



Inland Empire Brine Line Agua Mansa Lateral

David Ruhl, Executive Manager of Engineering and Operations
Project Agreement 24 Committee
March 7, 2023| Item No. 5.A

Agua Mansa Lateral

Recommendation:

That the PA 24 Committee:

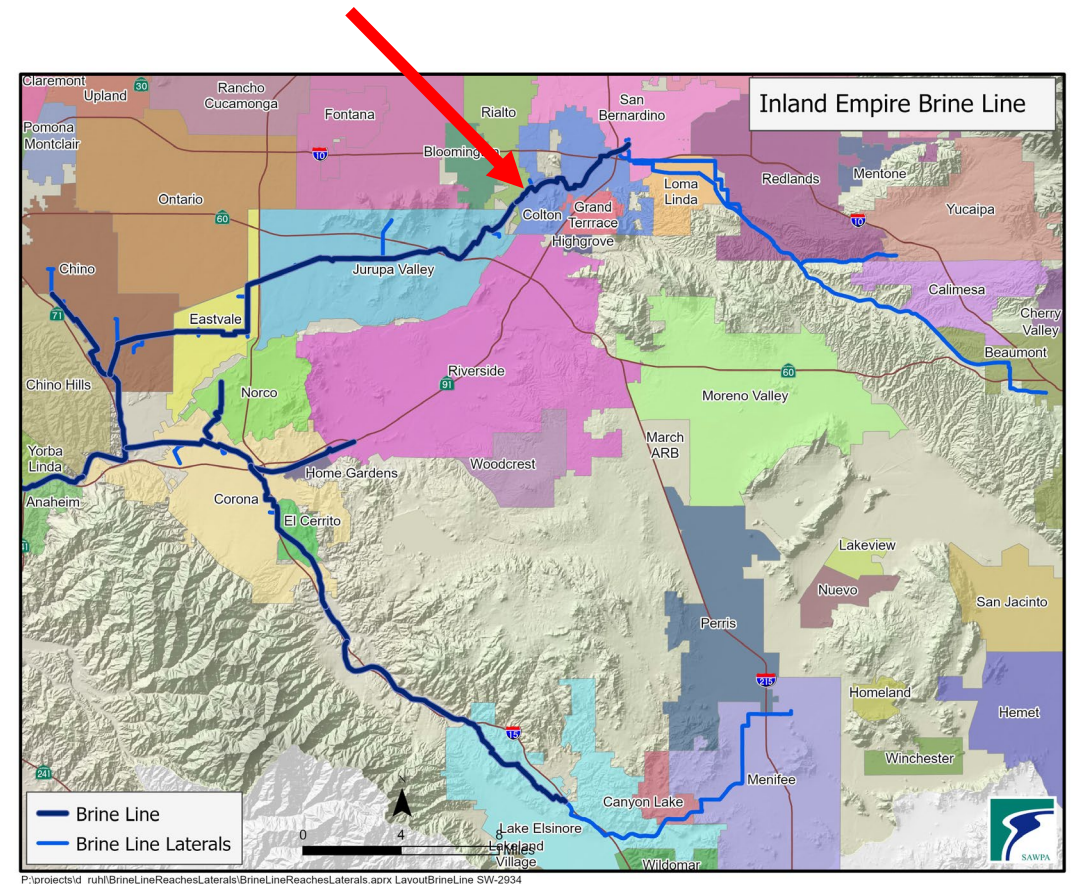
1. Direct the General Manager to file a Notice of Exemption for the Inland Empire Brine Line Agua Mansa Lateral Project with the San Bernardino County Clerk's Office; and
2. Direct the General Manager to issue a Notice Inviting Bids, upon completion of the Final Plans and Specifications, for the Construction of the Inland Empire Brine Line Agua Mansa Lateral Project.

Cost Share Agreement

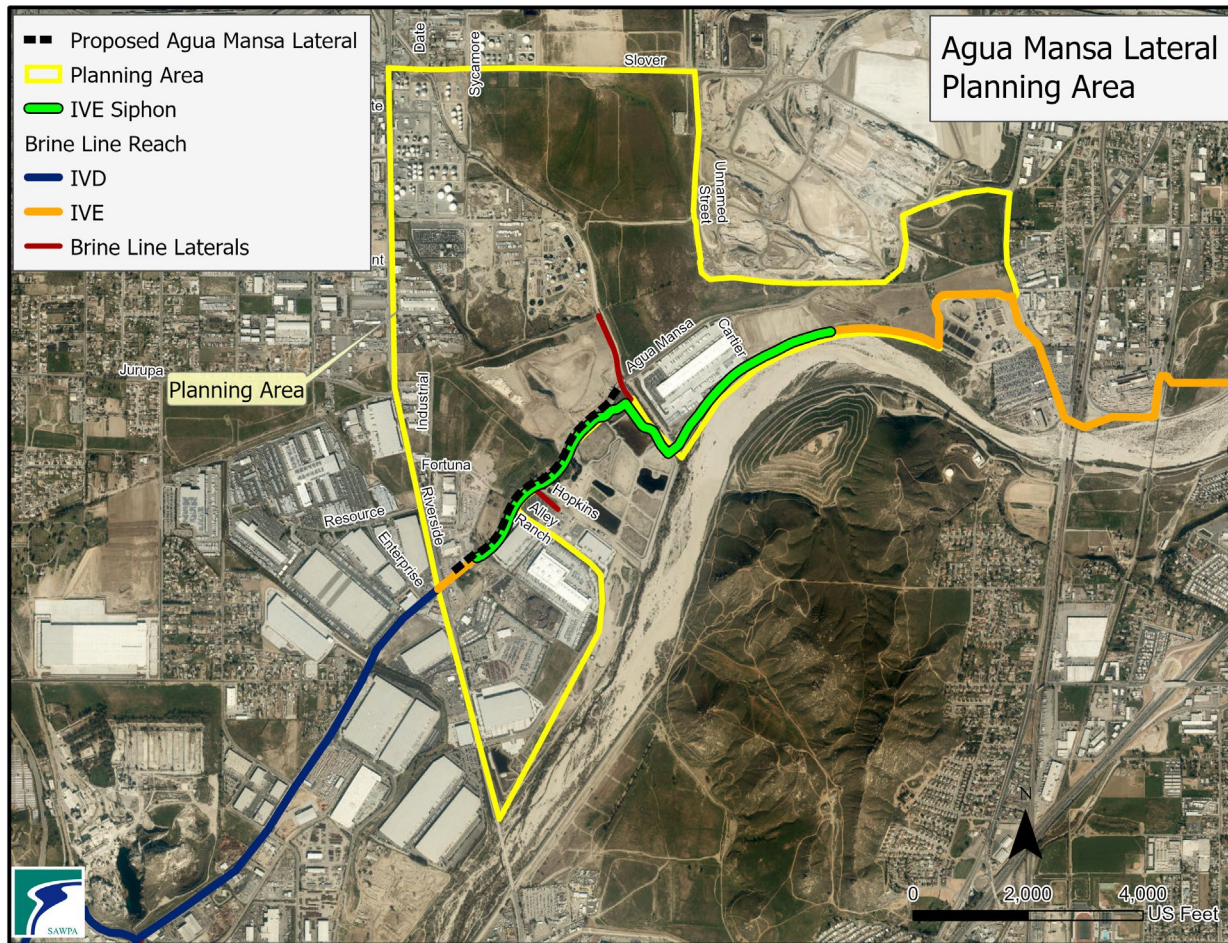
- SAWPA own and operate new lateral
- Cost Share

	<u>Construction</u>	<u>Design</u>
▪ RBF	82.0%	N/A
▪ SAWPA	4.5%	25%
▪ Valley	13.5%	75%
- SAWPA prepare plans and specifications
 - `4,550 linear feet, (8" and 12" pipeline)

- RBF pay their cost share in 5 installments
- RBF to pay 3% interest on unpaid balance
- RBF parent company (Anaergia) provide payment Guaranty
- SAWPA distribute future connection fees (SAWPA 25% / Valley 75%)



Cost Share - Benefits



- Opportunity for future dischargers to connect to the Brine Line
- Operational flexibility
- Increased reliability
- Avoided maintenance costs
- Removes connection from long siphon

Construction Cost Estimate and Notice of Exemption

- Estimate of Construction Cost

- 8-inch Lateral \$2,013,000
- 12-inch Lateral \$2,167,000

- Notice of Exemption

- No significant environmental impacts are anticipated
- Project located along existing paved City streets and within the unpaved San Bernardino Flood Control Access Road
- All work adjacent to existing Brine Line and portion along same Brine Line Alignment

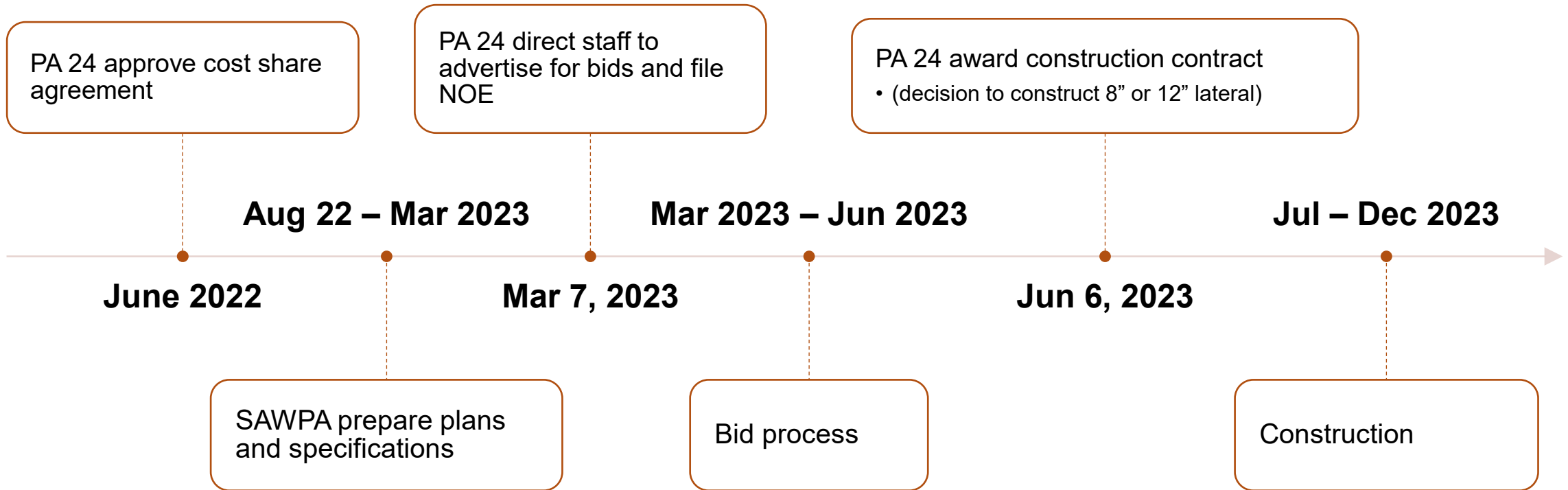
Budget and Cost Summary

- Costs based on design and estimated construction costs
- SAWPA and Valley costs include design and bidding costs
- RBF would not pay any additional construction costs for upsizing to 12-inch lateral
- Final cost summary based on actual design and construction costs
- Design and construction costs paid from Brine Line Reserves (Pipeline Replacement and Investment Reserve)
- Cost share payments returned to Brine Line Reserves
- Estimated annual O&M costs \$11,000/year



Lateral Size	SAWPA Costs (4.5%)	Valley Costs (13.5%)	RBF Costs (82%)	Total Costs
8"	\$121,000	\$363,000	\$1,715,440	\$2.199M
12"	\$159,500	\$478,500	\$1,715,440	\$2.353M

Schedule



Agua Mansa Lateral

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Questions?

FYE 2024 and 2025 Brine Line Draft Budget

SAWPA

Brine Line Operations & Capital Budget



What is the Brine Line?

- The Inland Empire Brine Line (IEBL) is a 73 mile-long regional brine line designed to convey 30 million gallons per day of high saline waste water from the upper Santa Ana River Basin to the Pacific Ocean for disposal after treatment
- It was built as the fundamental method of salt export for the region
- Pipeline ranges in age from 21 to 49 years
 - Reach 4 was constructed in the mid-70's (around 1974)
 - Reaches 4A and 4B were constructed in the early 1980's (1982)
 - Reaches 4D and 4E were constructed in the early 1990's (1994)
 - Reach 5 was constructed in the early 2000's (2002). Rehab in 2017
- Pipe diameters range from 16 inch to 48 inch

