

Wastewater Treatment

Summer 2020 Capital Funding Update

Area F – Langdale

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Langdale Wastewater Service Area



Topics

- Summary of previous review
- Capital Funding Update
- What's next?
- Questions



Summary of previous review

- **Wastewater Service Review:** High-level review of wastewater services within the SCRD www.scrd.ca/wastewater
- **Asset Management Plans:** Service-specific review. Summary of service establishment, relevant bylaws and asset inventory. Preliminary life-cycle and operational cost analysis.
- **Community Engagement:** SCRD hosted information sessions to share findings and gather feedback from residents.
- **Fact Sheets:** Created to provide residents with a quick glance of the preliminary service review findings.
- **Budget Revision:** Staff prepared revised budget models to reflect new datasets and to align with resident feedback.
- **Rate Adjustment:** Some User Rates and Frontage Fees were adjusted to reflect updated budget information.

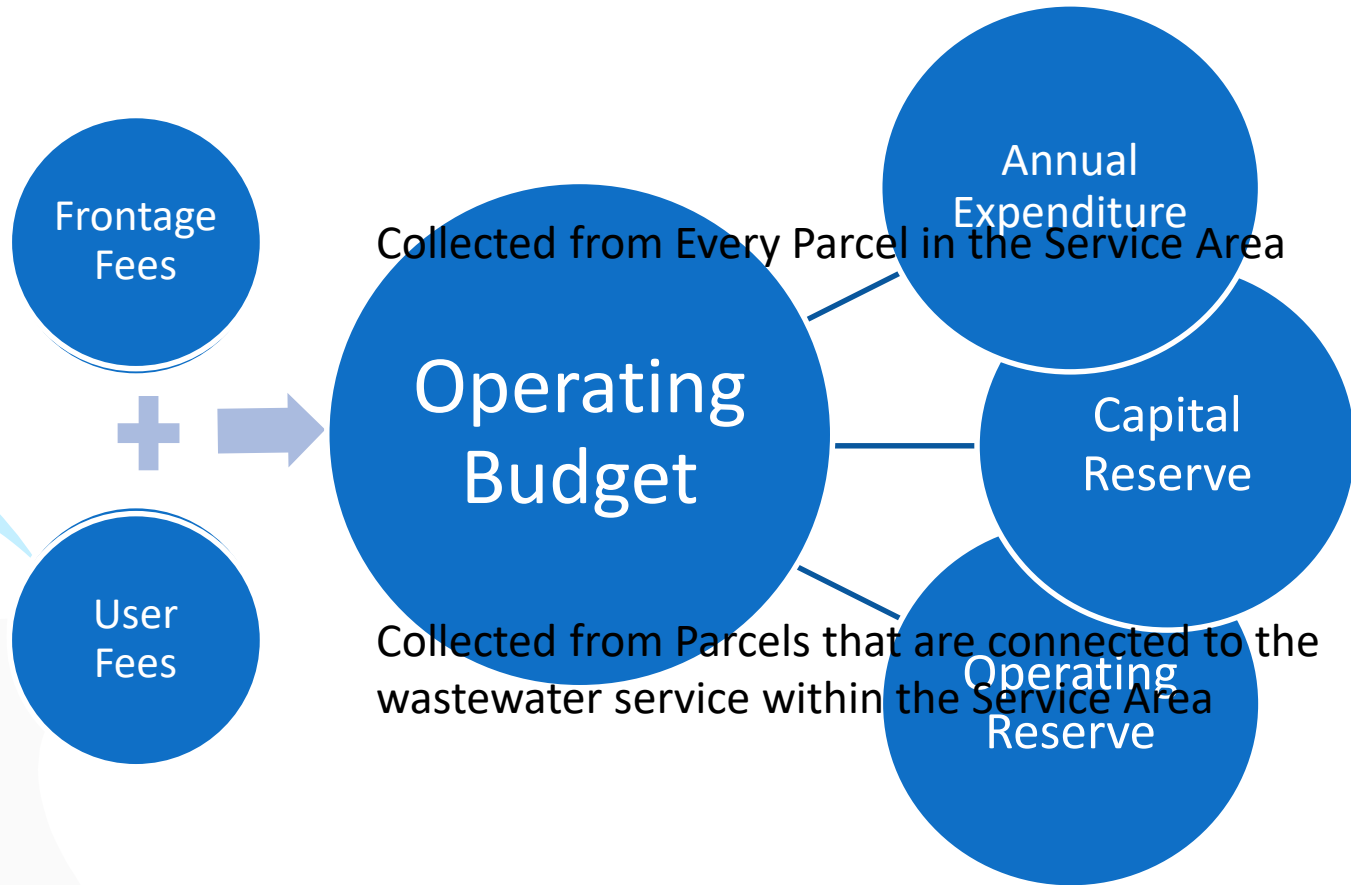


Summary of previous review

- **Key Findings – 2019 Wastewater Service Review**
 - Existing revenue is unsustainable
 - Operations Budget often greater than revenues generated from User Fees
 - Contributions to Reserve funds deferred frequently
 - Future capital expenditures not planned for
 - Ratio of Capital Reserves : Future Capital Expenses too low



Previous Funding Model - Recap



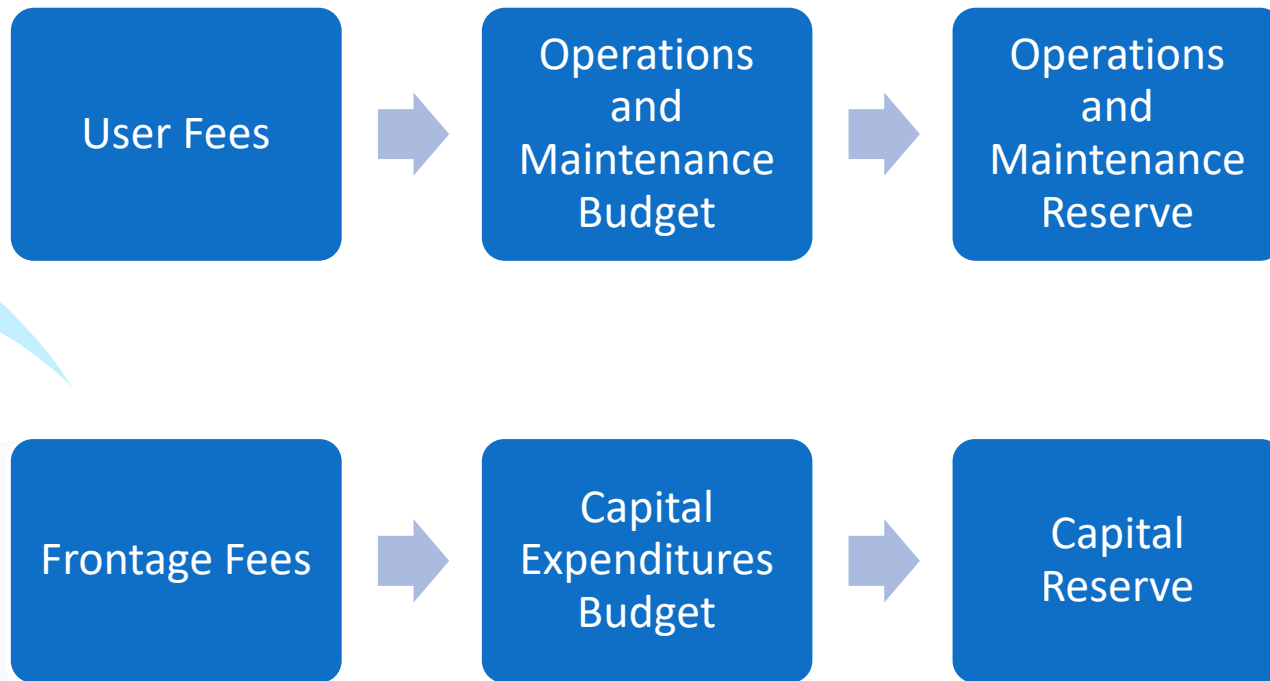
Summary of previous review

- **Key Outcomes**

- Decoupled User Fee and Frontage Fees
 - User Fee revenue only fund Operation and Maintenance
 - Frontage Fees only fund Capital Expenses
- Extensive Review of Operation & Maintenance requirements
 - Audited Operation and Maintenance activities
 - Revised O&M Budget to ensure adequate funding
 - Established O&M Reserve minimum targets
 - **Continue to be reviewed annually**
- Developed Capital Funding Models to plan for future capital expenses.



