Village of Lombard - Water and Sewer Rate Structure Design Discussion

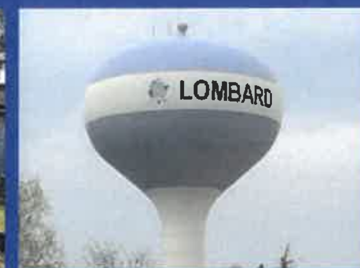
March 19, 2018

		Option 1: Conservative (Current)	Option 2: Moderate	Option 3: Aggressive
Residential Customers	Service Charge (per bill)	$10.10	$32.10	$57.10
Inside Village	Total Unit Rate (W/S/Capital)	$14.90	$13.42	$11.84
Actual Bill Distribution				
January - February 2018	% of Revenues Fixed	4%	15%	30%
FOR DISCUSSION ONLY	% of Revenues Variable	96%	85%	70%

All Scenarios are revenue neutral.

Bi-Monthly Usage (1,000 Gal.)	% of Customer Bills	Cumulative % of Customer Bills	Current FY 2018 Bill	Moderate Bill	% Change	Aggressive Bill	% Change
0	2.2%	2.2%	$10.10	$32.10	218%	$57.10	465%
1	2.2%	4.4%	$25.00	$45.52	82%	$68.94	176%
2	4.1%	8.5%	$39.90	$58.94	48%	$80.78	102%
3	6.0%	14.6%	$54.80	$72.36	32%	$92.62	69%
4	7.8%	22.3%	$69.70	$85.78	23%	$104.46	50%
5	8.9%	31.2%	$84.60	$99.20	17%	$116.30	37%
6	9.9%	41.1%	$99.50	$112.62	13%	$128.14	29%
7	9.9%	51.0%	$114.40	$126.04	10%	$139.98	22%
8	8.5%	59.5%	$129.30	$139.46	8%	$151.82	17%
9	7.4%	66.9%	$144.20	$152.88	6%	$163.66	13%
10	6.6%	73.5%	$159.10	$166.30	5%	$175.50	10%
11	5.1%	78.6%	$174.00	$179.72	3%	$187.34	8%
12	4.2%	82.8%	$188.90	$193.14	2%	$199.18	5%
13	3.6%	86.4%	$203.80	$206.56	1%	$211.02	4%
14	2.6%	88.9%	$218.70	$219.98	1%	$222.86	2%
15	2.2%	91.1%	$233.60	$233.40	0%	$234.70	0%
16	1.7%	92.8%	$248.50	$246.82	(1%)	$246.54	(1%)
17	1.3%	94.1%	$263.40	$260.24	(1%)	$258.38	(2%)
18	1.1%	95.1%	$278.30	$273.66	(2%)	$270.22	(3%)
19	0.9%	96.1%	$293.20	$287.08	(2%)	$282.06	(4%)
20	0.6%	96.6%	$308.10	$300.50	(2%)	$293.90	(5%)
21	0.6%	97.2%	$323.00	$313.92	(3%)	$305.74	(5%)
22	0.4%	97.6%	$337.90	$327.34	(3%)	$317.58	(6%)
23	0.4%	98.0%	$352.80	$340.76	(3%)	$329.42	(7%)
24	0.2%	98.2%	$367.70	$354.18	(4%)	$341.26	(7%)
25	0.2%	98.5%	$382.60	$367.60	(4%)	$353.10	(8%)
26	0.2%	98.7%	$397.50	$381.02	(4%)	$364.94	(8%)
27	0.3%	99.0%	$412.40	$394.44	(4%)	$376.78	(9%)
28	0.2%	99.2%	$427.30	$407.86	(5%)	$388.62	(9%)
29	0.1%	99.3%	$442.20	$421.28	(5%)	$400.46	(9%)
30	0.1%	99.4%	$457.10	$434.70	(5%)	$412.30	(10%)
31	0.1%	99.5%	$472.00	$448.12	(5%)	$424.14	(10%)
32	0.0%	99.5%	$486.90	$461.54	(5%)	$435.98	(10%)
33	0.0%	99.5%	$501.80	$474.96	(5%)	$447.82	(11%)
34	0.0%	99.6%	$516.70	$488.38	(5%)	$459.66	(11%)
35	0.0%	99.6%	$531.60	$501.80	(6%)	$471.50	(11%)
36	0.1%	99.7%	$546.50	$515.22	(6%)	$483.34	(12%)
37	0.1%	99.7%	$561.40	$528.64	(6%)	$495.18	(12%)
38	0.04%	99.8%	$576.30	$542.06	(6%)	$507.02	(12%)
39	0.04%	99.8%	$591.20	$555.48	(6%)	$518.86	(12%)
40	0.02%	99.8%	$606.10	$568.90	(6%)	$530.70	(12%)
41	0.04%	99.9%	$621.00	$582.32	(6%)	$542.54	(13%)
42	0.02%	99.9%	$635.90	$595.74	(6%)	$554.38	(13%)
43	0.04%	99.9%	$650.80	$609.16	(6%)	$566.22	(13%)
44	0.01%	99.9%	$665.70	$622.58	(6%)	$578.06	(13%)
46	0.01%	99.9%	$695.50	$649.42	(7%)	$601.74	(13%)
47	0.01%	100.0%	$710.40	$662.84	(7%)	$613.58	(14%)
50	0.01%	100.0%	$755.10	$703.10	(7%)	$649.10	(14%)
54	0.01%	100.0%	$814.70	$756.78	(7%)	$696.46	(15%)
55	0.01%	100.0%	$829.60	$770.20	(7%)	$708.30	(15%)
64	0.01%	100.0%	$963.70	$890.98	(8%)	$814.86	(15%)
70	0.01%	100.0%	$1,053.10	$971.50	(8%)	$885.90	(16%)

