



Corporation of the Township of Chapleau
Water and Wastewater Cost for Service Rate Study
Presentation of Analysis and Recommendations



Chapter 1

Introduction to the Study

Water and Wastewater Rate Study

Overview

- Commissioned to address a range of issues:
 - Regulatory requirements under Ontario Regulation 453/07
 - Provide a fair and equitable approach to linking costs with each category of customer class
 - Identify the costs and benefits of expanded water metering
 - Assess the overall cost competitiveness of Chapleau compared to peer communities
 - Identify current and future capital reinvestment requirements and funding sources

- Key deliverables
 - Historical consumption, financial and operational review
 - Comparison with other municipalities
 - Projected consumption levels, capital requirements and financial performance
 - Implementation and communication recommendations

Water and Wastewater Rate Study

Sustainability Best Practices

- A sustainable financial model provides for a level of revenue that allows for reliable service that:
 - Meets or exceeds environmental protection standards
 - Provides sufficient resources for future rehabilitation and replacement needs

- The development of a sustainable financial model should reflect the following:
 - Public engagement and transparency
 - Integrated approach involving water, wastewater and stormwater systems
 - Application of revenues to water and wastewater services only
 - Long-term planning (with corrections) as opposed to short-term planning
 - Asset management planning
 - Users pay for the services they receive
 - Ongoing reviews, including comparison of forecasted and actual results, are key
 - Input of all functional areas

Water and Wastewater Rate Study

Building a Sustainable Model

Former basis of accounting

Current basis of accounting

Debt principal repayment

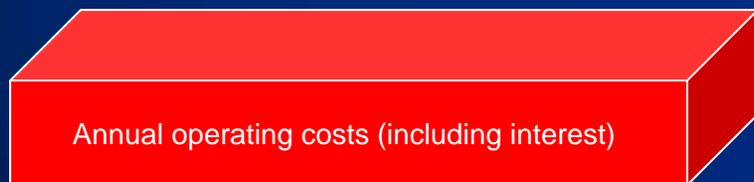
Water and Wastewater Rate Study

Building a Sustainable Model

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Debt principal repayment



Current period expense

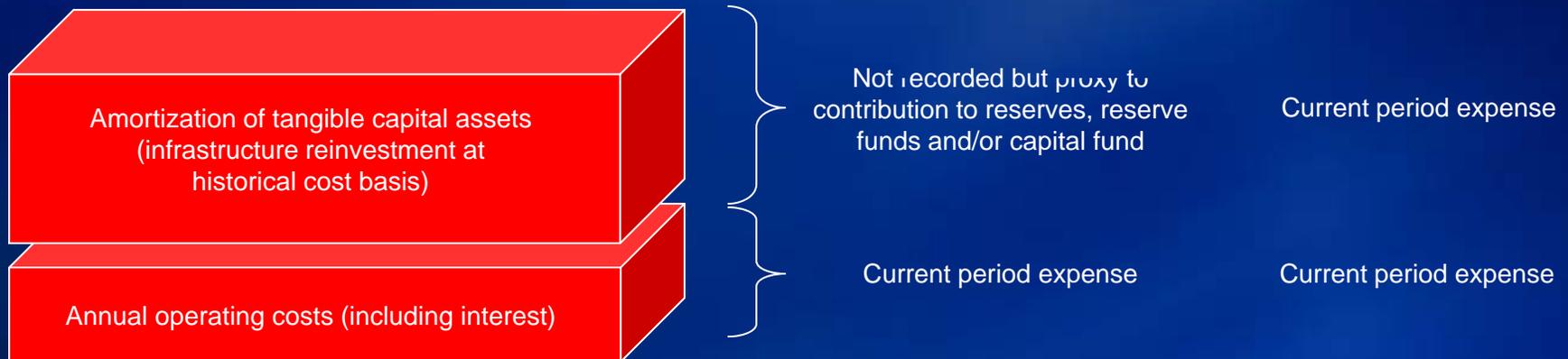
Current period expense

Water and Wastewater Rate Study

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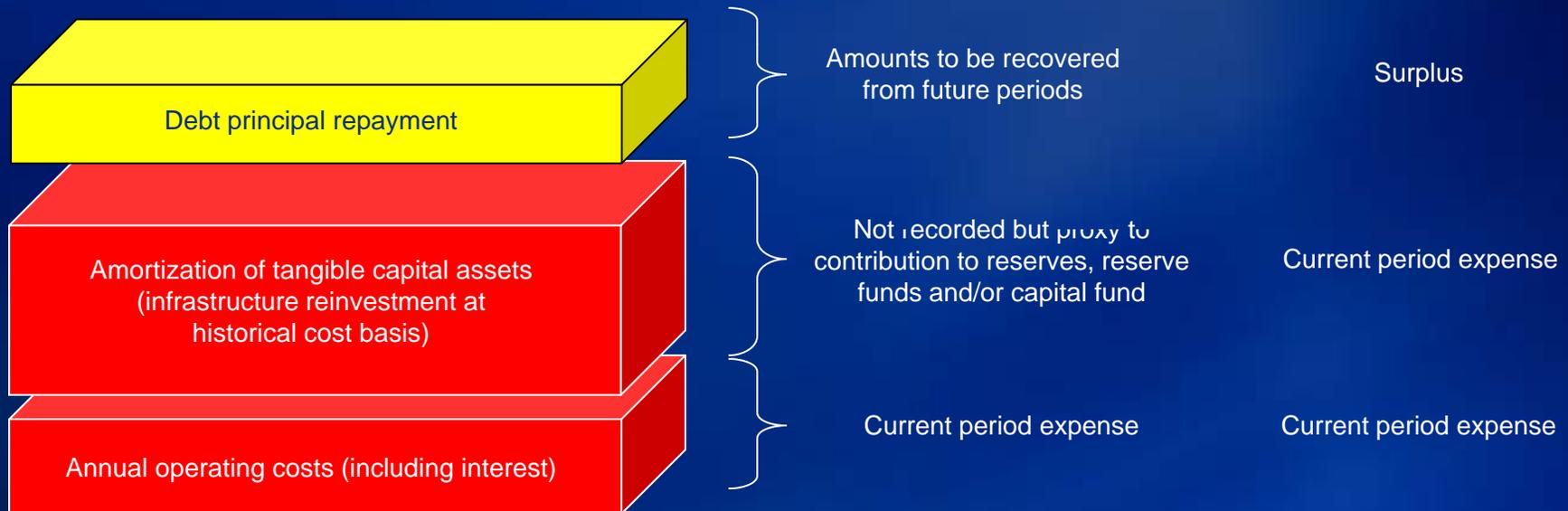


Water and Wastewater Rate Study

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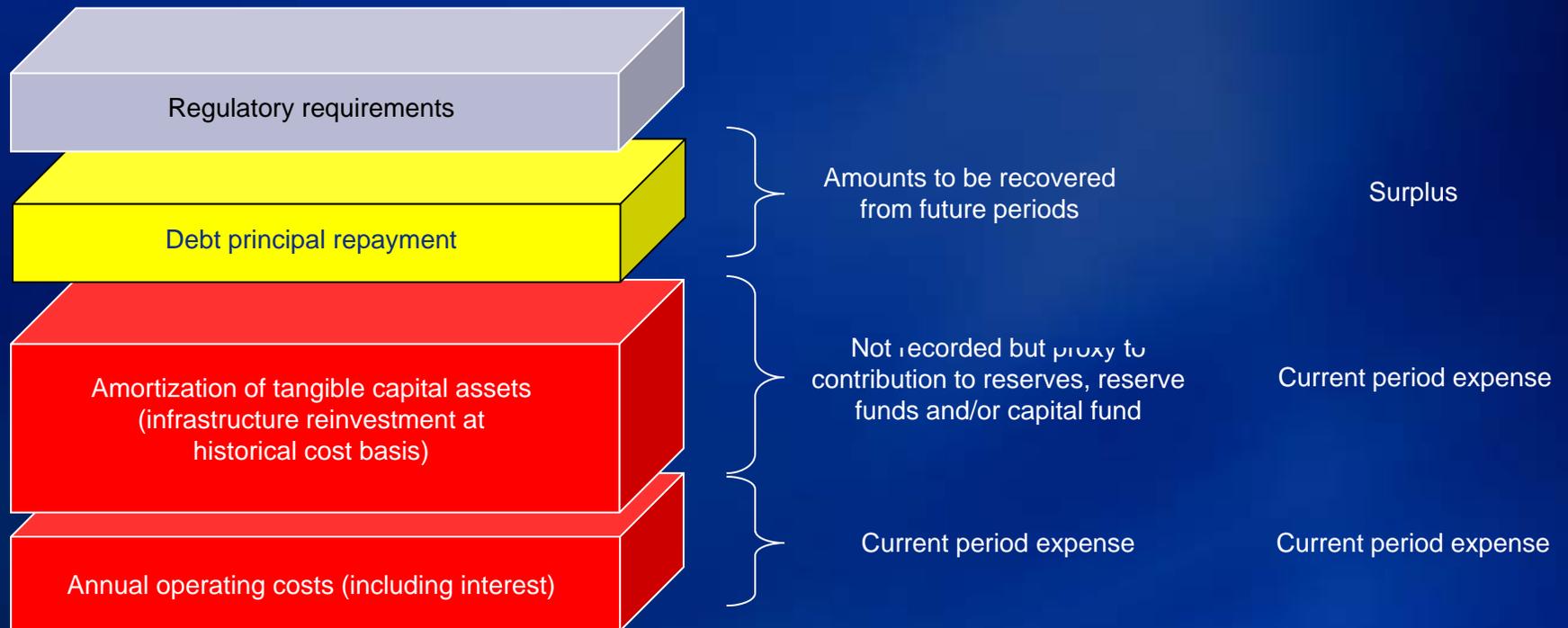


