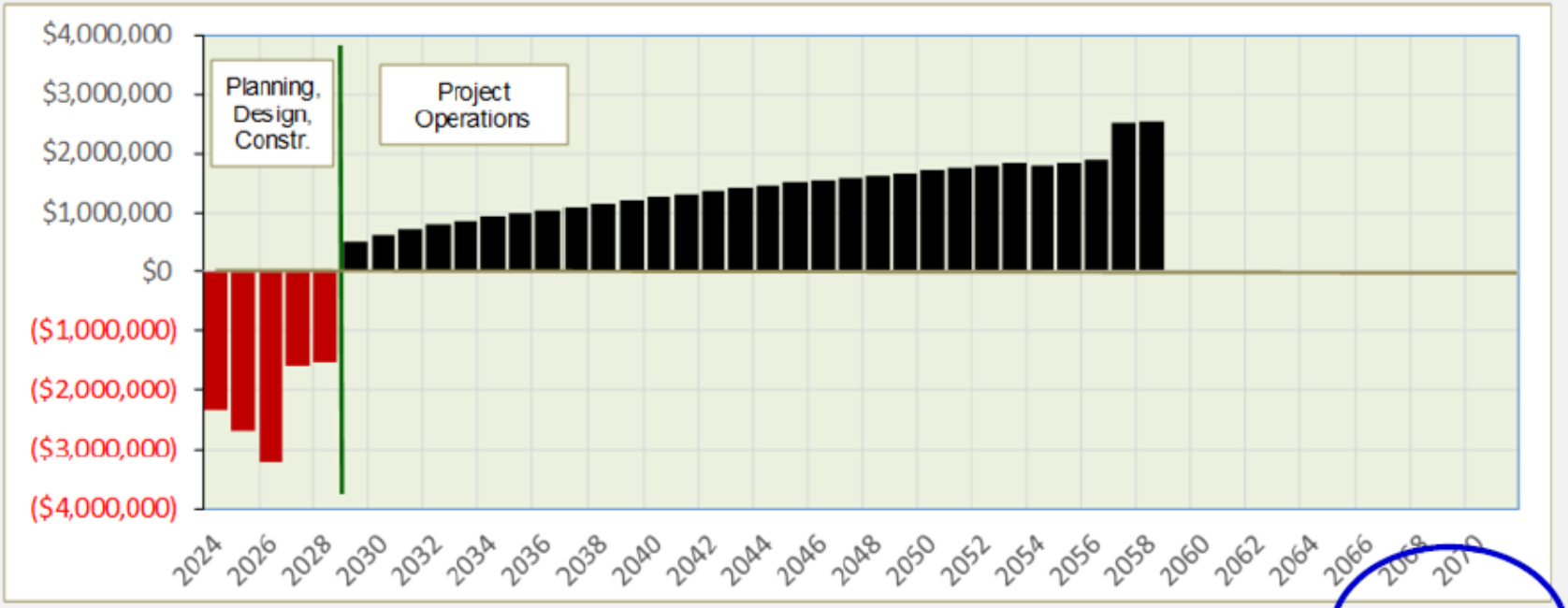
Total Red: $11M	Total Black: $42M	Advantage: $31M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$13.5M	30 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2042	Payback pd.: 15 Yrs



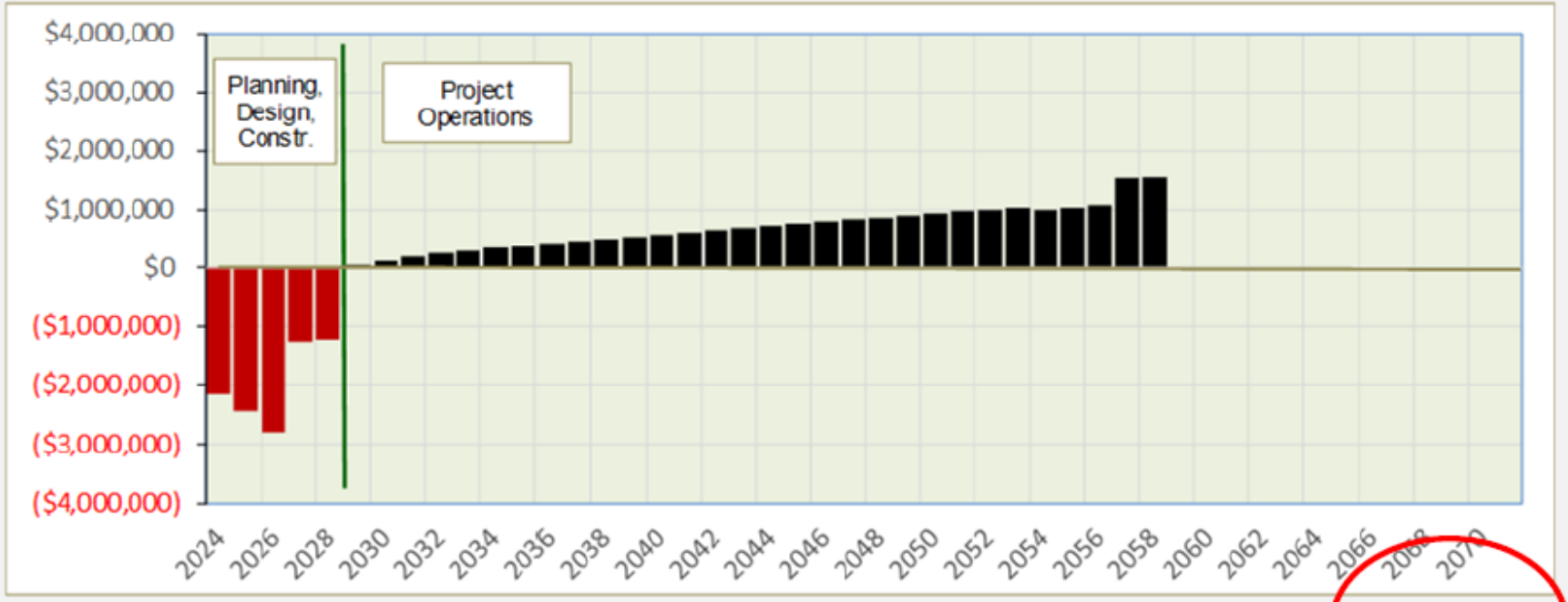
Total Red: $11M	Total Black: $42M	Advantage: $31M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.0 MGD	Mid-Range	$13.5M	30 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2049	Payback pd.: 22 Yrs