Sustainable Long-Term Funding Model



Summary of previous review

“Why Do We Need an Operating Reserve?”

- Unforeseen repairs can exceed annual operating budget
- Unable to borrow for Operational Expenses

Operating Reserves are withdrawn **only** for your service area.



Summary of previous review

- **Impact on wastewater rates:**
 - Langdale Wastewater O&M Budget Increase ~ 44%

Langdale Wastewater Rate Changes 2019-2020			
<i>Year</i>	<i>User Fee</i>	<i>Frontage Fee</i>	<i>Total</i>
2019	\$562.50	\$102.00	\$664.50
2020	\$924.98	\$102.00	\$1026.98
Increase	\$362.48	\$0.00	\$362.48

*Reviewed Annually



New Developments

- We Listened to Resident Feedback:
 - Analyzed historical SCRD contract data to refine long-term Capital Model
 - Reduced Engineering Allowance Estimates ~3%
 - Reduction of contingency ~15%
 - Tolerance for Debt
 - Considered financing larger portions of projects
 - Creation of 5-year rate structure proposal
 - Revised Annually
 - Provides residents advance notice of rate structure



New Developments

- Updated Savings/Borrowing Rates to match current rates
 - Variable borrowing rates based on term of loan
- Applied variable Construction Cost Index to better reflect construction inflation rate over time

Construction Inflation

Period	Rate
(1-10 Yrs)	1.90%
(11-20 Yrs)	3.24%
(21-30 Yrs)	2.95%
(31-40 Yrs)	3.51%
(41-50 Yrs)	4.64%
(51-60 Yrs)	4.42%



Let's Talk Infrastructure Funding

- Provincial Legislation – Local Government Act
 - Local Service Areas in Regional Districts can be funded ONLY by participants
 - Costs are shared by a small number of people
- All infrastructure degrades over time
 - Reduced performance
 - Higher maintenance costs
- Infrastructure costs inflate over time



Capital Funding Plan – Method

Expenditures:

- Developed timeline of anticipated replacement using Estimated Useful Life of infrastructure
- Used most recent replacement cost estimates
- Inflated to future value using Construction Cost Indexes built from historical data
 - Variable rates based on replacement date
- Included Debt Financing Costs

Revenue:

- Applied annual interest accrual



Capital Funding Plan – Method

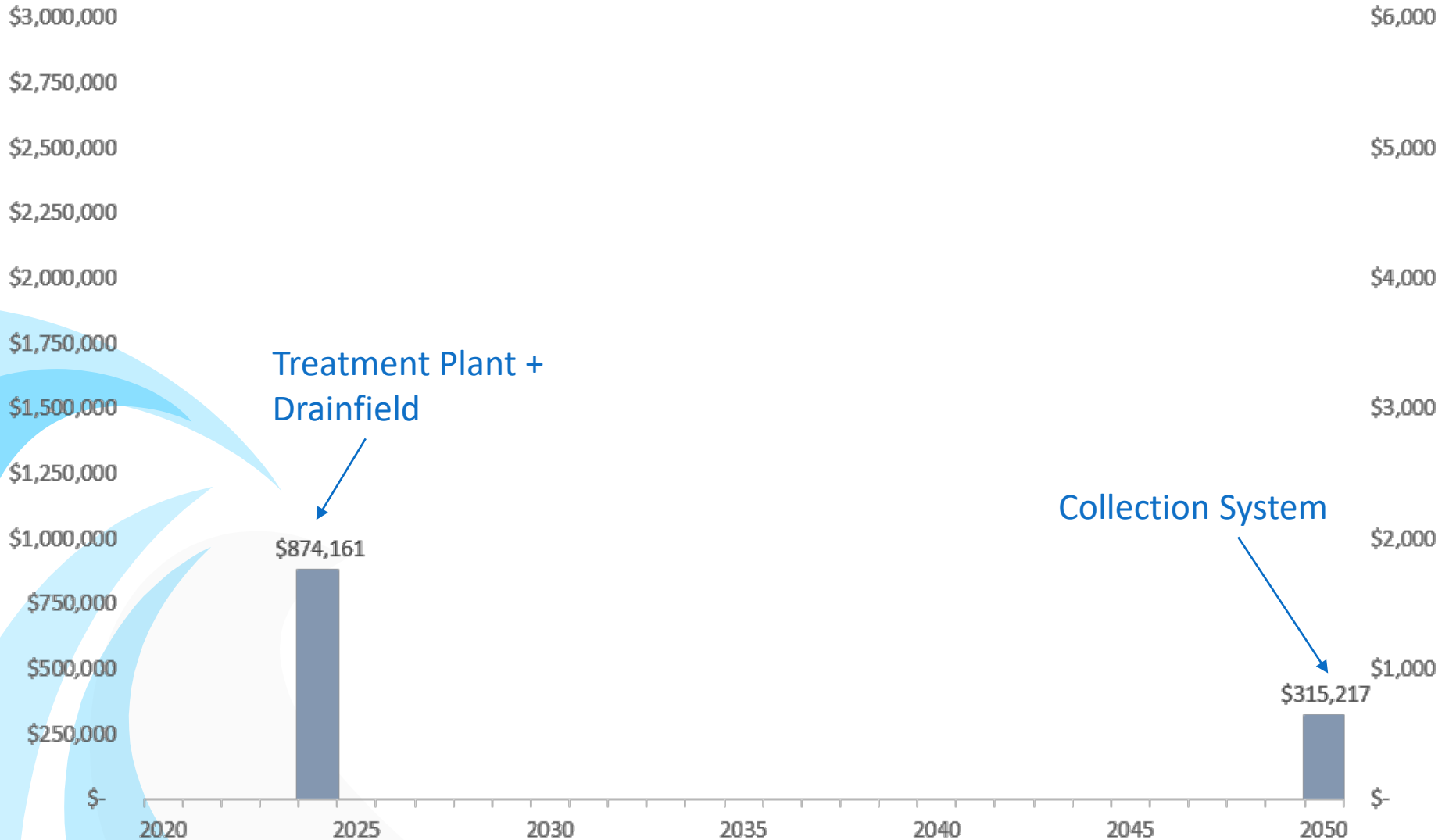
Expenditures:

- Developed timeline of anticipated replacement using Estimated Useful Life of infrastructure
- Wastewater services have 3 main components:
 - Treatment Plant – 50 Year Life
(Some have minor components with shorter lifespan eg. Filters)
 - Disposal System – 40 Year Life
 - Collection System - ~80 Year Life



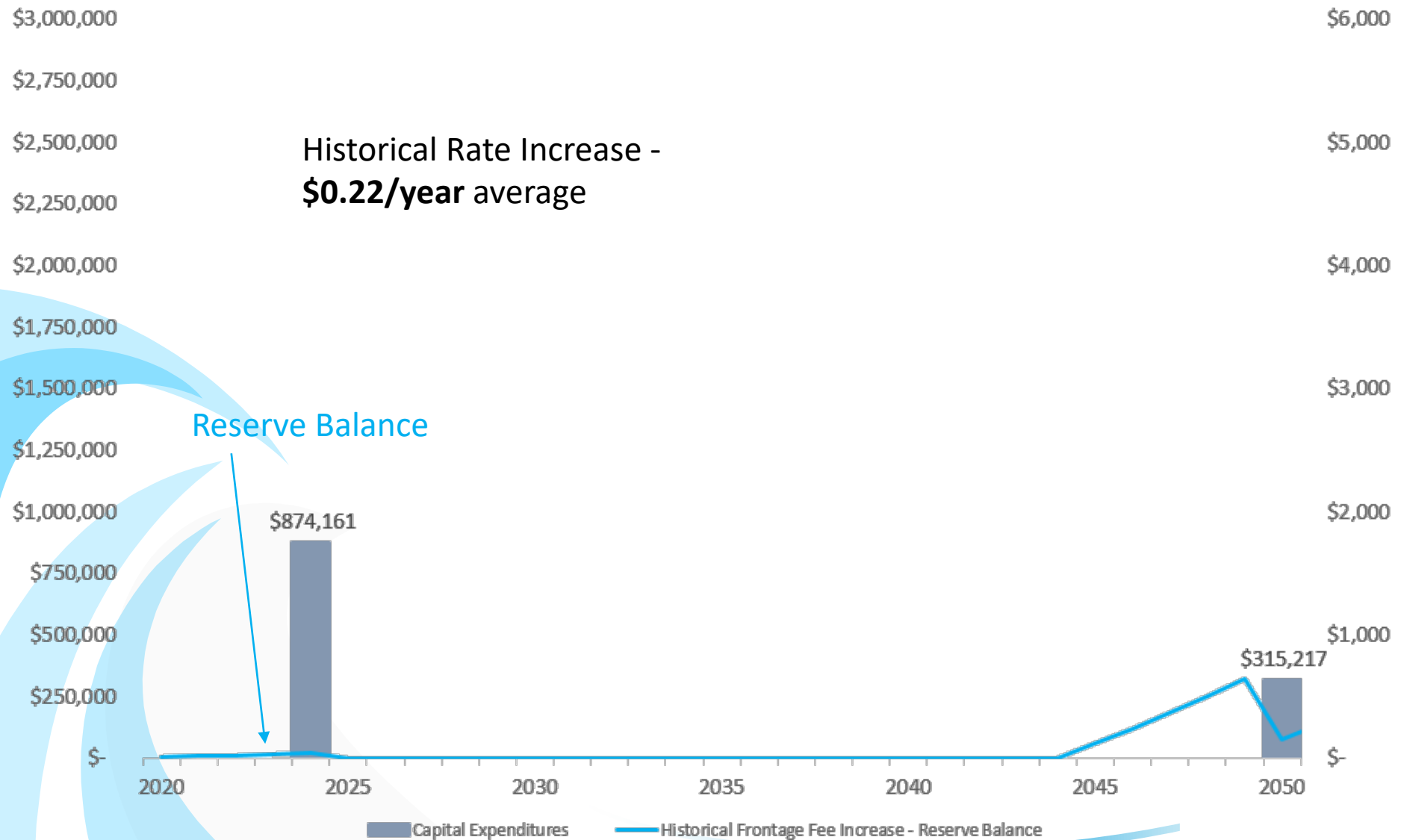
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30-Year Anticipated Capital Expenditures



