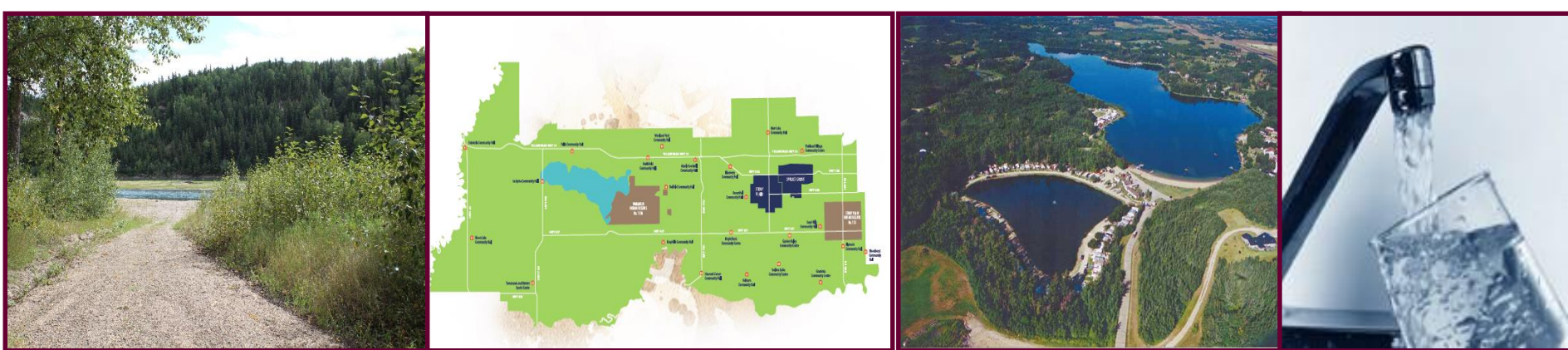


Parkland County Water & Wastewater Utility Rate Study Council Presentation



Tuesday, October 25th, 2016

HEMSON
Consulting Ltd.



Today We Will Discuss

- Study Objectives and Process to Date
- Calculation Inputs
- Rate Results
- Rate Structure Options
- Next Steps

Key Study Objectives

1. Financial Analysis:

- To calculate user rates that will provide for the full recovery of the operating and capital costs associated with providing the services over the next 10-years (to 2026)
- To set aside monies in reserves to fund the “full lifecycle costs” of the long-term repair and replacement of infrastructure

2. Rate Structure Analysis:

- Hemson will examine a variety of rate structure options and alternatives (Status Quo vs. Harmonization Options)
- Analysis focused on County's serviced areas – commission and regional customers not focal point of this study