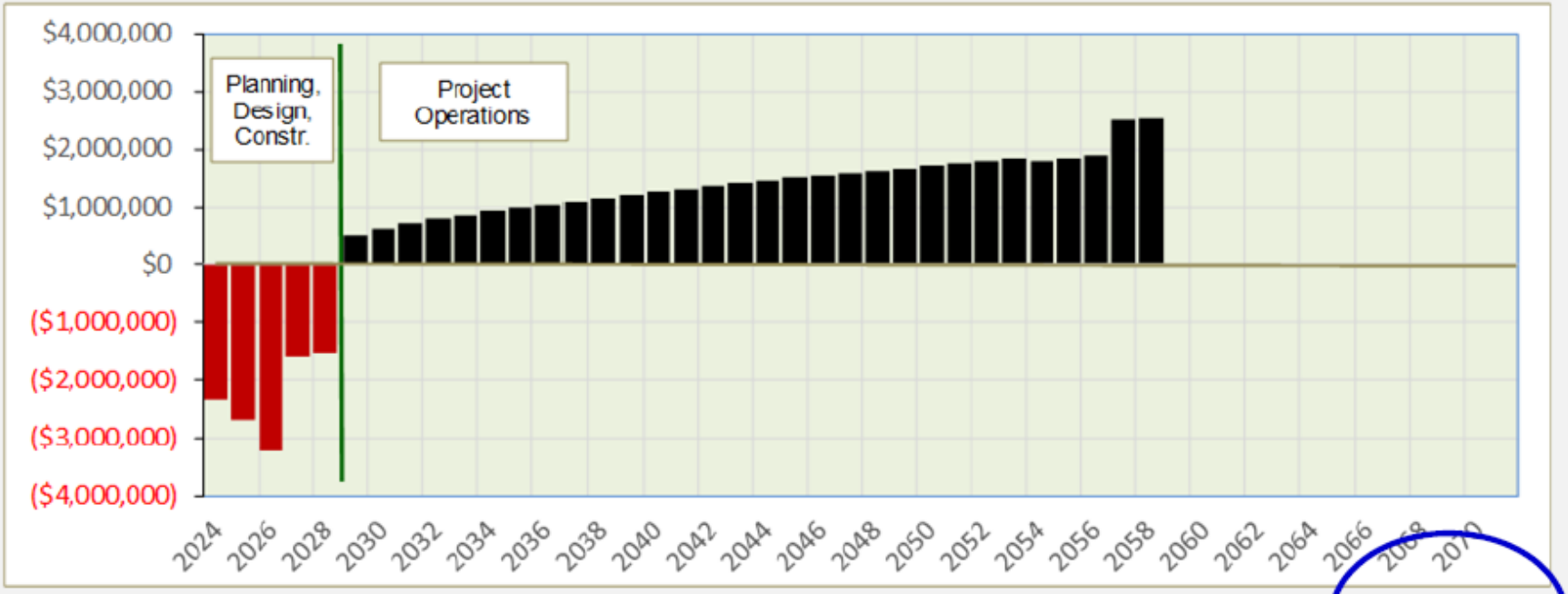
Total Red: $10M	Total Black: $21M	Advantage: $11M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$13.5M	30 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2042	Payback pd.: 15 Yrs



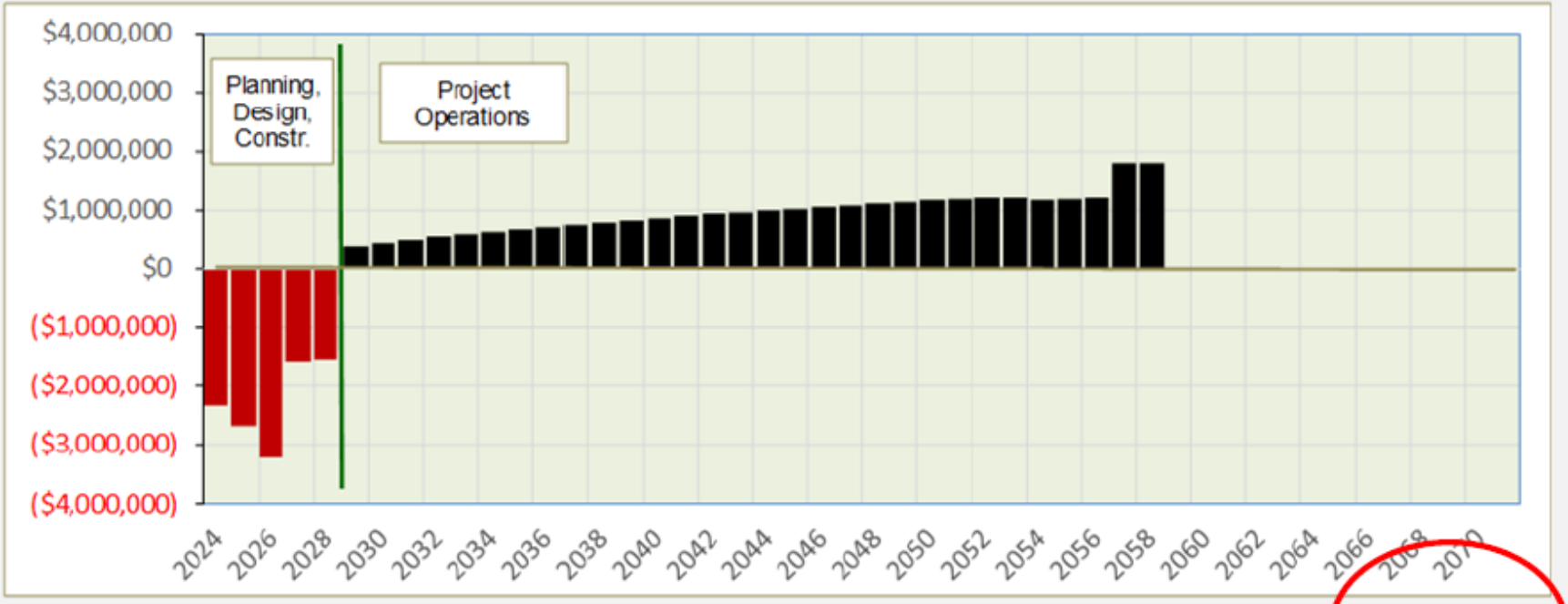
Total Red: $11M	Total Black: $42M	Advantage: $31M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Low	$13.5M	30 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2045	Payback pd.: 18 Yrs