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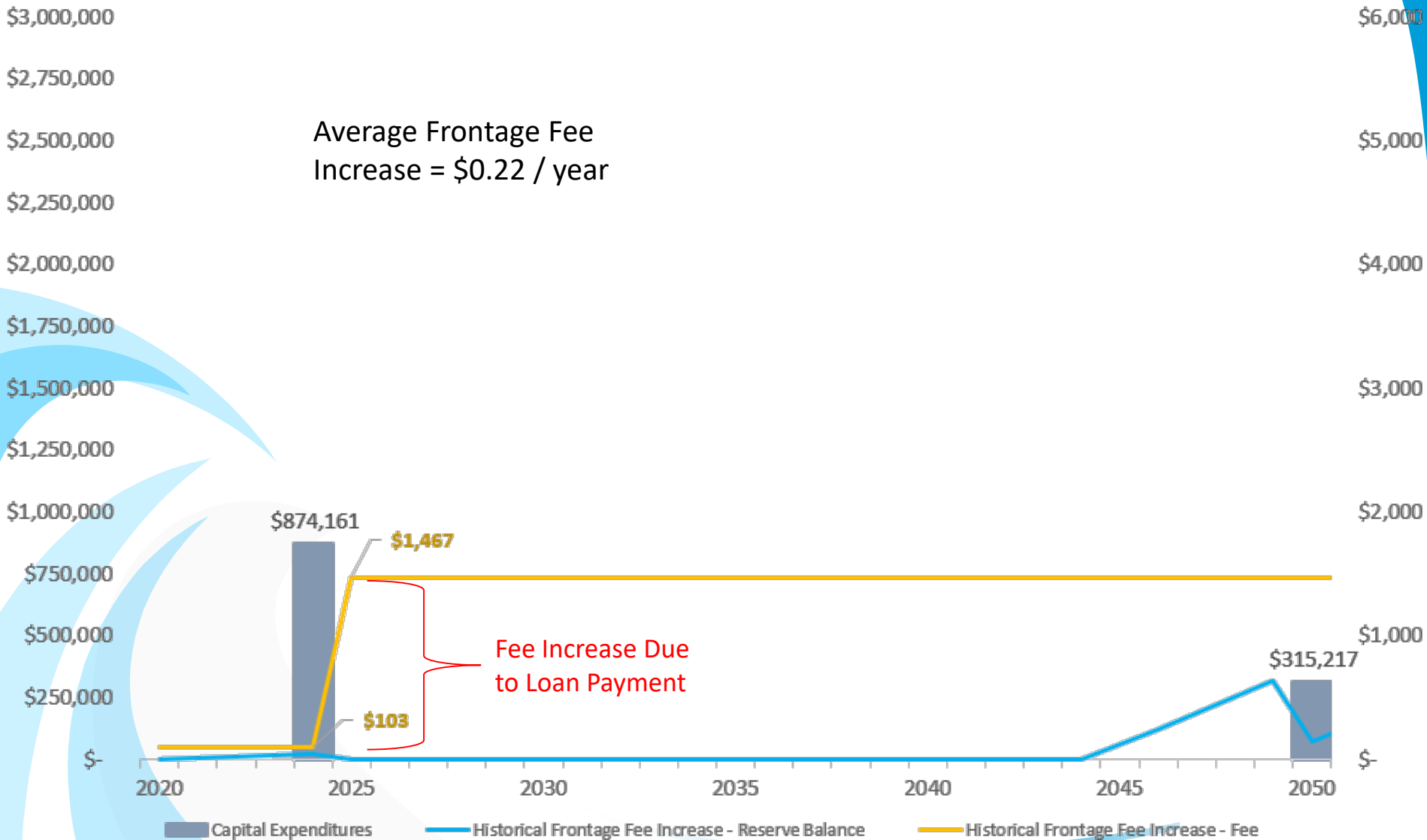
30-Year Anticipated Capital Expenditures



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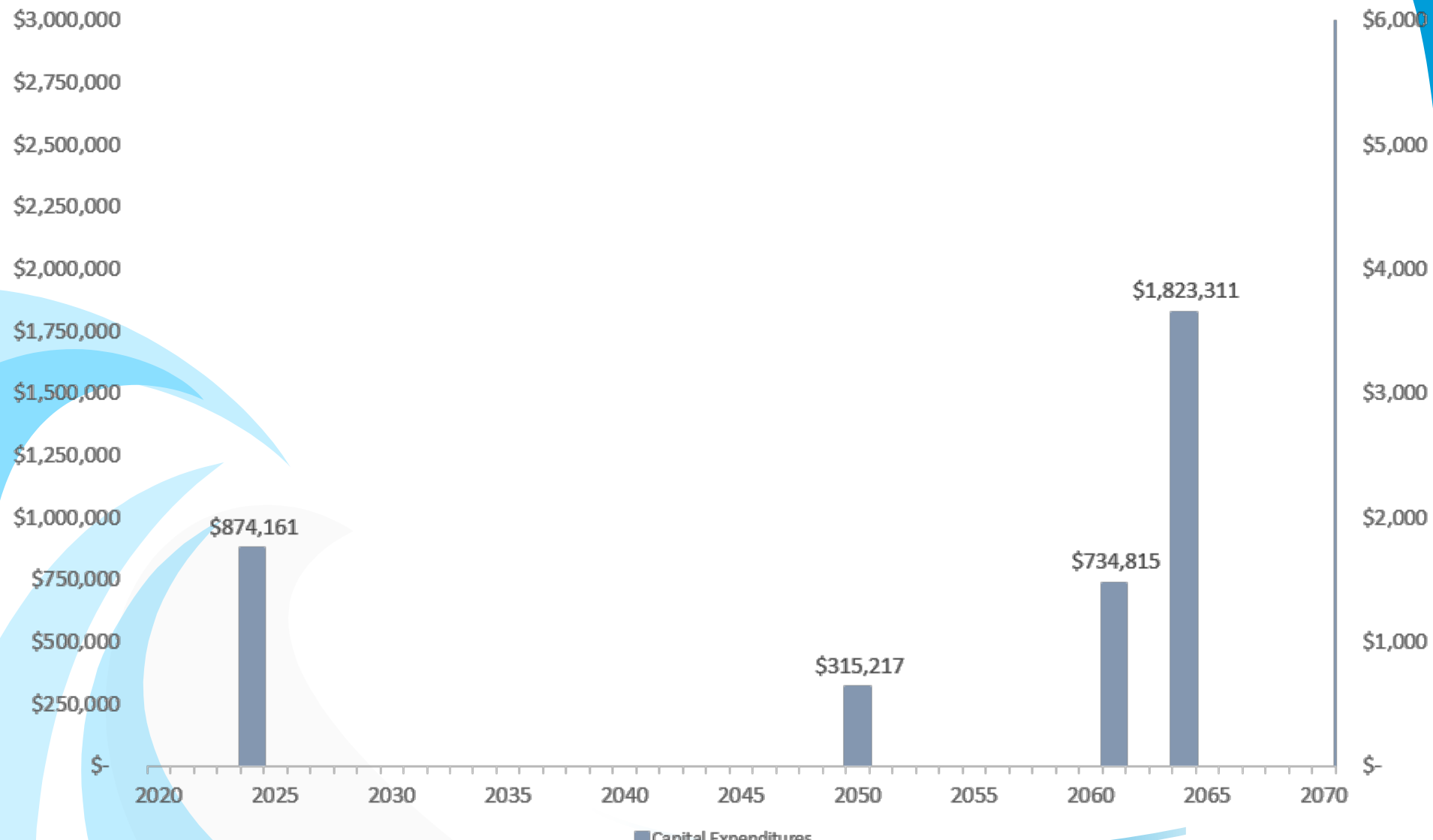
30-Year Anticipated Capital Expenditures

