



Point Roberts Water District

LOSS Sewer Rate Study
May 2013

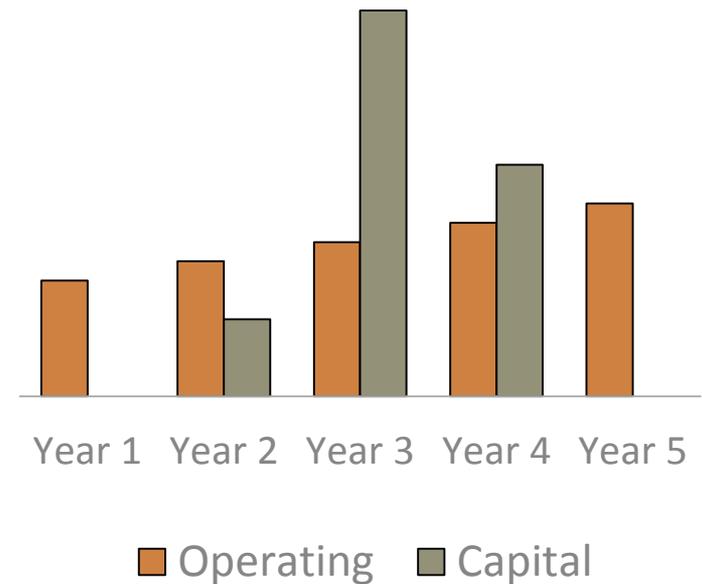
Presented By:
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Background

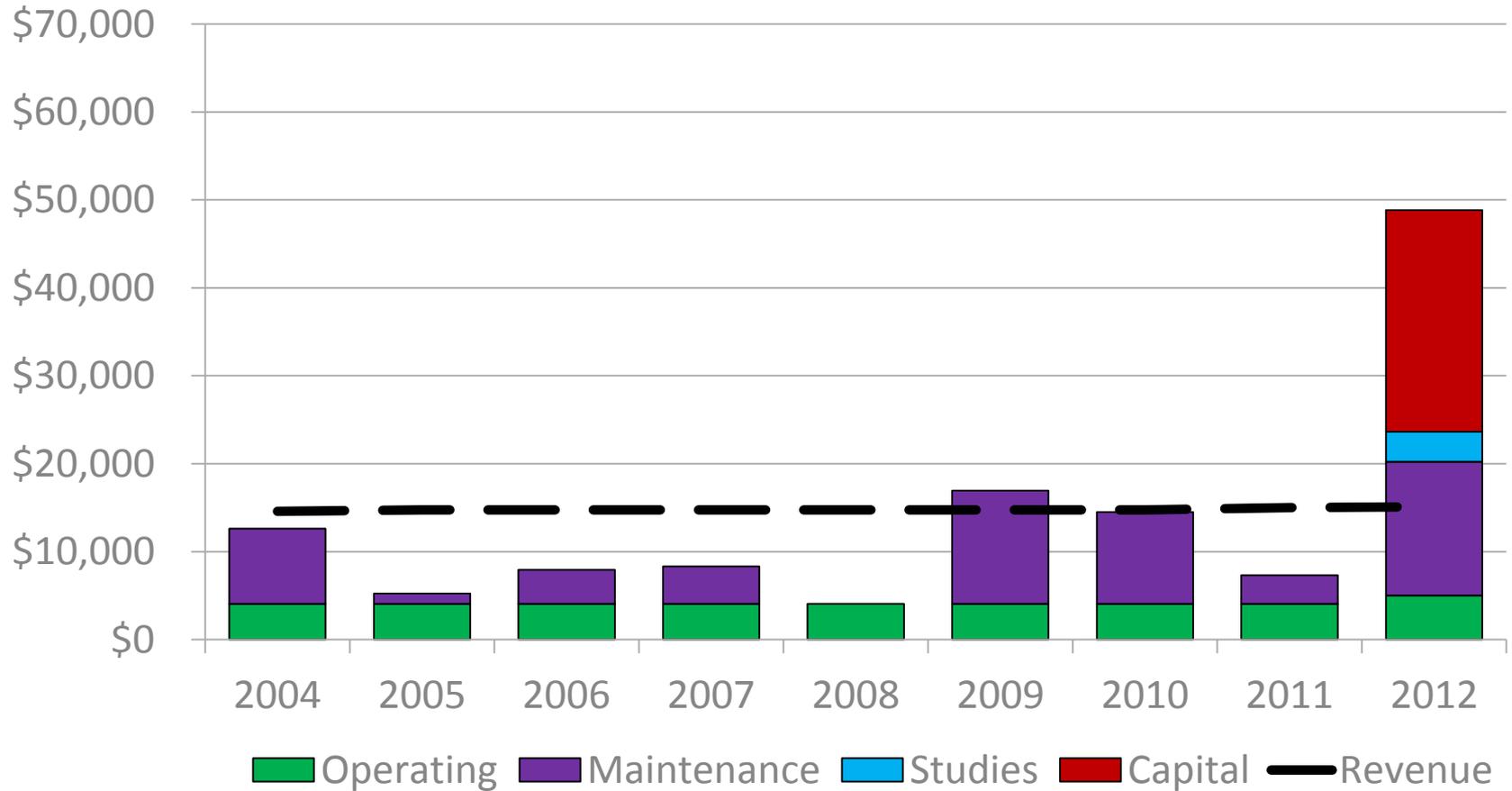
- The District manages a large onsite sewer system (LOSS)
 - ✓ Originally constructed in 1978
 - ✓ Currently serves 84 customers
- LOSS customers currently pay a sewer rate of \$15 per month
 - ✓ Current system revenue: $84 \times 15 \times 12 = \$15,120$
- The District has requested:
 - ✓ A review of sewer rates to fund ongoing operating, maintenance, and asset replacement needs
 - ✓ Development of a general facilities charge (GFC) for new connections