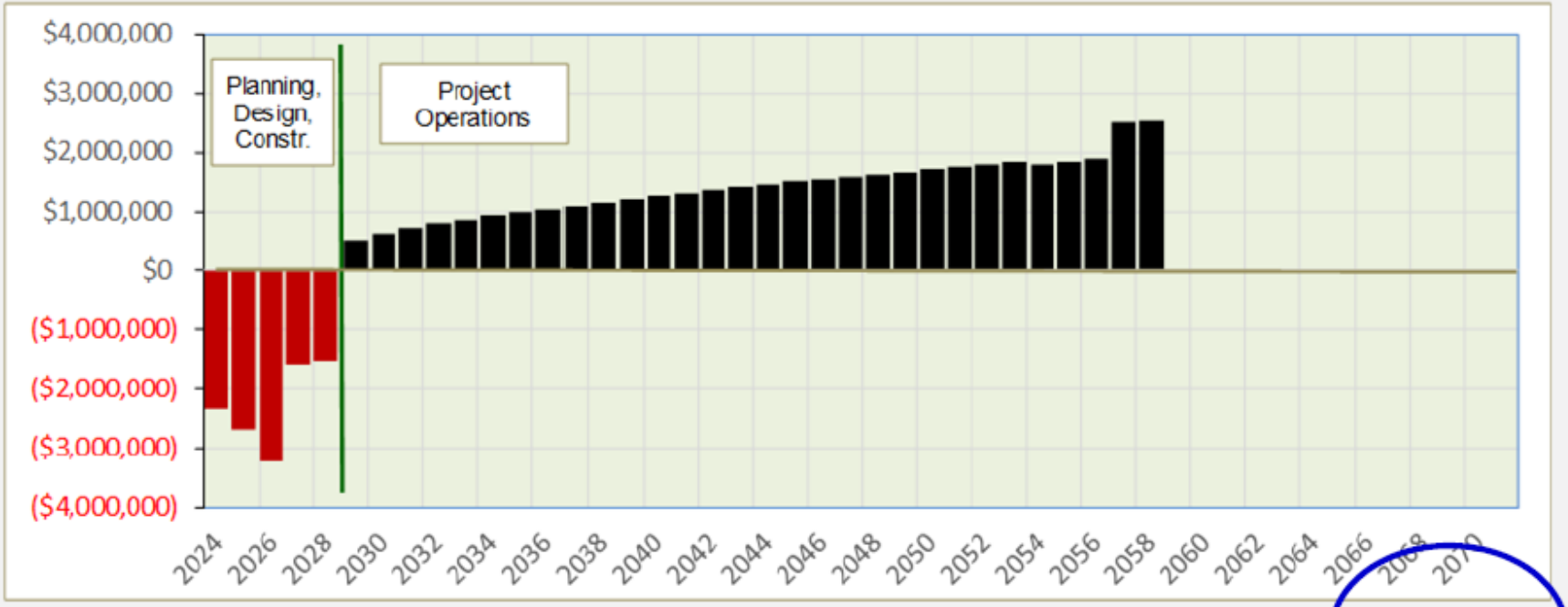
Total Red: $11M	Total Black: $29M	Advantage: $17M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$13.5M	30 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2042	Payback pd.: 15 Yrs