Water and Wastewater Rate Study

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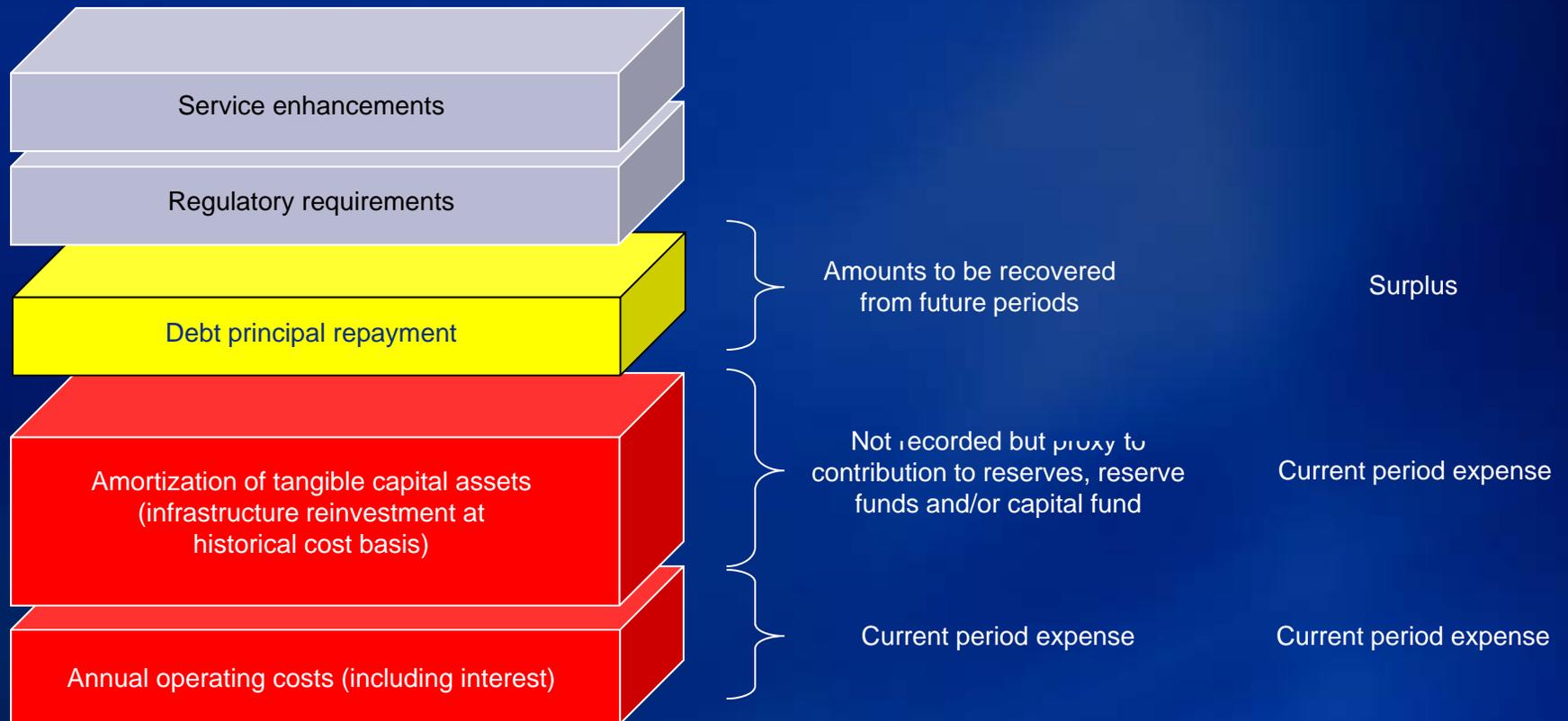


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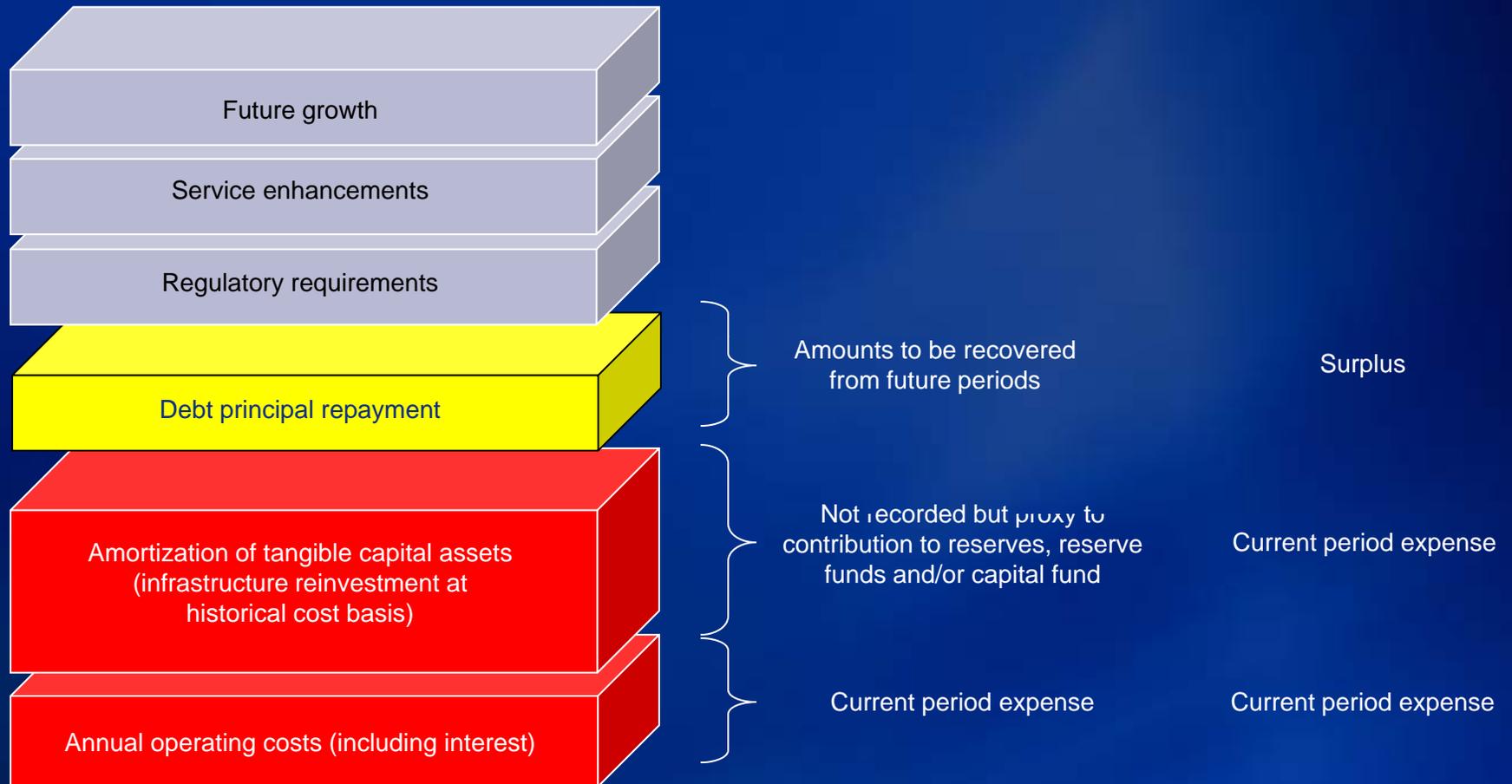


Water and Wastewater Rate Study

Building a Sustainable Model

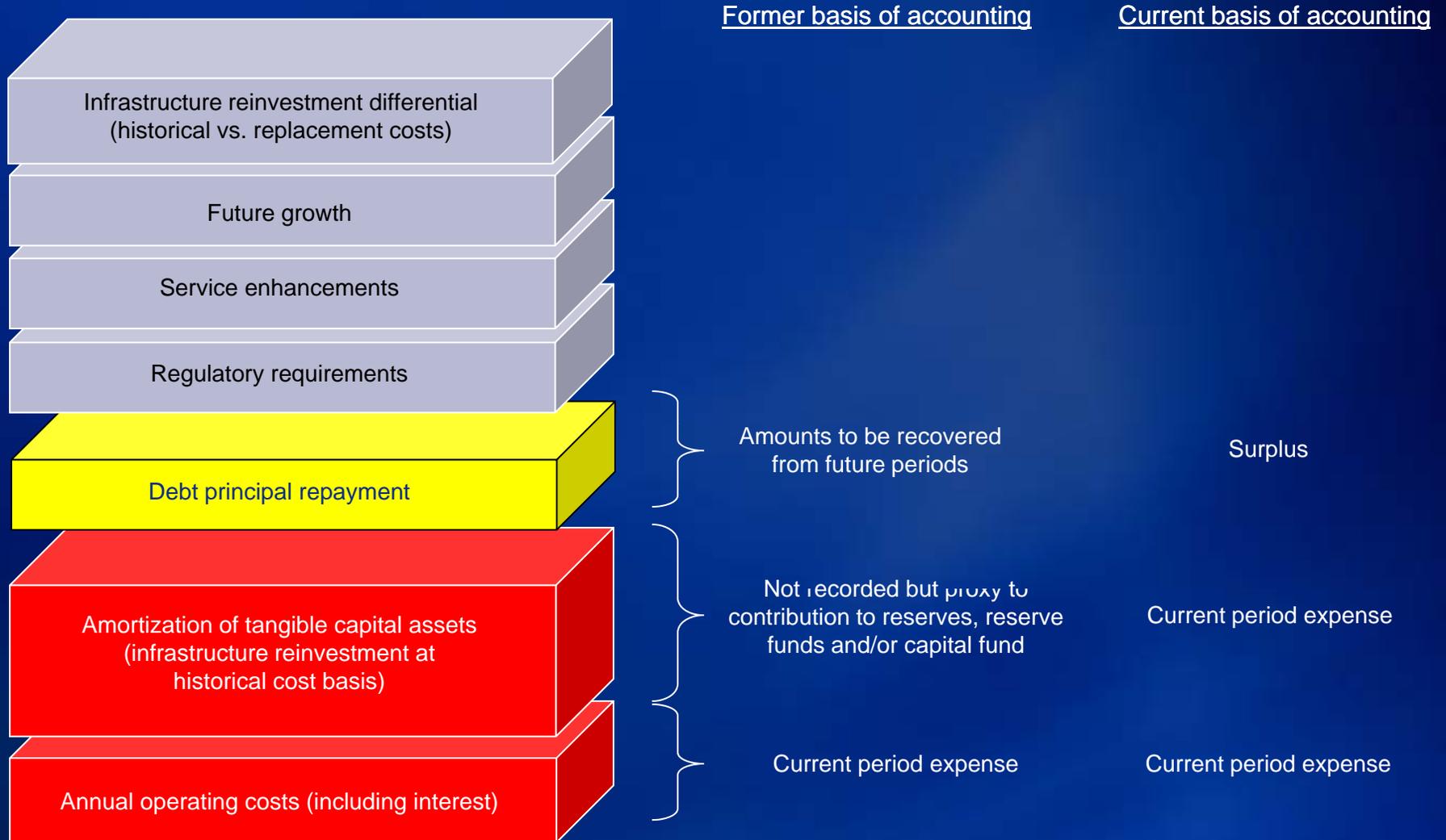
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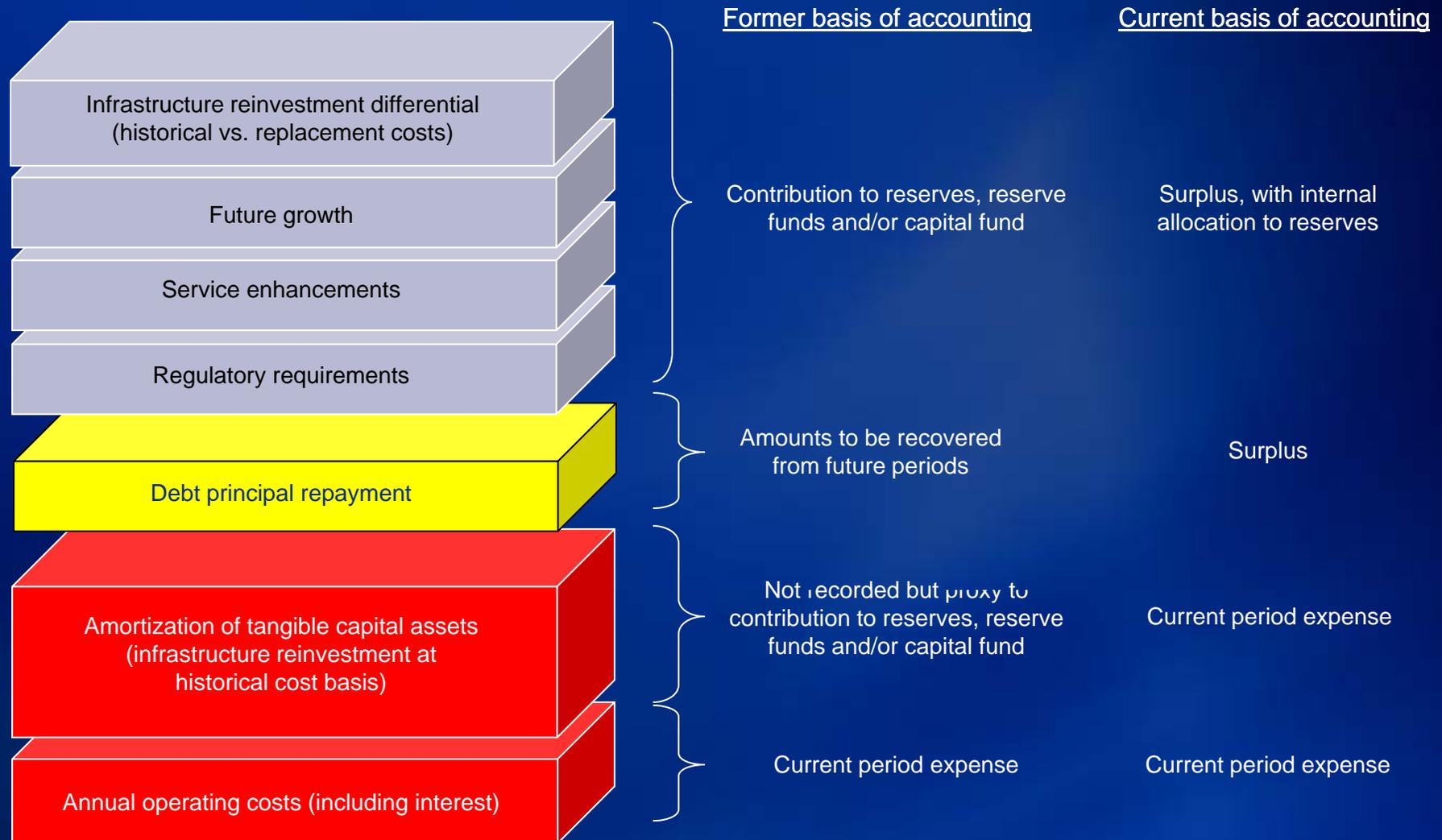
Water and Wastewater Rate Study