Inland Empire Brine Line

— Brine Line Laterals

Brine Line

REACH

— IV

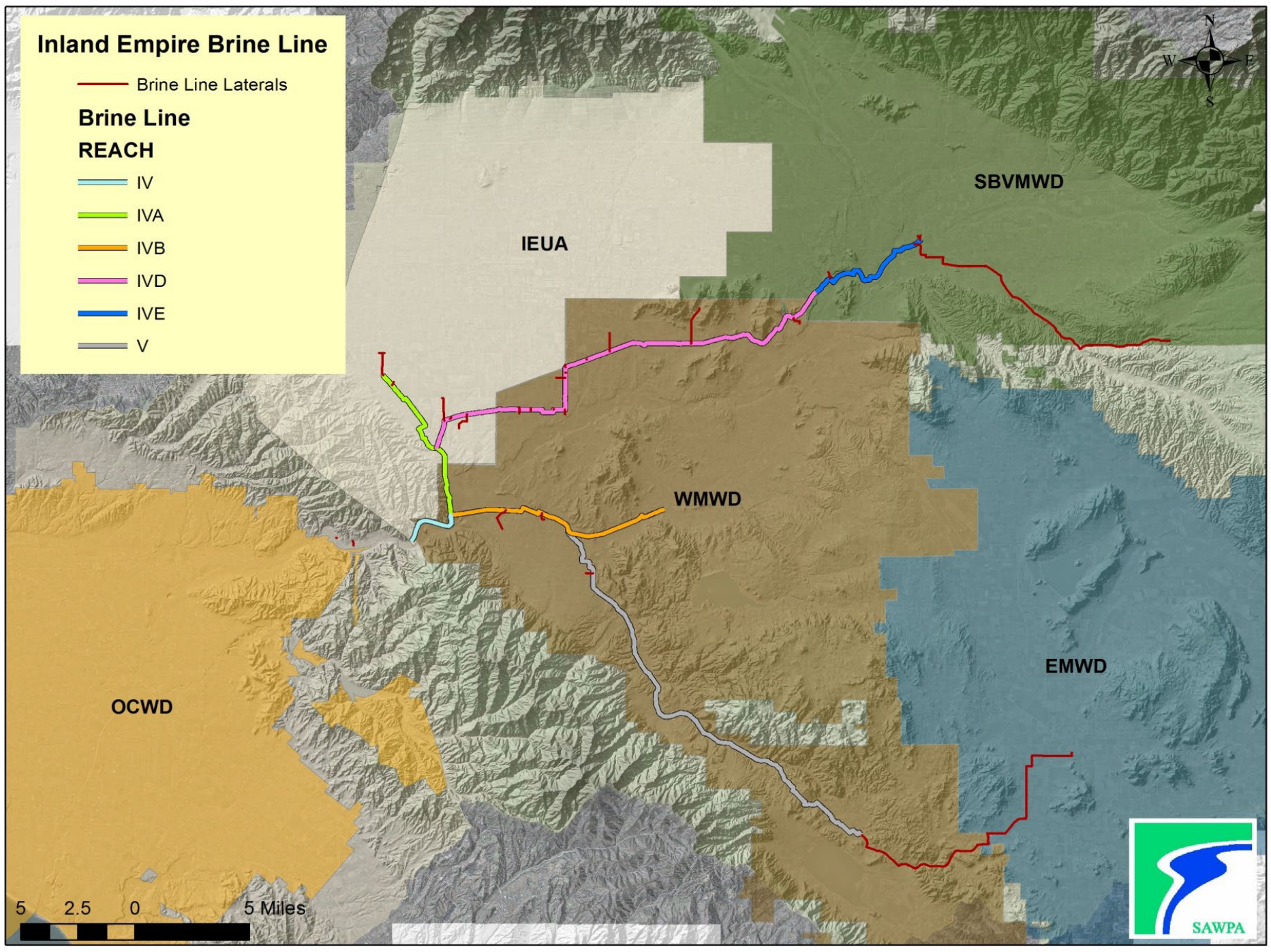
— IVA

— IVB

— IVD

— IVE

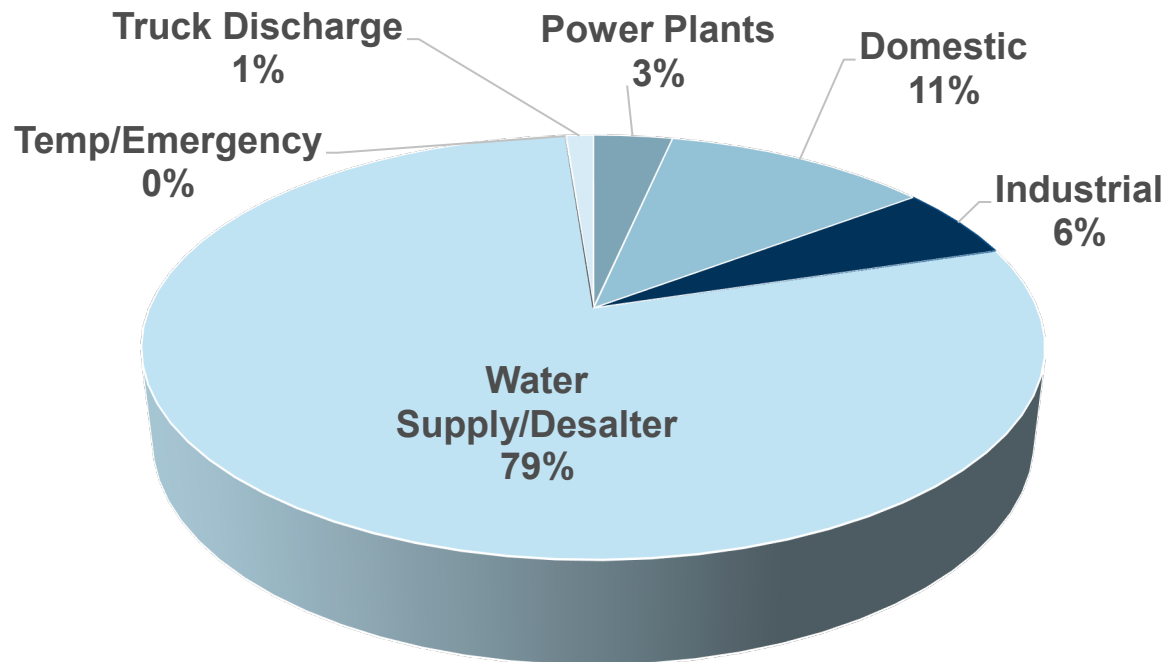
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Who Uses the Brine Line?



Historical Revenues & Expenses

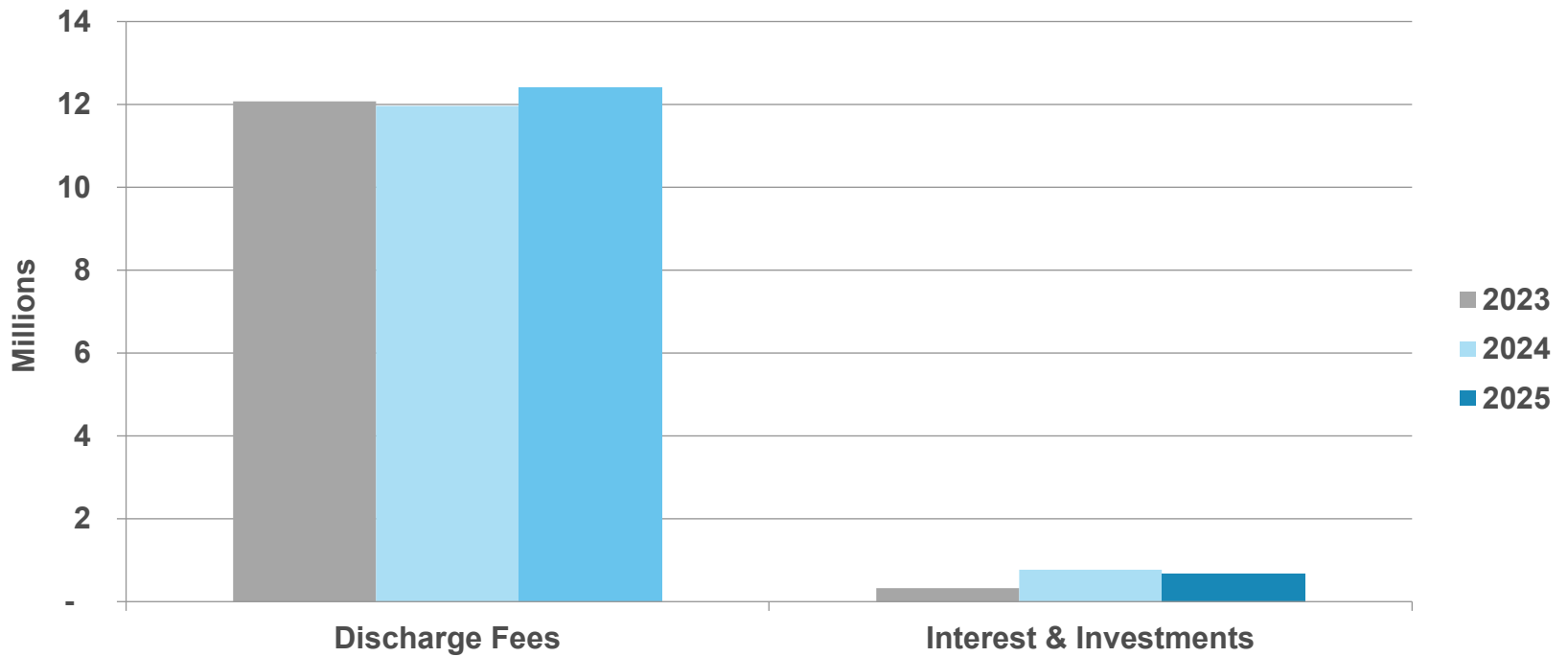
	FYE	Revenues	Expenses	To (From) Reserves
	2020	11,539,517	(10,000,785)	1,538,732
	2021	15,065,041	(13,547,431)	1,517,610
	2022	12,540,991	(10,440,350)	2,100,641
Budget	2023	12,071,872	(12,071,872)	0
	2024	12,731,620	(12,731,620)	0
	2025	13,078,112	(13,078,112)	0

Historical Flows

FYE	Total Flows (MGD)
2020	4,025
2021	3,969
2022	4,035
2023	3,700
2024	4,015
2025	4,161

Budget {

Brine Line Enterprise Revenue



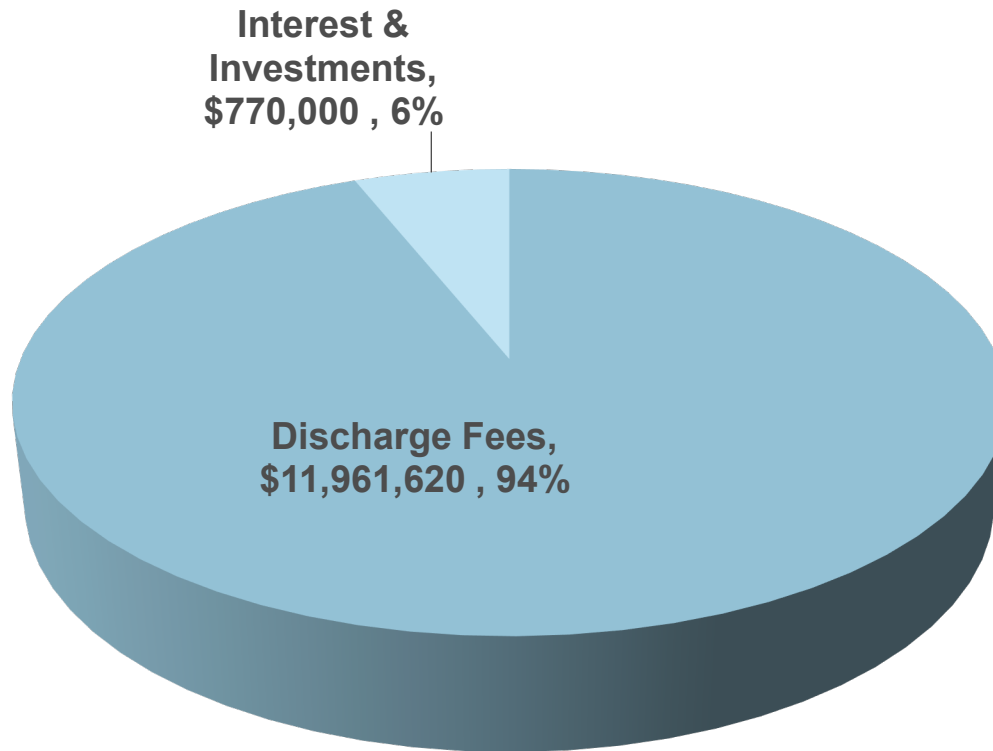
Brine Line Enterprise Revenues

Revenue	FYE 2023	FYE 2024	FYE 2025
Discharge Fees	\$12,071,872	\$11,961,620	\$12,405,112
Interest & Investments	325,000	770,000	673,000
Total	\$12,396,872	\$12,731,620	\$13,078,112

Flow (MGs)	3,700	4,015	4,161
BOD per 1,000 lbs.	1,200	1,000	1,050
TSS per 1,000 lbs.	4,400	2,500	2,600
Truck Discharge (MGs)	20	29.4	30.9