Average Frontage Fee
Increase = \$0.22 / year



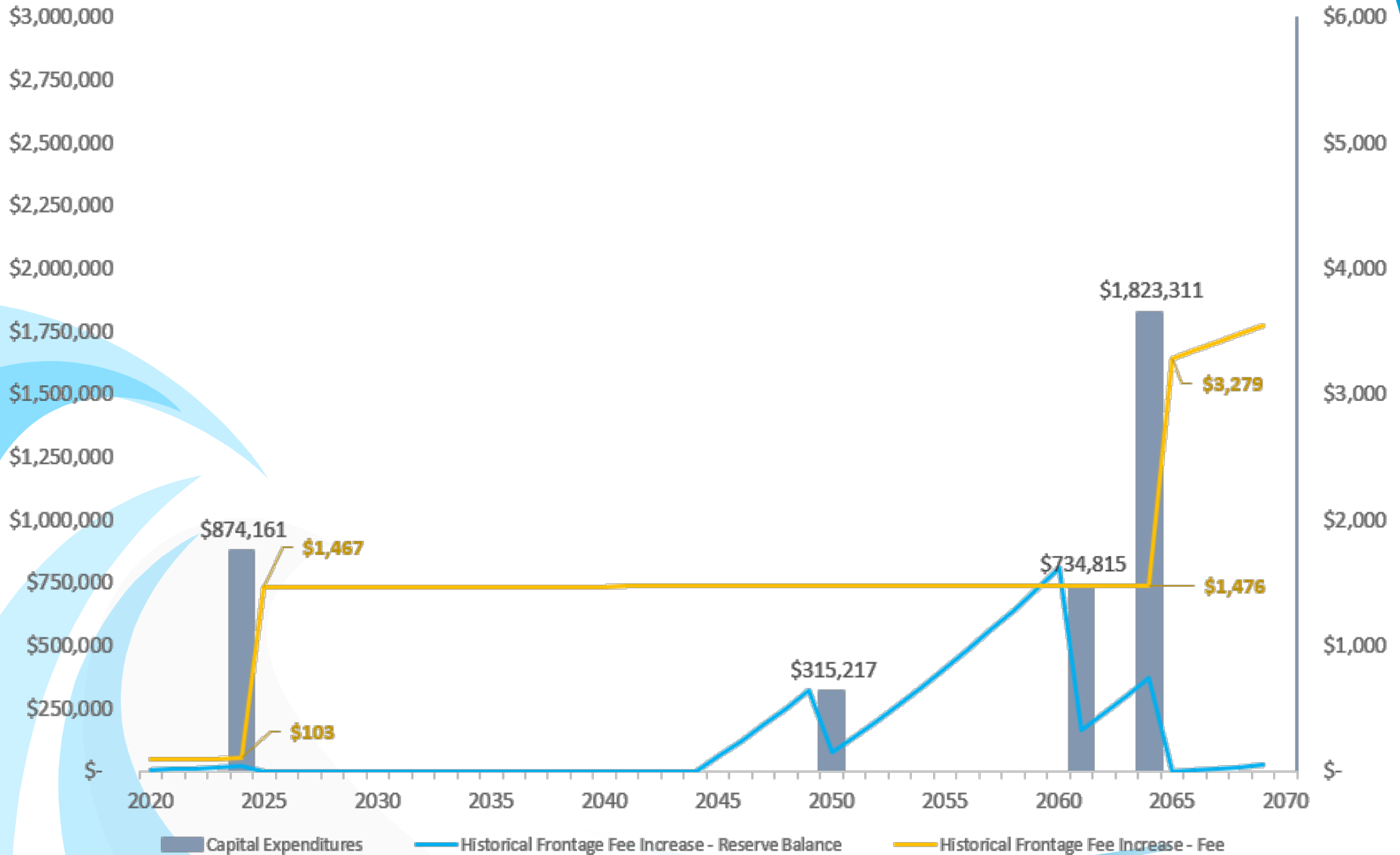
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50-Year Anticipated Capital Expenditures



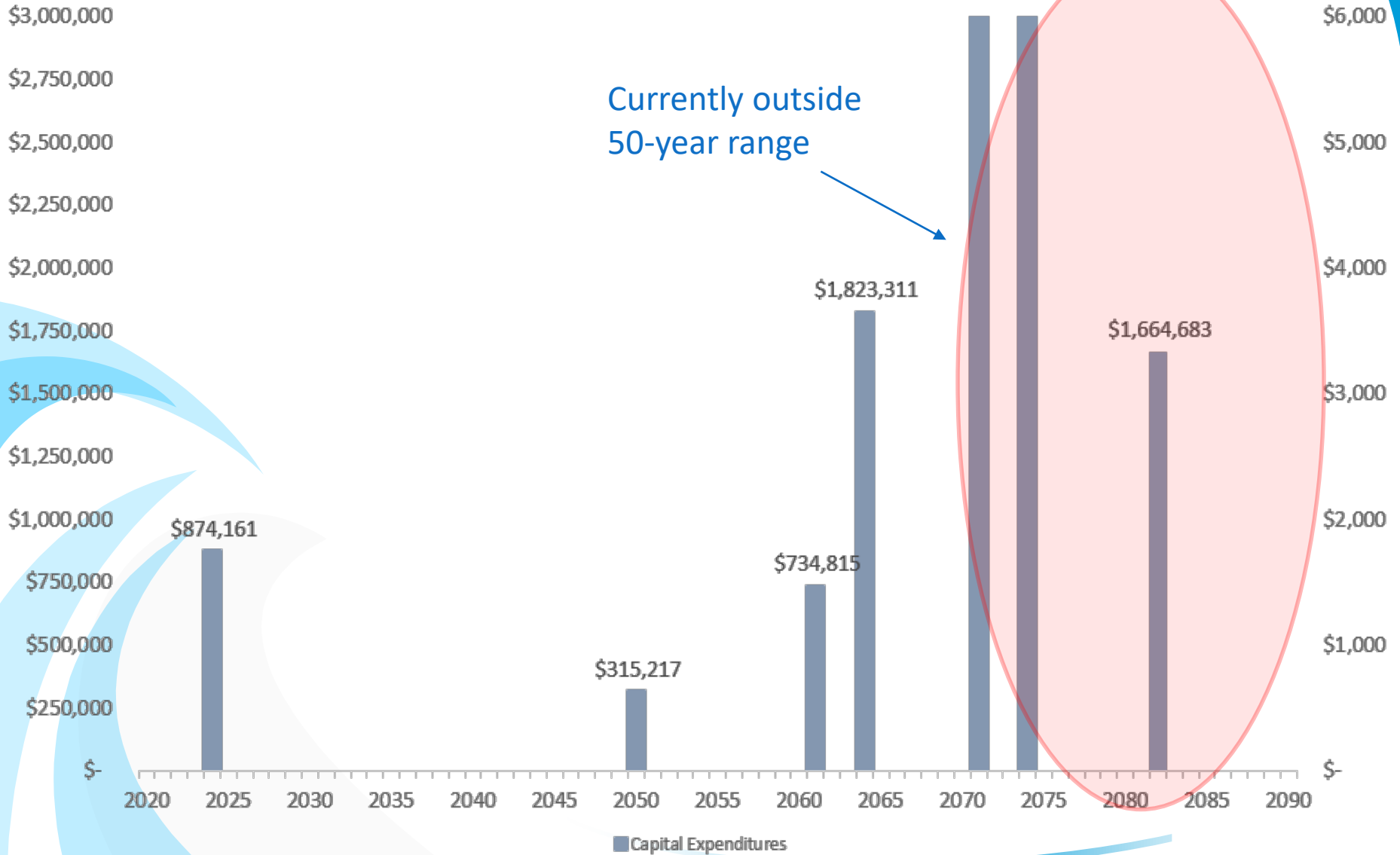
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50-Year Anticipated Capital Expenditures