Building a Sustainable Model



Water and Wastewater Rate Study

Building a Sustainable Model





Chapter 2

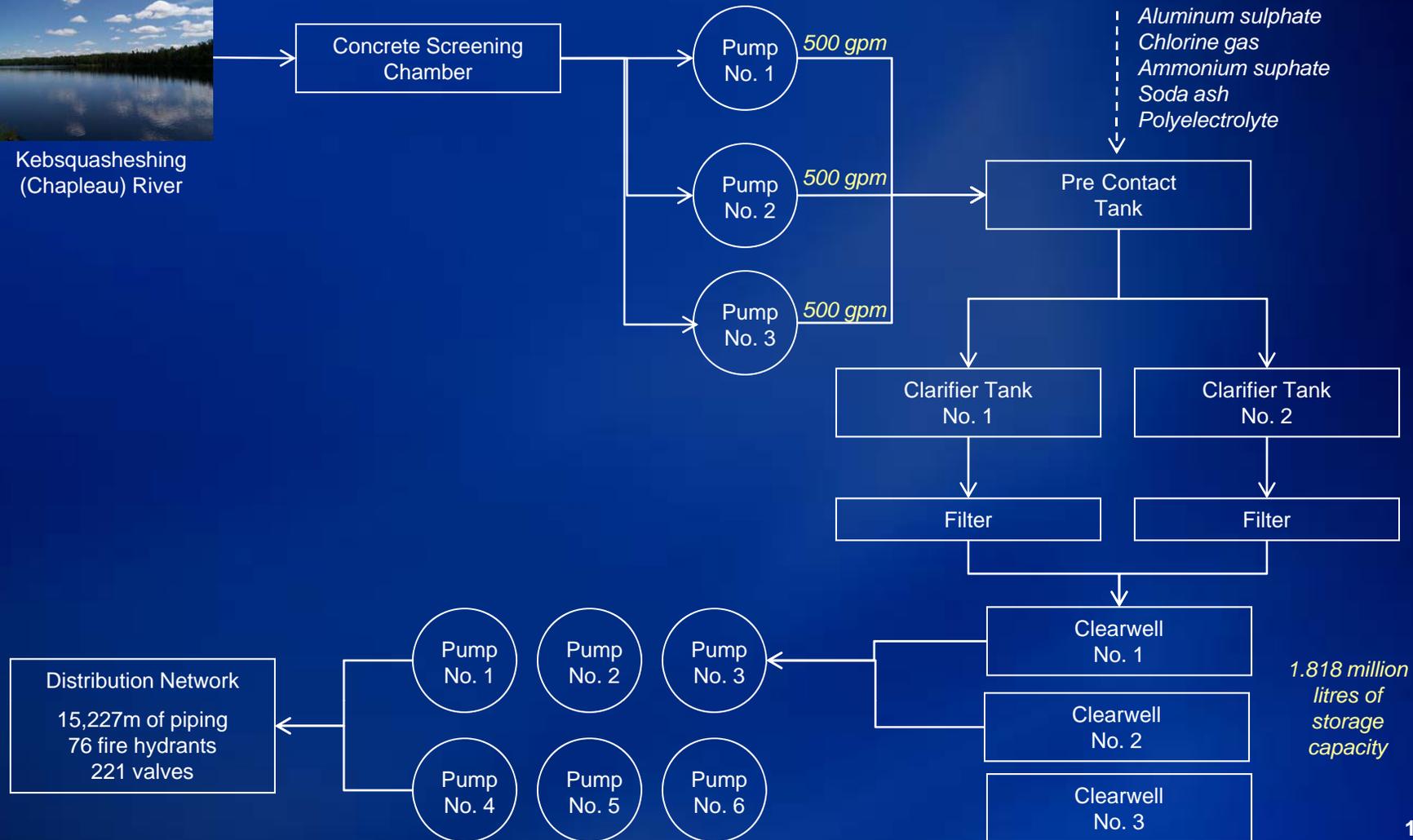
Overview of Chapleau's Water and Wastewater System