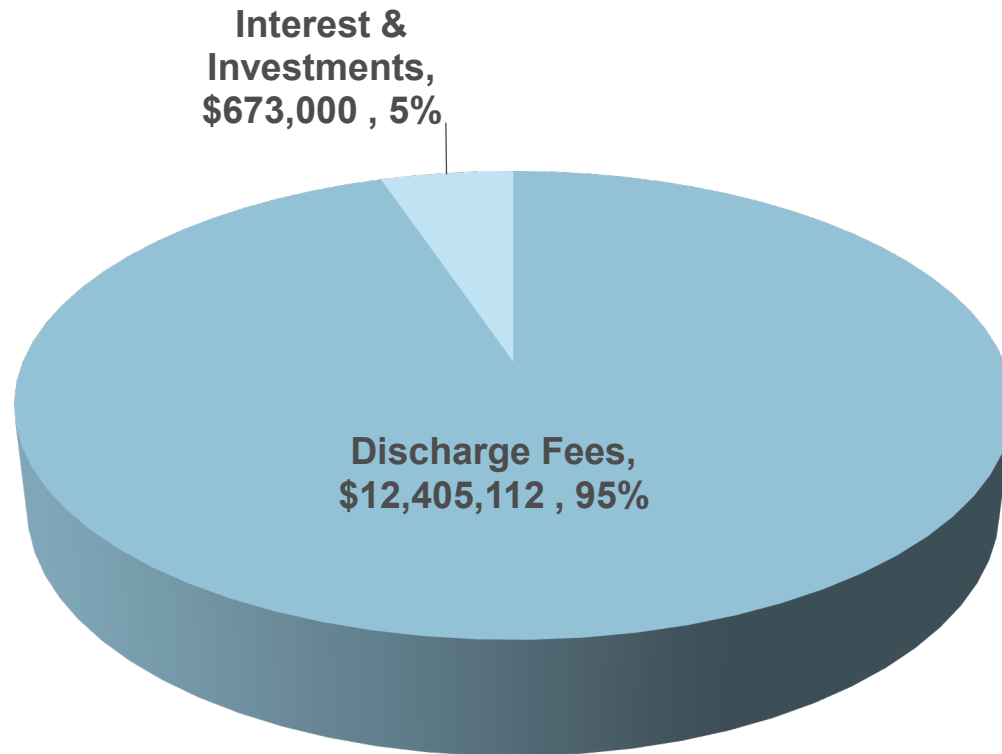
FYE 2024

Brine Line Revenues \$12.7 Million

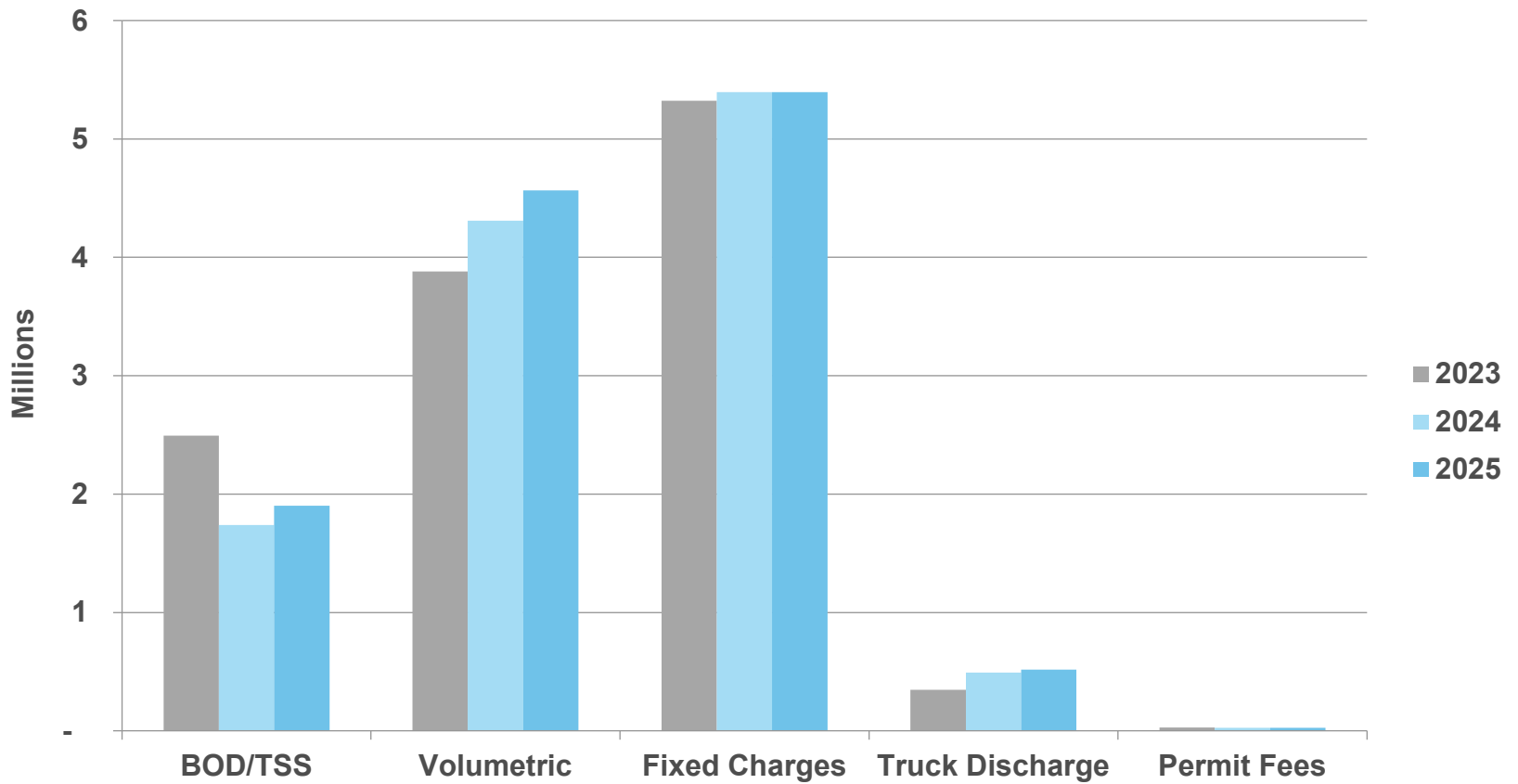


FYE 2025

Brine Line Revenues \$13.1 Million



Brine Line Enterprise Discharge Fees

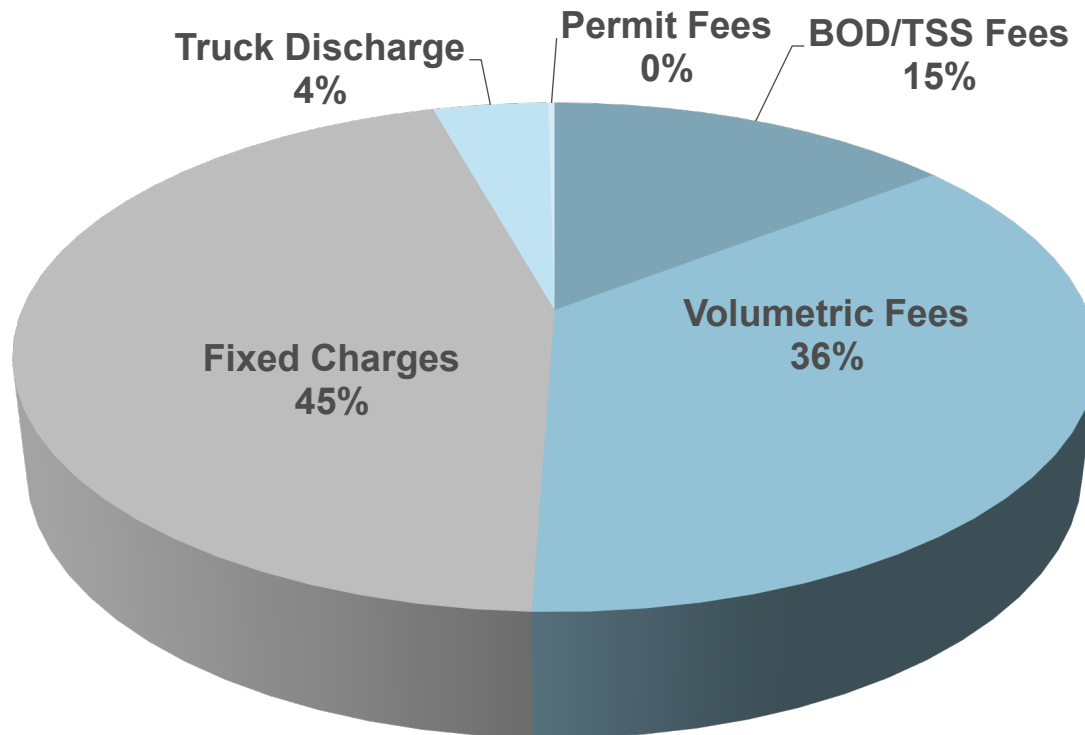


Brine Line Enterprise Discharge Fees

Expense	FYE 2023	FYE 2024	FYE 2025
BOD/TSS Fees	\$2,492,400	\$1,738,500	\$1,900,850
Volumetric Fees	3,881,300	4,308,095	4,564,617
Fixed Charges	5,323,422	5,396,025	5,396,025
Truck Dump Fees	346,500	492,400	517,020
Permit Fees	28,250	26,600	26,600
Total	\$12,071,872	\$11,961,620	\$12,405,112