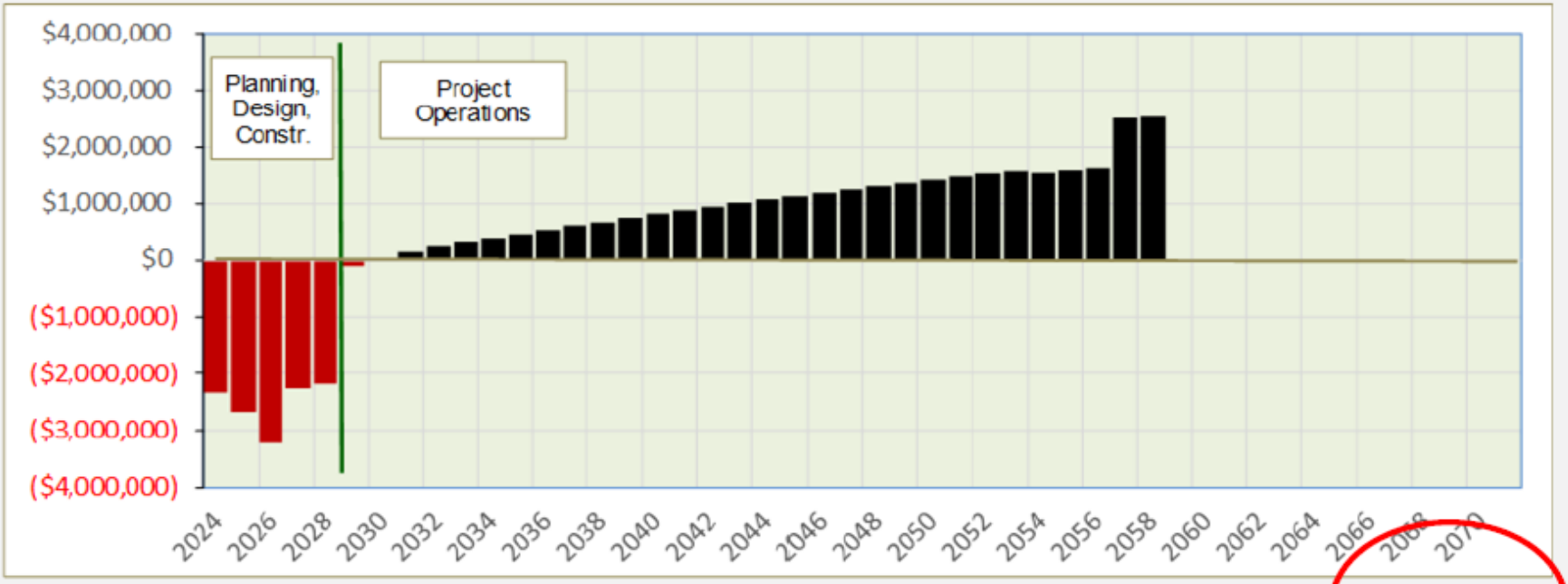
Total Red: $11M	Total Black: $42M	Advantage: $31M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$0.0M	30 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2030	Break-even: 2049	Payback pd.: 22 Yrs



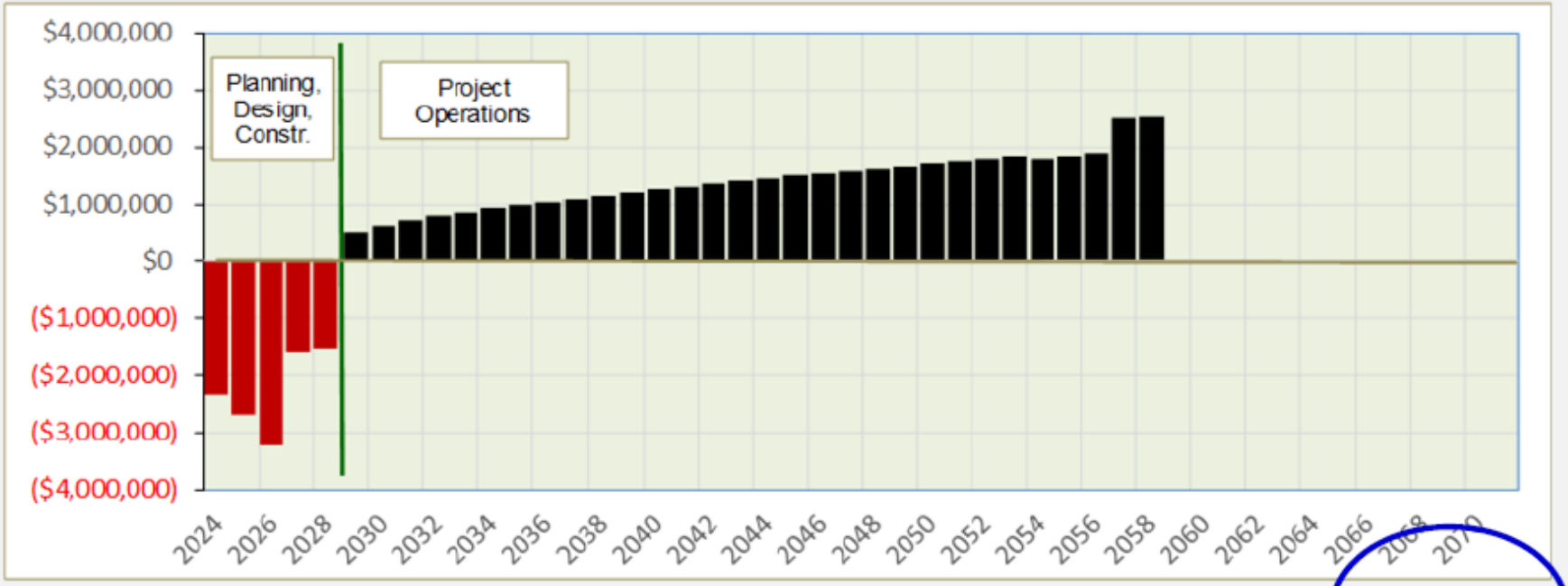
Total Red: $13M	Total Black: $31M	Advantage: $18M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$13.5M	30 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2042	Payback pd.: 15 Yrs