Overview of Water and Wastewater Operations

Water Treatment and Distribution



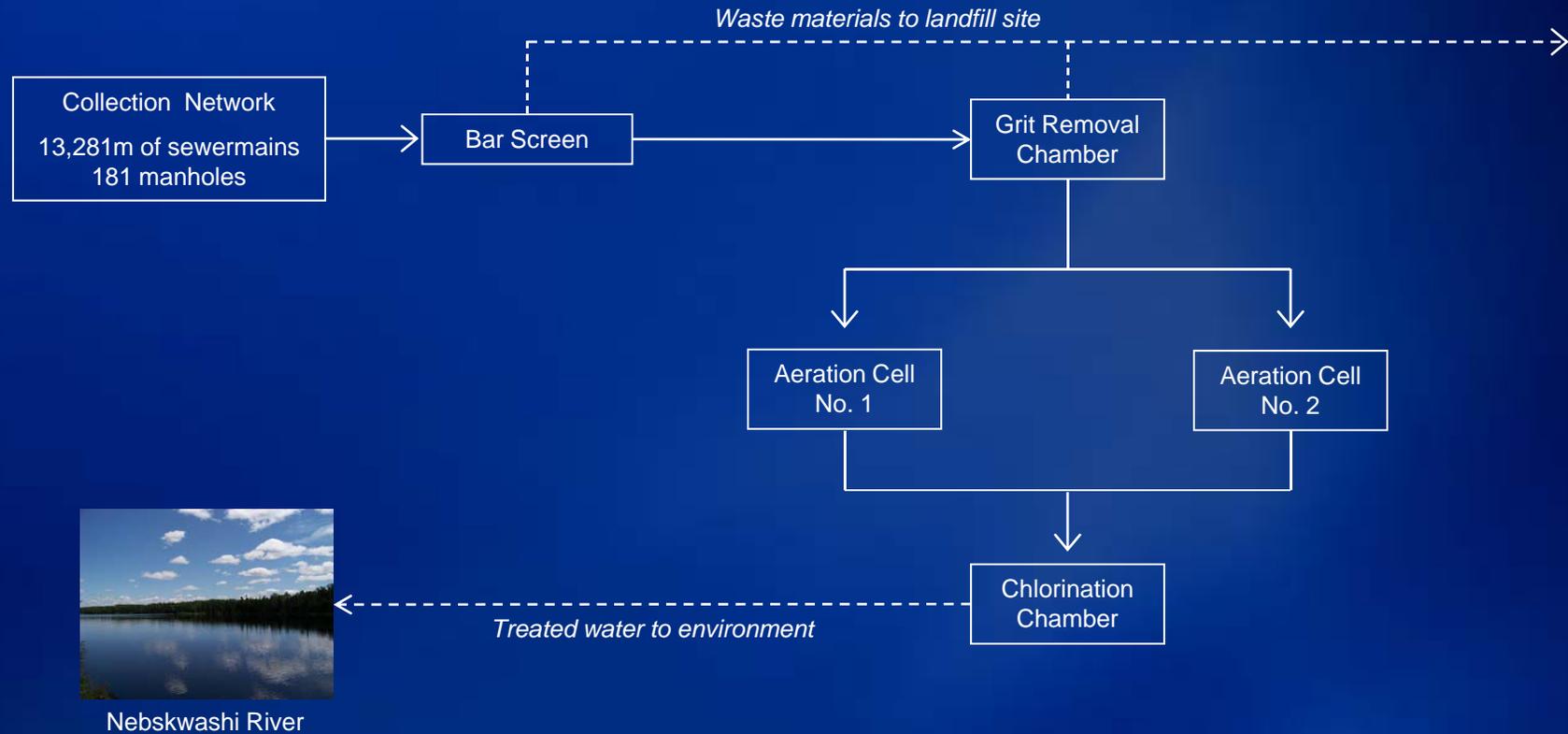
Kebsquasheshing
(Chapleau) River



1.818 million
litres of
storage
capacity

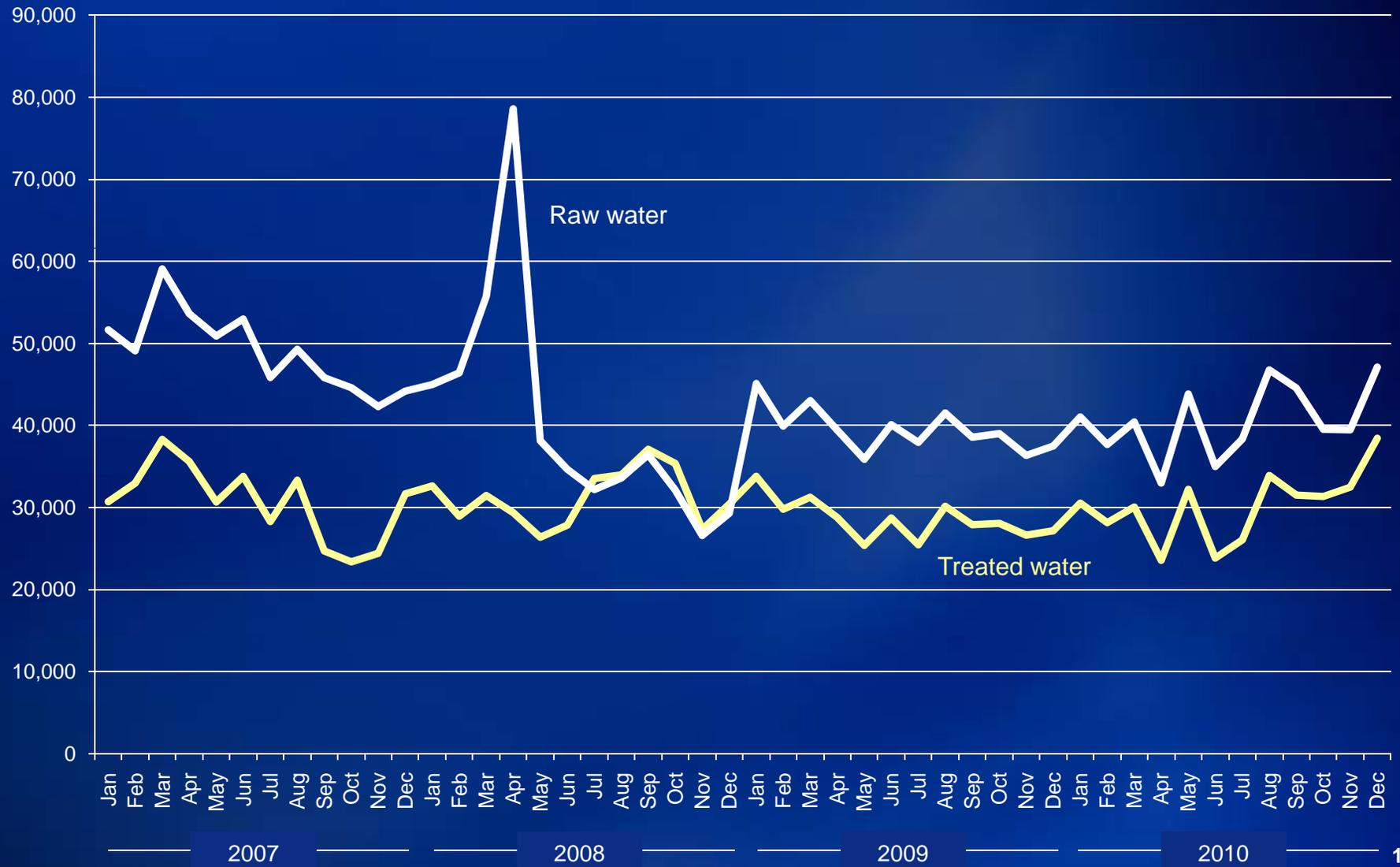
Overview of Water and Wastewater Operations

Wastewater Collection and Treatment



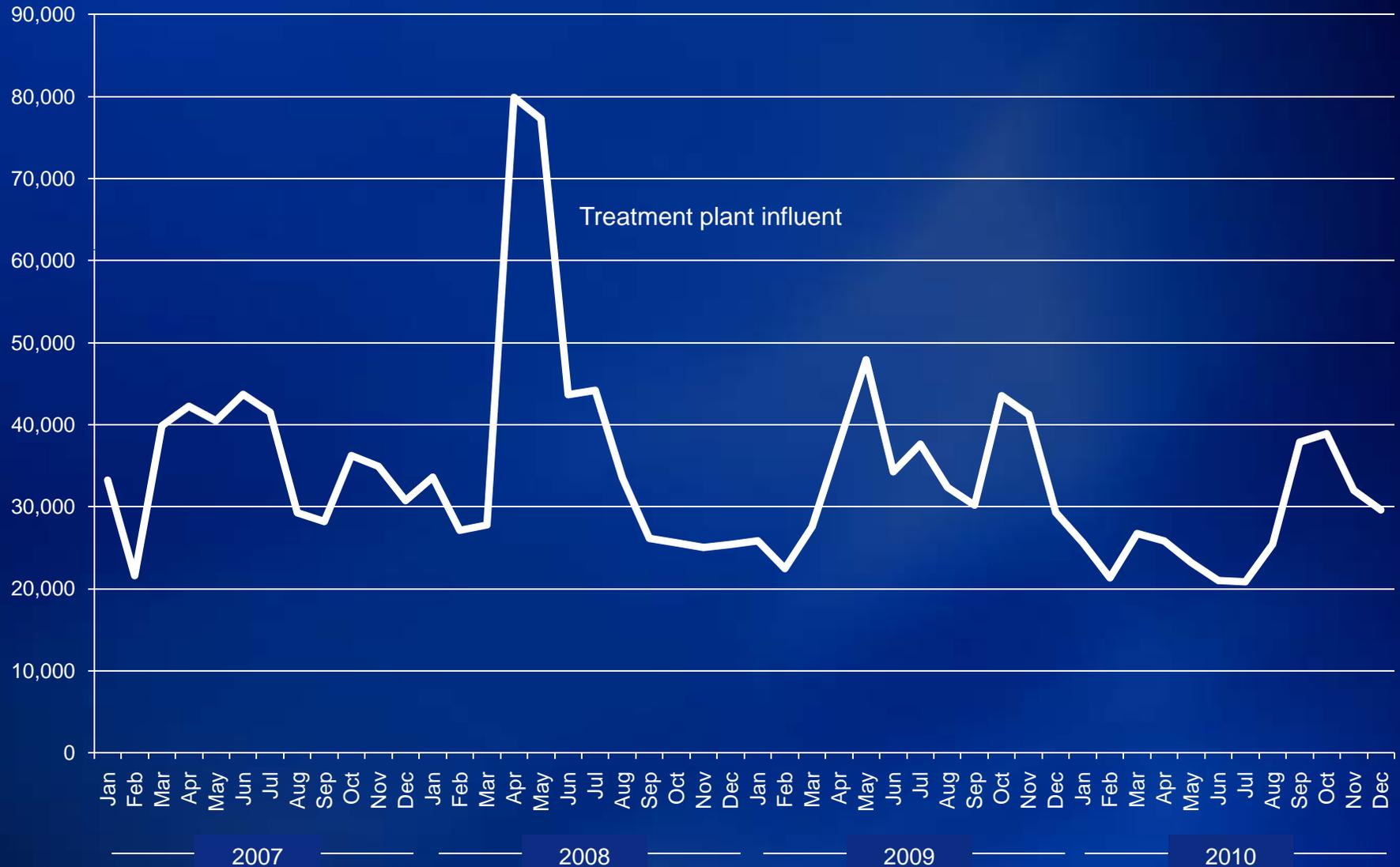
Overview of Water and Wastewater Operations

Water Production Volumes (in m³)



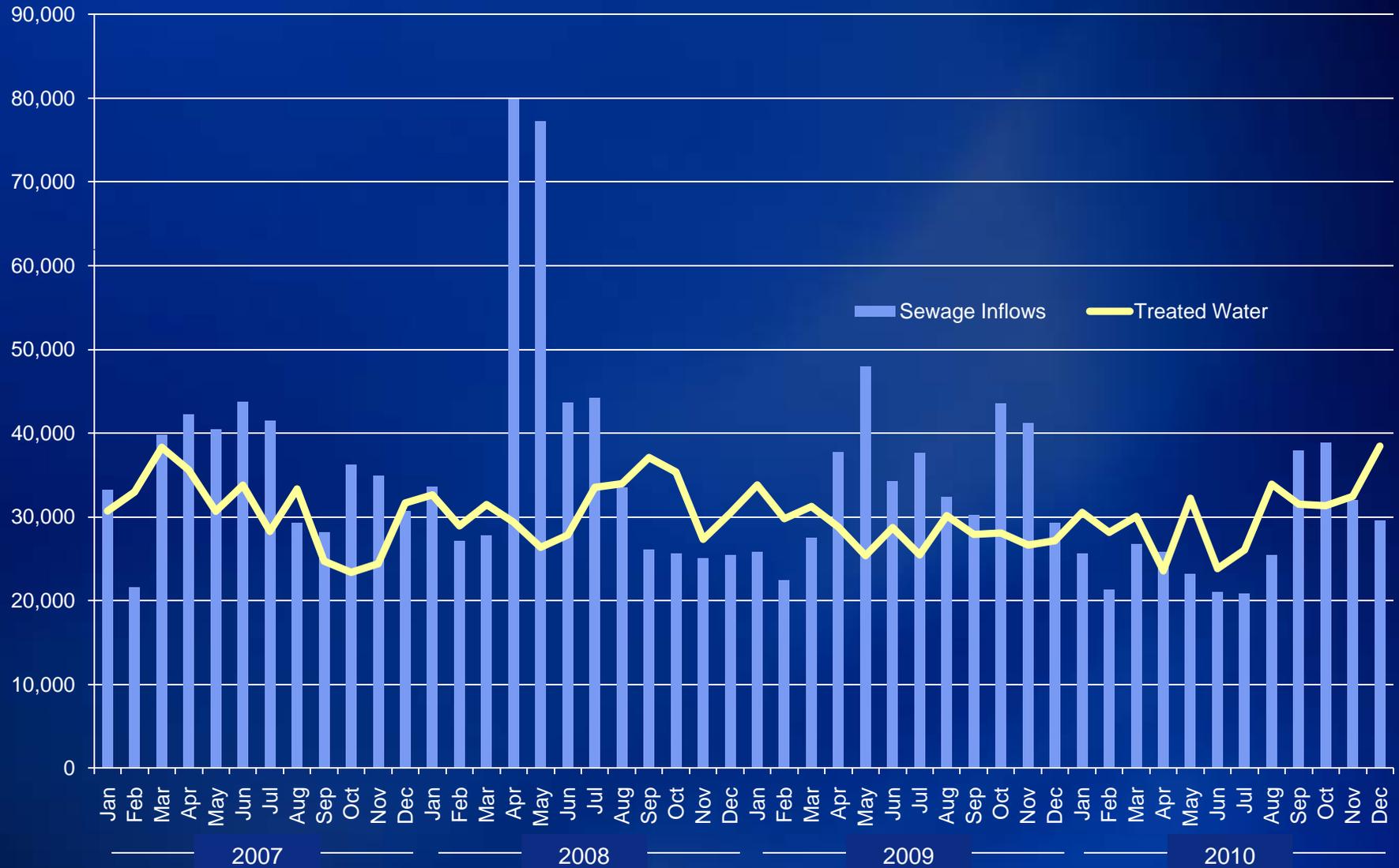
Overview of Water and Wastewater Operations

Wastewater Processing Flows (in m³)