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75-Year Anticipated Capital Expenditures



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50-Year Anticipated Capital Expenditures

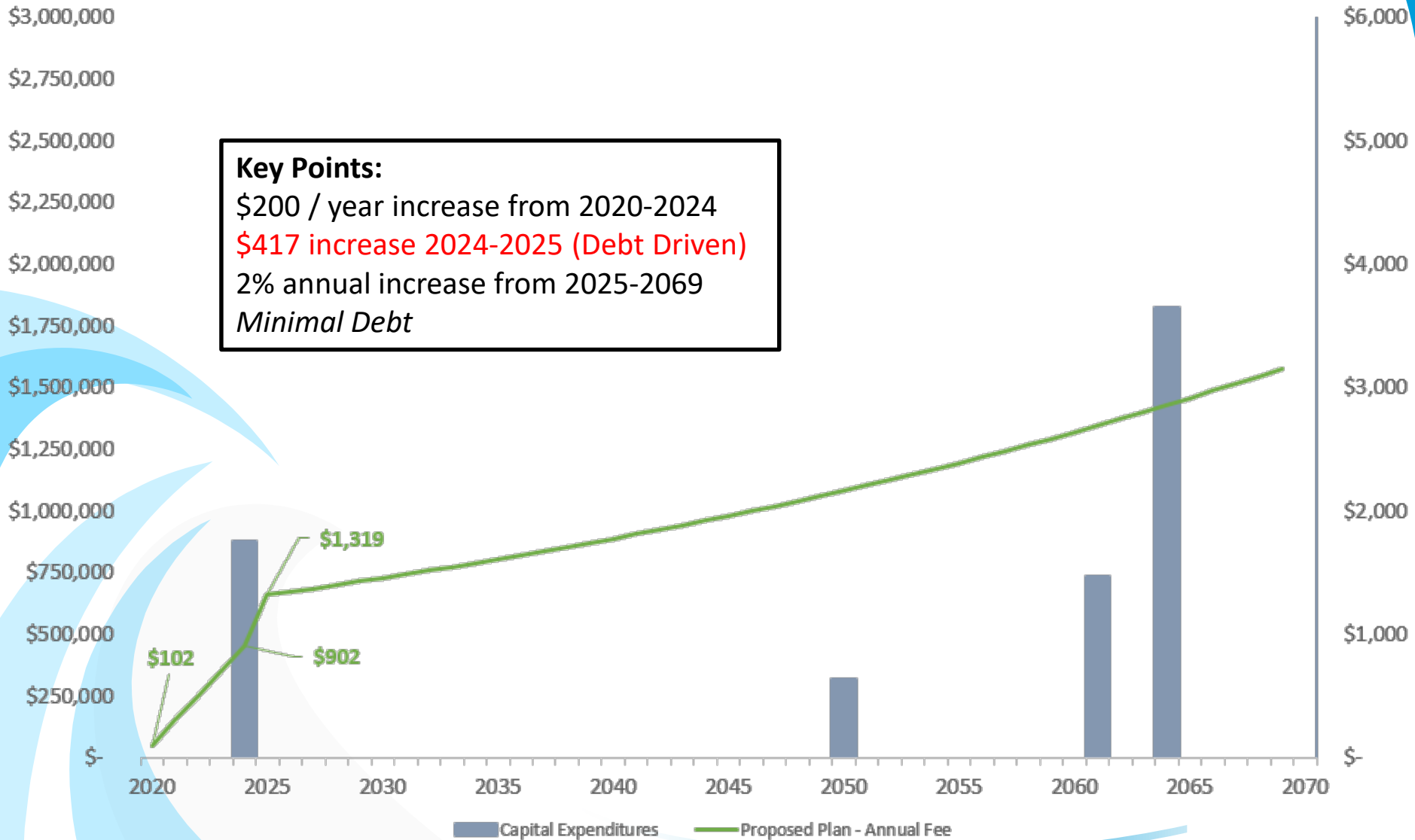
Key Points:

\$200 / year increase from 2020-2024

\$417 increase 2024-2025 (Debt Driven)

2% annual increase from 2025-2069

Minimal Debt



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50-Year Anticipated Capital Expenditures