Process to Date

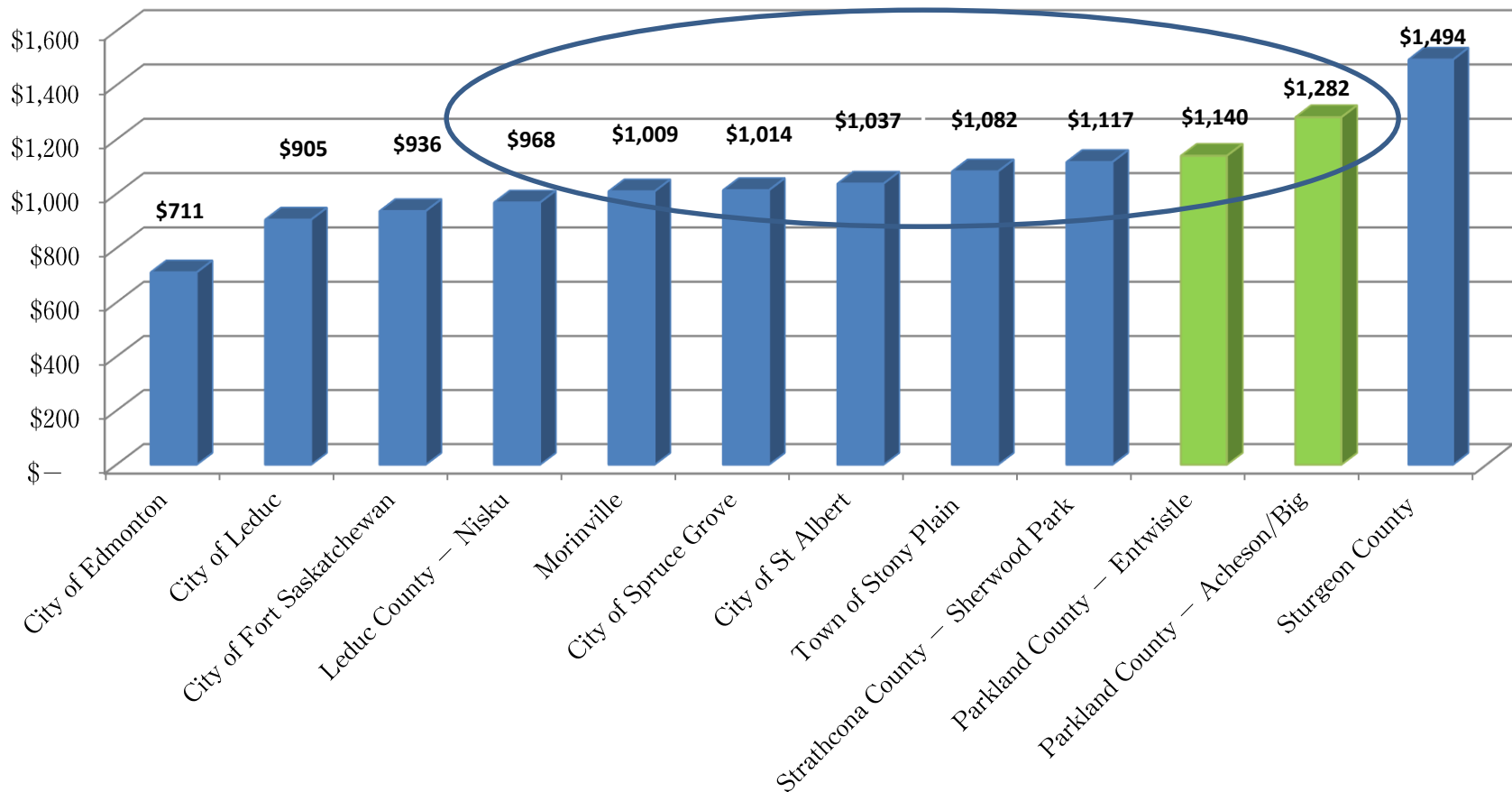
Key Meeting/Task	Key Date
Kick-Off Meeting	October 2015
Memo of Key Assumptions and Draft Findings	February 2016
Working Session with Staff	August 2016
Meeting with Executive Team	September 2016
Council Workshop and Meeting	October 2016
Rate Implementation	January 1, 2017

Rate Setting Approach

- Rates calculated based on the following:
 1. Full recovery of operating costs
 2. Full recovery of annual capital needs
 - In year capital requirements as identified by County staff
 - Only non-growth related capital projects (net of off-site levy funded projects) are included in the rate study forecast
 3. Provision for future asset replacement