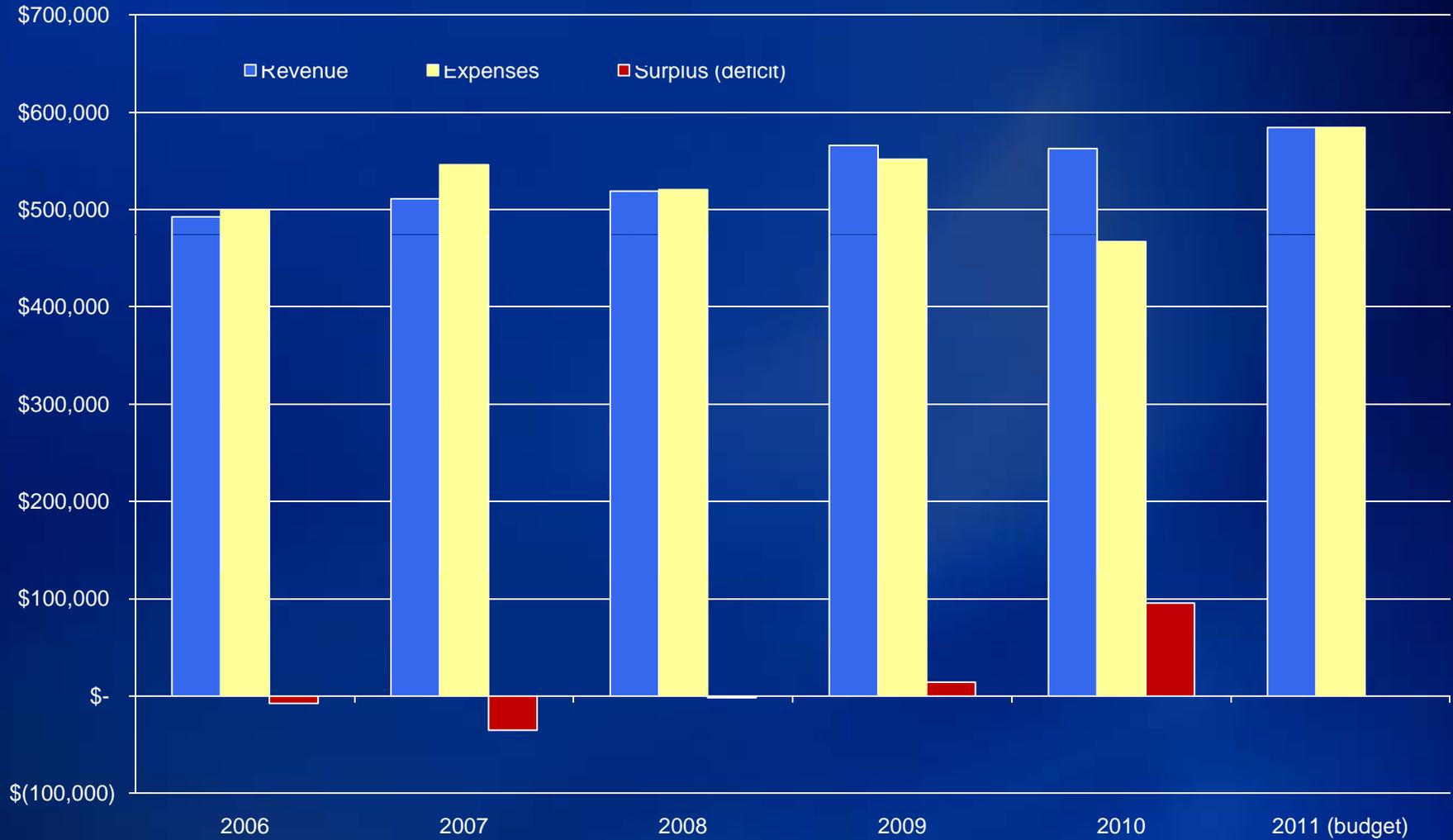
Overview of Water and Wastewater Operations

Infiltration (in m³)



Overview of Water Operations

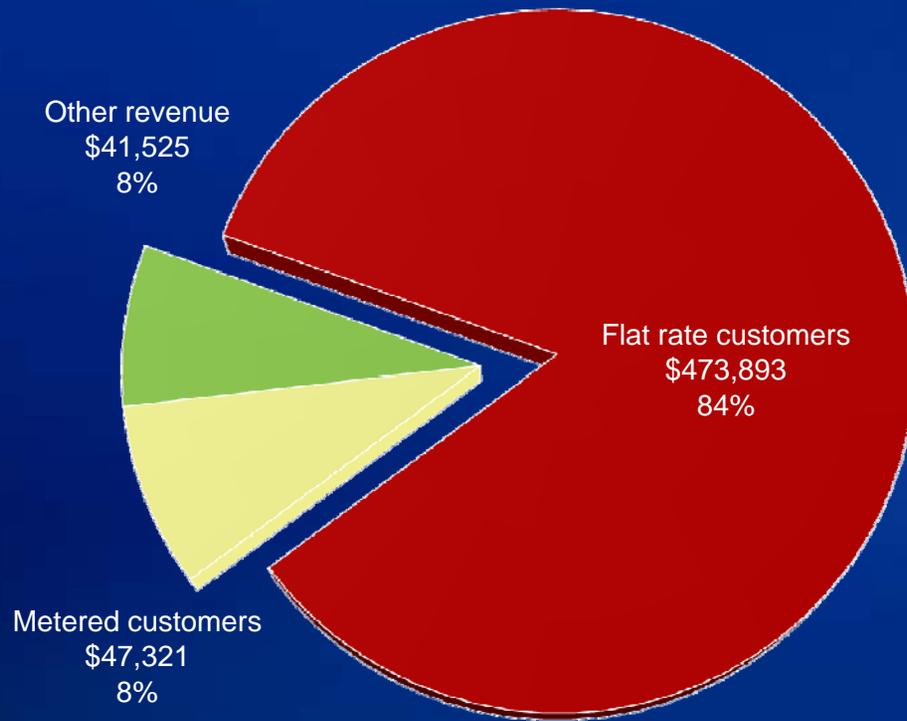
Financial Performance



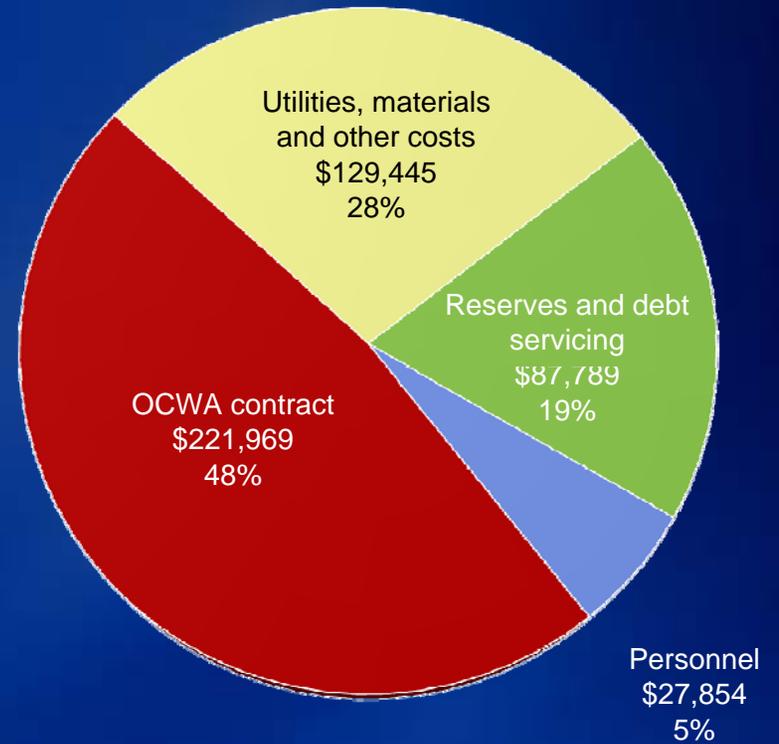
Overview of Water Operations

Revenue and Expenditure Details (2010)