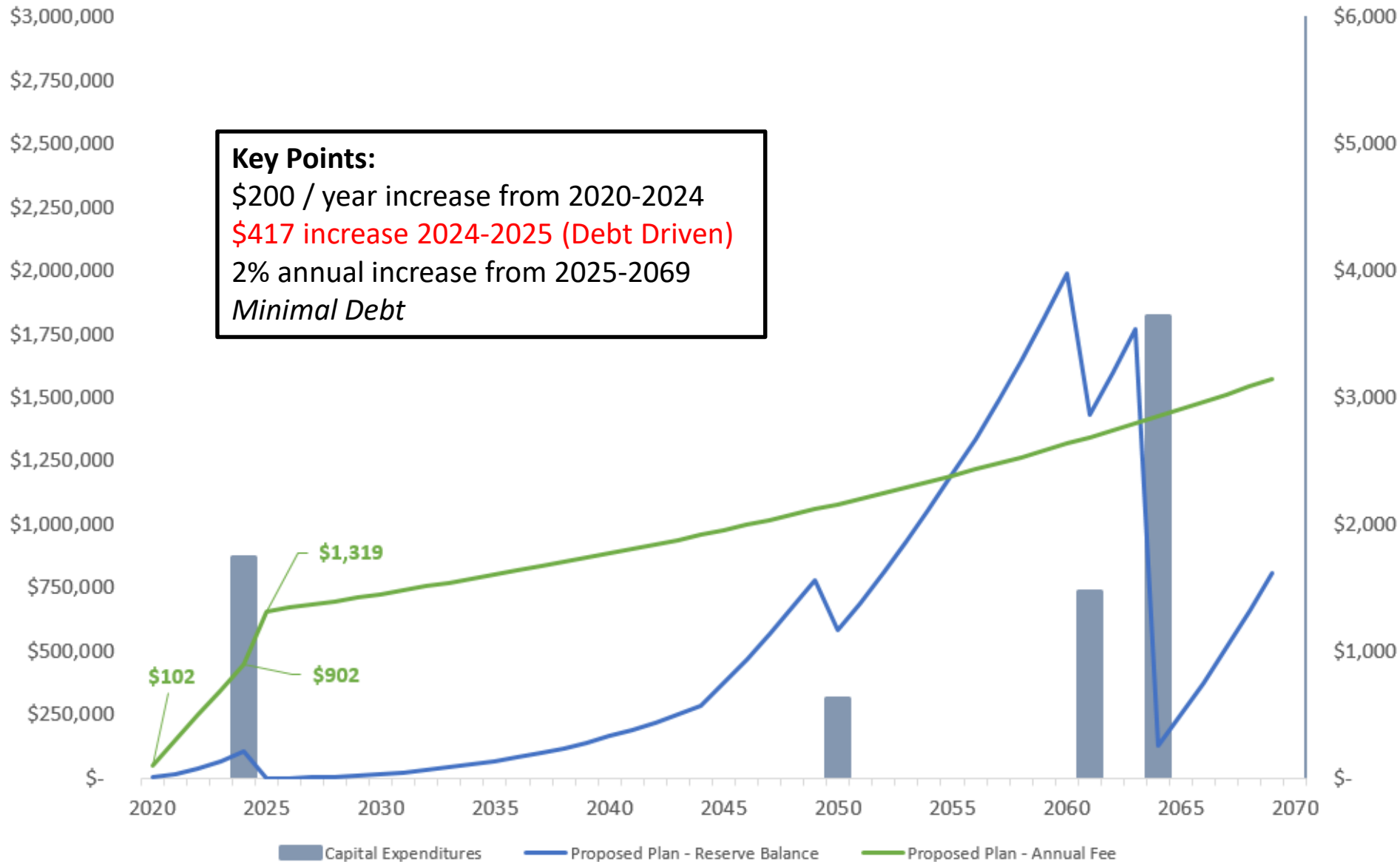
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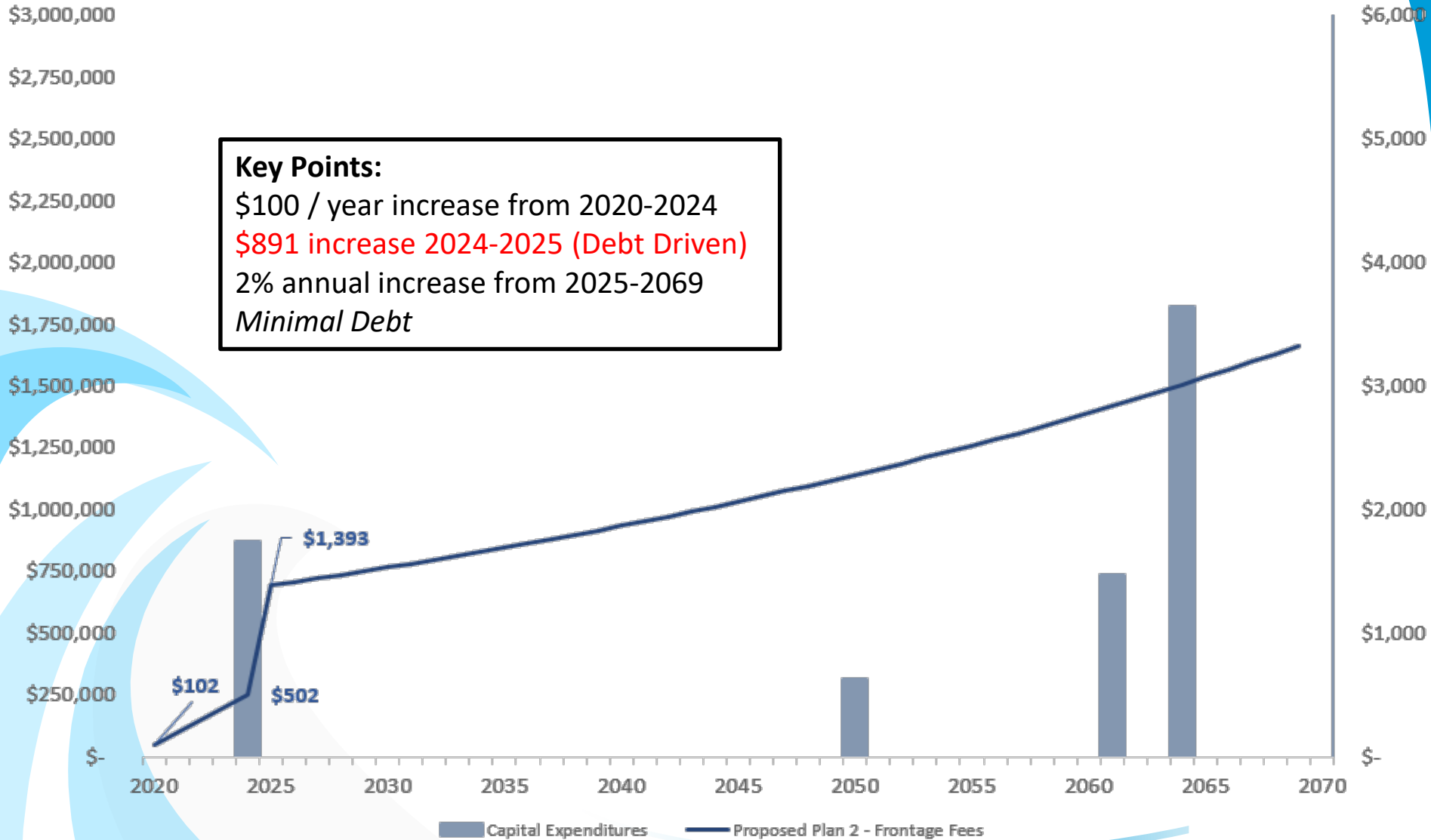
Key Points:

\$100 / year increase from 2020-2024

\$891 increase 2024-2025 (Debt Driven)

2% annual increase from 2025-2069

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50-Year Anticipated Capital Expenditures

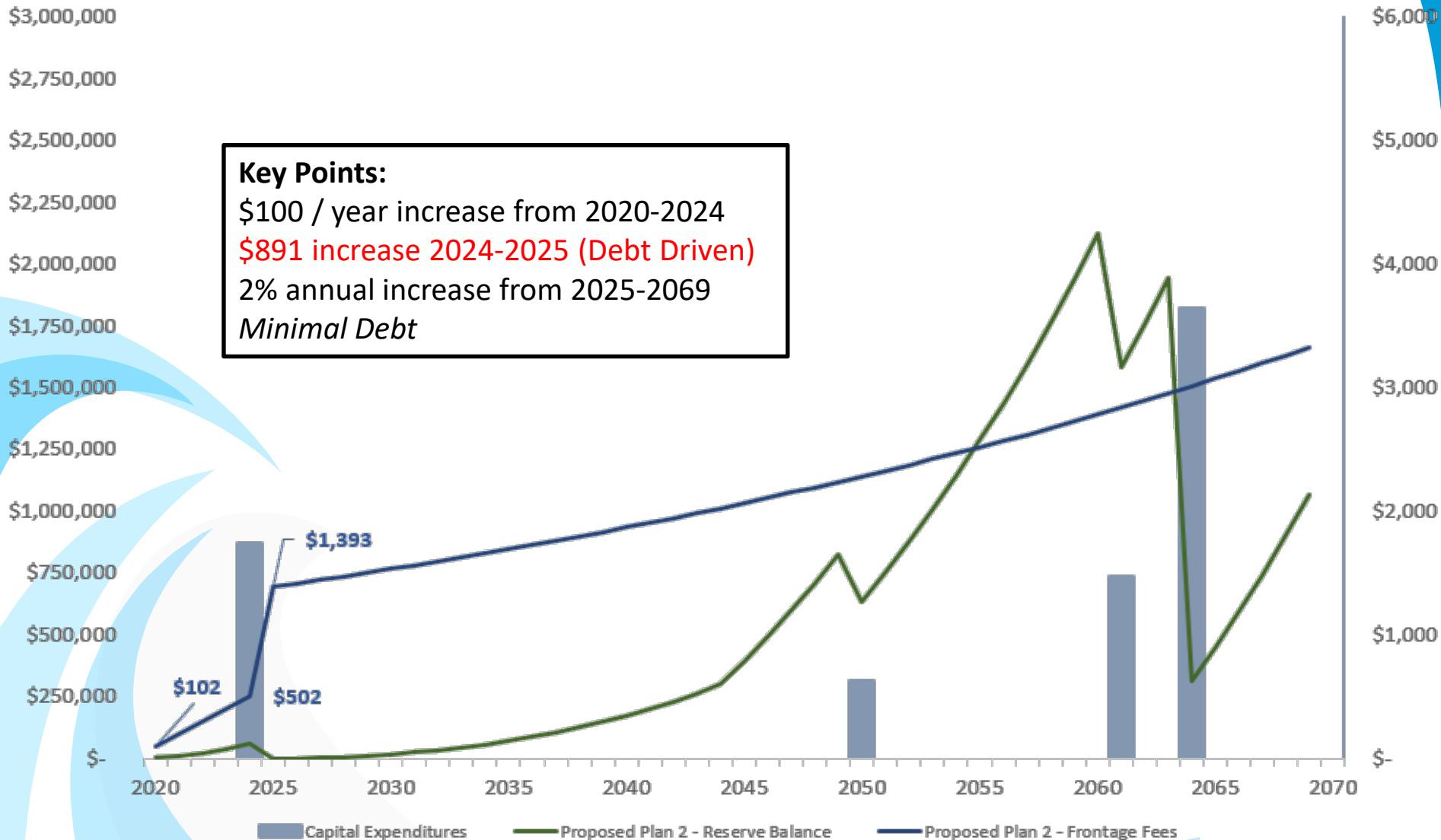
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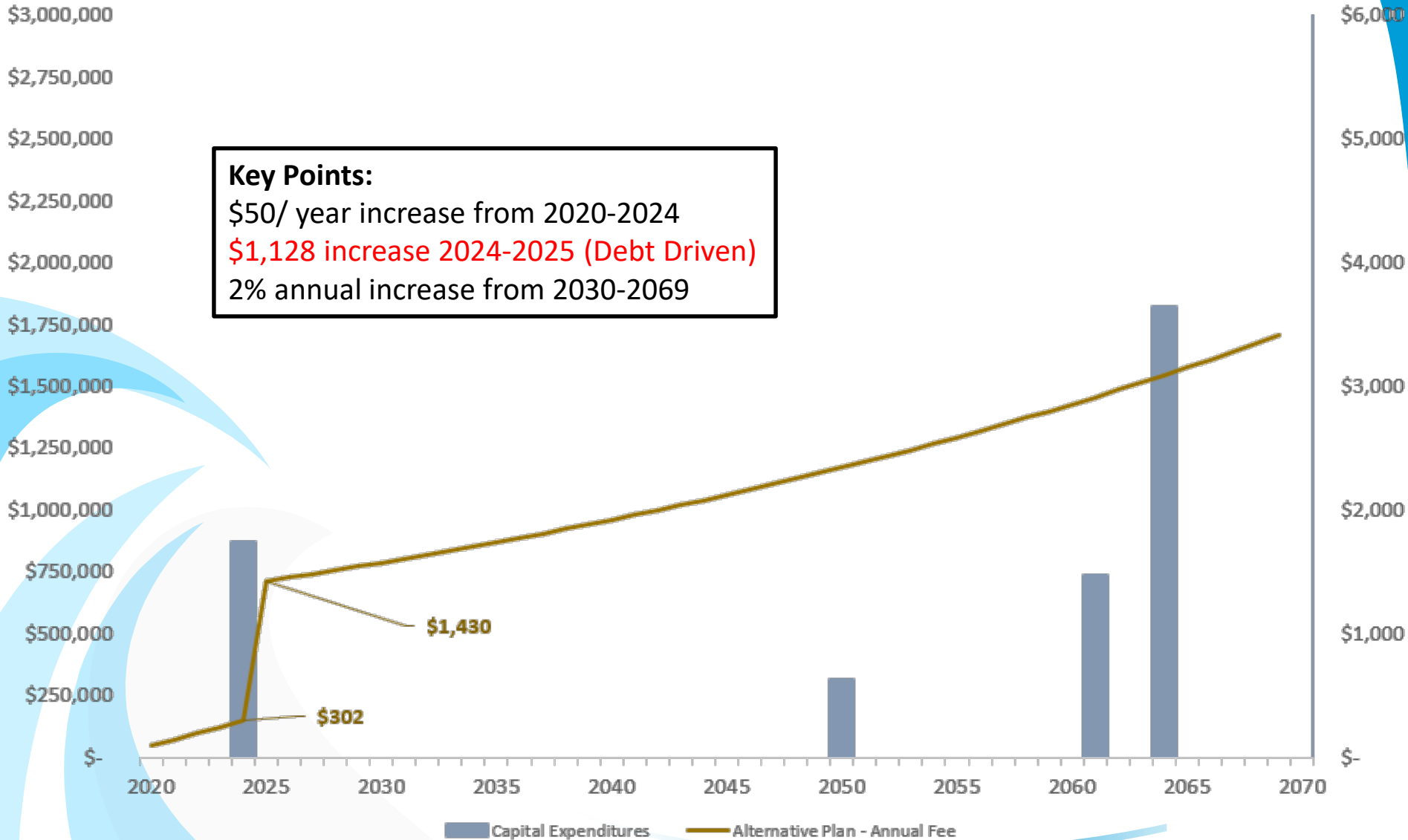
50-Year Anticipated Capital Expenditures