Basics of Utility Rate Making

- Utility rates are set to recover the cost of providing service
- Utilities incur two primary types of costs:
 - ✓ Operating costs (regular/ongoing)
 - Employee salaries and benefits
 - Power and chemicals
 - Asset repair and maintenance
 - ✓ Capital costs (inconsistent/limited)
 - Infrastructure replacement
 - Facility expansions and upgrades



Recent Financial History of the LOSS



General Forecast Assumptions

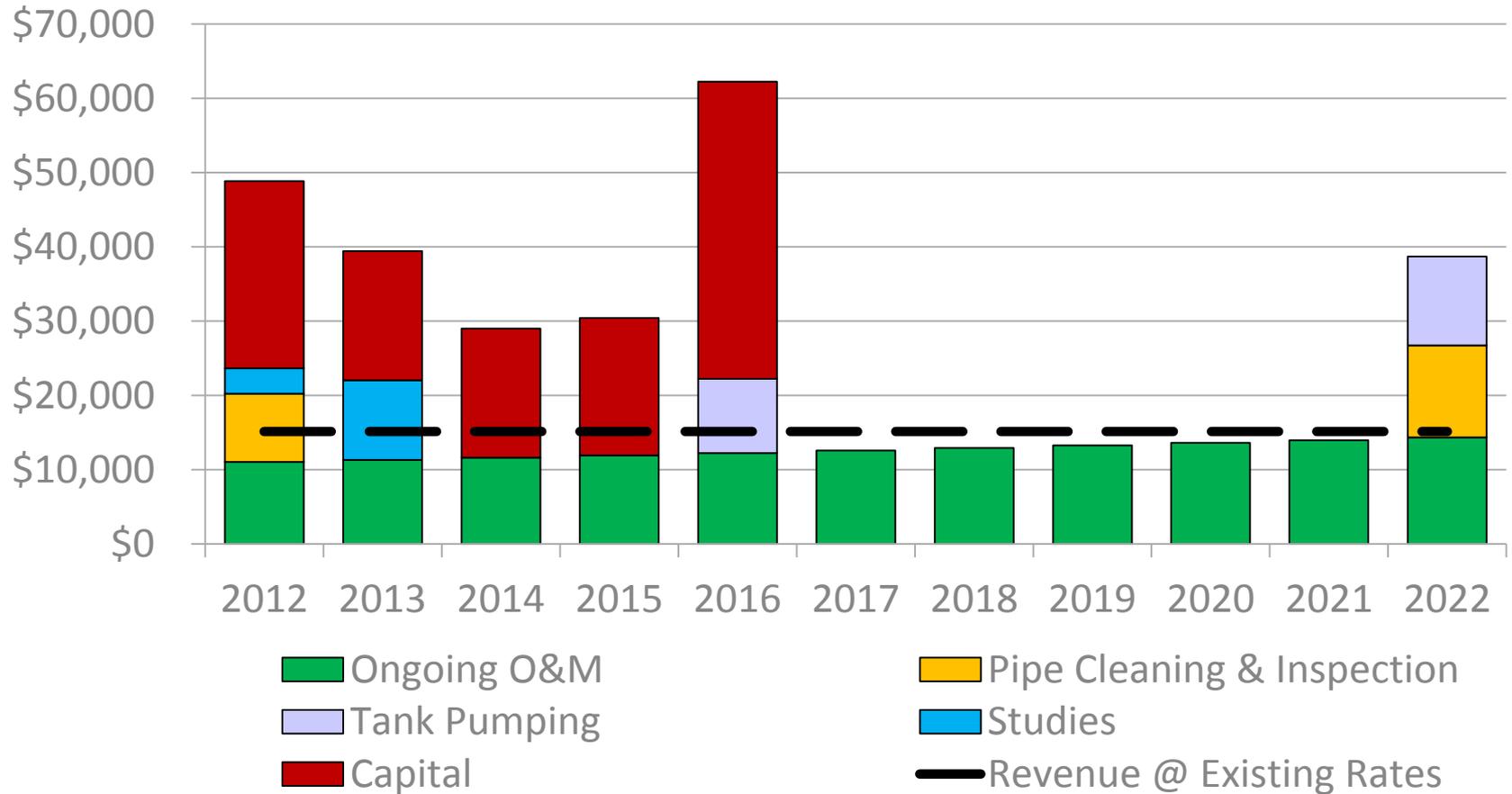
- ***Guiding Principle: Sewer rates should recover the cost of providing sewer service***
 - ✓ *Near-term support from the water utility helps mitigate impacts*
 - ✓ *Longer-term goal is for the LOSS to be financially self-sufficient*
- Inflation: 3% per year
- Customer Growth: None/Negligible
- Investment Earnings Rate: Initially 0.25% per year; gradually increases to a longer-term average of 2.00%
- Target “Working Capital” Balance: 45 days (\approx 12% of projected operating expenses)

Elements of O&M Cost Forecast

- Ongoing Annual Costs (*Based on Historical Averages*)
 - ✓ Parts replacement: \$6,200 per year + inflation
 - ✓ Labor: \$3,772 per year + inflation
 - ✓ Permits and testing: \$760 per year (*required by Department of Health*)
 - ✓ State excise taxes: \$582 (3.852% of projected rate revenue)

- Periodic Costs
 - ✓ Pipe cleaning / inspection: \$9,221 (2012); occurs every 10-15 years
 - ✓ Tank pumping: \$10,000 (2016); occurs every 6-8 years
 - ✓ Studies:
 - LOSS Evaluation (2012): \$3,400
 - Sewer Rate Study (2013): \$10,730

