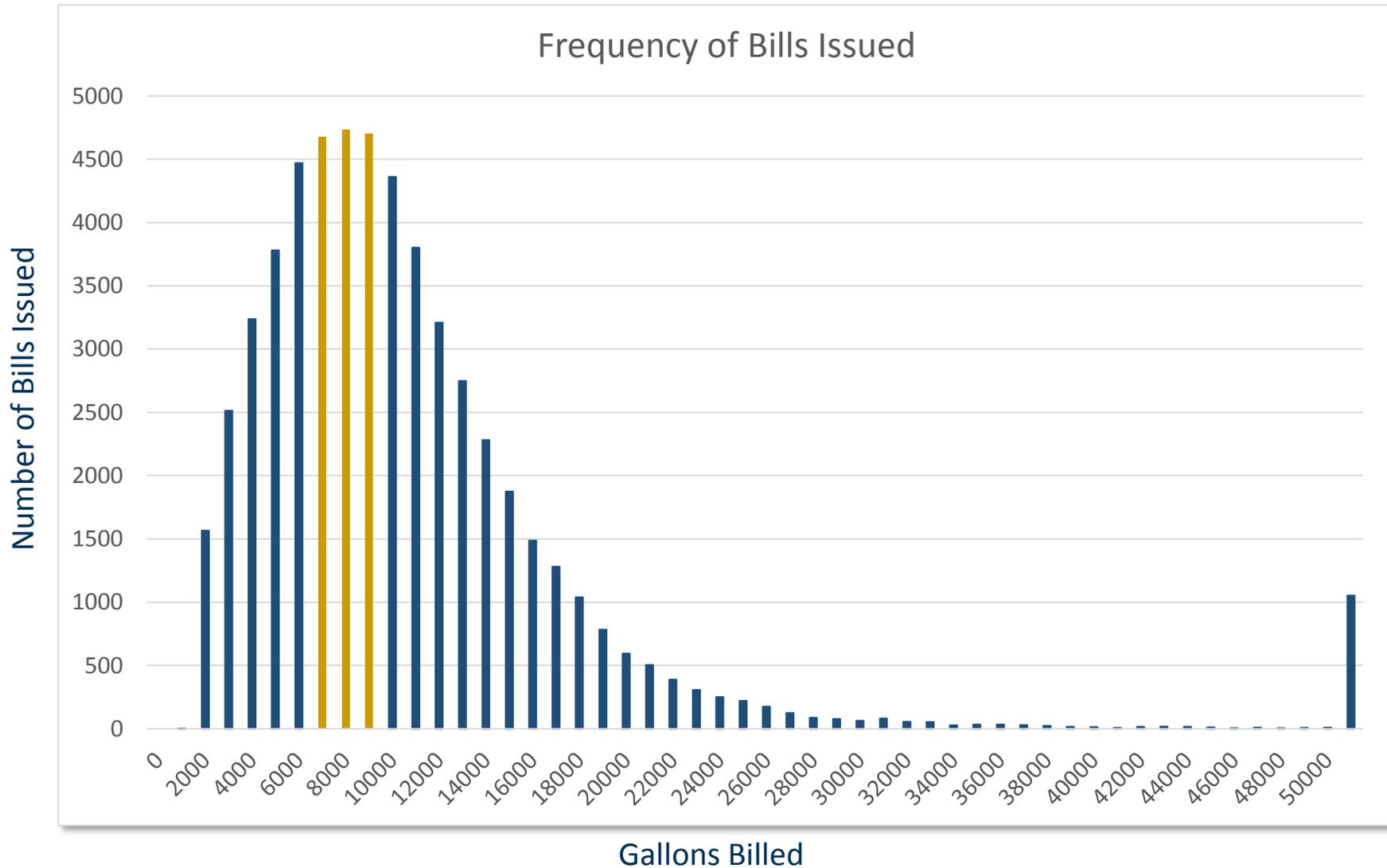


# Village of Carpentersville Water & Sewer Rate Study

Status Update

Village Board Meeting  
August 1, 2017

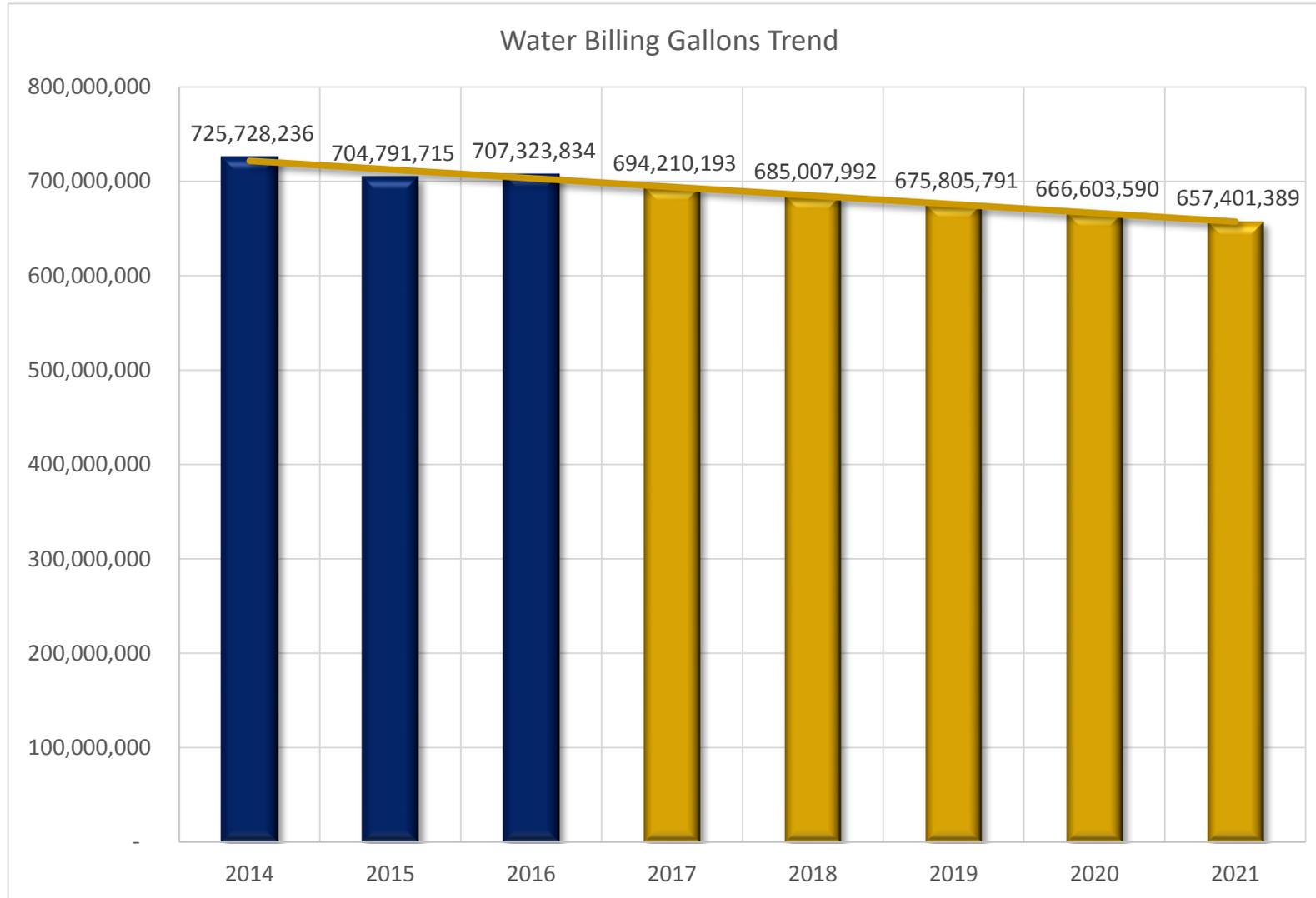
# Typical User Profile



Typical Users are billed for 6000 to 9000 gallons bi-monthly

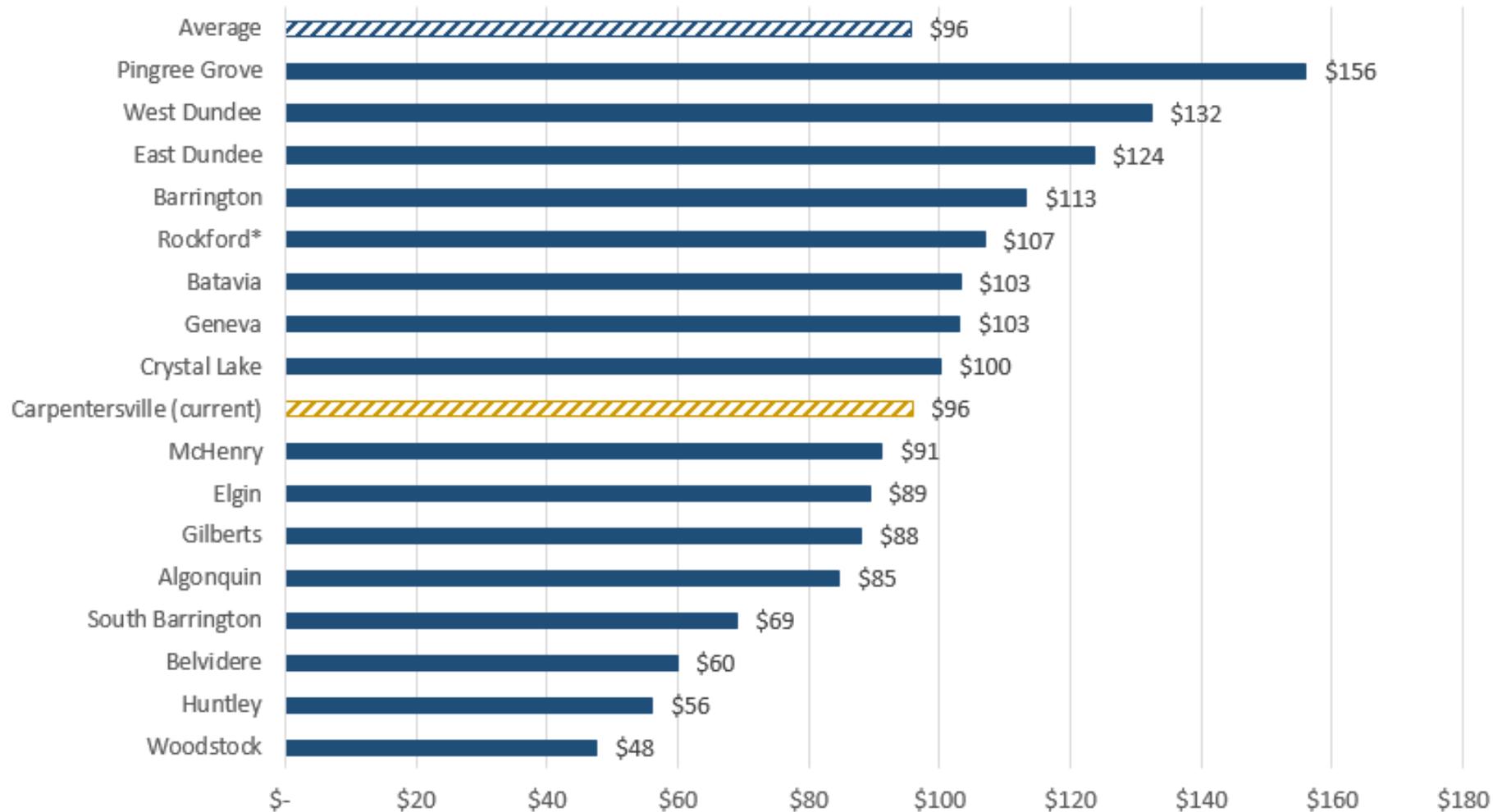


# Historic Water Usage



# Average Bill Comparison

Bi-monthly Water & Sewer Bill for Typical Residential User



\* Rate includes estimated property tax assessment by Sanitary District



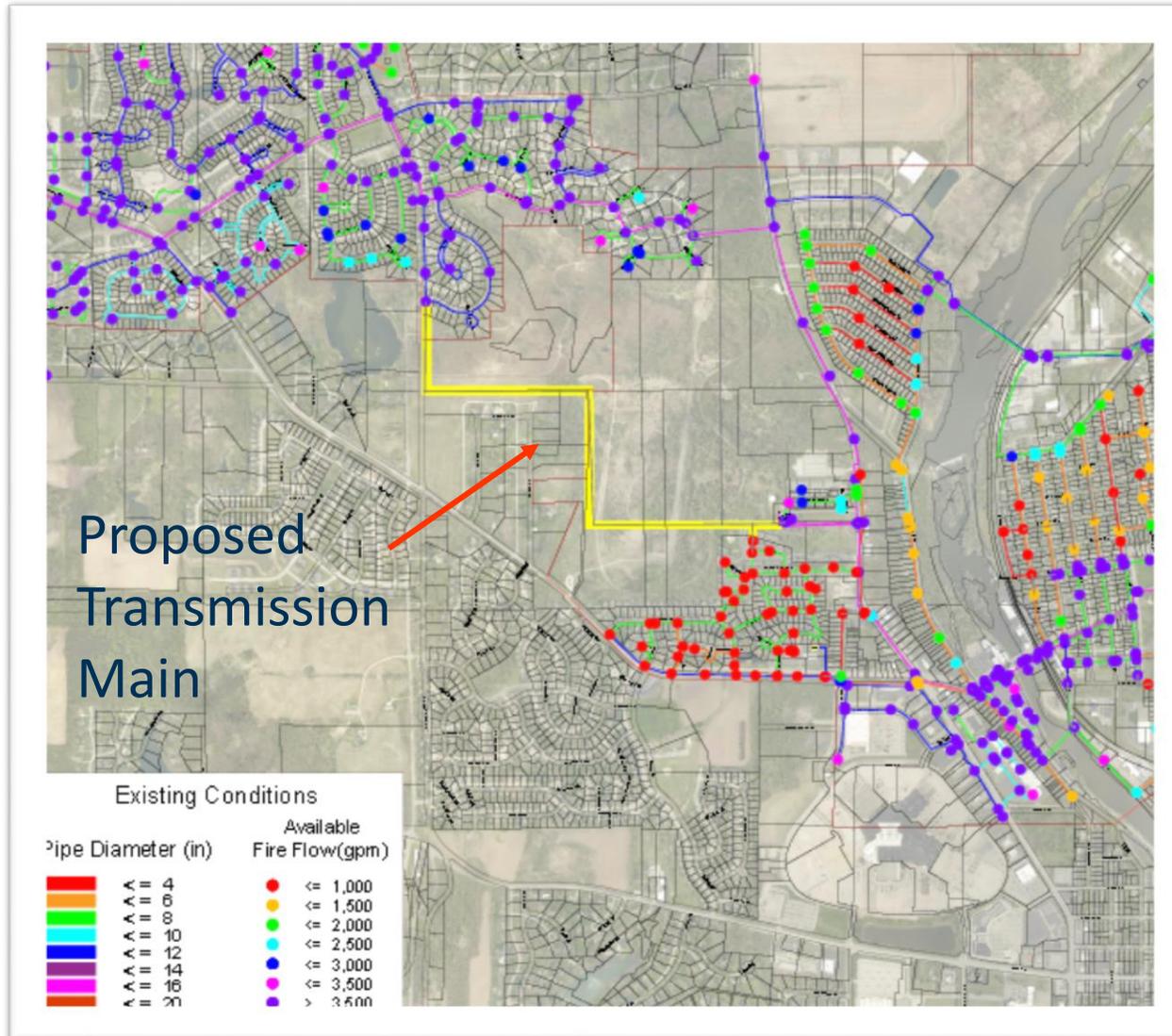