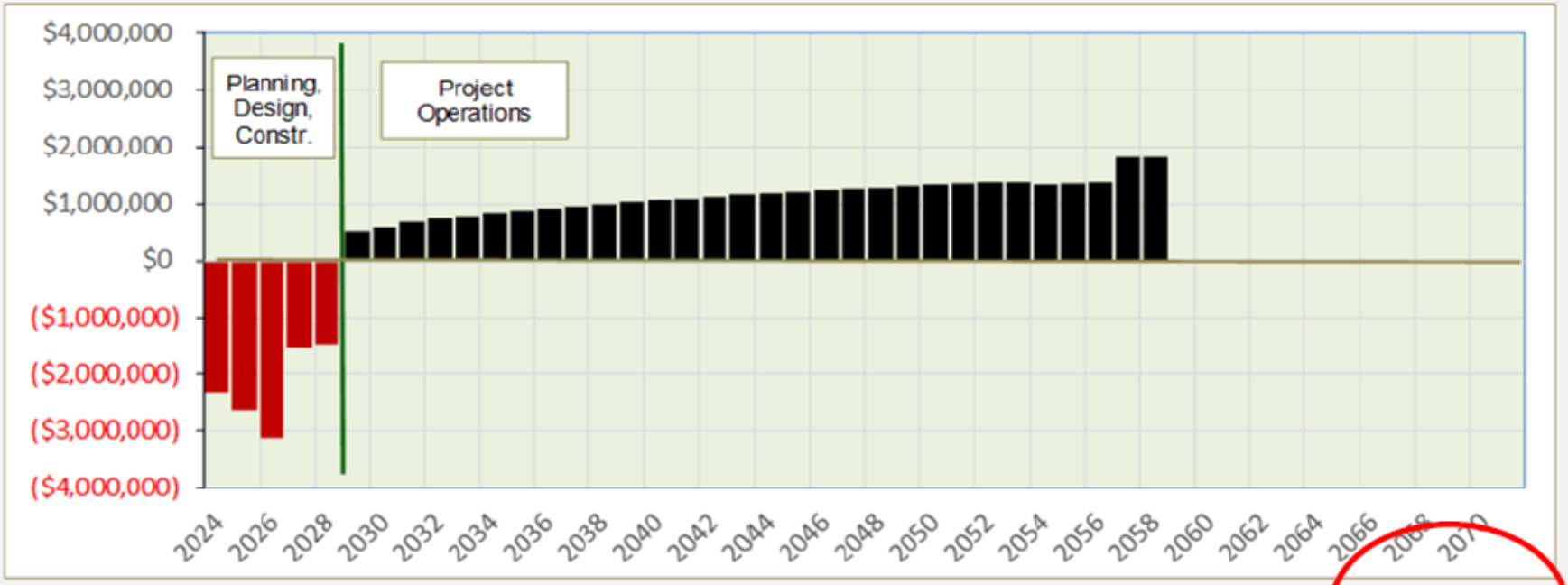
Total Red: $11M	Total Black: $42M	Advantage: $31M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$13.5M	30 Yrs	4.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2043	Payback pd.: 16 Yrs



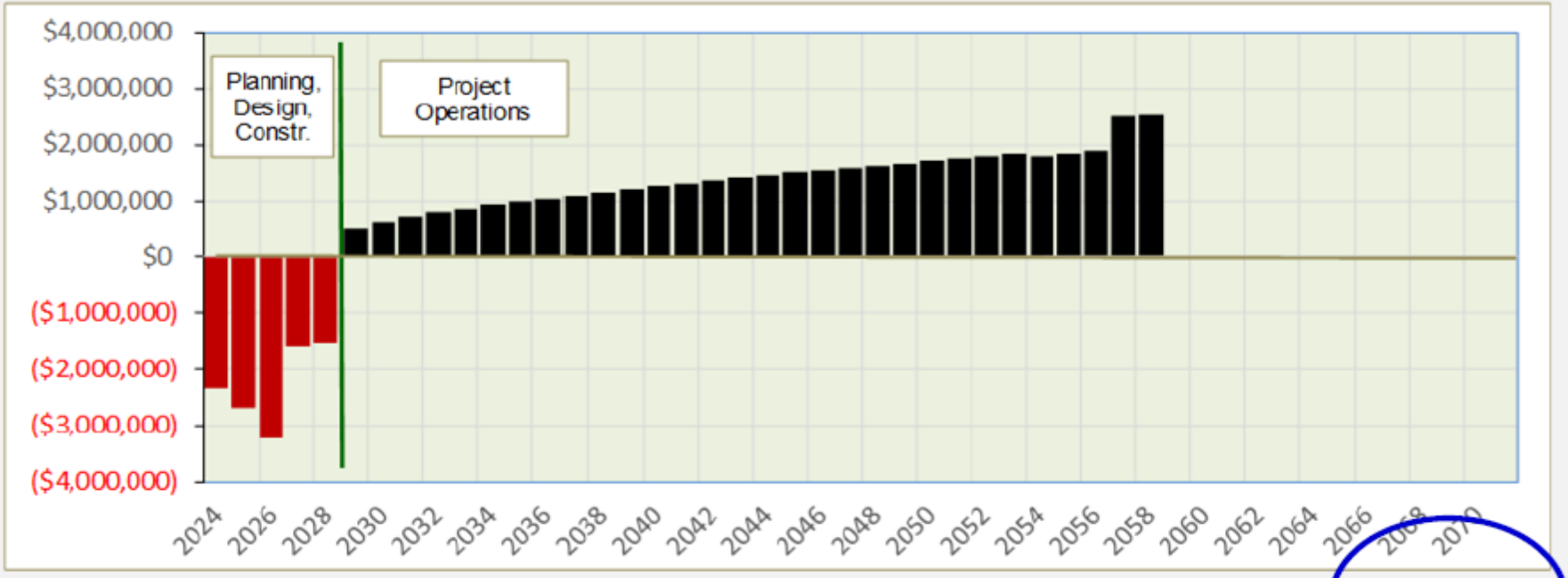
Total Red: $11M	Total Black: $34M	Advantage: $23M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$13.5M	30 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2042	Payback pd.: 15 Yrs