Forecast of LOSS Expenses



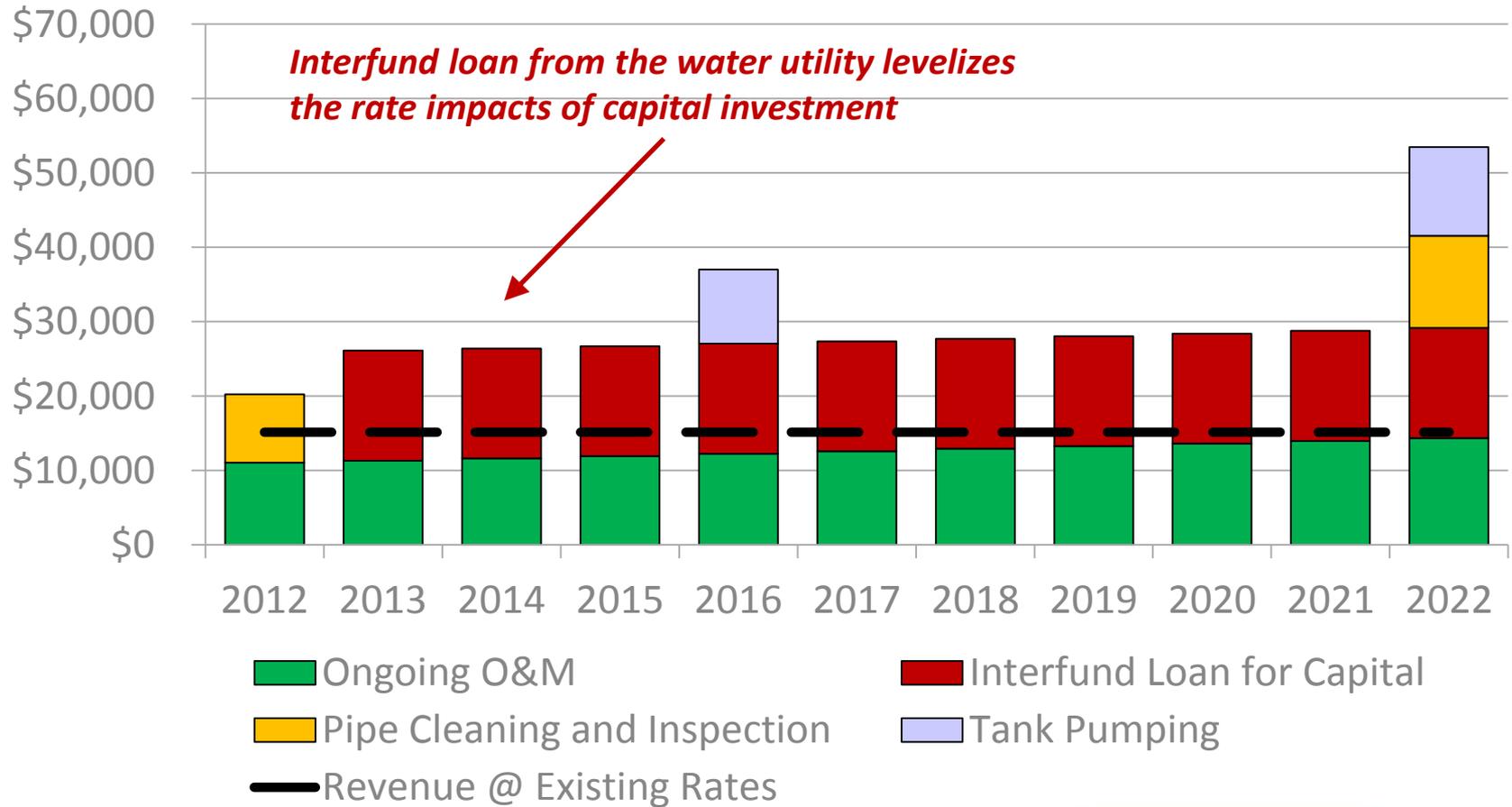
Key Challenges

- Maintenance costs can vary significantly from year to year
- Aging infrastructure will require significant investment
 - ✓ Lift station control board replacement (\$60,000; began in 2012)
 - ✓ Lift station pump replacement (\$18,500; to occur around 2015)
 - ✓ Lift station replacement (\$40,000; to occur around 2016)
- The revenue base is fairly limited...
 - ✓ Only 5 new connections have occurred since 2001
 - ✓ Though there is capacity for growth, timing is difficult to predict