Comparison to Other Jurisdictions 2016 Typical Household Charge¹

2016 Typical Household Water and Sewer Bill



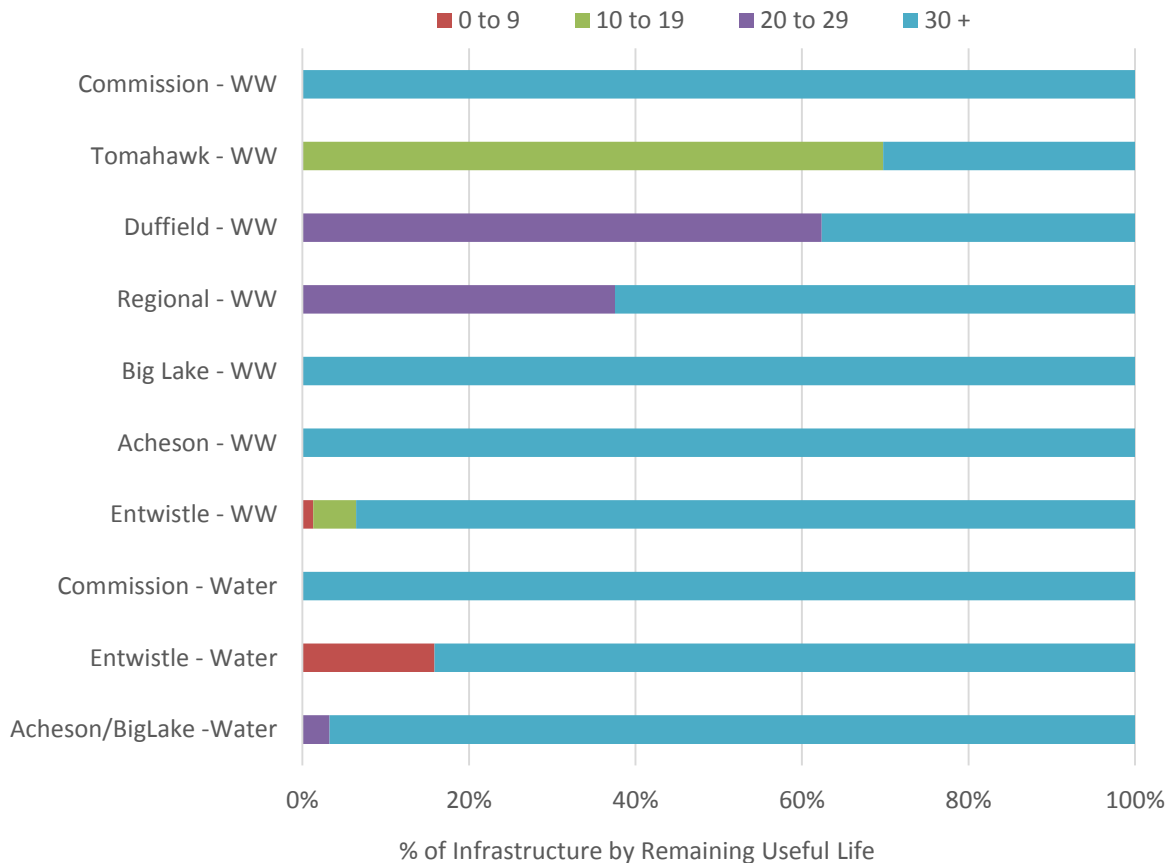
Note 1: Typical Household Consuming 200 m³ per annum. Includes both water and sewer service
Acheson 2015 typical household consumption equals 250m³
Entwistle 2015 typical household consumption equals 140m³

Key Input Assumptions

- About 200 new connections anticipated over the forecast period (2016-2026)
 - Growth largely occurring in Acheson/Big Lake Service Area
- Analysis projects forecast of billed water consumption
- Operating expenditures based on preliminary 2017 budget *plus* inflationary adjustments
- Only utility rate funded capital is included in the calculations (net of off-site levy projects)

Summary of Life-Cycle Costing Exercise

Snapshot of Assets by Remaining Useful Life



Source: Based on County Tangible Capital Asset data

- Replacement value of water and WW infrastructure is est. at \$76.3 M
- Much of the infrastructure is new – 70% of assets have remaining useful life greater than 50 years
- County needs to consider saving for the future replacement of this infrastructure

Current Rate Structure: Water and Wastewater

Service Area	Applicability	Rate Structure
Acheson - Commercial/Industrial	Water and Wastewater	Fixed <i>plus</i> Variable
Acheson - Big Lake Residential	Water and Wastewater	Fixed <i>plus</i> Variable
Entwistle	Water and Wastewater	Fixed <i>plus</i> Variable Some Fixed Only
Tomahawk	Wastewater Only	Fixed Only
Duffield	Wastewater Only	Fixed Only
Atim Creek/Helenslea	Wastewater Only	Fixed Only
Other Commission Customers	Water and Wastewater Water and Wastewater	Fixed <i>plus</i> Variable Some Variable Only