Revenues by Source

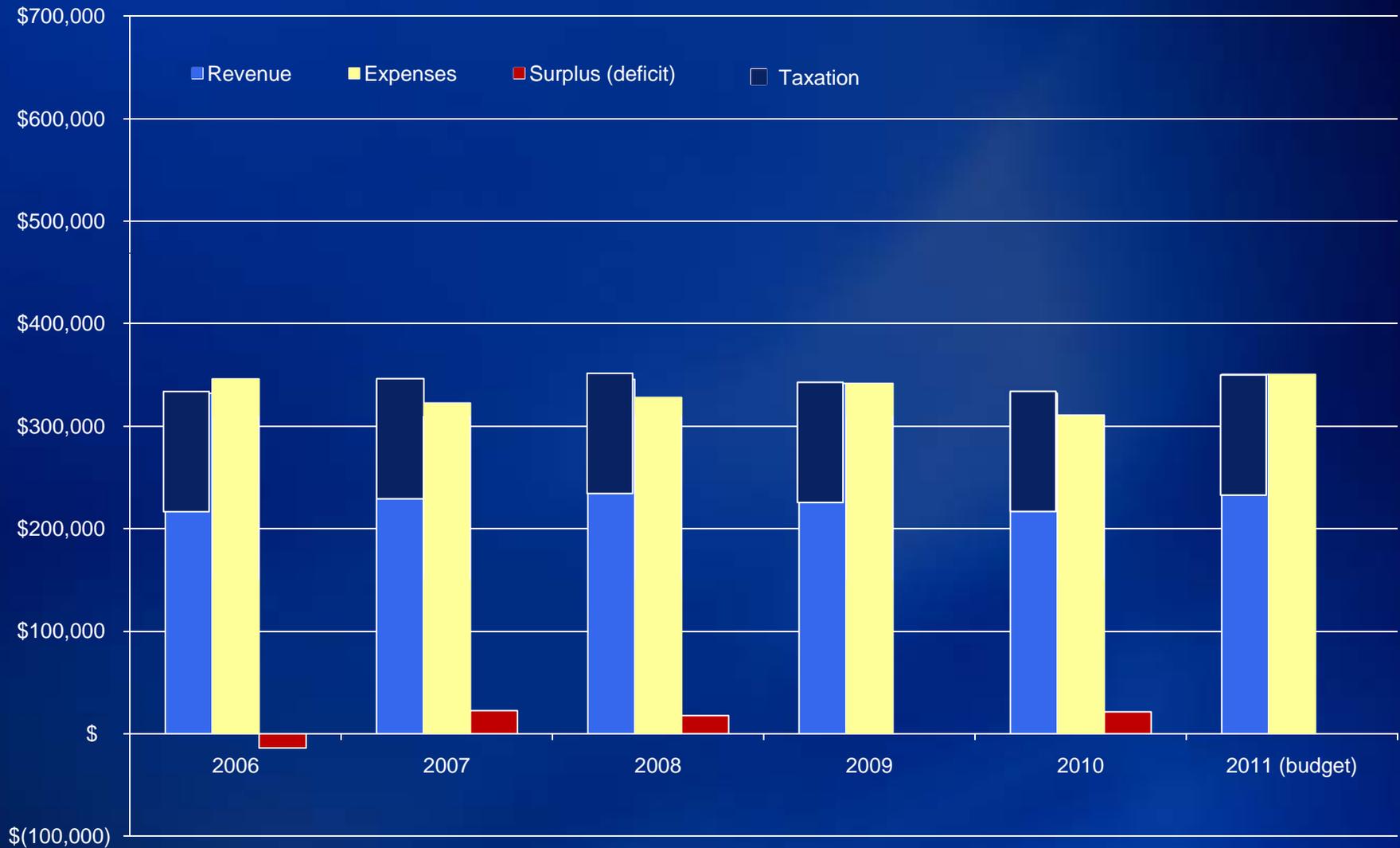


Operating Expenses by Type



Overview of Wastewater Operations

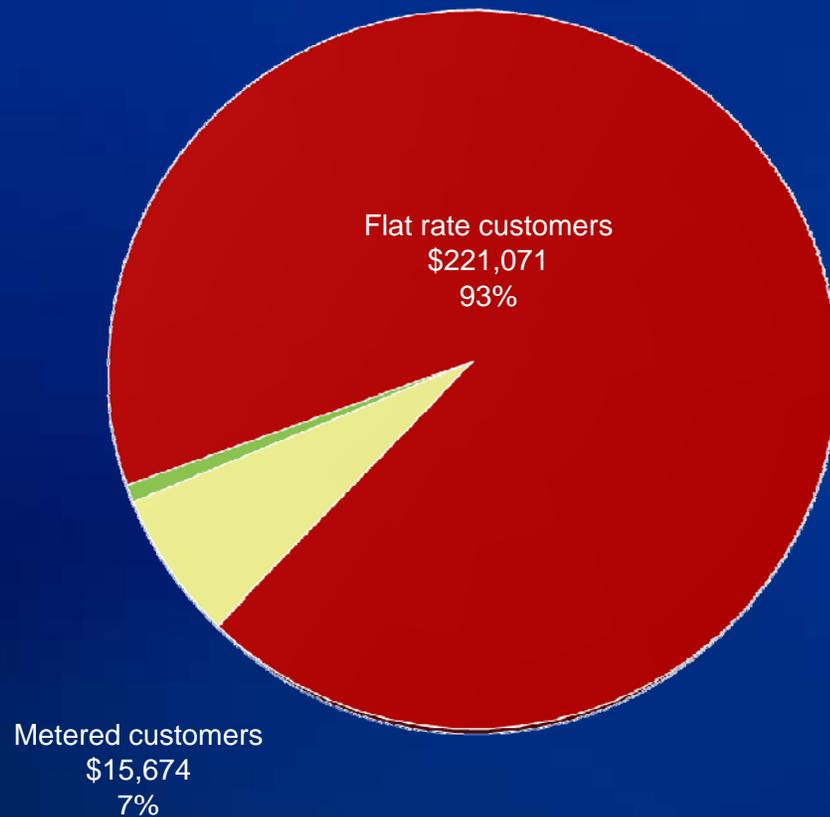
Financial Performance



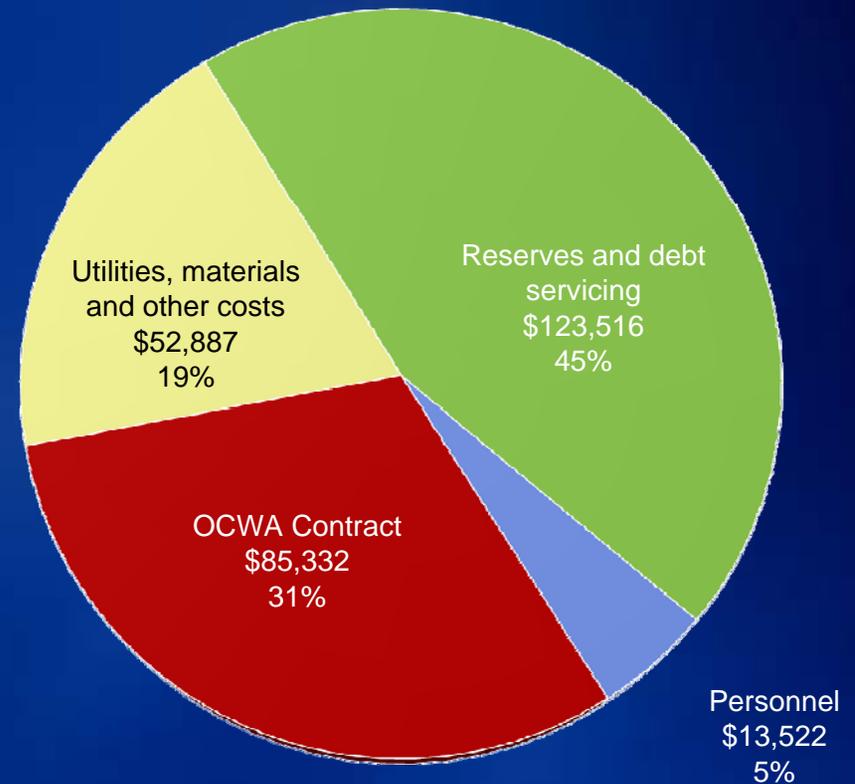
Overview of Wastewater Operations

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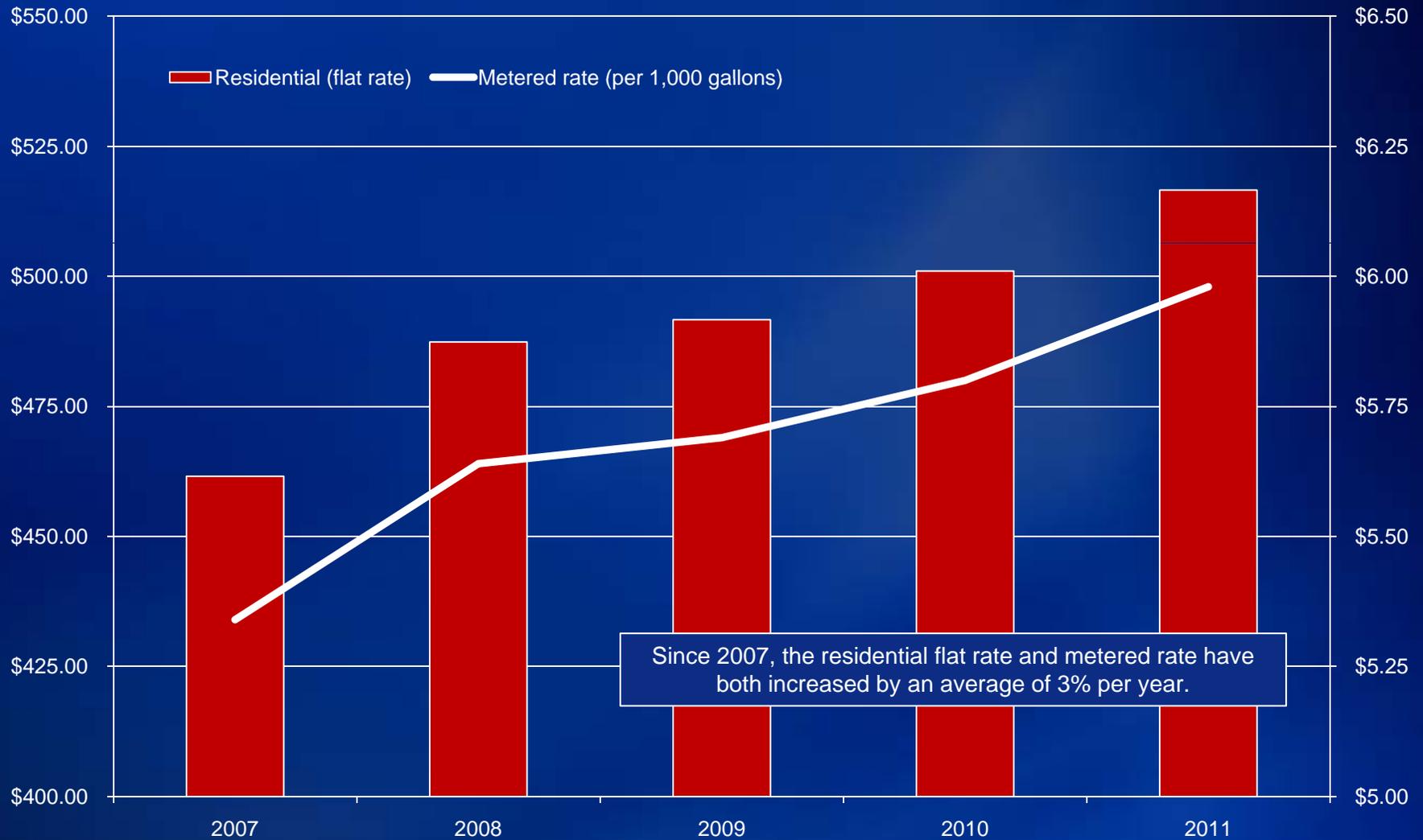