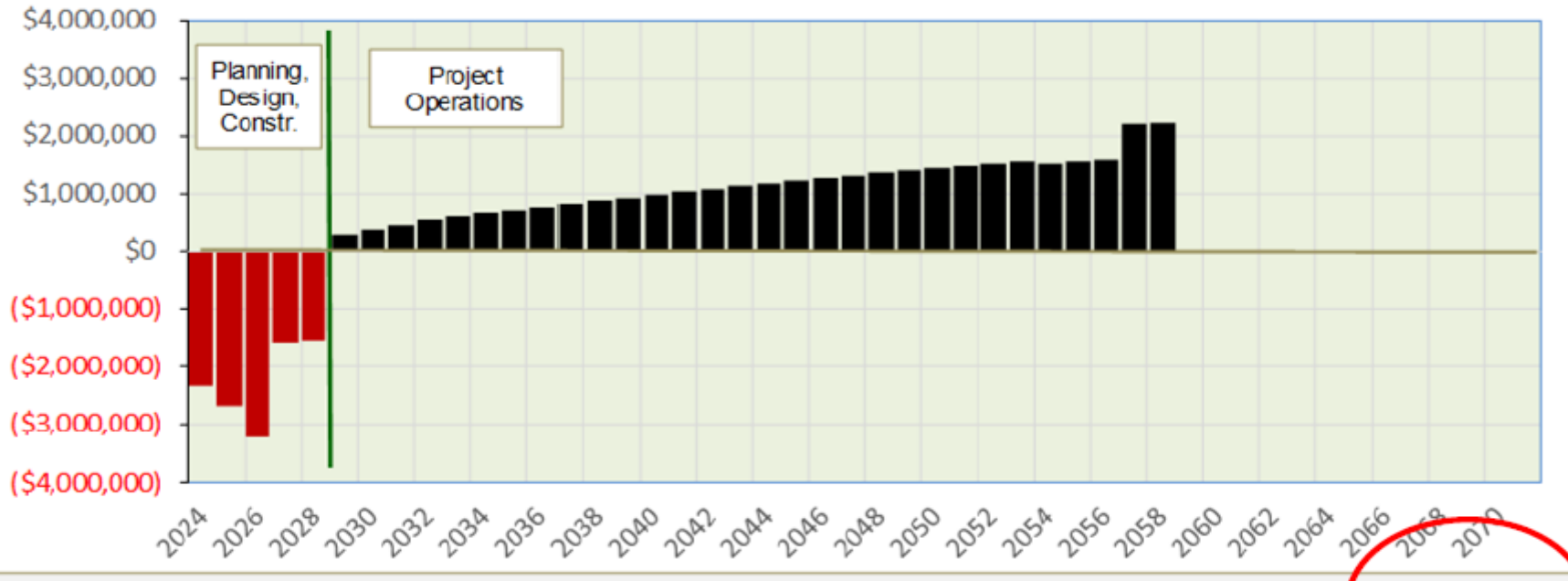
Total Red: $11M	Total Black: $42M	Advantage: $31M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$13.5M	30 Yrs	3.50%	83%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2045	Payback pd.: 18 Yrs



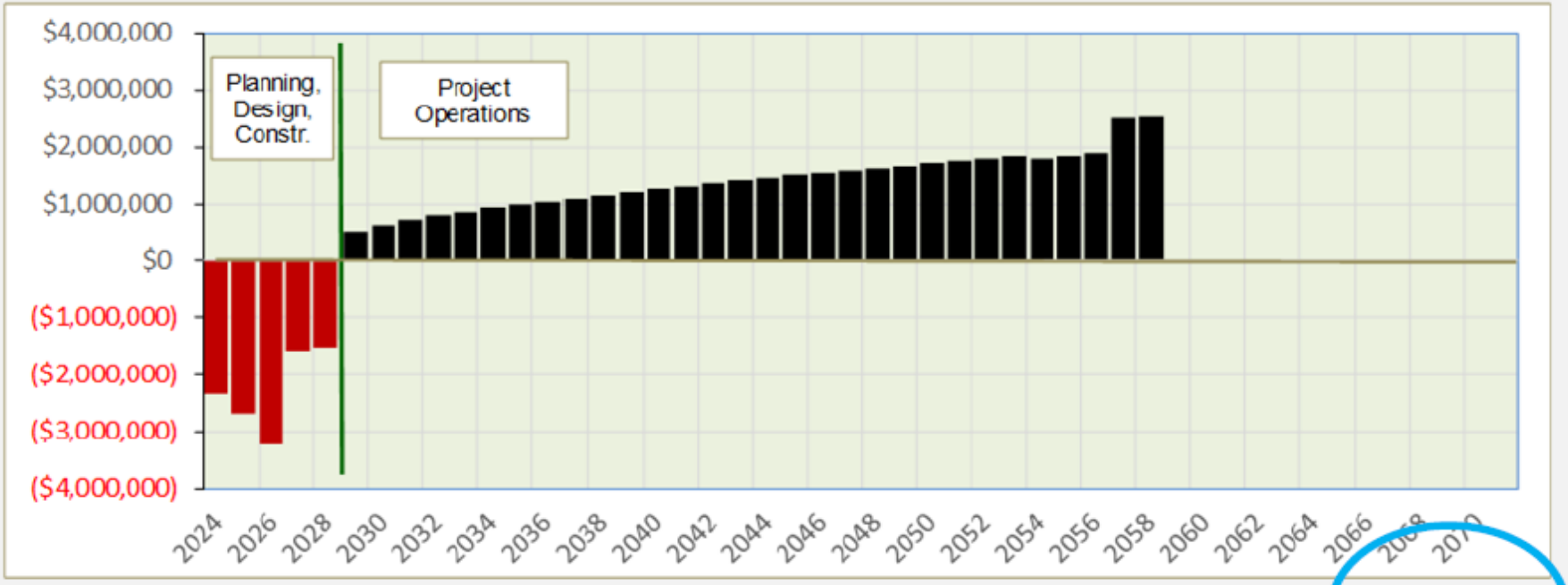
Total Red: $11M	Total Black: $34M	Advantage: $23M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$13.5M	30 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2042	Payback pd.: 15 Yrs