Key Points:

\$50/ year increase from 2020-2024

\$1,128 increase 2024-2025 (Debt Driven)

2% annual increase from 2030-2069



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50-Year Anticipated Capital Expenditures

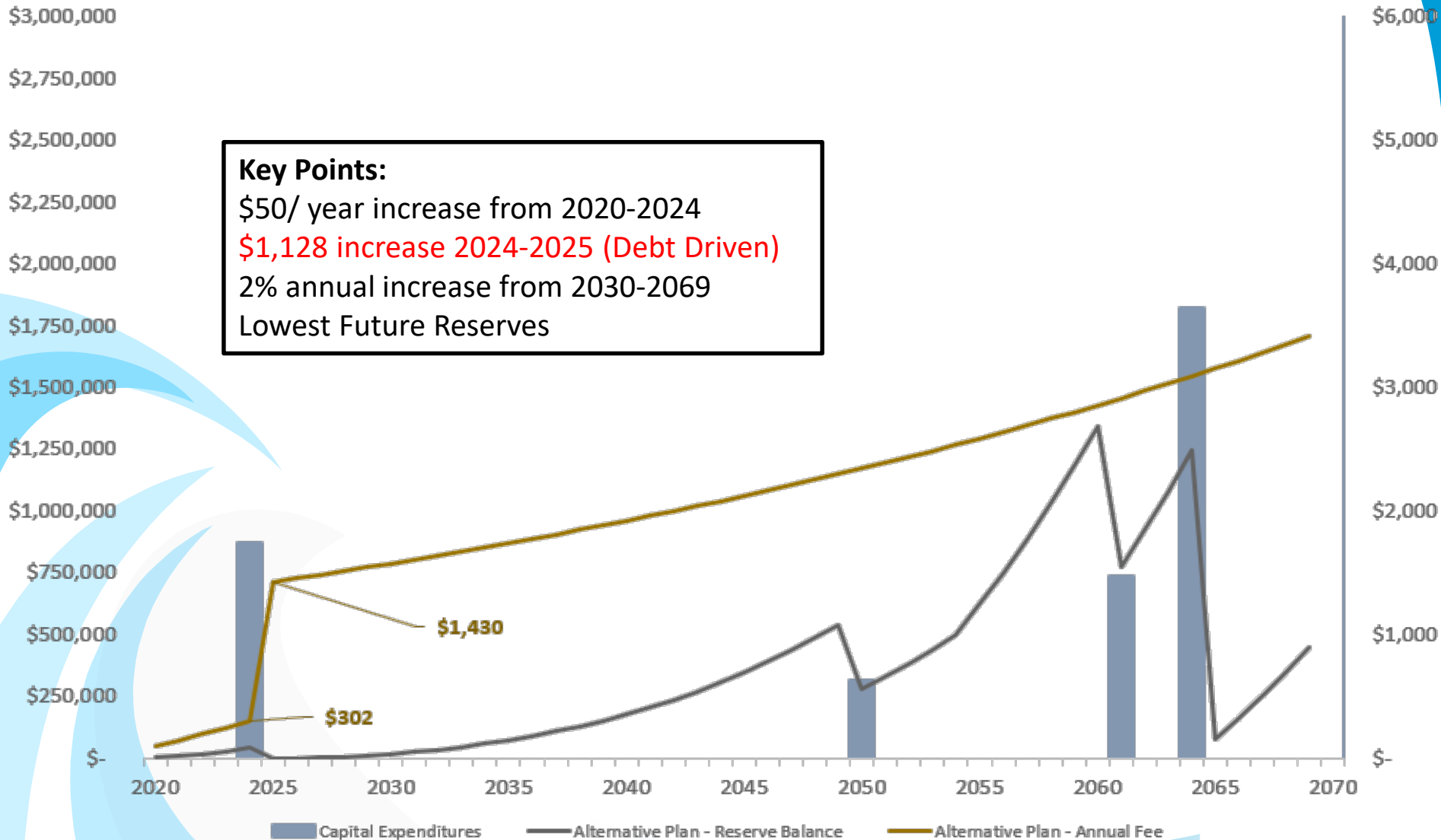
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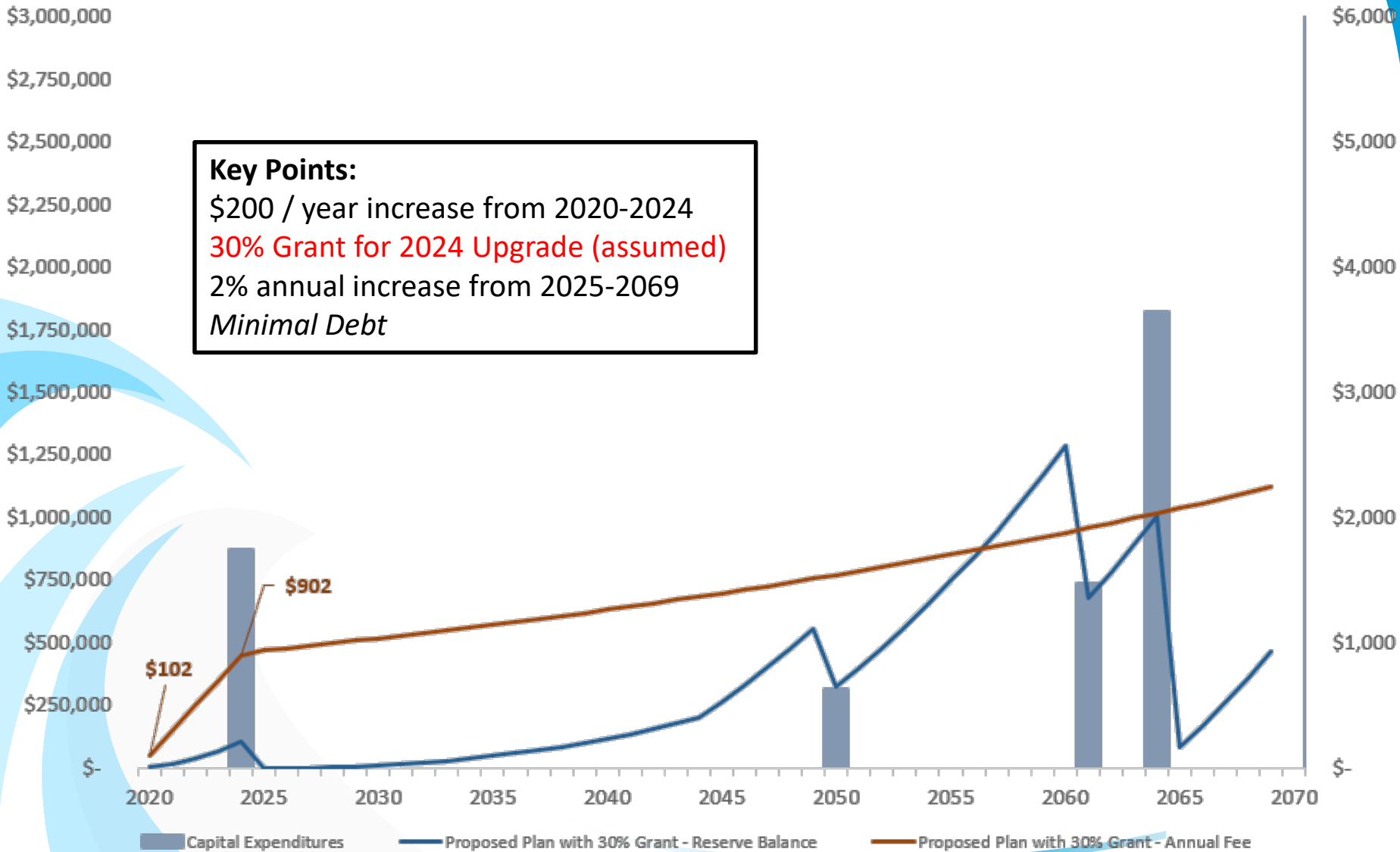
2% annual increase from 2030-2069