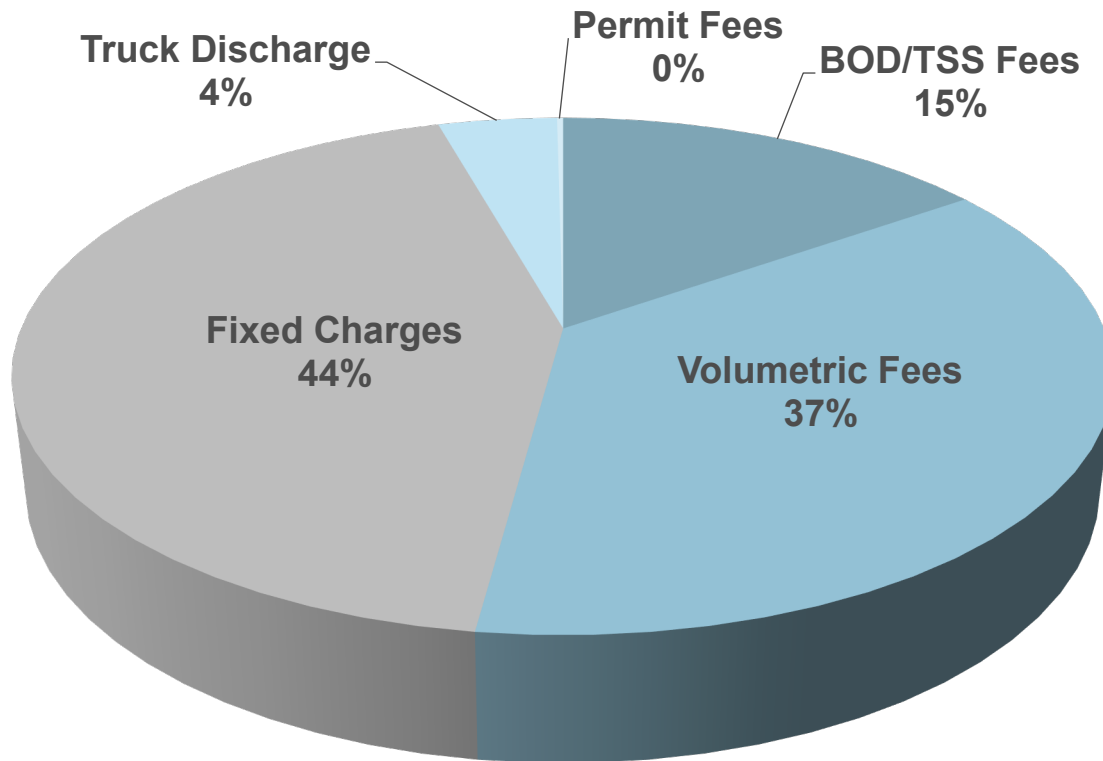
FYE 2024

Discharge Fees \$11.9 Million

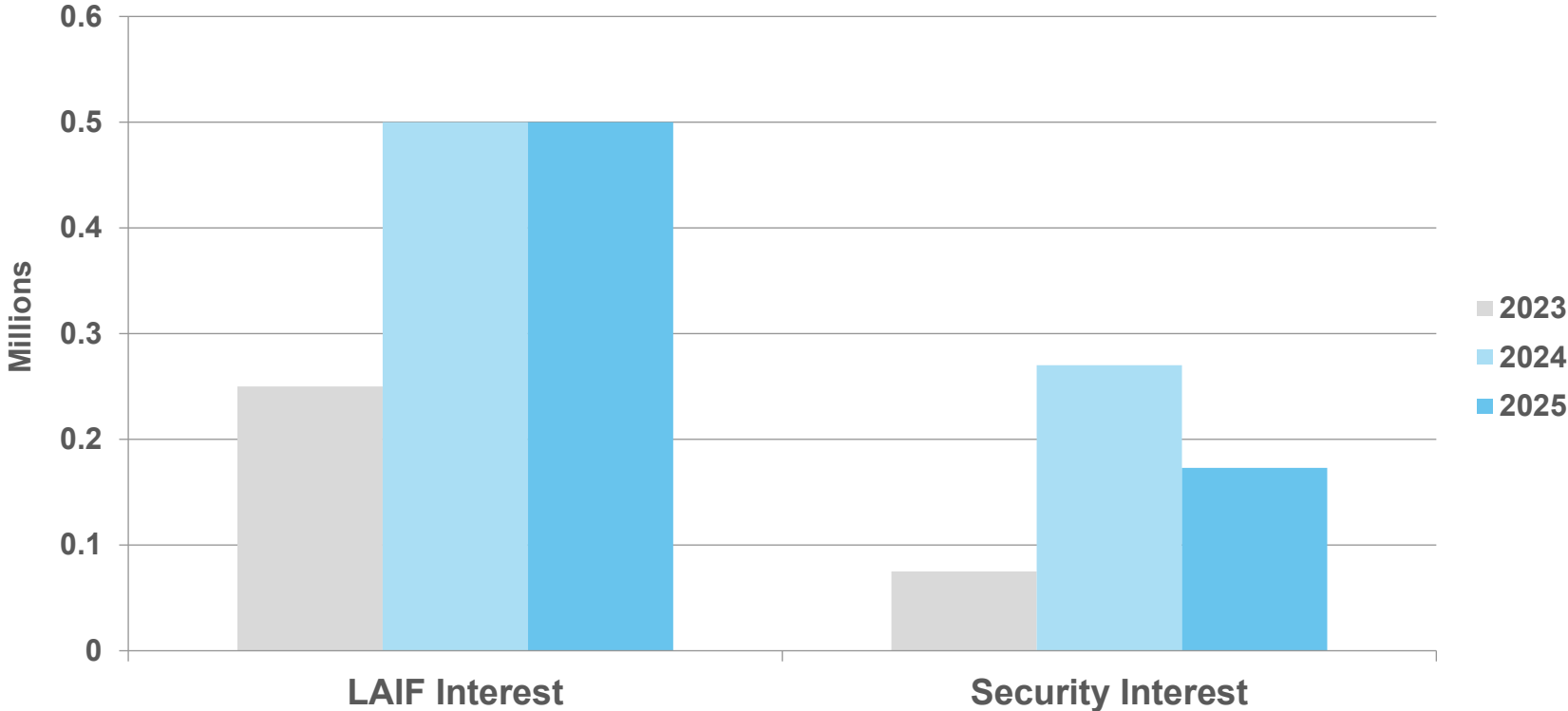


FYE 2025

Discharge Fees \$12.4 Million

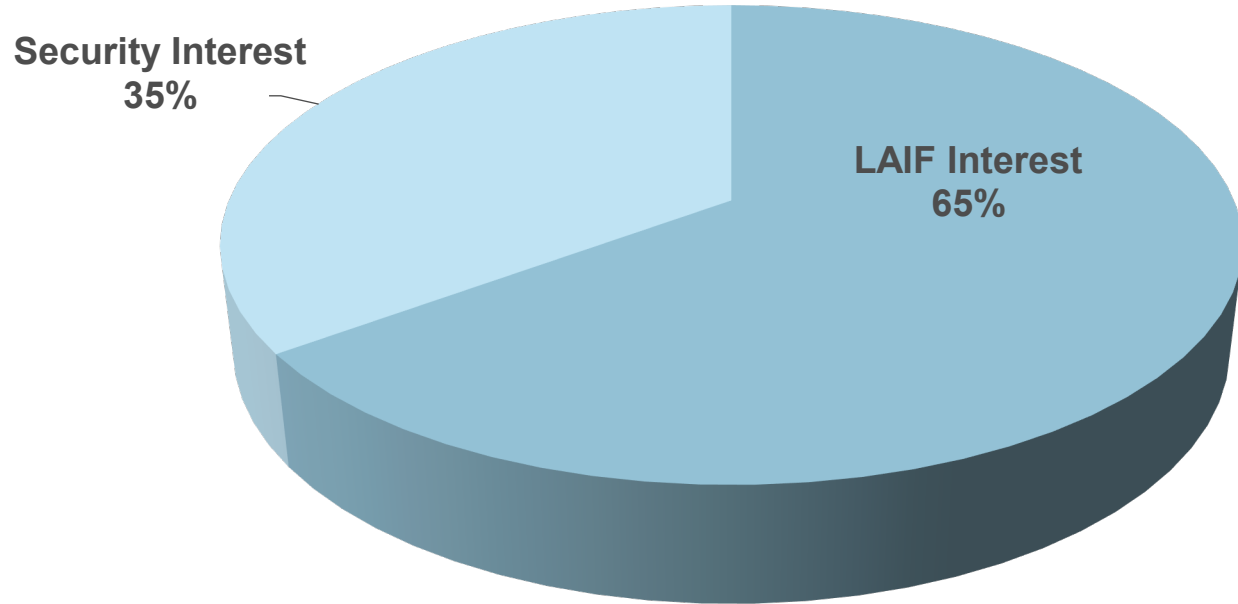


Interest & Investments



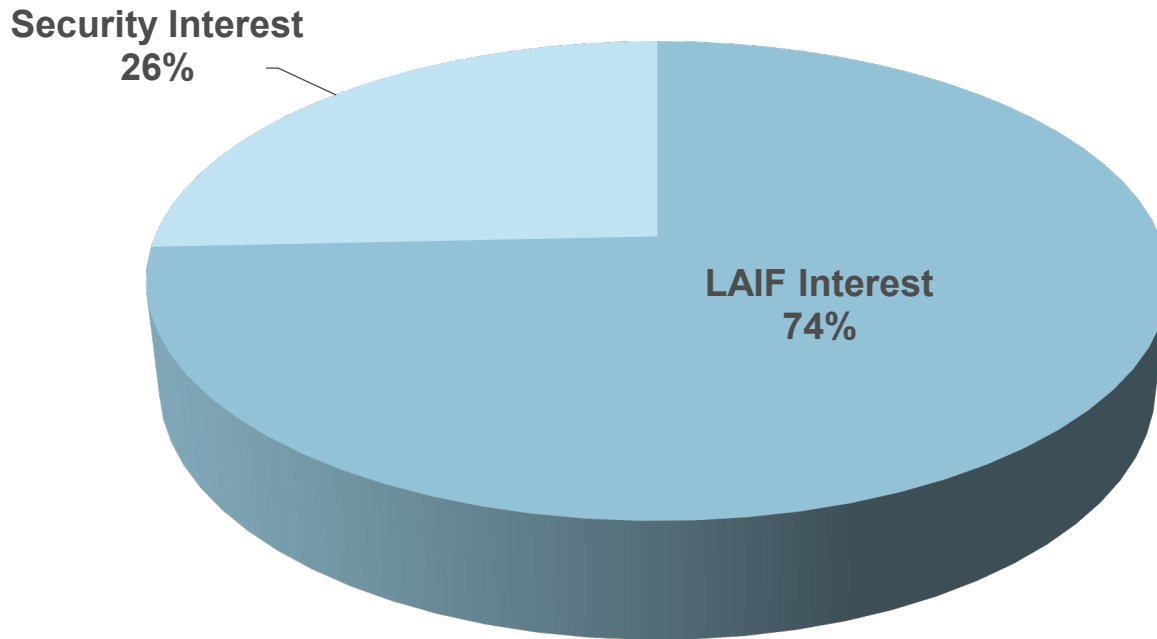
FYE 2024

Interest & Investments \$770,000

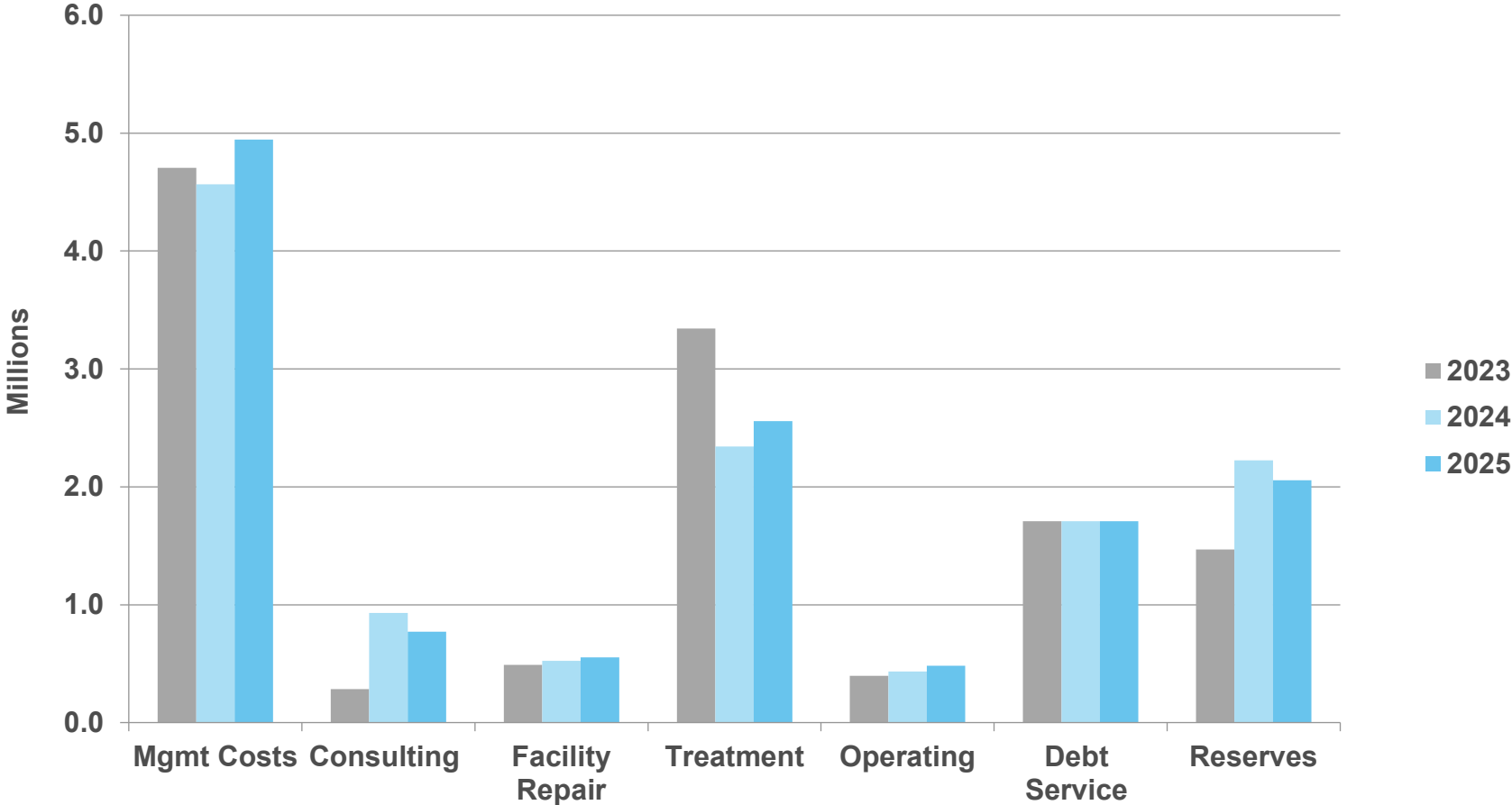


FYE 2025

Interest & Investments \$673,000



Brine Line Enterprise Expenses



Brine Line Enterprise Expenses

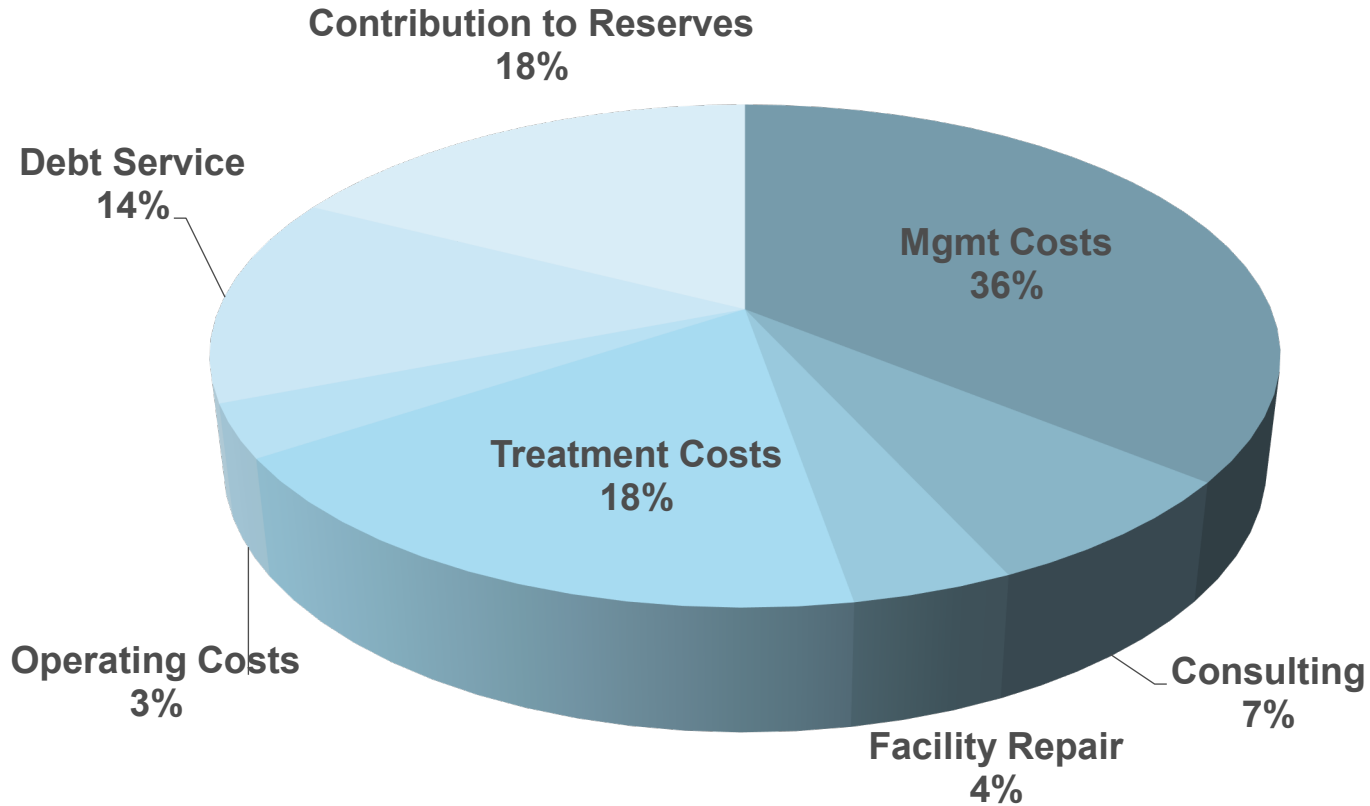
Expense	FYE 2023	FYE 2024	FYE 2025
Management Costs	\$4,705,203	\$4,565,423	\$4,944,865
Consulting	285,000	930,000	772,500
Facility Repair	490,000	525,080	553,558
Treatment Costs	3,342,400	2,341,637	2,558,621
Operating Costs	397,250	434,712	483,318
Debt Service	1,709,476	1,709,476	1,709,476
Reserves	1,467,543	2,225,292	2,055,772
Total	\$12,396,872	\$12,731,620	\$13,078,112

Brine Line Consulting Increases

- Hydraulic model support
- Complete Brine Line Master Plan
- Master Plan follow-up studies
 - System wide storage
 - Brine minimization
 - Enhance monitoring
- Traffic engineering (traffic control plan for MAS locations)
- Topographic mapping/field survey due to scouring and erosion
- Evaluate impacts due to scouring and erosion (Prado inundation area)