Village of Lombard
Water and Sewer Utilities



Water and Sewer Rate Structure Design
March 19, 2018

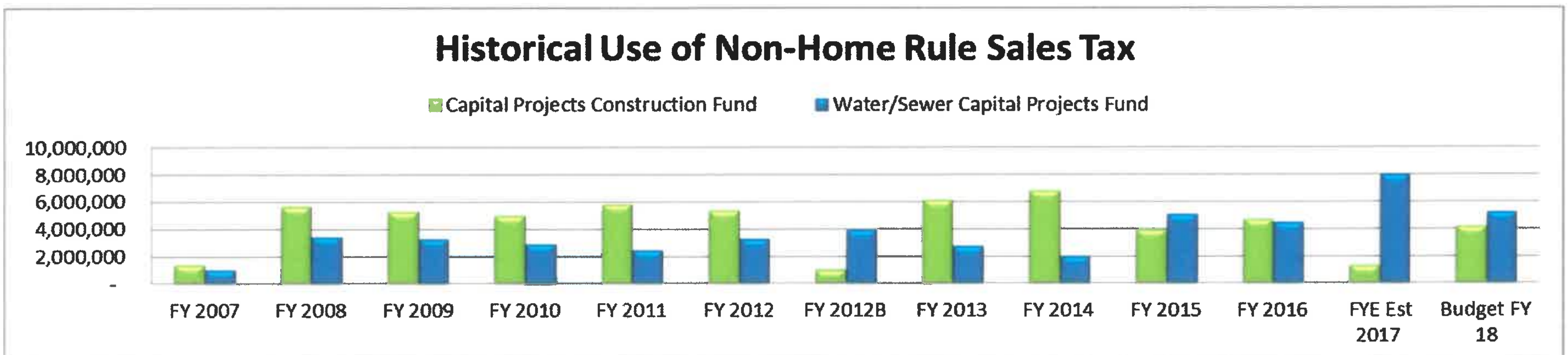
Presented By:
Eric Callocchia, Senior Manager
MFSG