Lowest Future Reserves



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50-Year Anticipated Capital Expenditures



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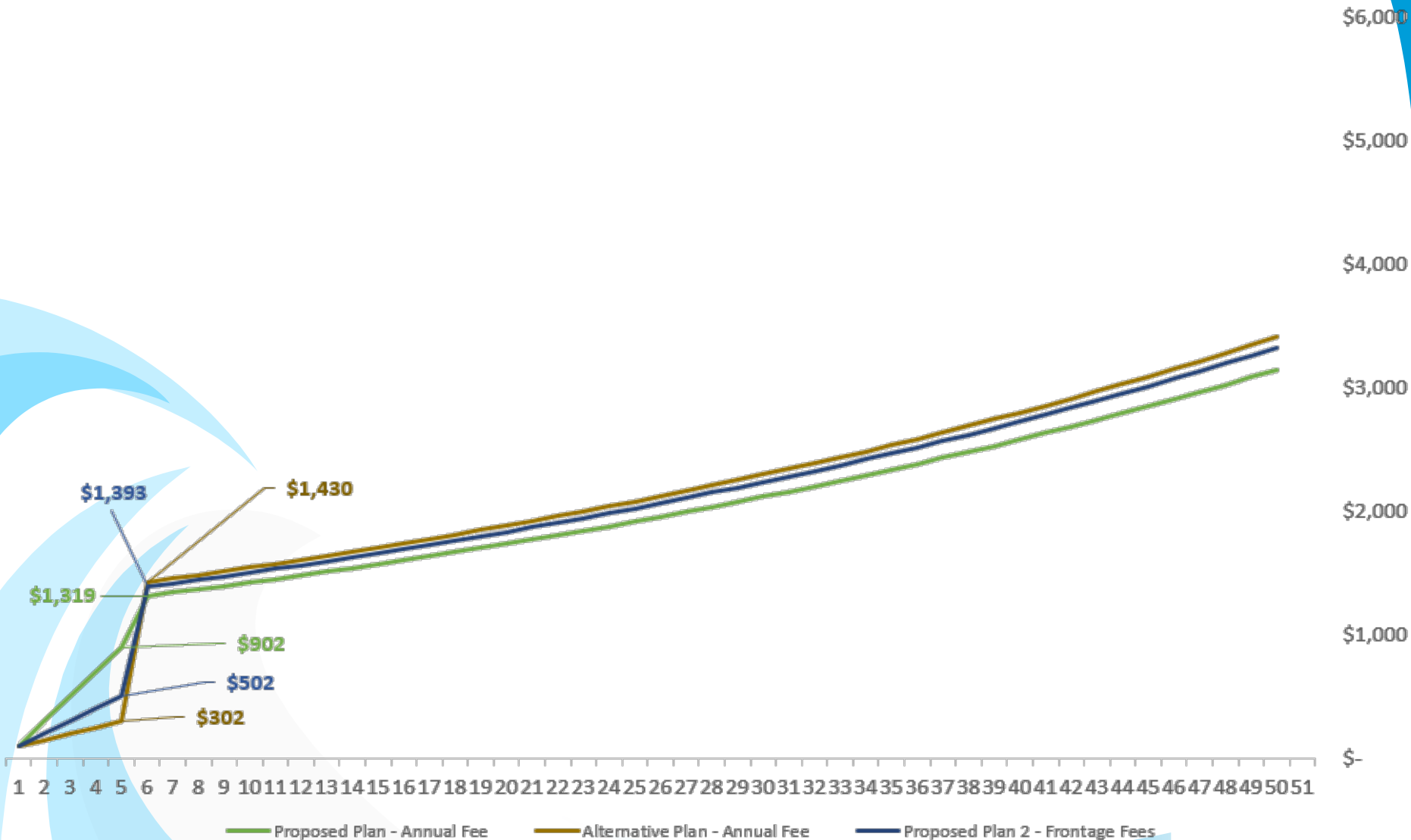
30% Grant for 2024 Upgrade (assumed)

2% annual increase from 2025-2069

Minimal Debt

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50-Year Anticipated Capital Expenditures



Five Year Rate Structure

- Proposing to introduce a Five Year Rate structure to create cost certainty
- Future rate adjustments will be introduced five years in advance



Five Year Rates

Langdale Frontage Fees (2020-2025)

	User Fee*	Plan 1	Total	Plan 2	Total	Alternative	Total
2020	\$924.98	\$102	\$1026.98	\$102	\$1026.98	\$102	\$1026.98
2021	\$924.98	\$302	\$1226.98	\$202	\$1126.98	\$152	\$1076.98
2022	\$924.98	\$502	\$1426.98	\$302	\$1226.98	\$202	\$1126.98
2023	\$924.98	\$702	\$1626.98	\$402	\$1326.98	\$252	\$1176.98
2024	\$924.98	\$902	\$1826.98	\$502	\$1426.98	\$302	\$1226.98
2025	\$924.98	\$1319	\$2243.98	\$1393	\$2317.98	\$1430	\$2354.98

*operating budget subject to annual review



Upcoming work

- Finalize Capital Funding Model
 - Final review of work to date.
- Continue to pursue grant opportunities for future work
- Review results of upcoming feasibility study
- Present 5-year Rate Structure for Board Consideration
 - Provide residents with near-term rate certainty.
- Review O&M Budget (Annual Process)
 - Refine annual projection of maintenance costs.
 - Ensure appropriate Operating Reserve



Conclusion

- Current rates are not financially sustainable.
- Multiple ways to finance 50-year Capital Expenditures.
- Annual Review will maintain up-to date information



Questions?

- www.scrd.ca/langdale
- www.scrd.ca/wastewater
- info@scrd.ca