Note: All Bulk water and wastewater hauled/discharge fees are levied on a volumetric (\$/m³) basis

Rate Calculations: Key Considerations

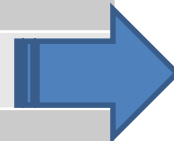
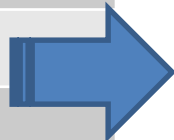
1. Maintained relationship where consumption charges are applicable across different service areas
2. Model was built to address individual service area funding shortfalls
3. Rates calculated to achieve financial stability by 2026

Rate Calculation Outcomes:

Status Quo – Existing Rate Structure

General Results

Service Area	AVG Annual Rate Increase (2017-2026)
Water	
Acheson/BL	2.7%
Entwistle	8.1%
Wastewater	
Acheson	5.2%
Big Lake	2.1%
Entwistle	5.0%
Tomahawk	6.0%
Duffield	16.7%
Helenslea	3.0%



Charge per Typical HH (200m³/annum)

Service Area	Current 2016 Rate	Calculated 2017 Rate
Water		
Acheson/BL	\$752	\$775
Entwistle	\$710	\$809
Wastewater		
Acheson*	\$1,170	\$1,226
Big Lake	\$530	\$541
Entwistle	\$430	\$451
Tomahawk	\$456	\$483
Duffield	\$480	\$576
Helenslea	\$588	\$606

Rate Calculation Outcomes:

Status Quo – Existing Rate Structure

Key Indicator 1 – Restricted Surplus (RS) Balance			
Service Area	2016 Opening RS Balance	2026 Ending RS Balance	2026 RS Balance as a % of est. 2016 Asset Value
Water			
Acheson/BL	\$1.75 M	\$6.97M	23% (of \$29.9M)
Entwistle	(\$196,400)	\$10,600	<1% (of \$2.8M)
Wastewater			
Acheson	\$255,500	\$525,500	2% (of \$23.9M)
Big Lake	\$847,400	\$2.12 M	37% (of \$5.7M)
Entwistle	\$325,700	\$600,000	7% (of \$8.8M)
Tomahawk	(\$12,700)	\$105,600	7% (of \$1.5M)
Duffield	(\$125,600)	\$6,000	<1% (of \$2.0M)
Helenslea	\$134,700	\$212,700	-

Key Project Goal:

Rate Harmonization Analysis

Proposed Harmonization Options: Water

Water Services: Metered Users

Service Areas Considered for Harmonization	Rate Structure Options	
	Option 1	Option 2
Acheson Commercial/Industrial Big Lake Residential Entwistle	Residential Fixed Service Charge (\$/month) Usage Charge (\$/m ³) Non-Residential Fixed Service Charge (\$/month) Usage Charge (\$/m ³)	All Properties Fixed Service Charge (\$/month) Usage Charge (\$/m ³)

Note 1: Parkland Village rates would still be subject to the Spruce Grove Fee

Note 2: Other water commission customers should continue to be treated separately