Municipal & Financial Services Group

Basic Principles of Rate Setting

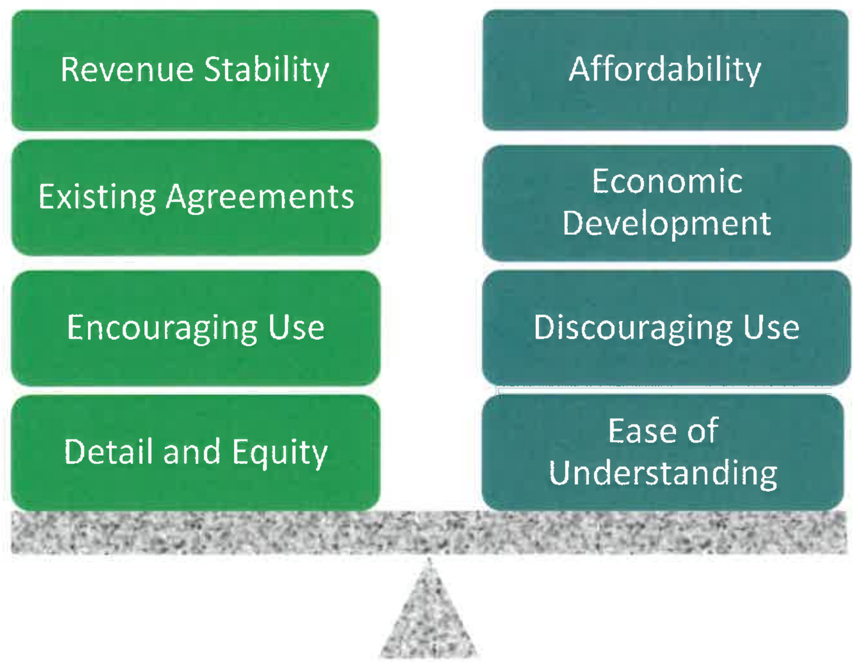
- Water and Sewer Operations are self-supporting*
  - Rates and fees are set to recover cost of providing service
  - No profit to General Fund
  - Operations function as a business
  - Utilities reimburse General Fund for support services

* Village of Lombard's model includes a subsidy from Non-Home Rule Sales Tax for capital projects
  - NHR Sales Tax Revenue allocation from FY 2007 to FY 2018
    - Capital Projects Construction Fund 54% ($56,670,582)
    - Water/Sewer Capital Projects Fund 46% ($47,894,179)



Rate Design – Pricing the Service

Rate design is largely influenced by policy objectives of the utility.



System Operating Costs – Fixed vs. Variable

Fixed Costs – Service Charge

(Do not change with consumption)

For example: Pipes must be maintained regardless of water use.

- Village Personnel
- Distribution and Collection System Maintenance
- Meter Reading
- Billing & Collection
- Customer Service
- Debt Service

Variable Costs – User Fees

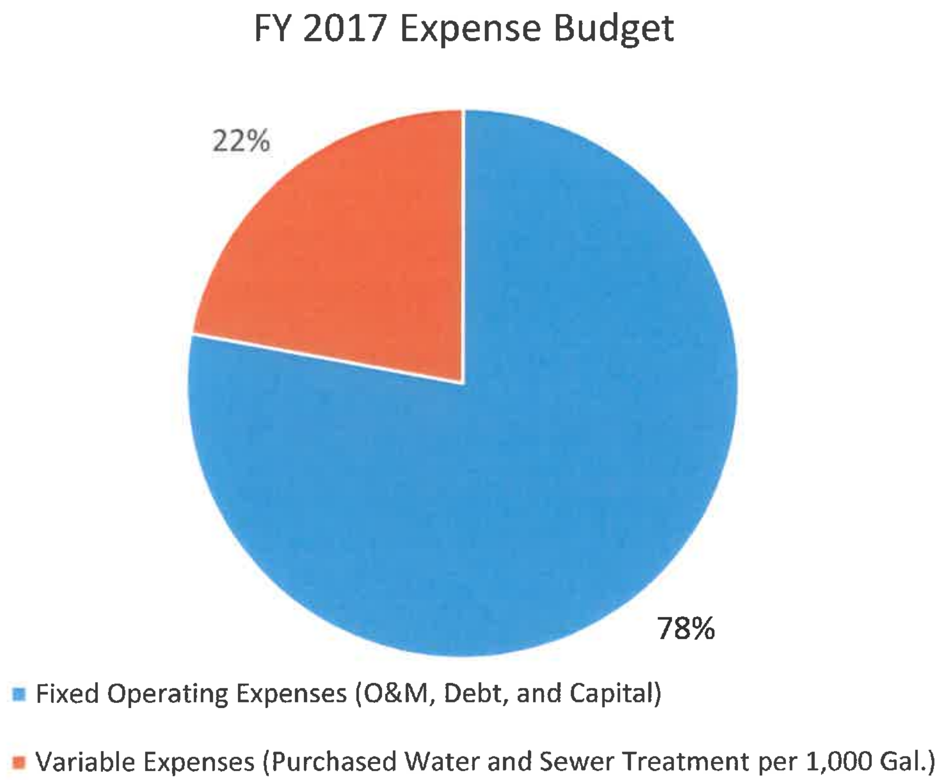
(Change with consumption)