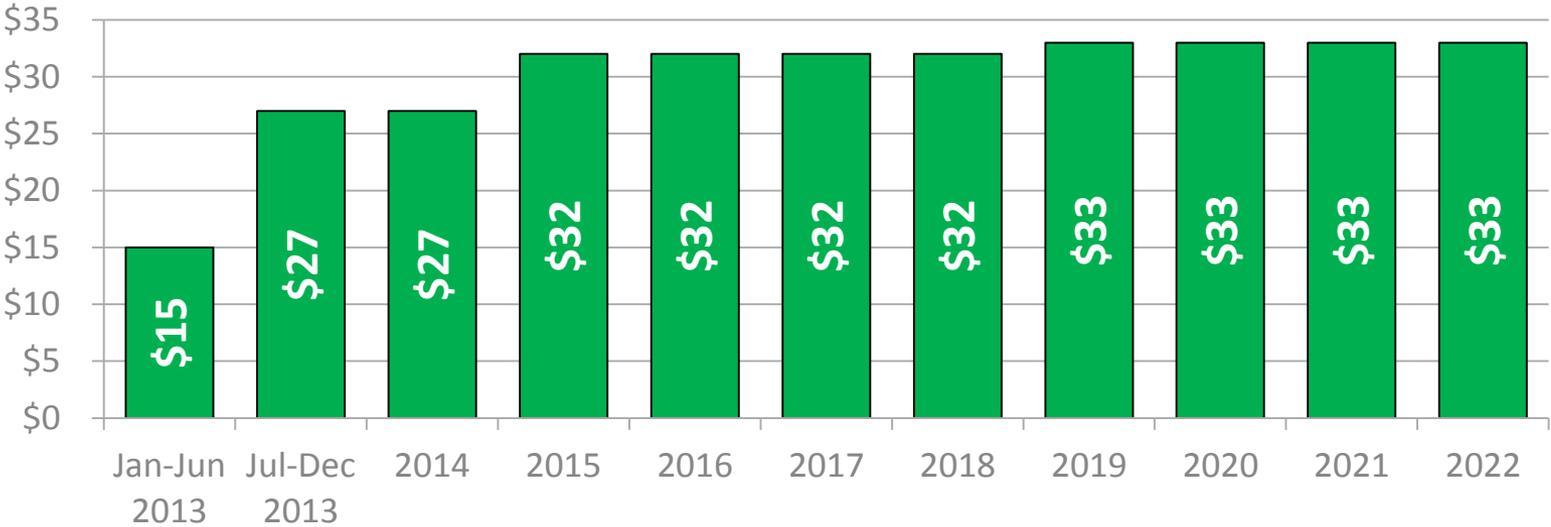
Proposed Solution

- Borrow money from water utility to levelize capital needs
 - ✓ Water utility has historically funded LOSS needs in excess of available sewer-related resources
 - ✓ Proposal: Repay borrowed funds over 10 years with interest
 - Interest rate assumed to be 1% in this analysis
 - Could also be linked to investment earnings rate as opportunity cost
- Interfund loan assumptions for this analysis:
 - ✓ \$140,000 loan from water utility
 - ✓ 10-year term @ 1% → annual debt service of \approx \$14,800

Forecast of LOSS Revenue Requirement



Monthly Sewer Rate Forecast



- Initial increase of \$12 per month is needed to cover debt service from the assumed interfund loan (\approx \$14,800 per year)
- Subsequent increases are needed to fund periodic maintenance needs (e.g. tank pumping, pipe cleaning)

Single-Family Sewer Rate Survey

Jurisdiction	Average Monthly Bill @ 7 ccf
Lake Whatcom Water & Sewer District	\$68.61
City of Ferndale	\$59.82
Samish Water District	\$54.84
City of Sumas	\$52.35
City of Lynden	\$45.15
City of Nooksack	\$41.50
City of Everson	\$39.00
City of Bellingham	\$33.97
<i>Point Roberts Water District (Proposed)</i>	<i>\$27.00</i>
Birch Bay Water & Sewer District	\$26.98
<i>Point Roberts Water District (Existing)</i>	<i>\$15.00</i>

Policy Questions: District Overhead

- Should the LOSS pay for a share of District overhead?
 - ✓ Water utility funds \approx \$285,000 per year in general/admin costs
 - Equates to \approx 35% of direct water operating costs
 - ✓ “Equitable” sewer rate should recover pro rata share of overhead
 - LOSS share could be defined based on total accounts or total expenses
 - LOSS could be allocated \approx \$5,000 – \$10,000 (\$5 – 10/customer/month)

- Recommendation:
 - ✓ Leave overhead out of sewer rate for now
 - Significant increases already proposed to cover *direct* LOSS costs
 - ✓ Consider building proportionate share of overhead costs into “ongoing O&M” funded by sewer rate as resources allow