Proposed Harmonization Options: Wastewater

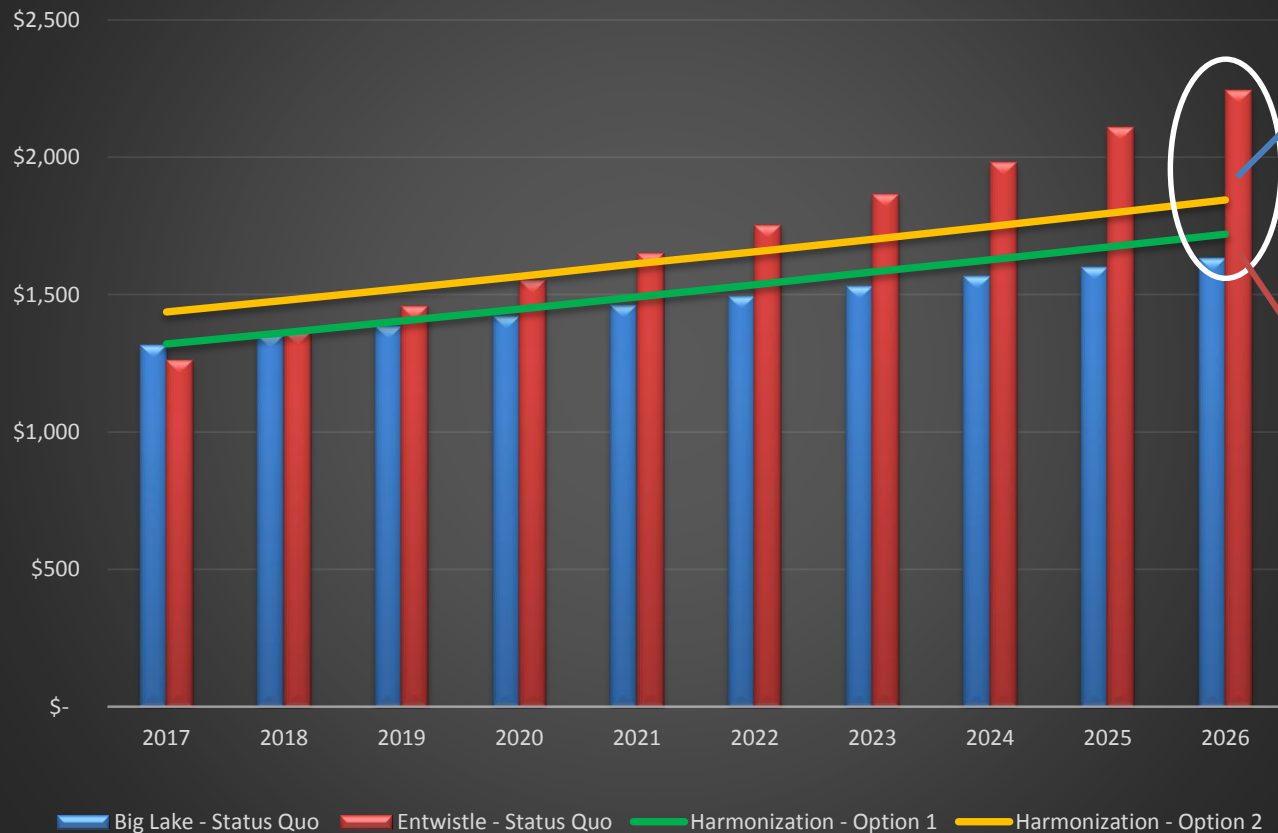
Wastewater Services		
Service Areas Considered for Harmonization	Rate Structure Options	
	Option 1	Option 2
Entwistle Acheson Big Lake Parkland Village* Commission* Helenslea Tomahawk Duffield	<u>Metered: Residential</u> Fixed Service Charge (\$/month) Usage Charge (\$/m ³)	<u>Metered: All Properties</u> Fixed Service Charge (\$/month) Usage Charge (\$/m ³)
	<u>Metered: Non-Residential</u> Fixed Service Charge (\$/month) Usage Charge (\$/m ³)	
	<u>Non-Metered: All Properties</u> Fixed Service Charge (\$/month) Differentiated by type: - Low User - Med User - High User	<u>Non-Metered: All Properties</u> Fixed Service Charge (\$/month) Differentiated by type: - Low User - Med User - High User

Note: The wastewater hauled/discharged fee under the current model is already consistent within each service area and therefore no charge is recommended for this specific fee

Note: Parkland Village and Commission customers would continue to be subject to the usage charge (\$/per m³) only*

Rate Harmonization Comparison: Typical Household

Total Charge per Typical Household
Status Quo vs. Harmonization Options



2026 Snapshot

Big Lake customers:

Opt 1. ↑ \$87/yr

Opt 2. ↑ \$211/yr

Entwistle customers:

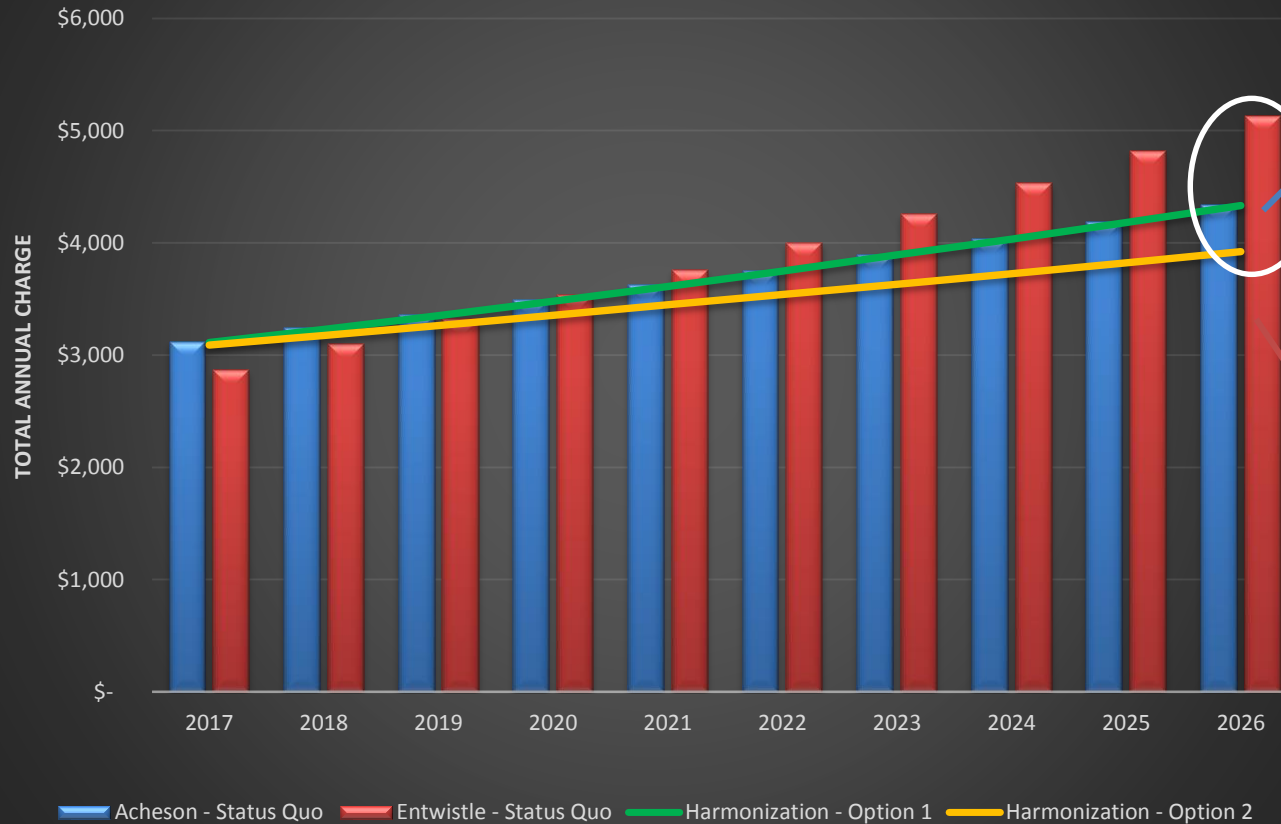
Opt 1. ↓ \$523/yr

Opt 2. ↓ \$399/yr

Note: A typical HH consuming 200m³ per annum

Rate Harmonization Comparison: Typical Commercial Establishment

Total Charge per Typical Commercial Operation
Status Quo vs. Harmonization Options



2026 Snapshot

Acheson customers:

Opt 1. ↓ \$3/yr

Opt 2. ↓ \$415/yr

Entwistle customers:

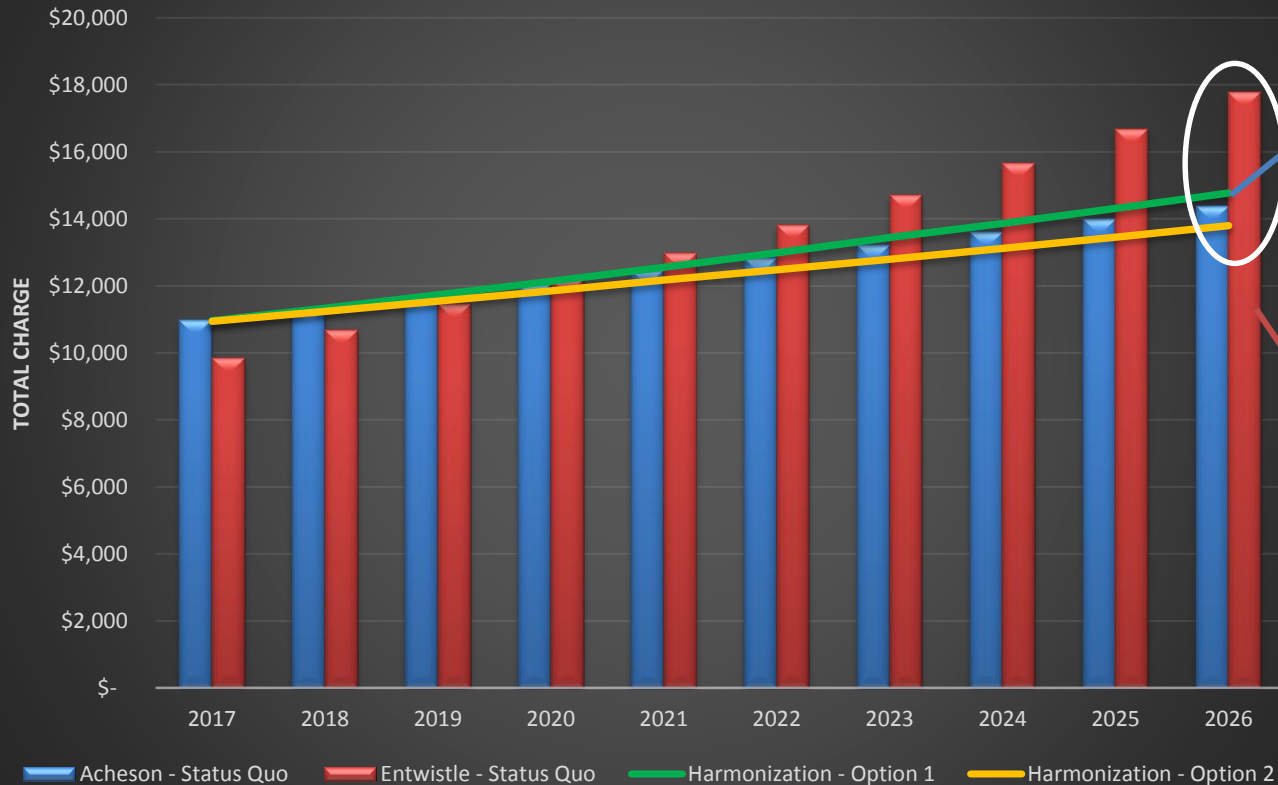
Opt 1. ↓ \$798/yr

Opt 2. ↓ \$1209/yr

Note: A typical commercial establishment consuming 600m³ per annum

Rate Harmonization Comparison: Typical Light Industrial Operation

Total Charge per Typical Light Industrial Operation
Status Quo vs. Harmonization Options



2026 Snapshot

Acheson customers:

Opt 1. ↑ \$396/yr

Opt 2. ↓ \$577/yr

Entwistle customers:

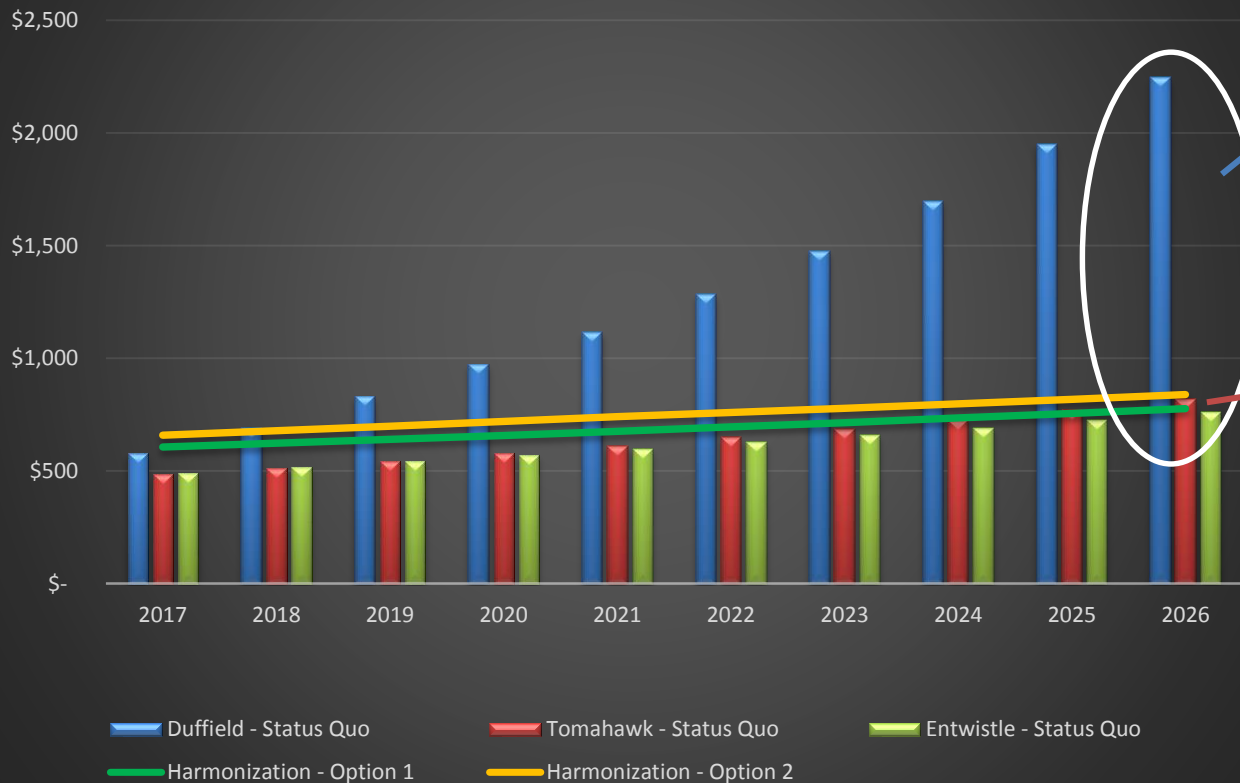
Opt 1. ↓ \$3002/yr

Opt 2. ↓ \$3976/yr

Note: A typical Light Industrial Operation consuming 2,500m³ per annum

Rate Harmonization Comparison: Non-Metered Sewer Users: SFD

Total Charge per Typical Household: Non-Metered Users
Status Quo vs. Harmonization Options



2026 Snapshot

Duffield

customers:

Opt 1. ↓ \$1,468/yr

Tomahawk customers:

Opt 1. ↓ \$40/yr

Entwistle Customers

Opt 1. ↑ \$14/yr

Harmonization Recommendation and Considerations

- Preferred scenario: Harmonization Option 1
- Rate harmonization provides greater flexibility to the County
 - Long-term fiscal benefits
 - Ease of administration
- All customers will see changes to their utility bills
- Rate analysis conducted to fund similar level of expenditures to status quo scenario (current rate structure)

Next Steps

- Refine analysis and finalize rates
- Target Implementation – January 1st 2017
- Staff Training Session on Model
 - 2nd series of training