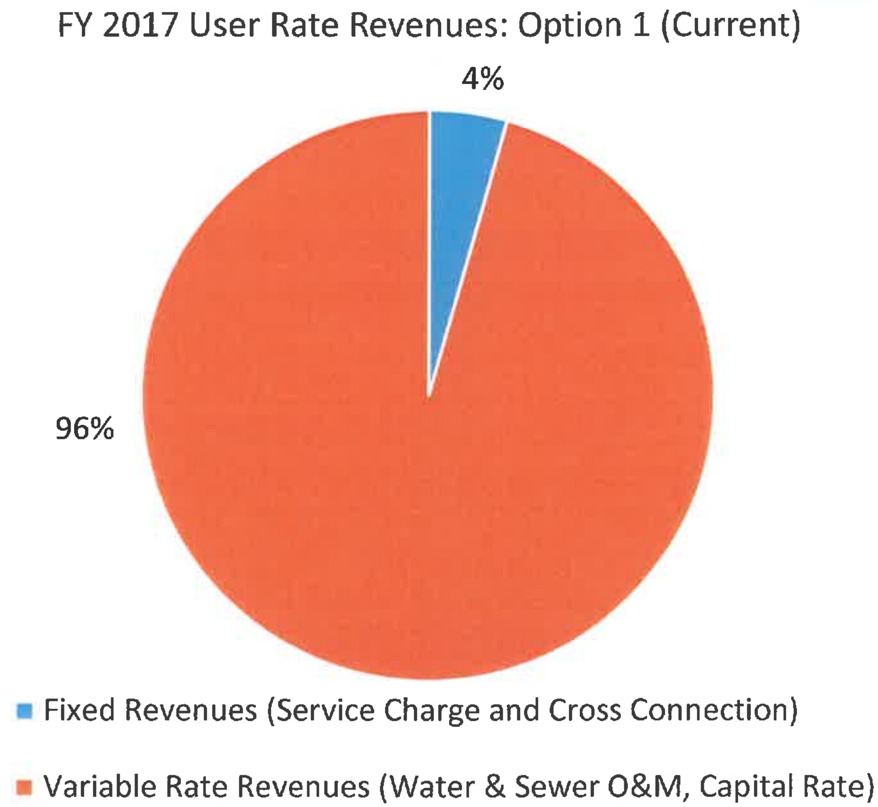
- Water Supply
- Sewer Treatment

➢ **The higher the fixed charge, the greater the revenue stability**

➢ **The higher the fixed charge, the more expensive service is for smallest users**