Operating Expenses by Type



Overview of Water and Wastewater Operations

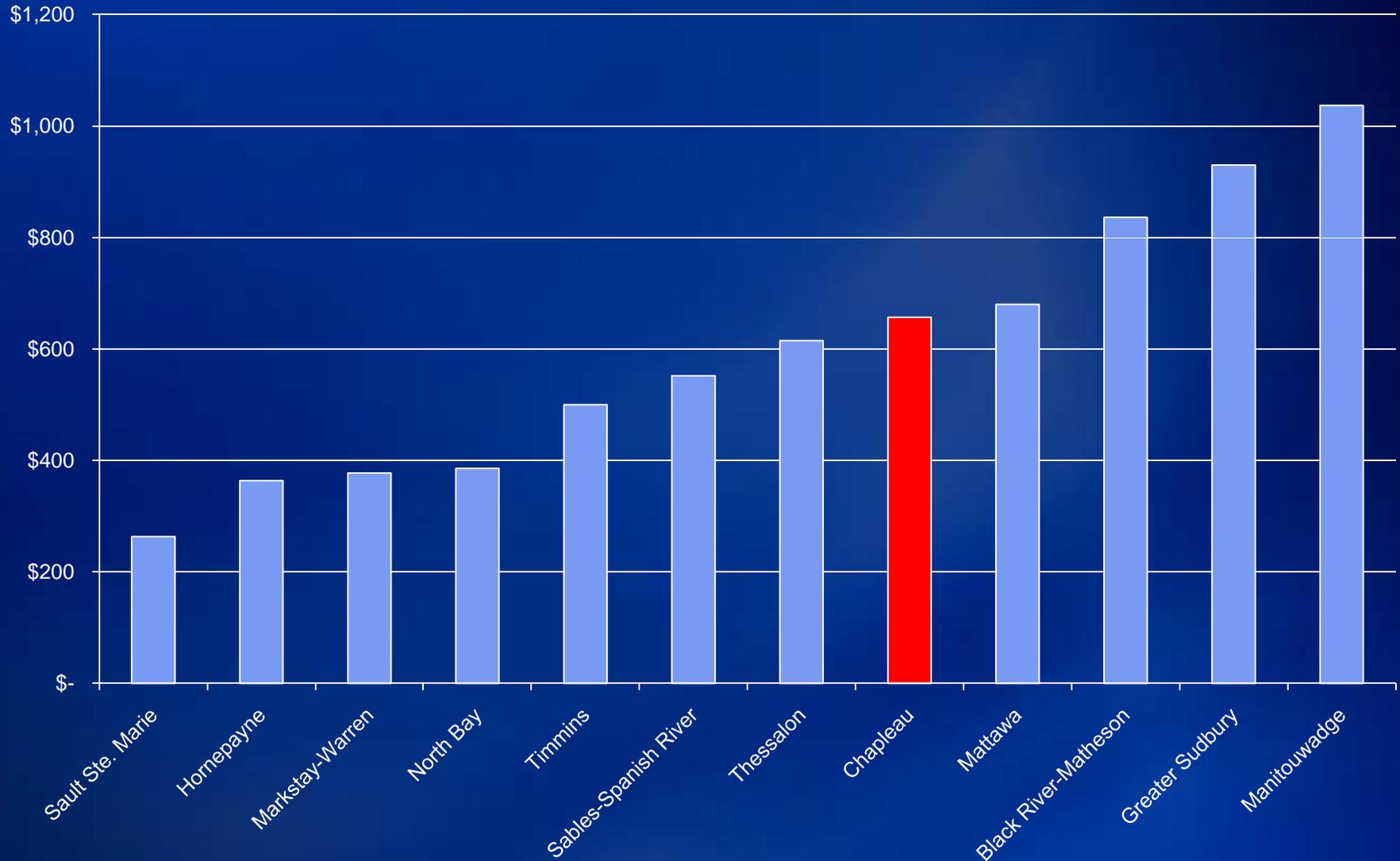
Rate History



Water and Wastewater Rates for Chapleau

Comparative Water and Wastewater Costs

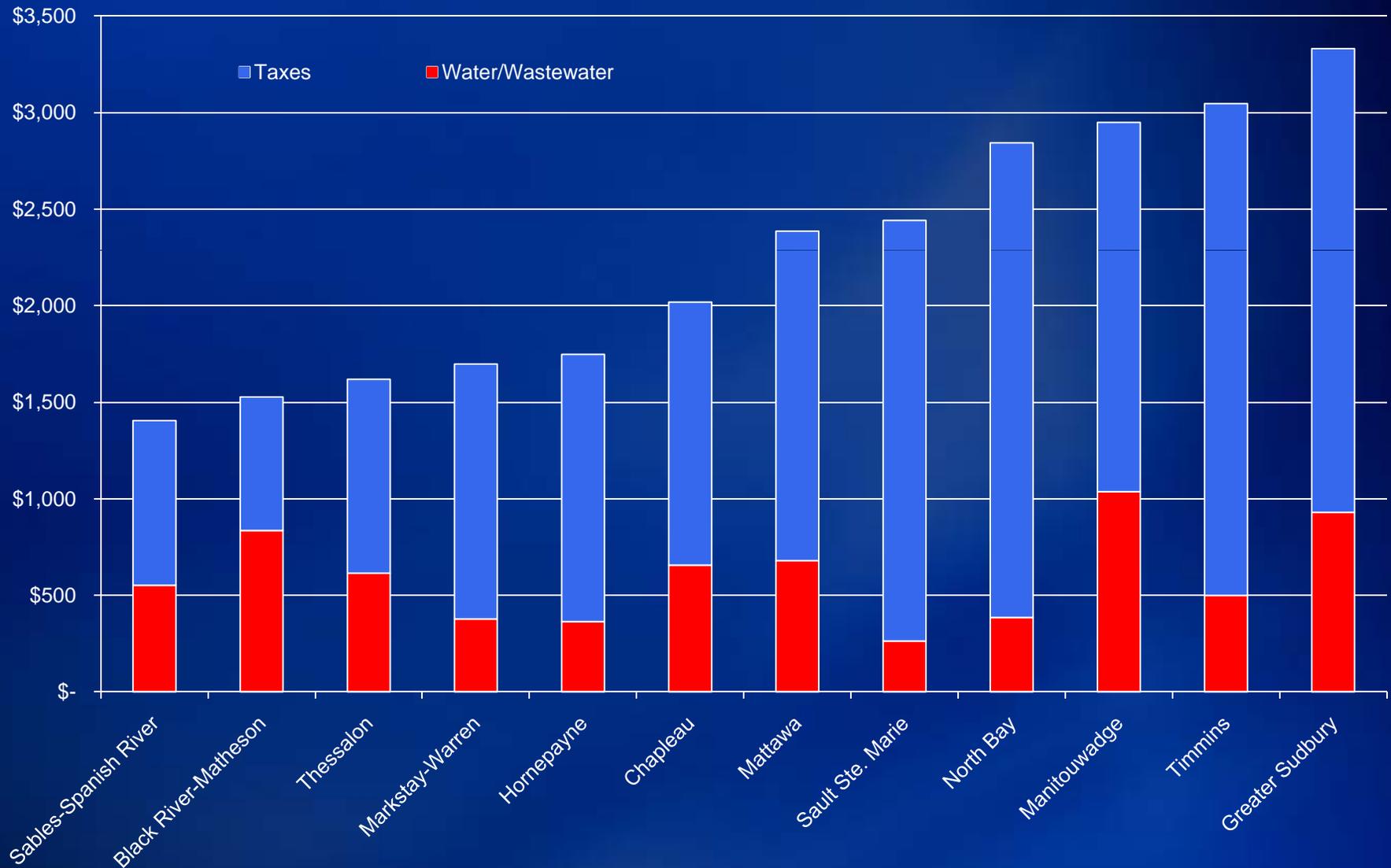
Residential Customers (30m³ per month)



Water and Wastewater Rates for Chapleau

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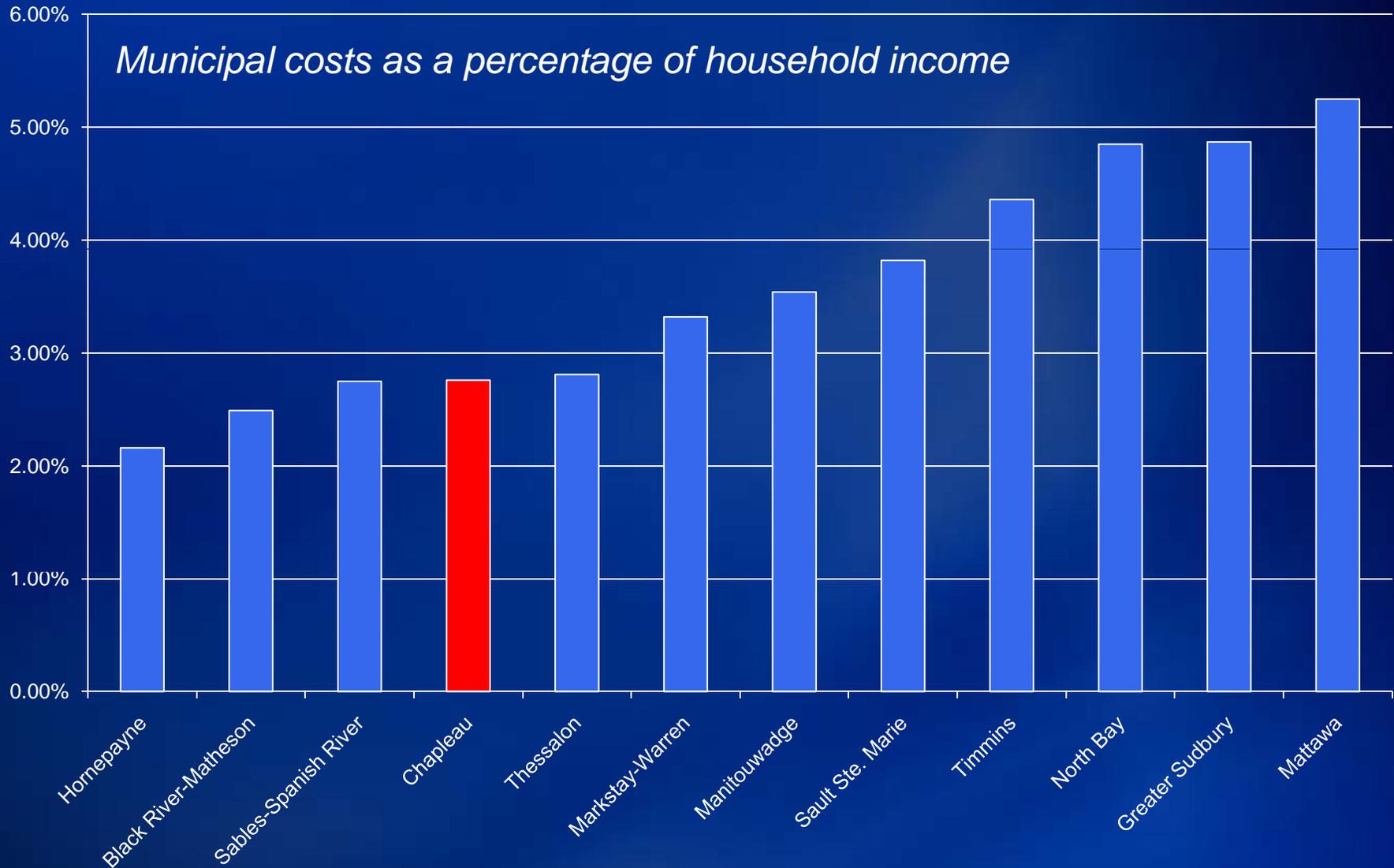
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Water and Wastewater Rates for Chapleau

Comparative Water and Wastewater Costs

Residential Customers (30m³ per month)





Chapter 3

Future Trends

Future Trends

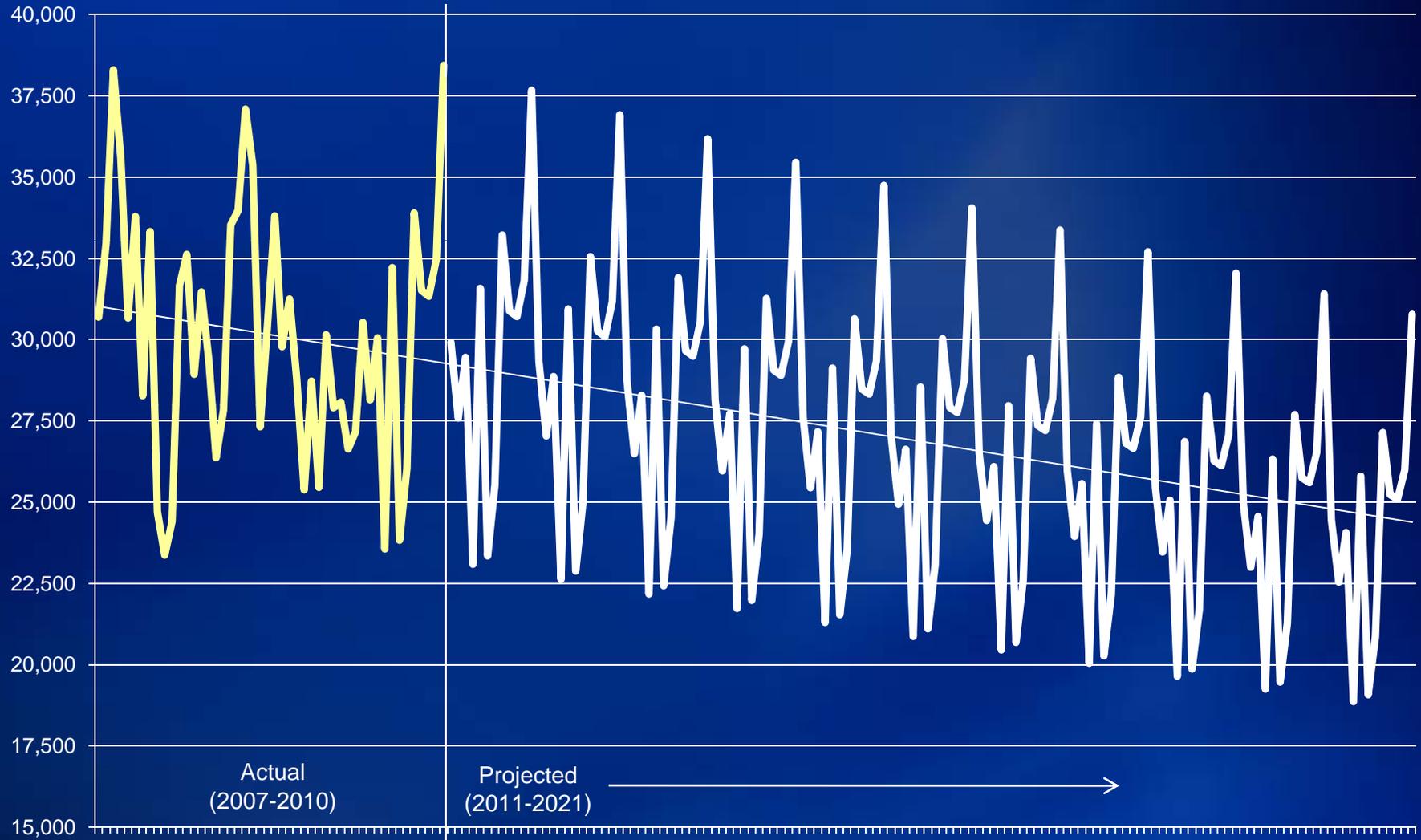
Consumption

Considerations

- Chapleau's water customer base is comprised primarily of residential and small ICI customers
 - Limited potential for swings due to individual customer considerations
 - Overall consumption levels are tied to the economic fortunes of the Township
- Historical trend with respect to population growth has been and will likely continue to be reflected in water consumption
- Consumption variations, if material, would likely not impact on financial performance
 - Majority of revenues (84%) derived from fixed fees
 - Changes in consumption would not impact fixed fee customers
 - Majority of expenses are fixed in nature
 - Financial impact of consumption changes would be felt in only certain areas (chemicals, electricity)