Policy Questions: System Reinvestment

- Should the LOSS fund system reinvestment through rates?
 - ✓ Water utility is phasing in a policy to fund system reinvestment based on depreciation expense net of debt principal payments
 - ✓ Estimated annual depreciation expense on sewer assets is \approx \$19,500
 - Net of interfund loan principal, full funding target would be \approx \$4,700

- Recommendation:
 - ✓ Do not explicitly include system reinvestment provision at this time
 - Revenue surpluses above ongoing O&M provide “implicit” funding
 - ✓ Consider phasing in a more formal policy as resources allow
 - Long-term goal is to fully fund LOSS needs through sewer rates
 - Can pro rate funding target to mitigate impacts – existing customer base is \approx 30% of the total customer base that the LOSS can serve

General Facilities Charge (GFC)

- GFCs are:
 - ✓ One-time charges paid by new development (or redevelopment)
 - ✓ Based on an equitable share of the “cost of the system”
 - ✓ A source of cash for capital investment and/or debt service
- General calculation methodology:

$$\text{GFC} = \frac{\text{Existing Cost Basis} + \text{Future Cost Basis}}{\text{Existing Customers} + \text{Future Customers}}$$

GFC Cost Basis

Component	What Is Included?
Existing Cost Basis	<p>Total Included in GFC Cost Basis: \$1,156,586</p> <ul style="list-style-type: none">▪ \$775,179 in existing assets▪ Less: \$52,503 in estimated cost of assets being replaced by current/planned projects▪ Plus: \$433,910 in interest on remaining existing assets
Future Cost Basis	<p>Total Included in GFC Cost Basis: \$0</p> <ul style="list-style-type: none">▪ Current/Planned Replacement Projects: \$118,500<ul style="list-style-type: none">– Lift Station Control Board Replacement: \$60,000– Lift Station Pump Replacement: \$18,500– Lift Station Replacements: \$40,000▪ Less: \$118,500 in debt principal from interfund loan

Assumed interfund loan of \$140,000 includes funding for projects not included in GFC (e.g. maintenance projects and studies)

Customer Base

Component	What Is Included?
Existing Customers	Total Included in GFC Calculation: 84 ERUs <ul style="list-style-type: none">▪ 70 residential ERUs in subdivision served by LOSS▪ 14 commercial ERUs in Marina
Future Customers	Total Included in GFC Calculation: 222 ERUs <ul style="list-style-type: none">▪ 22 empty lots in subdivision served by LOSS▪ 200 additional homes included in Marina buildout plan

- The customer base is defined in terms of equivalent residential units (ERUs)
- 1 ERU = 1 single-family household in terms of water demand/sewer flows

GFC Calculation

Existing Cost Basis	\$1,156,586
Future Cost Basis	-
Total Allocable Cost Basis (A)	<u>\$1,156,586</u>
Existing Customer Base (ERUs)	84
Projected Growth	<u>222</u>
Total Customer Base (B)	306

GFC per ERU (A / B)	\$3,780
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Sewer GFC Survey

Jurisdiction	Sewer GFC per ERU
City of Bellingham	\$7,637
City of Ferndale	\$7,100
City of Everson	\$6,400
City of Lynden	\$6,220
City of Nooksack	\$6,000
Lake Whatcom Water & Sewer District	\$5,201
Samish Water District	\$4,713
<i>Point Roberts Water District (Proposed)</i>	\$3,780
City of Sumas	\$3,125
Birch Bay Water & Sewer District	\$2,935

Summary of Recommendations

- Increase sewer rate from \$15 to \$27 per month (7/1/13)
 - ✓ Assumes \$140,000 interfund loan from water utility for capital
 - ✓ Monthly rate expected to increase to \$32 (effective 1/1/15), and eventually \$33 (effective 1/1/19)
- Adopt sewer GFC of \$3,780 per ERU
- Review water rates to evaluate impacts of interfund loan on water utility financial forecast
- Monitor finances of LOSS
 - ✓ Longer-term goal is to fund ongoing O&M, periodic maintenance, and asset replacements through sewer rate