Expenses and Revenues – Fixed vs. Variable

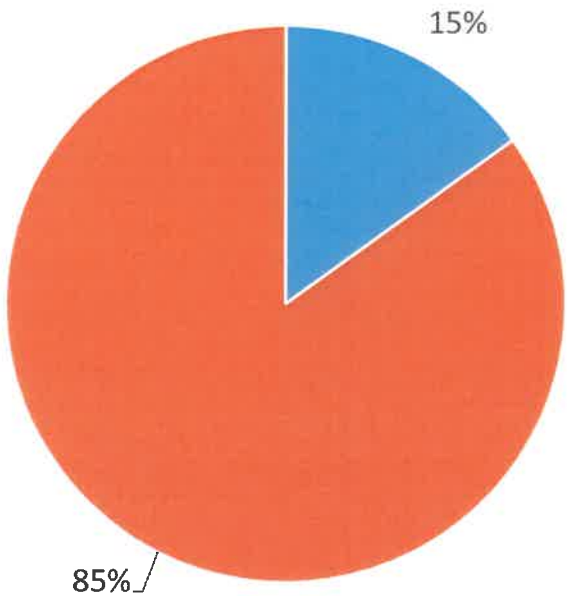




For discussion only. As the rate setting process progresses, these charts will be updated to reflect a more detailed analysis. Does not include NHR sales tax revenues, loan proceeds, or other miscellaneous revenues.

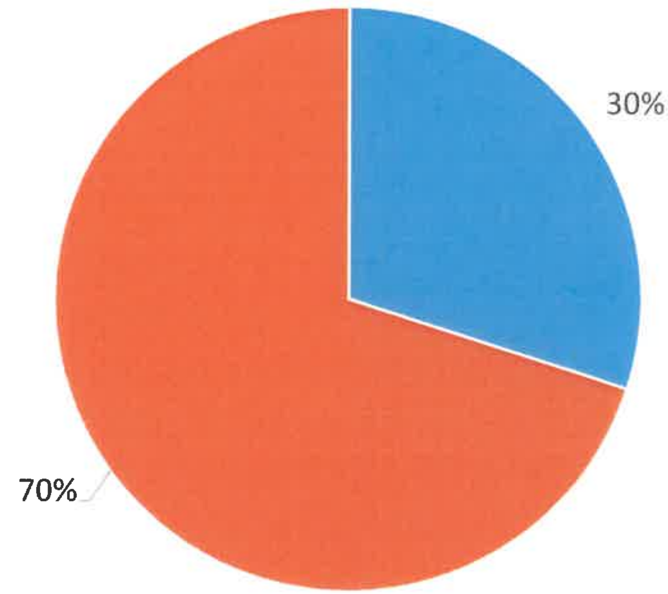
Expenses and Revenues – Fixed vs. Variable

Option 2: Moderate Rate Structure Scenario (Recommended)



- Fixed Revenues (Service Charge and Cross Connection)
- Variable Rate Revenues (Water & Sewer O&M, Capital Rate)

Option 3: Aggressive Rate Structure Scenario



- Fixed Revenues (Service Charge and Cross Connection)
- Variable Rate Revenues (Water & Sewer O&M, Capital Rate)

Bill Impact Discussion

See Handout

W&S Rate Study Implementation Schedule

Implementation Schedule

- March 19, 2018 – Finance & Administrative Committee Meeting on Rate Structure Design
- May 8, 2018– Public Works and Environmental Concerns Committee Meeting on Rate Structure Analysis on CIP
- June 12, 2018 @ 5 p.m.– Public Works and Environmental Concerns Committee and Finance Committee Joint Meeting on Rate Structure Analysis on CIP
- August 2018 – Village Board Budget Workshop to Approve FY 2018 Water & Sewer Rate Structure
- September 2018 – Village Board Approves FY 2019 W&S Rate Ordinance
- October thru December 2018 – Public Outreach Communication effort on new rate/structure
- January 1, 2019 – Implementation of new Water & Sewer rate/structure based on study

Summary

- Utility rates should be set to cover the operating and capital expenses of the utility system.
- Sometimes, there is no “right” answer: Village policy can influence which rate structure is used to collect utility fees.
- Customer outreach is important in communicating the need for water and sewer rates to be set appropriately.
- Utility financing is a long term endeavor:
  - Small early increases mitigate the need for large future increases
  - Debt financing distributes costs among current / future users
  - Ultimate Goal – Keep utility rates and fees as low as possible **over time**.

Discussion

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