Future Trends

Projected Consumption



Future Trends

Operating Costs

Considerations

- Water treatment costs have been heavily impacted in the past as a result of the implementation of recommendations from the Walkerton inquiry
 - Perception exists that minimal space is left for regulatory changes for water

- Anticipation is that wastewater will be next area of focus
 - Higher treatment standards (e.g. tertiary vs. secondary treatment)
 - No clear indication as to magnitude of increased costs

- Absent regulatory announcements, it is difficult to justify a forecast that considers increases beyond inflation
 - May wish to consider build up of reserves to fund future regulatory costs and/or spread rate increases over multiple periods

Future Trends

Capital Reinvestment

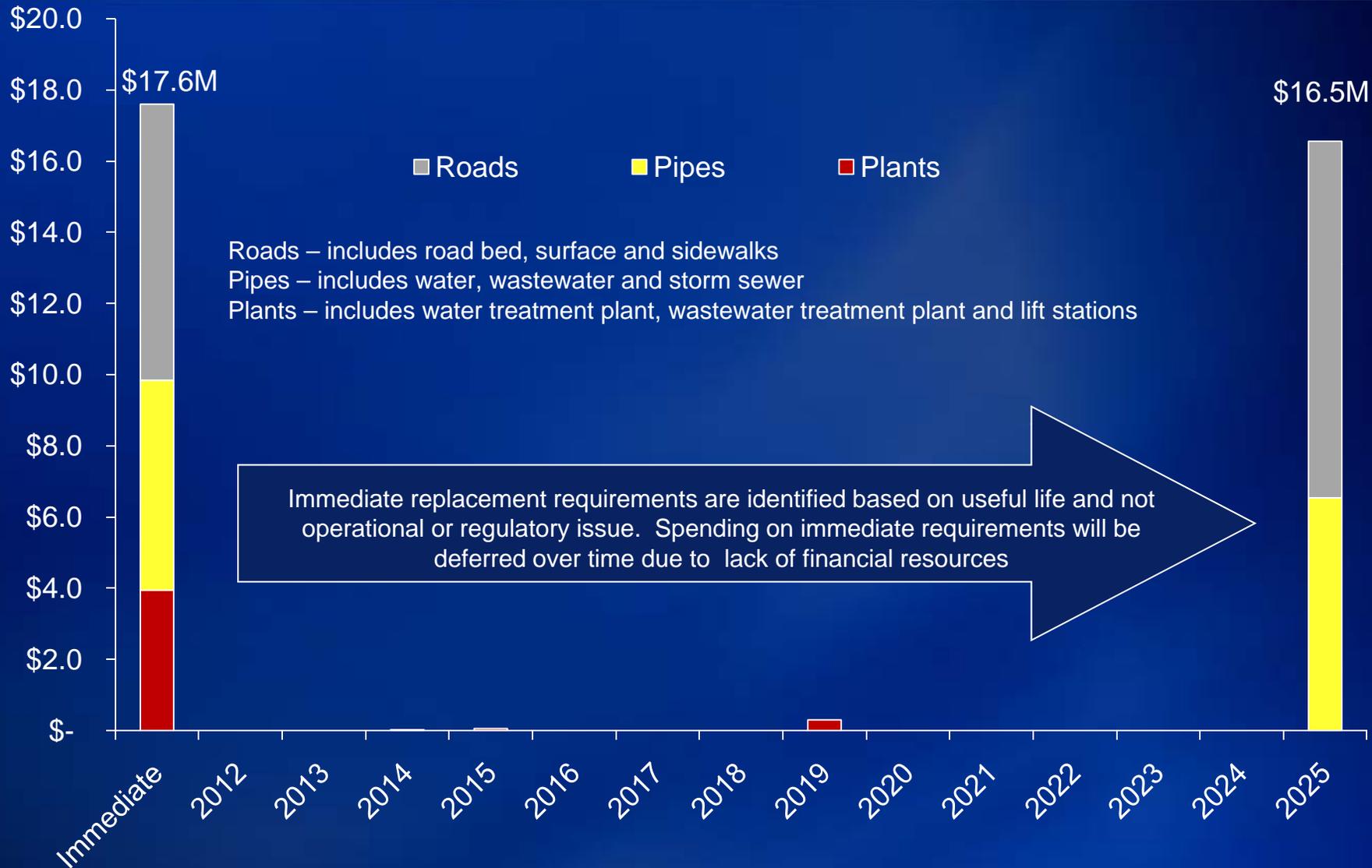
Considerations

- Majority of current infrastructure is at the mid-point of its useful life
 - Certain portions are at the end of their useful lives and would likely benefit from reinvestment
 - Majority of linear infrastructure reaches end of useful life in 2025

- Overall replacement value of water and wastewater asset is significant
 - Historical investment \$6.4 million
 - Current replacement value \$25.1 million
 - Replacement cost escalates as time passes due to effects of inflation

Future Trends

Infrastructure Reinvestment Profile (in millions)





Chapter 4

Water and Wastewater Financial Plan

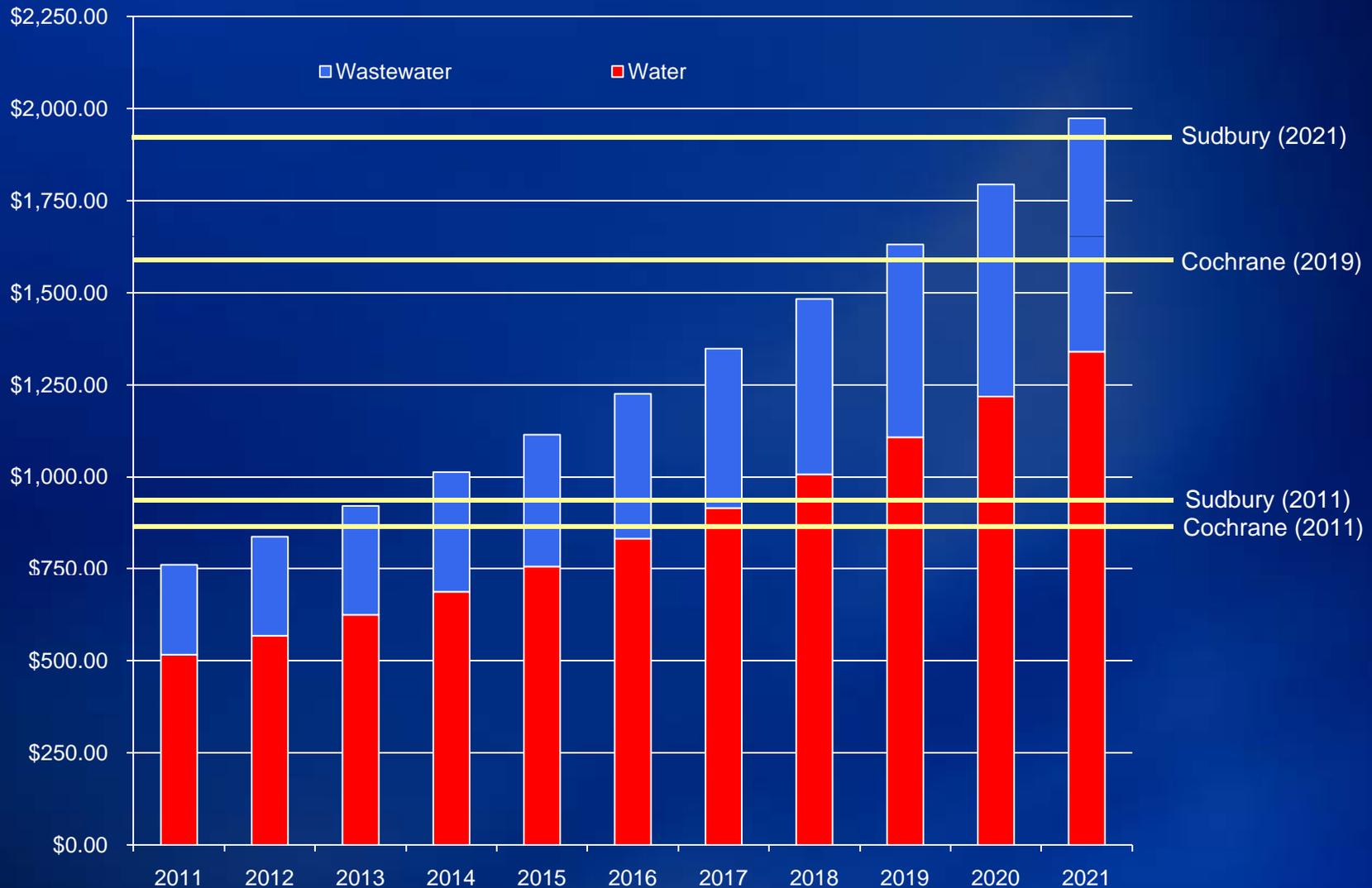
Water and Wastewater Rates for Chapleau

Recommendation

- Concept of sustainability is a requirement for municipal water systems in Ontario
- Financial plan prepared under Ontario Regulation 453/07 considers future rate increases intended to:
 - Fund operating costs and future inflation (projected at 3% per year)
 - Increase capital component of water and wastewater rates in order to provide sufficient funds to support the Township's share of future capital projects
- General practice is to spread capital funding increases over time (pre-funding) in order to avoid significant increases in any one given year
- Overall recommendation is to increase water and wastewater rates by 10% per year until 2025
 - 3.0% inflation in operating costs
 - 6.5% for infrastructure funding
 - 0.5% to compensation for reductions in population

Water and Wastewater Rates for Chapleau

Future Water Rates



Water and Wastewater Rates for Chapleau

Comparison to Other Municipalities

Future Rate Increases (as forecasted)

	Water	Wastewater
Chapleau	10.0%	10.0%
Sudbury	7.4%	7.4%
Cochrane	11.3%	13.1%
Lincoln	3.0%	7.5%
Erin	11.0%	n.a.