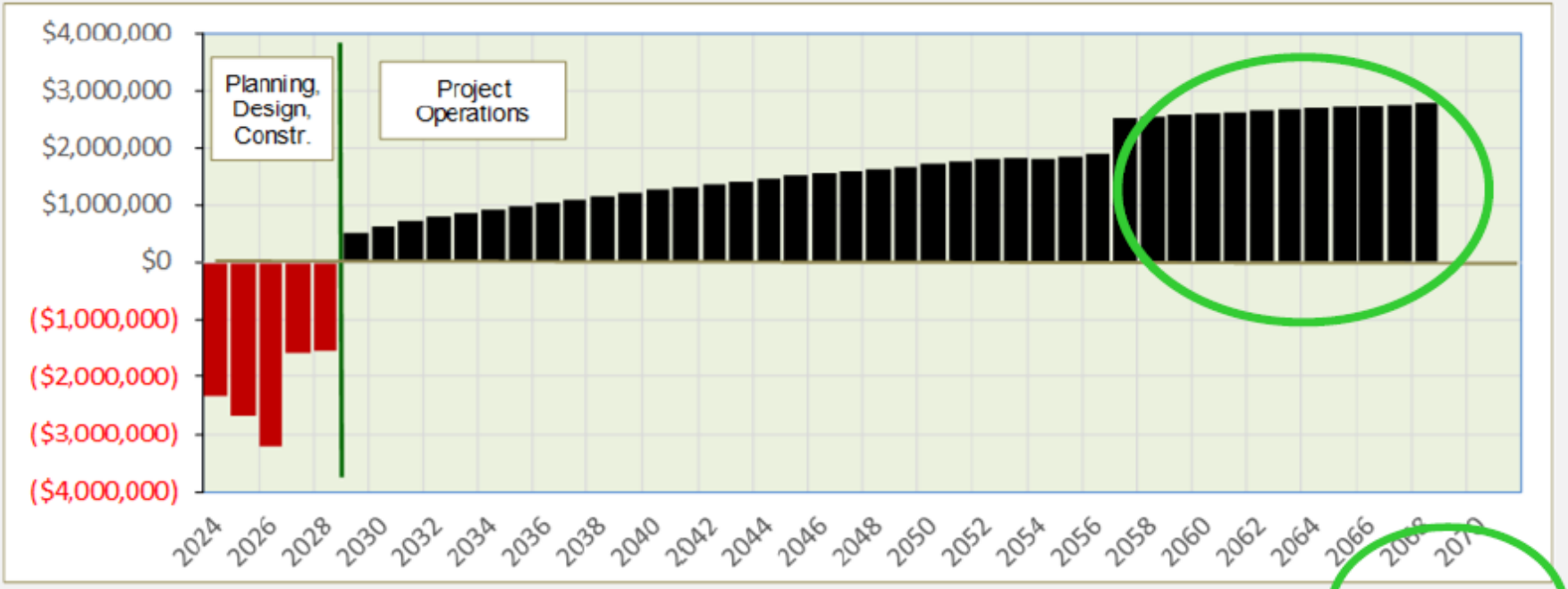
Total Red: $11M	Total Black: $42M	Advantage: $31M

Economic Analysis: Sensitivity Testing

Capacity	SDCWA Rates	Grants	NPV Term	Discount Rate	Capacity *f*
1.5 MGD	Mid-Range	$13.5M	40 Yrs	3.50%	94%

NPV Annual Cost Differential in 2023 Dollars -- Project vs. No Project

Bond Issue: 2027	Ops. Start: 2029	Cross-over: 2029	Break-even: 2042	Payback pd.: 15 Yrs



Total Red: $11M	Total Black: $69M	Advantage: $58M

FINDINGS AND RECOMMENDATIONS:

1. **Non-Cost Factors:** The project provides improved supply reliability, environmental sustainability, and local control

2. **Cost Factors:** With reasonable assumptions, the project is significantly less costly than the No Project alternative over a 30-year period of analysis

3. **Next Steps:** The Non-Cost and Cost findings support advancing the project to final planning and agency coordination (SGMA et. al.)