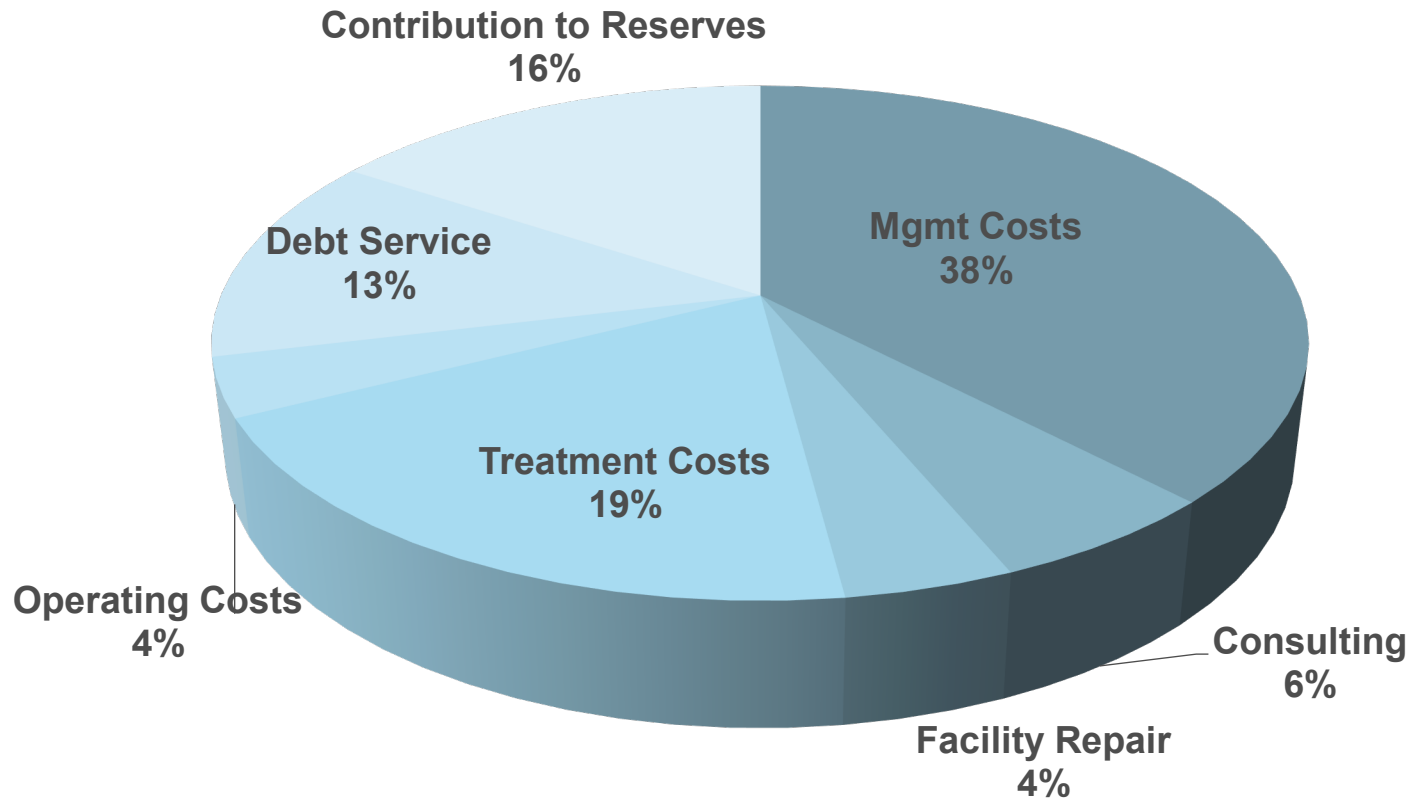
FYE 2024

Brine Line Expenses \$12.7 Million

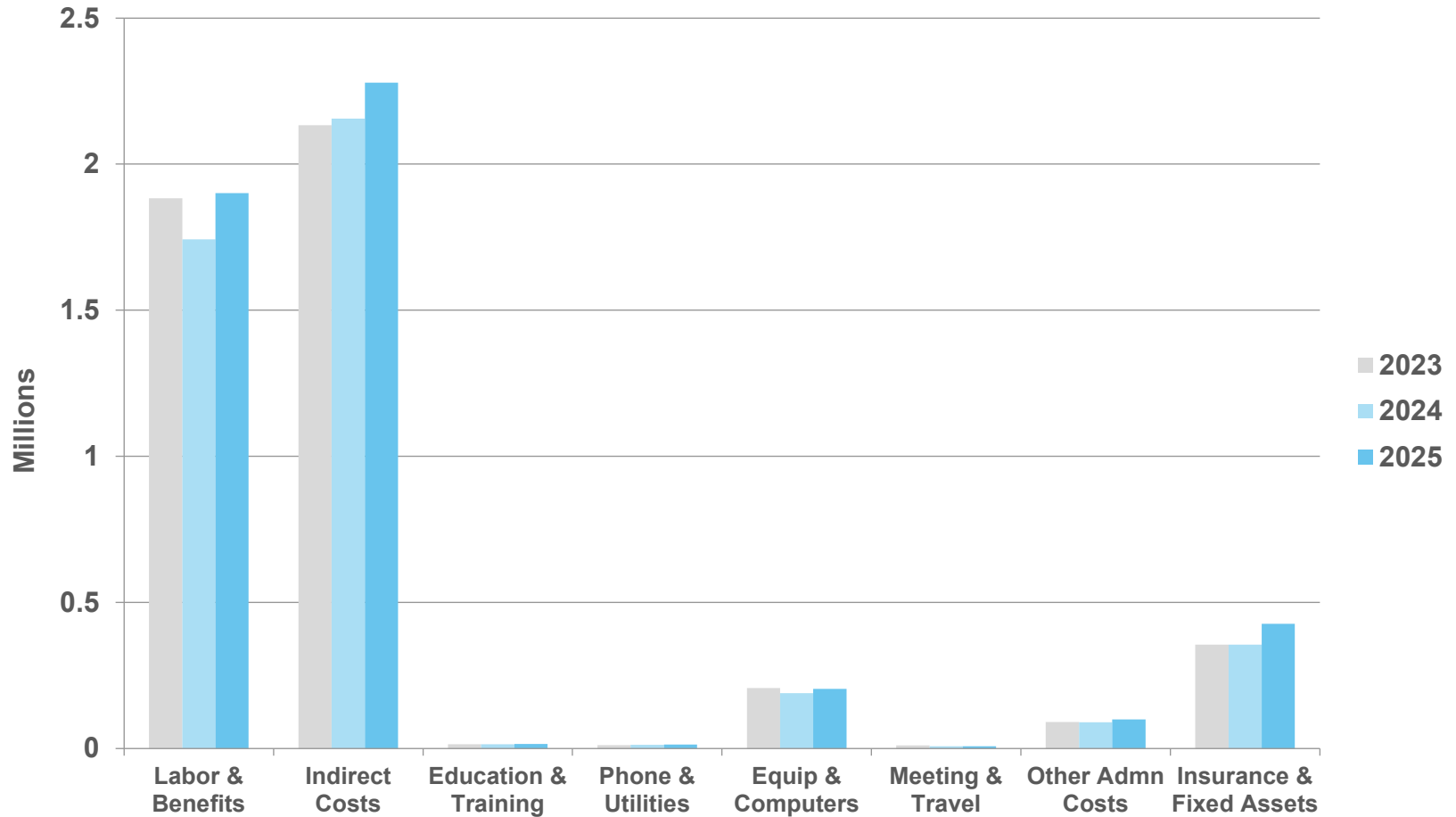


FYE 2025

Brine Line Expenses \$13.1 Million



Management Costs

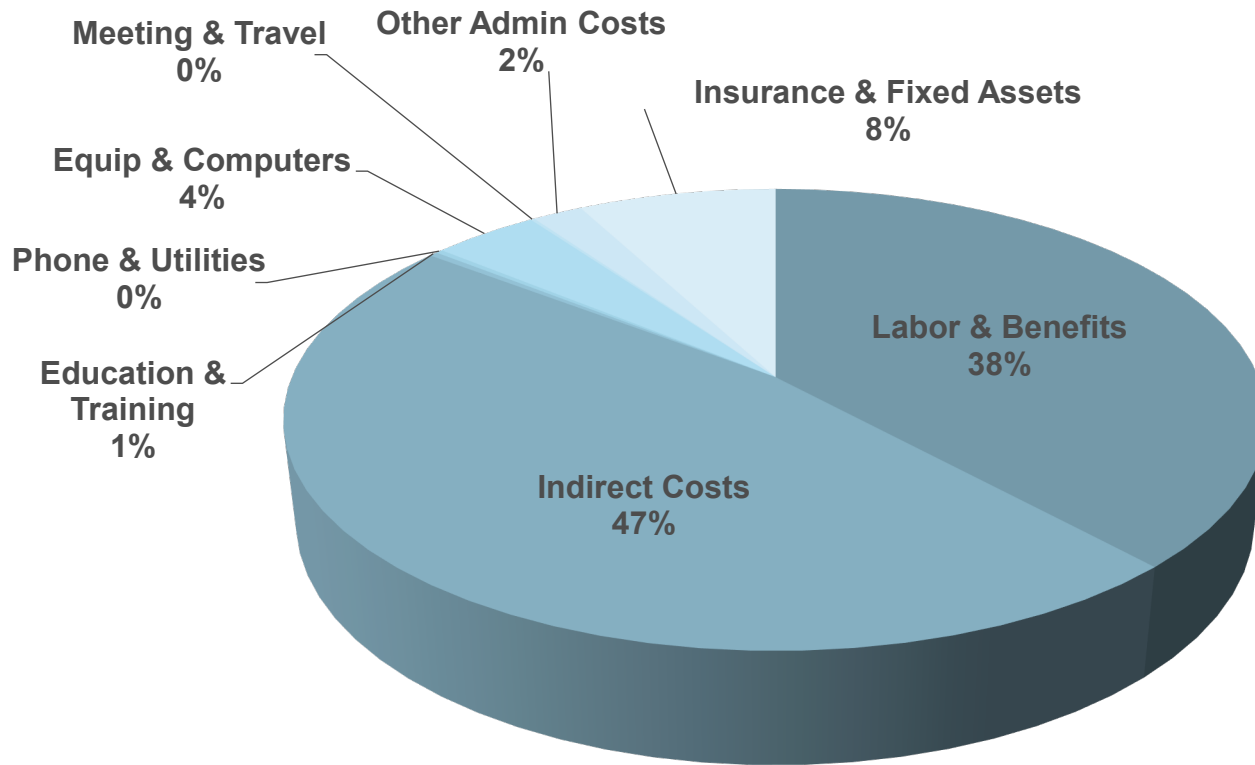


Management Costs

Expense	FYE 2023	FYE 2024	FYE 2025
Labor & Benefits	\$1,883,403	\$1,741,977	\$1,900,255
Indirect Costs	2,133,400	2,155,774	2,278,733
Education & Training	14,500	14,500	15,225
Phone & Utilities	11,500	12,000	13,200
Equip & Computers	206,500	188,706	204,167
Meeting & Travel	10,000	7,000	7,700
Other Admin Costs	90,900	89,915	98,988
Insurance, Rent, FA	355,000	355,551	426,597
Total	\$4,705,203	\$4,565,423	\$4,944,865

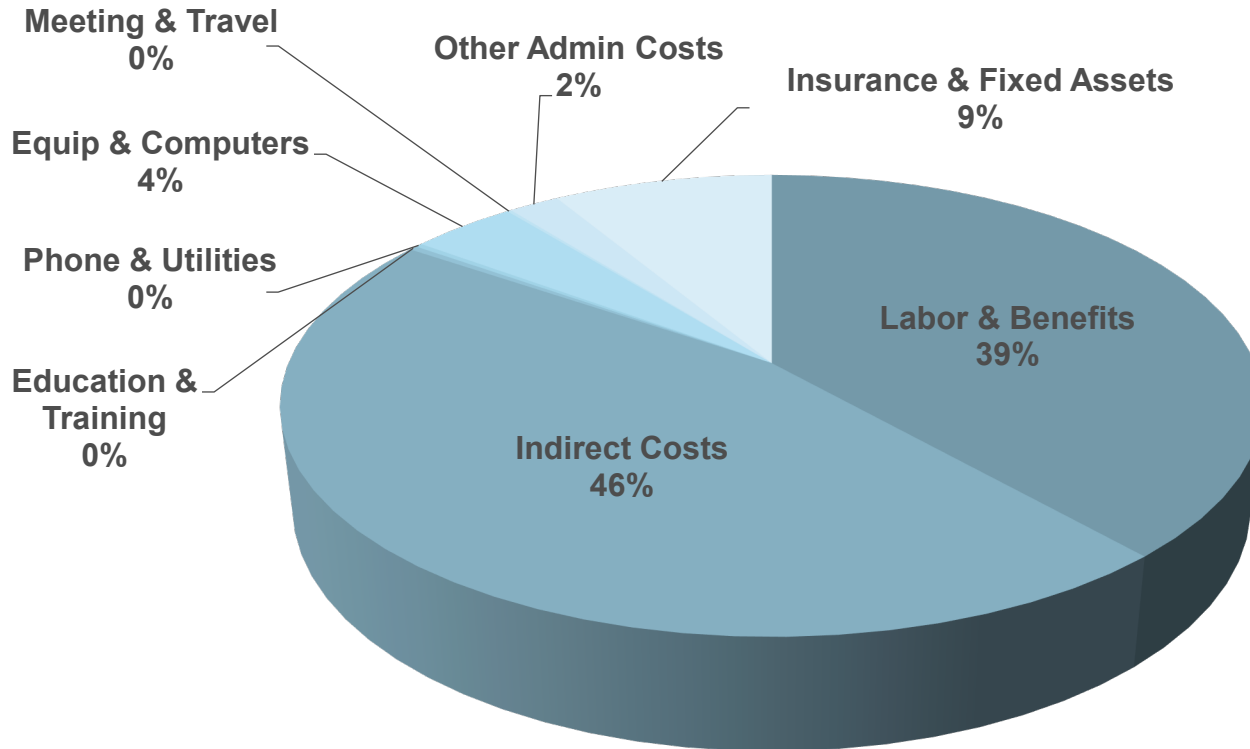
FYE 2024

Management Costs \$4.6 Million



FYE 2025

Management Costs \$4.9 Million



Fixed Asset Purchase



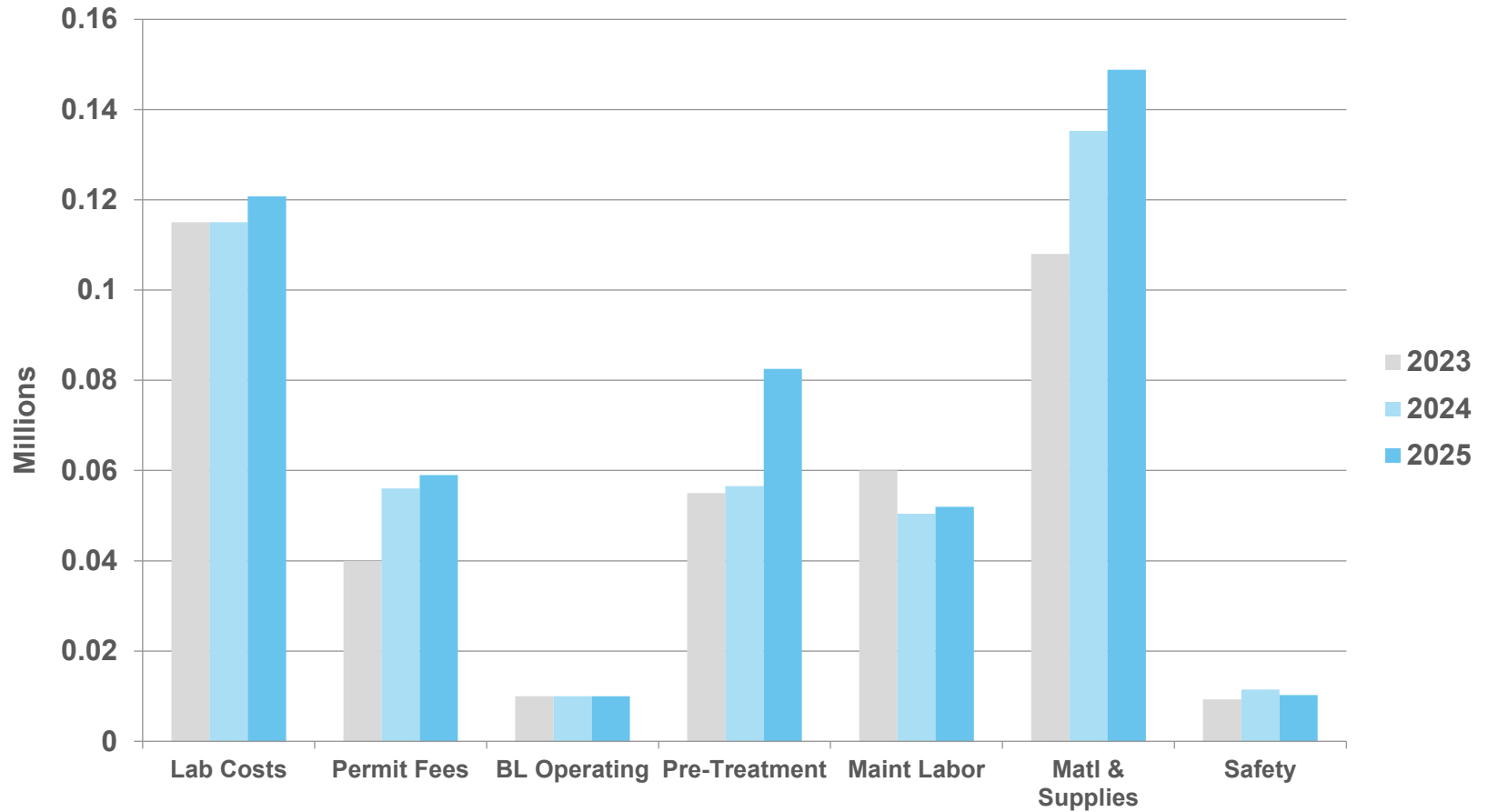
FYE 2024

- Submersible pump - \$6,000
- GMC truck (replacement) - \$60,000
- Composite samplers - \$12,200

FYE 2025

- Dump trailer - \$35,000
- Mini excavator with 2 buckets - \$100,000
- Composite samplers - \$13,420

Operating Costs

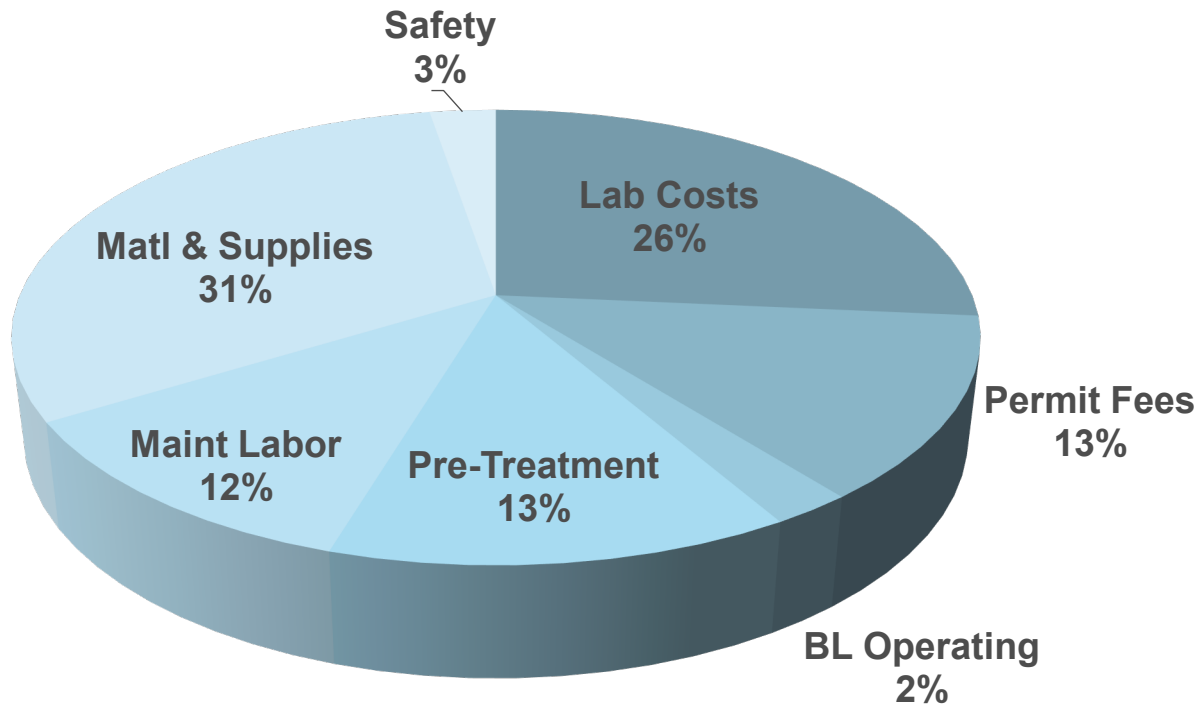


Operating Costs

Expense	FYE 2023	FYE 2024	FYE 2025
Lab Costs	\$115,000	\$115,000	\$120,750
Permit Fees	40,000	56,000	59,000
BL Operating Costs	10,000	10,000	10,000
Permitting/Pre-Treatment	55,000	56,550	82,550
Maintenance Labor	60,000	50,400	51,940
Materials & Supplies	108,000	135,282	148,810
Safety	9,250	11,480	10,268
Total	\$397,250	\$434,712	\$483,318

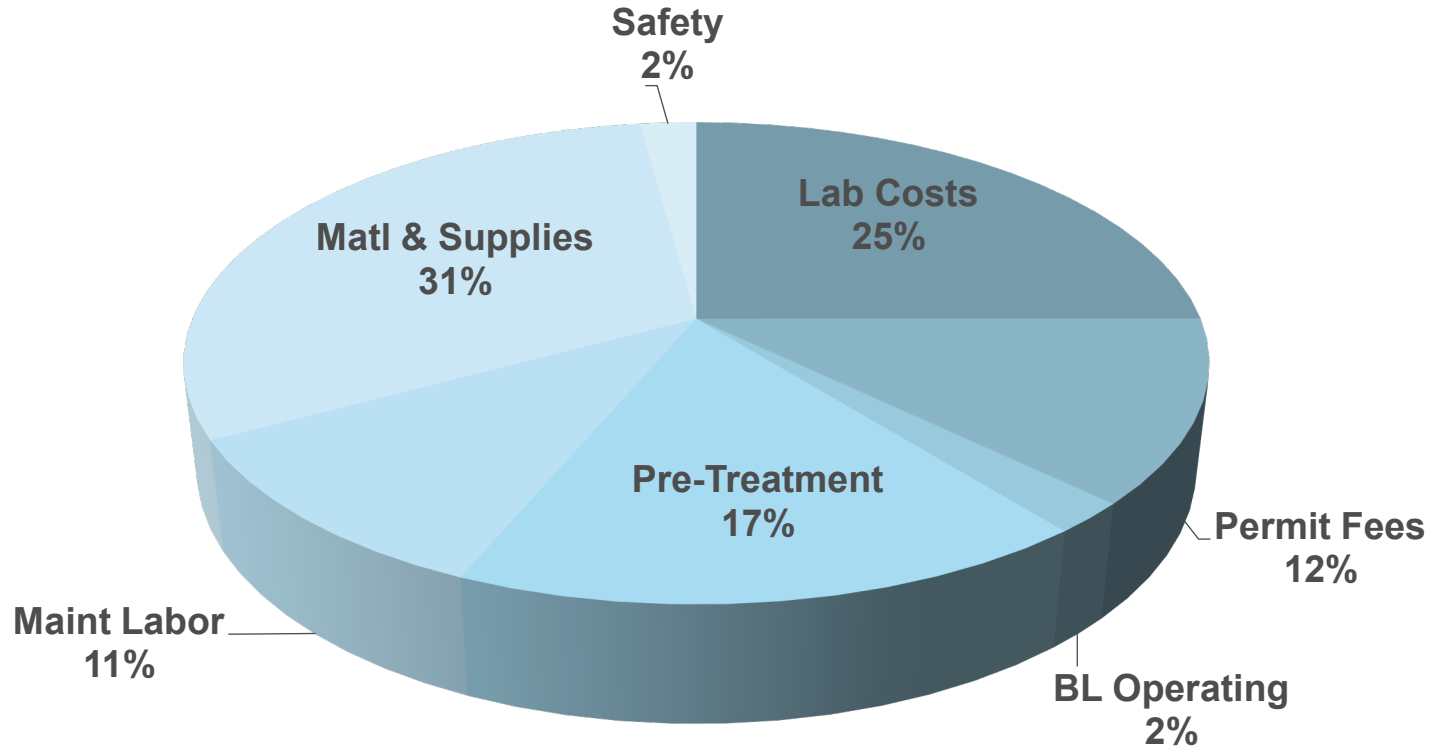
FYE 2024

Operating Costs \$434,712



FYE 2025

Operating Costs \$483,318



Debt Service Payments

Debt	2023	2024	2025
Reach IV-A & B Capital Repair – SRF Loan	\$1,044,273	\$1,044,273	\$1,044,273
Reach V Capital Repair – SRF Loan	665,202	665,202	665,202
Total Debt Service Payments	\$1,709,475	\$1,709,475	\$1,709,475

Debt Service Funding

Debt	Interest Rate	Final Payment	Funding Source
Reach IV-A & B Capital Repair	2.6%	12/29/32	Rates
Reach V Capital Repair	1.9%	03/31/48	Rates

Reserve Contributions

Fund	FYE 2023	FYE 2024	FYE 2025
Pipeline Replacement & Capital Investment	\$1,467,543	\$1,900,000	\$1,900,000
OC San Pipeline Rehabilitation	0	325,292	155,772
Total Contribution to Reserves	\$1,467,543	\$2,225,292	\$2,055,772

Proposed Brine Line Rates

Component	Actual FYE 2023	FYE 2024	FYE 2025
Flow (per MG)	\$1,049	\$1,073	\$1,097
BOD (per 1,000 lbs.)	\$353	\$371	\$389
TSS (per 1,000 lbs.)	\$520	\$547	\$574
Fixed Pipeline	\$6,654	\$6,654	\$6,654
Fixed Treatment	\$13,505	\$13,505	\$13,505

OC San estimated increases for 2024 and 2025

- 5.00% increase for BOD and TSS

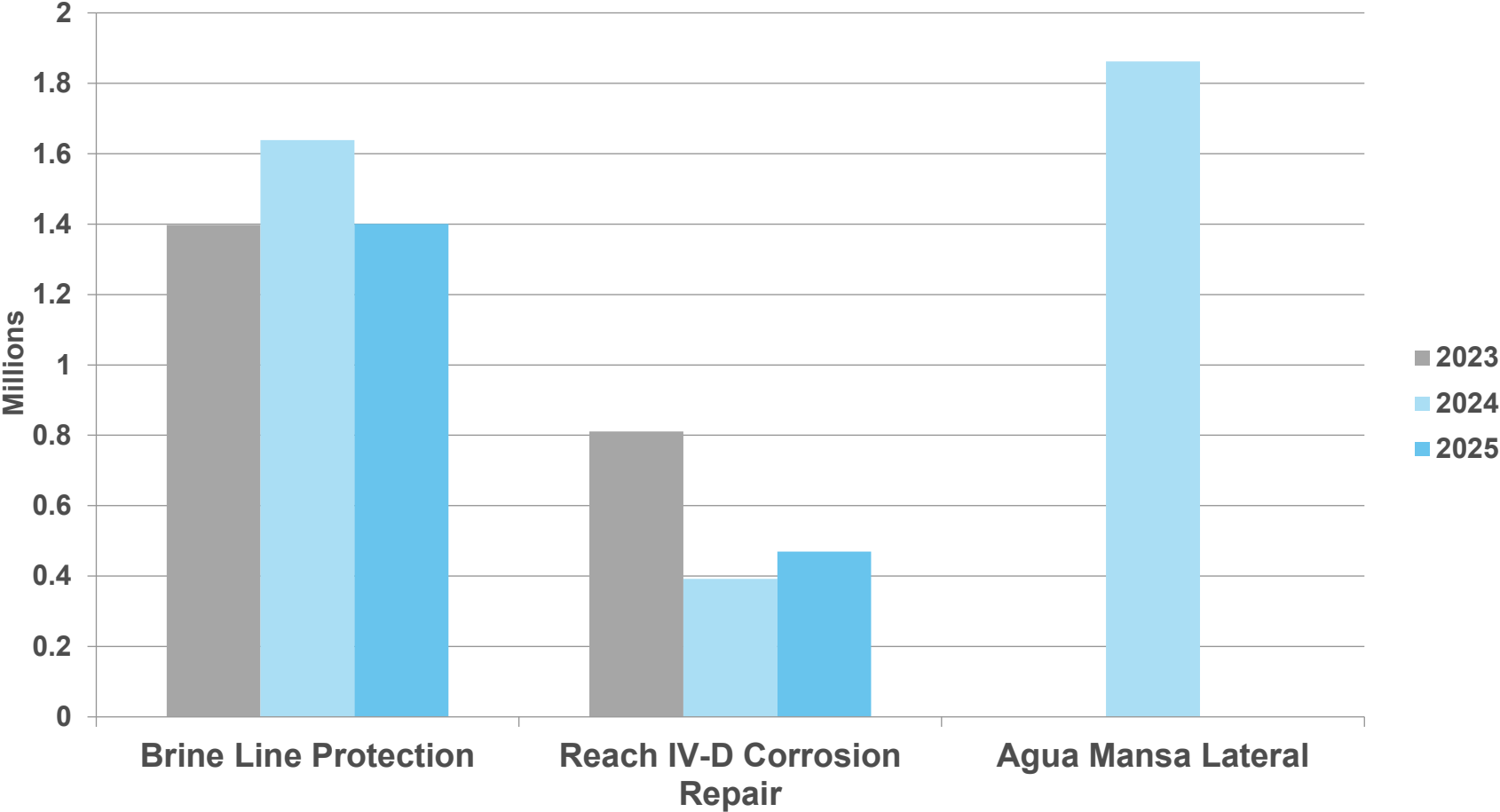
Reserve Balance (EOY)

#	Reserve	FYE 2024	FYE 2025
R-02	Debt Retirement	\$2,858,445	\$2,858,445
R-04	Pipeline Capacity Management	12,156,407	12,156,407
R-01	Brine Line Operating	2,288,209	2,288,209
R-07	Pipeline Replacement and Capital Investment	26,366,194	26,396,190
R-06	OC San Pipeline Rehabilitation	2,739,320	2,895,092
R-05	OC San Future Treatment and Disposal Capacity	1,861,185	1,861,185
Total Reserves		\$48,269,760	\$48,455,528

Capital Projects

- Fund 320 Brine Line Protection
 - Reach IV Pipeline inspection and condition assessment
 - Reach IV-B Lower
 - Inspection and condition assessment
 - Improvements (raise MAS and add two MAS)
 - Protection/Relocation
 - RCTD widening of Temescal Canyon Road (Reach V)
 - Caltrans/City of Chino – Hwy 71 Pine Ave offramp (Reach IV-A)
 - Complete sealing of MAS within Prado Inundation area below 556 feet elevation
- Fund 327 Reach IV-D Corrosion Repair
 - Condition assessment of 7 miles of pipeline
- Fund 328 Agua Mansa Lateral
 - Complete construction

Capital Projects



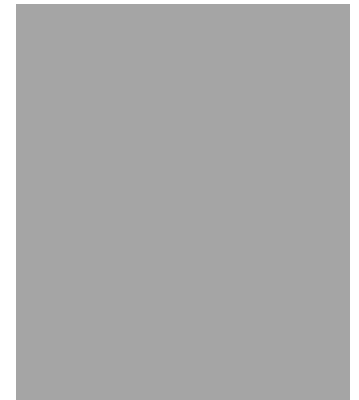
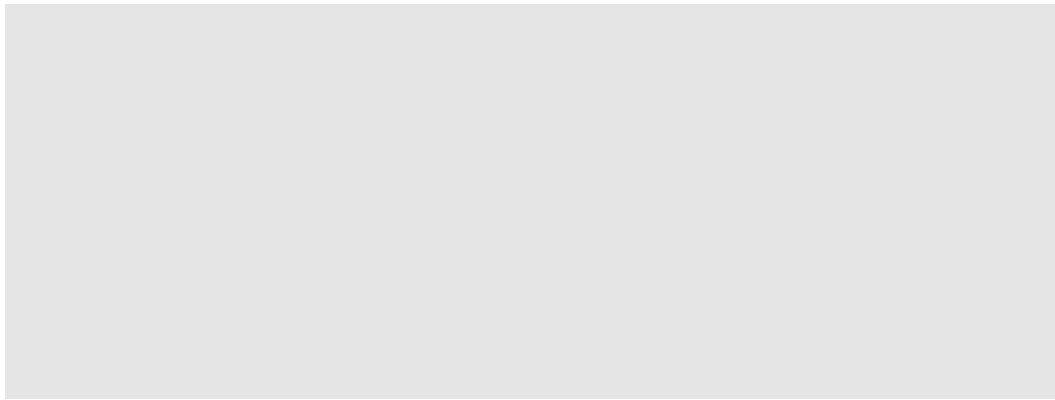
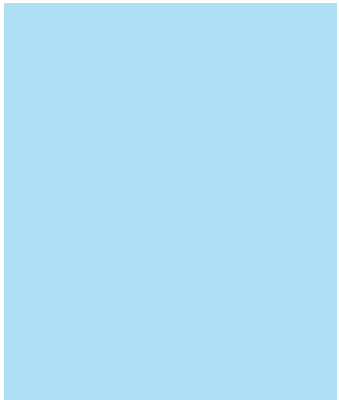
Capital Project Funding – Use of Reserves

Project	FYE 2023	FYE 2024	FYE 2025
Brine Line Protection	\$1,397,185	\$1,639,113	\$1,400,587
Reach IV-D Corrosion Repairs	810,746	391,577	469,417
Agua Mansa Lateral	0	1,862,442	0
Total	\$2,207,931	\$3,893,131	\$1,870,004

Brine Line Statistics

Project	FYE 2023	FYE 2024	FYE 2025
Staff Hours for Operations & Capital	21,914	20,006	20,033
Full Time Equivalents (FTE)	10.6	9.7	9.6
% of Indirect Costs paid	66.08%	61.02%%	62.87%%
Total of Indirect Costs paid	\$2,281,014	\$2,257,890	\$2,367,344

Questions?