Board Questions, Discussion, Input

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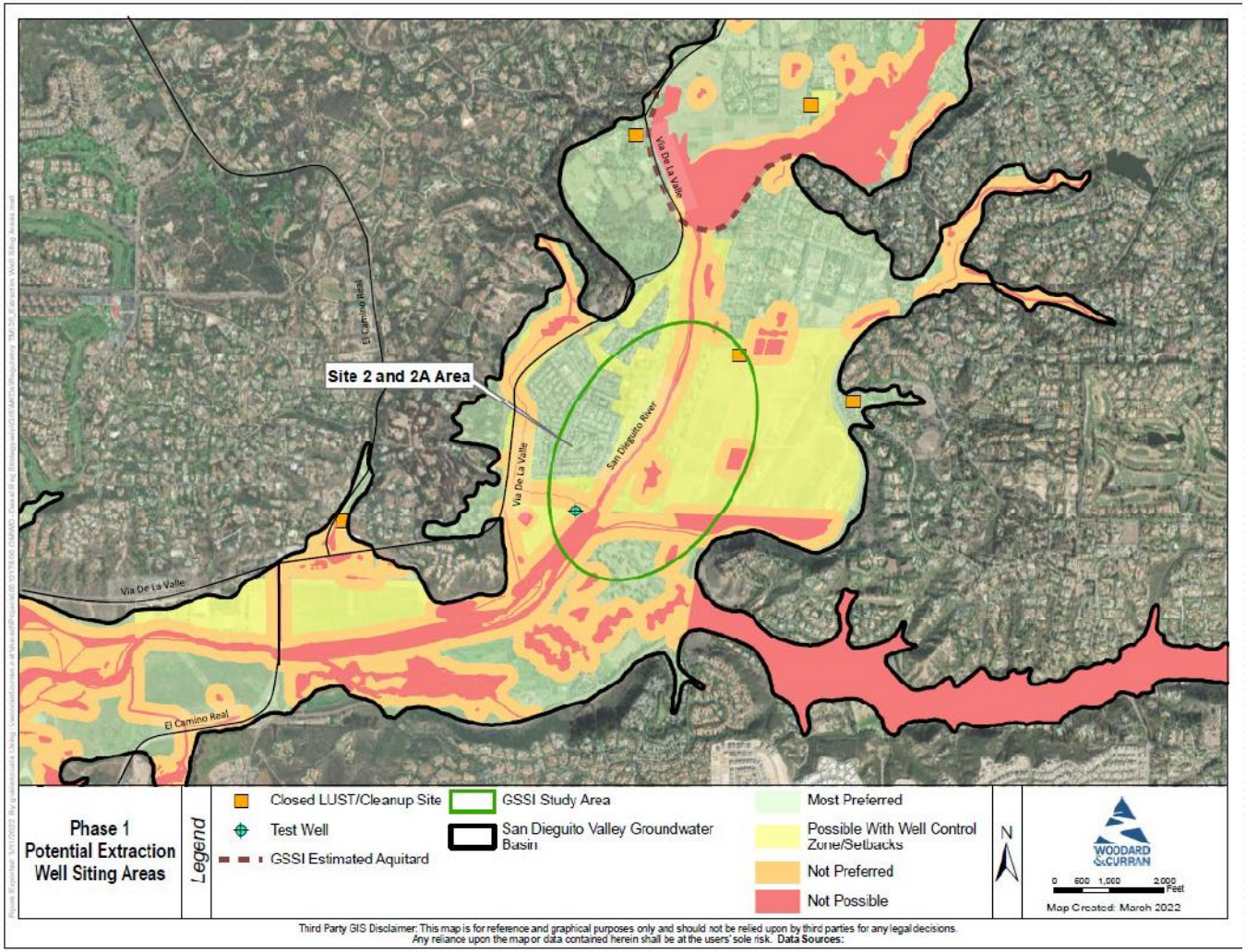
Agenda

- San Dieguito Project Background – OMWD Staff
- Hydrogeology – Consulting Engineer
  - Board Q & A
- Economic Analysis – Gillingham Water
  - Board Q & A
- Next Steps – OMWD Staff
  - Questions March 30, 2022
  - FY 2024 Investigations
  - 5-Year Schedule and Budget
  - Board Q & A
- Closed Session

Board Questions March 2022

- Follow up July 20, 2022 board meeting (consent)
- Provided length of brine pipelines
  - SEJPA 6.4 miles
  - Escondido Outfall 4.8 miles
- Estimated length of project construction – 2 years
- Potential well sites (see map)
- Estimated length of El Camino Real realignment – 3 years
- Project impact on water rates – 2024 Water Cost of Service Study
- Retroactive review of DCMWTP – In Progress

Potential Well Sites



FY 2024 Plan

Improve Certainty of Supply, Start Environmental

- Hydrogeologic analysis
- Water rights
- Updated economic analysis
- Alternative and preliminary design
- If awarded Community Partnership Funding, expedite EIR/EIS as 12-month completion required
- Refine siting study
- Board workshop spring 2024 (or sooner)
- Community outreach

Proposed FY 2024 Budget

Hydrogeologic	$ 600,000
Water rights	$ 100,000
Economic analysis	$ 15,000
Environmental/permits	$ 600,000
Preliminary design	$ 509,000
Monitoring program	$ 45,000
Staff and consultant support	$ 150,000
Total	$ 2,019,000
FY 24 Budget	$ 2,100,000

Five-Year Project Schedule

- FY 2024 — Ongoing hydrogeologic and water rights investigations, partnership explorations, SGMA, alternative studies, preliminary design, and environmental strategy support.
- FY 2025 — Continued hydrogeologic and water rights investigations, partnership explorations, SGMA, alternative studies, preliminary design, environmental and permitting support as well as initial property and easement acquisition reviews.
- FY 2026 — Finish environmental and permitting processes, continue property and easement acquisition efforts, complete design and regulatory approvals.
- FY 2027 — Initiate treatment facility bidding and contract award process, and start construction.
- FY 2028 — Complete construction, startup treatment facility, and monitoring.

Board Approved
Five-Year Capital Spending Plan Budget

• Thru FY 2023	$ 4,562,000
• FY 2024	$ 2,100,000
• FY 2025	$ 2,813,000
• FY 2026	$ 11,345,000
• FY 2027 - 2028	$ 22,017,000
• Total	$ 42,837,000

Estimated*
Five-Year Capital Spending Plan Budget
(Based on 1.5 mgd)

• Thru FY 2023	$ 4,562,000
• FY 2024	$ 2,100,000
• FY 2025	$ 2,813,000
• FY 2026	$ 6,345,000
• FY 2027 - 2028	$ 42,742,000
• Total	$ 58,562,000

**Does not include potential Partner Contribution or Grant Funding*

Board Questions, Discussion, Input

Thank you!

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Supplemental Slides: Detail and Examples