Santa Ana Watershed Project Authority

Financial Report for the Inland Empire Brine Line Enterprise/CIP for the 2nd Quarter Ending December 31, 2022



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	1138.40	36235.02
	58.50	558.50
	58.50	558.50

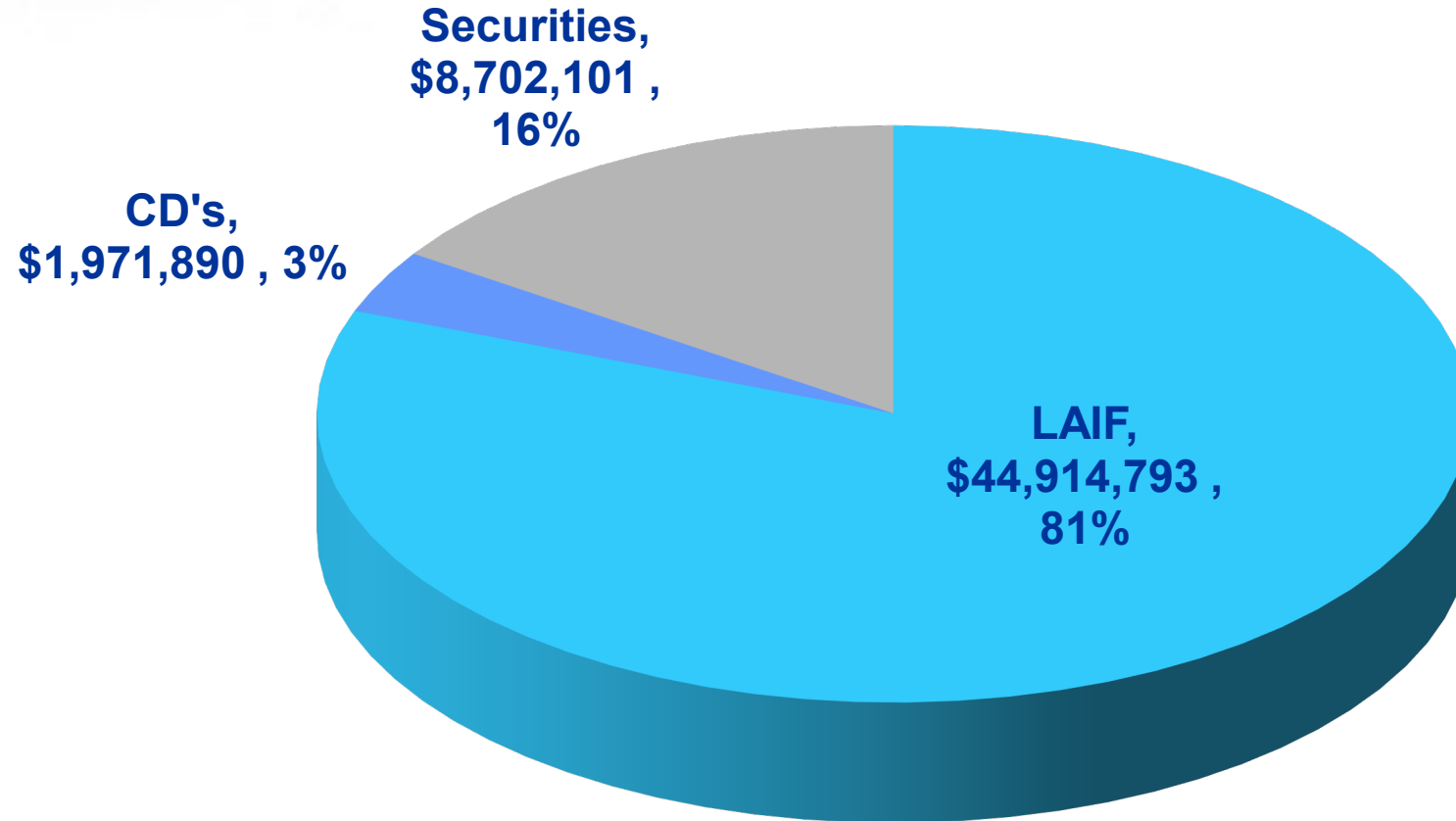
Agenda



- **Cash & Investments**
- **Reserve Account Balances**
- **Transfer, Uses & Contributions from/to Reserves**
- **Enterprise Revenues**
- **Enterprise Expenses**
- **Enterprise Performance**
- **Capital Improvement Program**

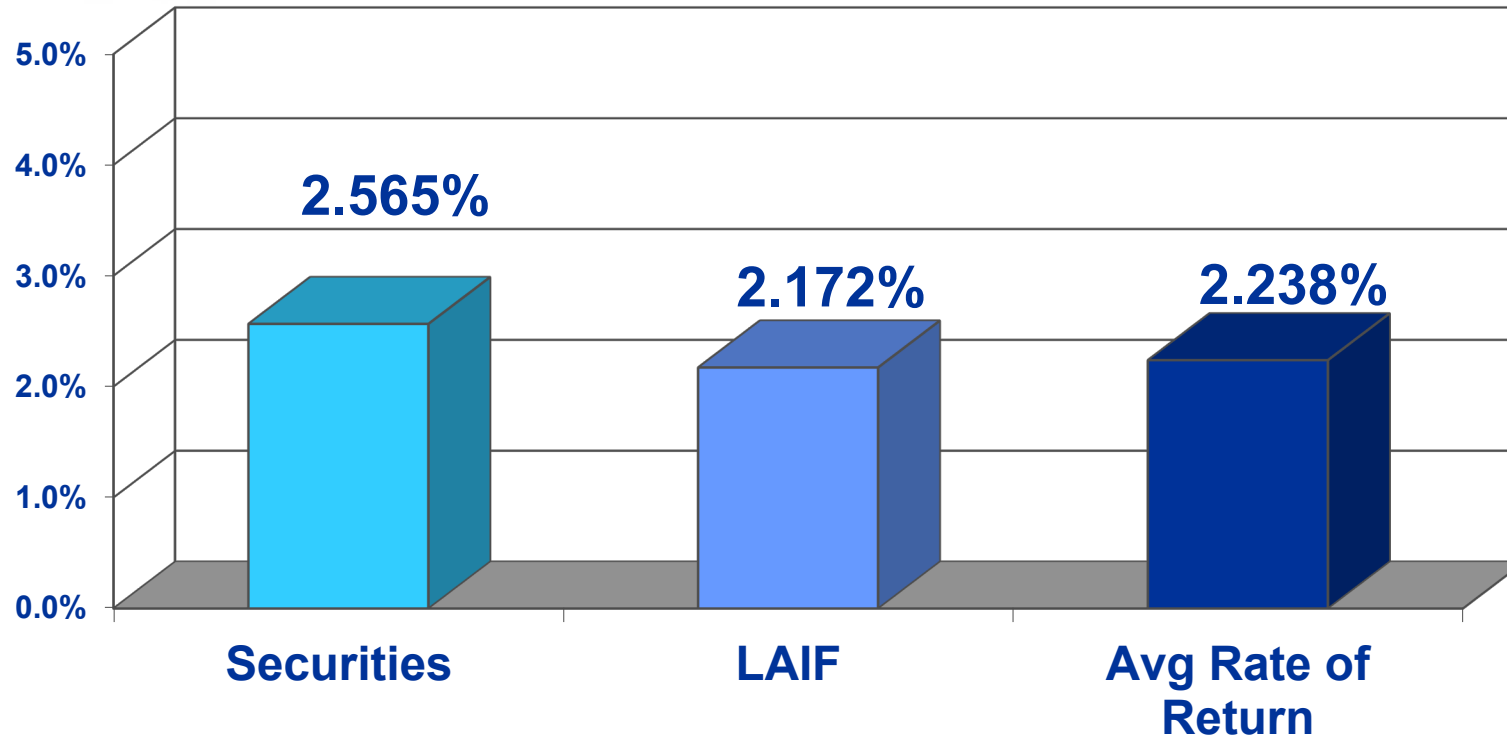
Cash & Investments

\$55,588,784



Cash & Investments

Interest Rate Analysis



Reserve Account Balances

Reserve Account	Balance
Self Insurance	\$4,374,998
Debt Retirement	2,844,366
Pipeline Replacement	23,546,733
OC San Rehabilitation	2,402,137
Capacity Management	12,096,528
OC San Future Capacity	1,852,018
Flow Imbalance Reserve	85,014
Rate Stabilization Reserve	1,037,820
Operating Reserve	2,276,938
Operating Cash	5,072,232
Total Reserves	\$55,588,784

Reserve Account Balances Trends

Reserve	Balance @ 03/31/22	Balance @ 06/30/22	Balance @ 09/30/22	Balance @ 12/31/22
Self Insurance	\$4,321,376	\$4,352,284	\$4,361,363	\$4,374,998
Debt Retirement	2,827,377	2,829,589	2,835,501	2,844,366
Pipeline Replacement	22,548,826	22,758,505	23,141,929	23,546,733
OC San Rehabilitation	2,387,790	2,389,658	2,394,650	2,402,137
Capacity Mgmt	12,024,280	12,033,687	12,058,828	12,096,528
OC San Future Capacity	1,840,956	1,842,396	1,846,246	1,852,018
Flow Imbalance Reserve	84,506	84,572	84,749	85,014
Rate Stabilization Reserve	1,031,621	1,032,428	1,034,585	1,037,820
Operating Reserve	5,518,813	5,806,508	2,269,963	2,276,938
Operating Cash	-	-	5,688,704	5,072,232
Total	\$52,585,545	\$53,129,627	\$55,716,518	\$55,588,784

Transfers, Use and Contributions To/From Reserves



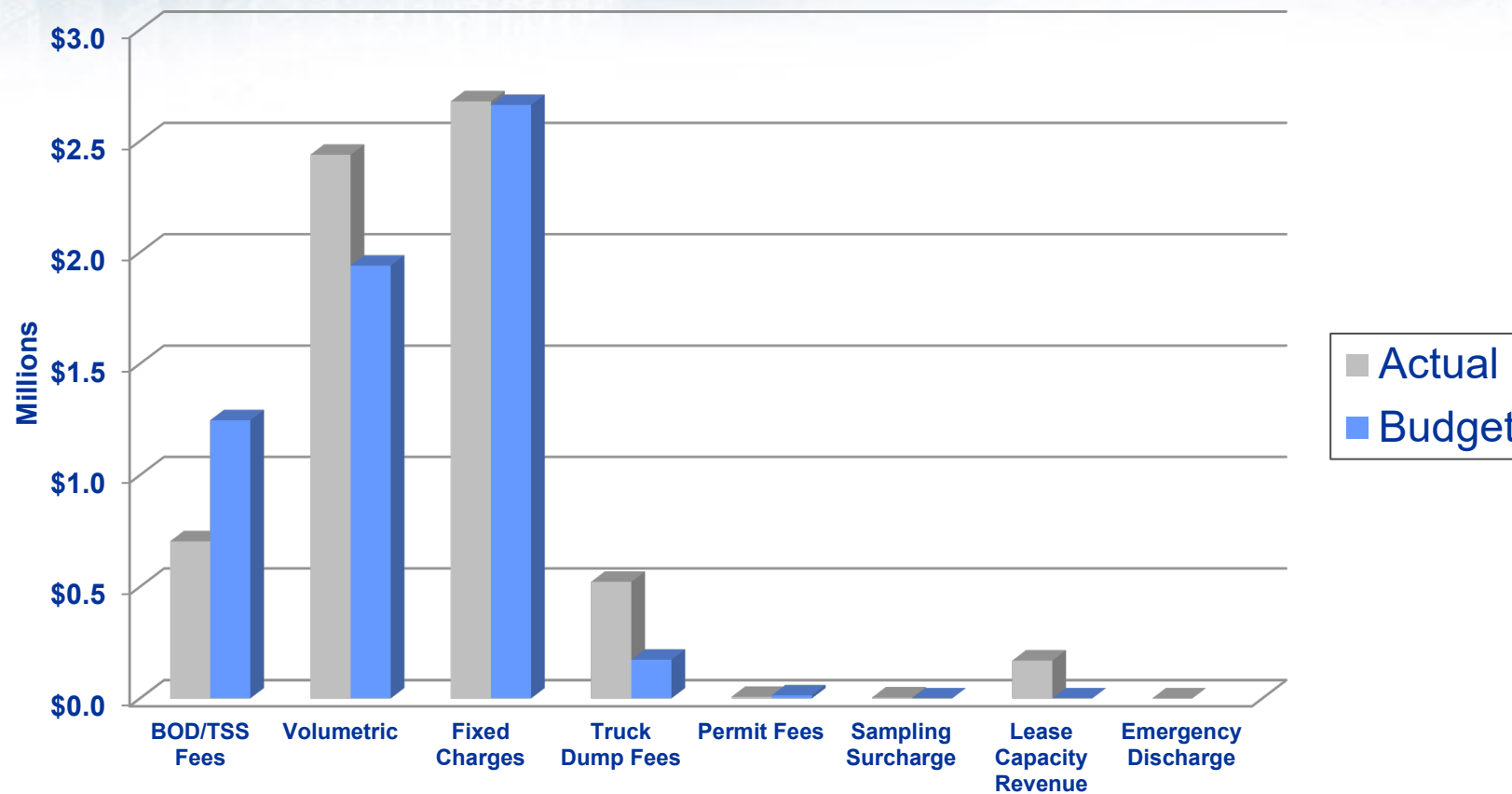
- **Pipeline Replacement Reserve**
 - Contribution of \$733,772
 - Use of \$34,342- Fund 320 Brine Line Protection
- **Interest Earned - \$204,687**

Total Operating Revenues

Source	Actual	Budget	Variance Positive/(Negative)
BOD/TSS Fees	\$702,925	\$1,246,200	(\$543,275)
Volumetric Fees	2,438,257	1,940,650	497,607
Fixed Charges	2,677,835	2,661,711	16,124
Truck Discharge	521,919	173,250	348,669
Permit Fees	6,850	13,700	(6,850)
Lease Capacity Revenue	169,041	0	169,041
Sampling Surcharge	3,448	0	3,448
Emergency Discharge Fees	29	0	29
Total Operating Revenues	\$6,520,304	\$6,035,511	\$484,793

Operating Revenues vs. Budget

Budget vs. Actual

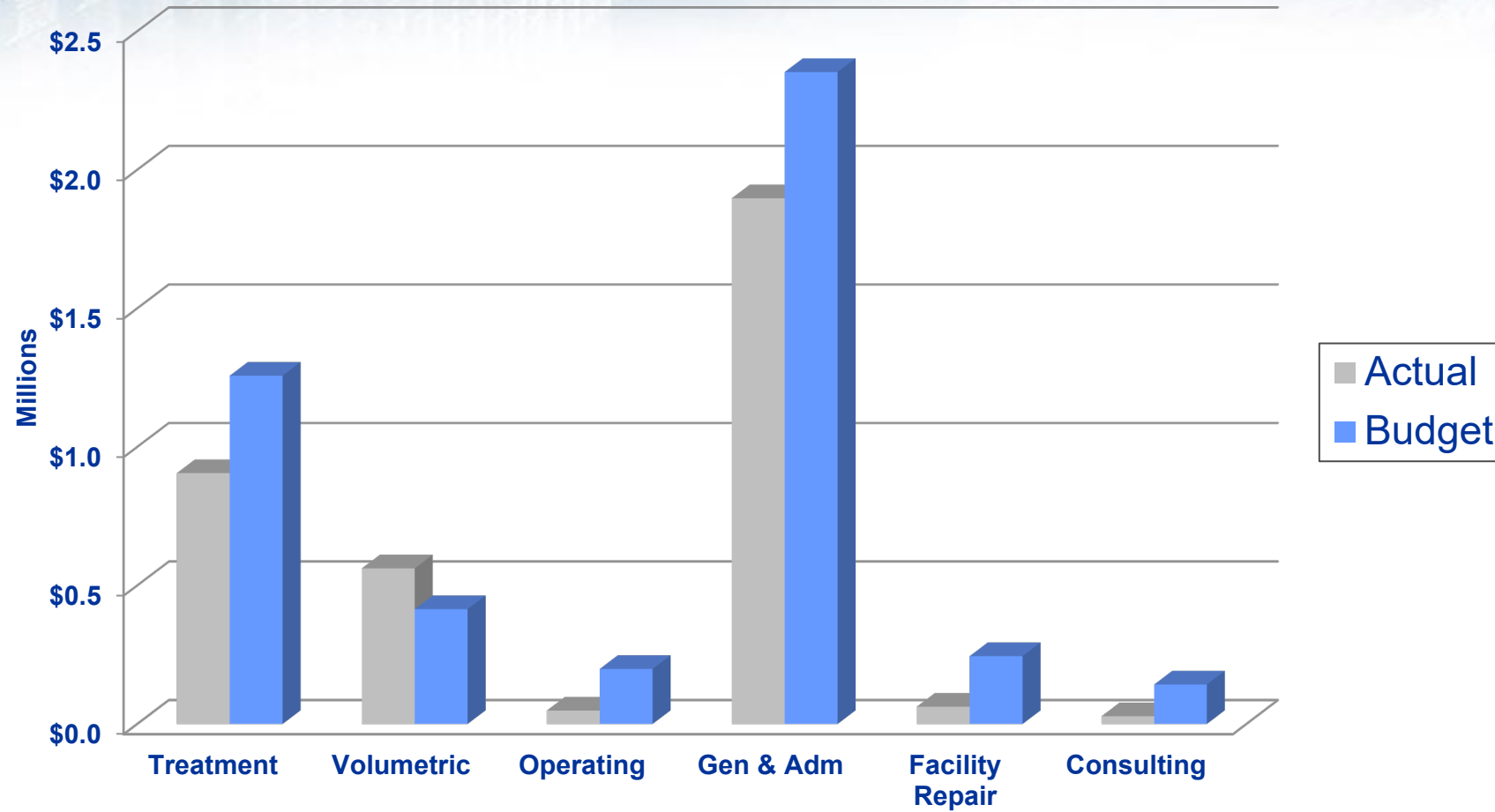


Total Operating Expenses

Source	Actual	Budget	Variance Positive/(Negative)
Treatment Costs	(\$905,249)	(\$1,256,800)	\$351,551
Volumetric Costs	(561,526)	(414,400)	(147,126)
Operating Costs	(48,411)	(198,625)	150,214
General & Administration	(1,897,290)	(2,352,602)	455,312
Facility Repair & Maintenance	(62,504)	(245,000)	182,496
Consulting & Prof. Services	(28,015)	(142,500)	114,485
Total Operating Expenses	(\$3,502,995)	(\$4,609,927)	\$1,106,932

Operating Expenses vs. Budget

Budget vs. Actual



Non-Operating Revenues and Expenses

Source	Actual	Budget	Variance Positive/(Negative)
Interest & Investments	\$213,672	\$162,500	\$51,172
Other Income	482	0	482
Debt Service Payments	(1,044,273)	(1,044,273)	0
Contributions to Reserves	(733,772)	(733,772)	0
Total Non-Operating	(\$1,563,891)	(\$1,615,545)	\$51,654

Enterprise Performance

Flow, BOD, TSS Actual vs. OCSD Billing

	SAWPA Billed	OCSD Billing	Difference
Total Flow (MG)	2,340.6776	2,274.250	66.4276
Total BOD (1,000 lbs)	679.5990	510.995	168.6040
Total TSS (1,000 lbs)	1,499.0511	1,394.326	104.7251
Flow - Pass through per MG	\$224.00	\$246.95	(\$22.95)
BOD cost per 1,000 lbs	\$353.00	\$352.51	\$0.49
TSS cost per 1,000 lbs	\$520.00	\$520.25	(\$0.25)

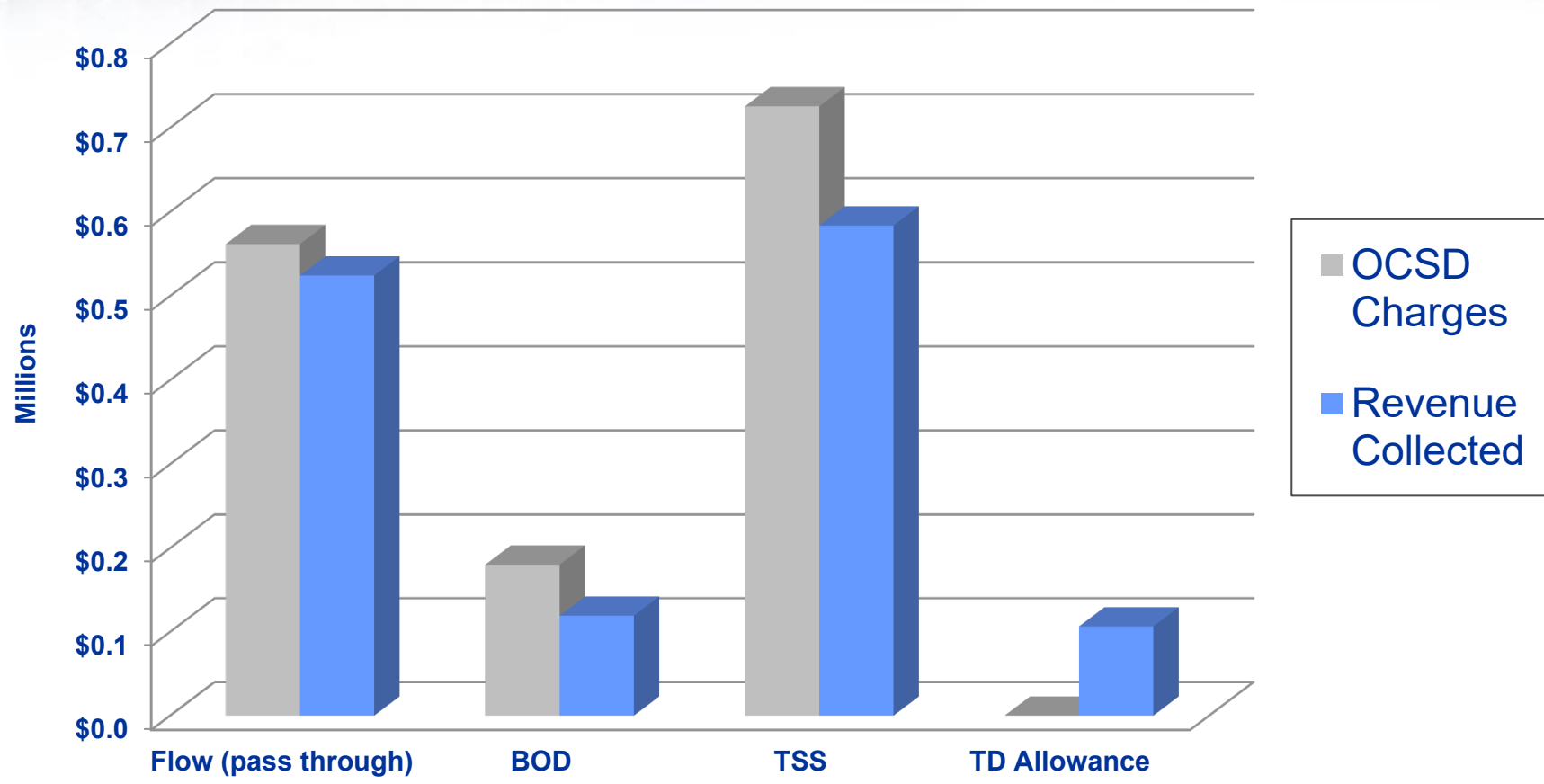
Enterprise Performance

OCSD Flow, BOD & TSS Charges vs. Revenue Billed

	Revenue Billed	OCSD Charges	Difference
Flow (pass through)	\$524,312	\$561,626	(\$37,314)
BOD	119,259	180,131	(60,872)
TSS	583,665	725,397	(141,732)
TD Allowance	106,368	0	106,368
Total	\$1,333,604	\$1,467,154	(\$133,550)

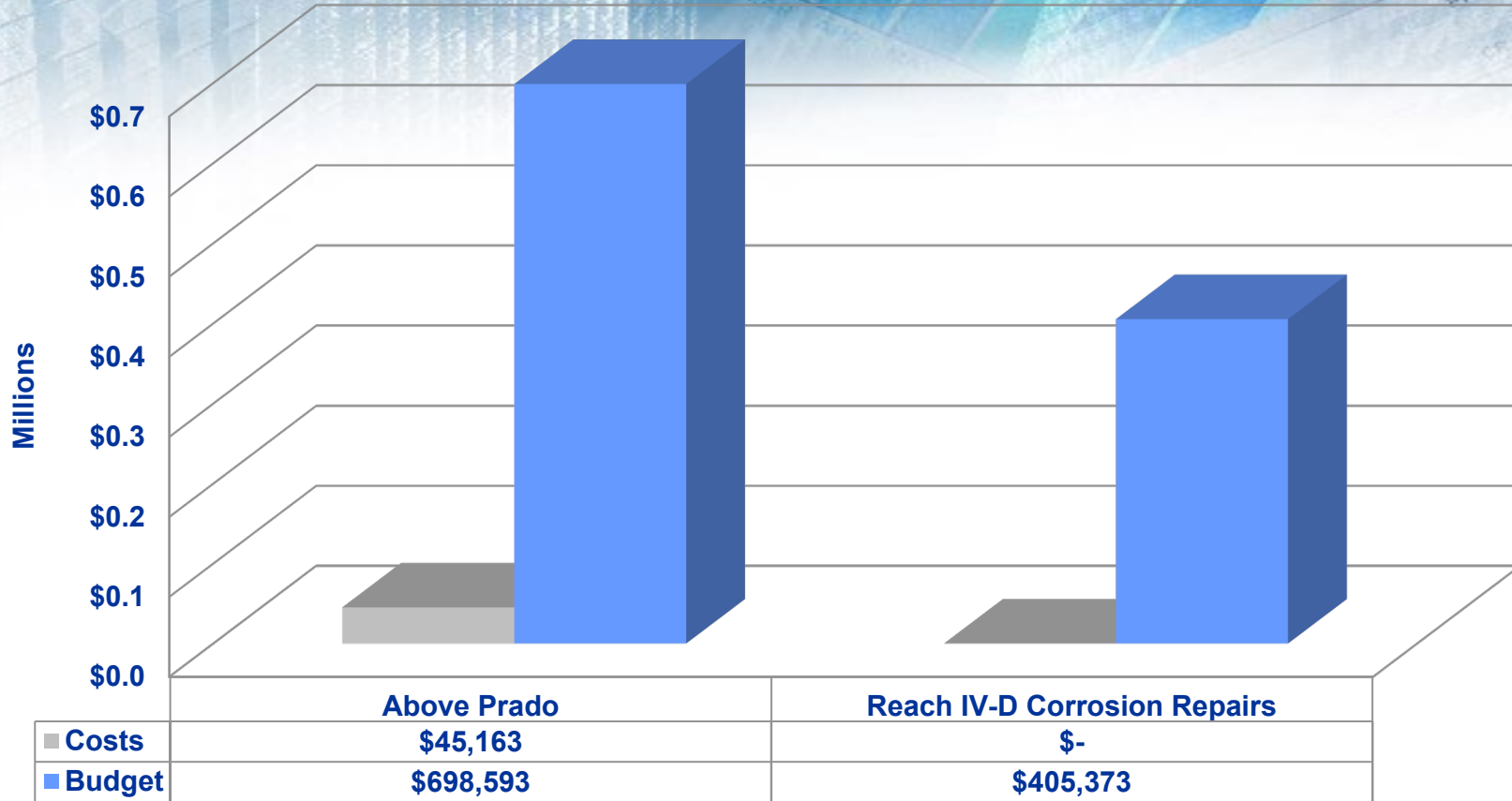
Enterprise Performance

OCSD Flow, BOD & TSS Charges vs. Revenue Collected



Capital Project Fund

Costs vs. Budget



Capital Project Fund (320)



Brine Line Protection / Relocation Projects

- **D/S Prado in OC** – emergency protection work, pipeline relocation
- **Above Prado** - pipeline relocation and manhole lid adjustments – when required
- **D/S Prado in Riv County** – bank armoring

Questions ?