# Capital Projects – Water - Priorities

Staff Ranking	Project Title	Description/Benefit	Total Amount
1	Western Utility Extension from Winchester Glen	16" water main along Huntley Road to serve potential future commercial development	\$ 300,600
2	Hopi Lane Drainage Improvements- Water Main	Replace existing water main as part of the Drainage Improvements Project	\$ 440,000
3	Bolz Road Reconstruction - Water System Improvements	Replace valves along Bolz Road	\$ 12,000
3	Bolz Road Reconstruction - Water System Improvements	Replace existing hydrants along Bolz Road	\$ 22,500
4*	Main Street/Washington Intersection Improvements	Replace existing Water Main on Washington Street as part of the Intersection Improvements Projects	\$ 165,000
4*	Main Street/Washington Intersection Improvements	Replace existing Water Main on Main Street as part of the Intersection Improvements Projects	\$ 68,750
5**	Redundant Feed West Side Water Main	16" through Raceway to Sleepy Hollow. Provides West Zone redundant feed, better fire flow improvement to Newport Coves and Spring Point Townhomes. Includes replacement of 8" stub off Spring Ct to the looped 8 inch.	\$ 2,288,550
5**	Booster Pumping Station No.2 Improvements	Modify piping and pumps as necessary to accommodate transition of existing 16 inch feed to a transmission main from the east pressure zone	\$ 285,000
5**	IL. Rte 31 Water Main Extension	Water main connecting between Western Avenue and Lincoln Avenue. Provides a connection from the low pressure zone to ground storage at Booster Station 2.	\$ 185,250
6	IL Route 31 4 inch Water Main Abandonment	Abandonment of existing 4 inch water main along Route 31 with 8 service relocations.	\$ 85,500
			<b>\$ 3,853,150</b>

\* Only Applicable if Intersection is Approved

\*\* Constructed as One Project

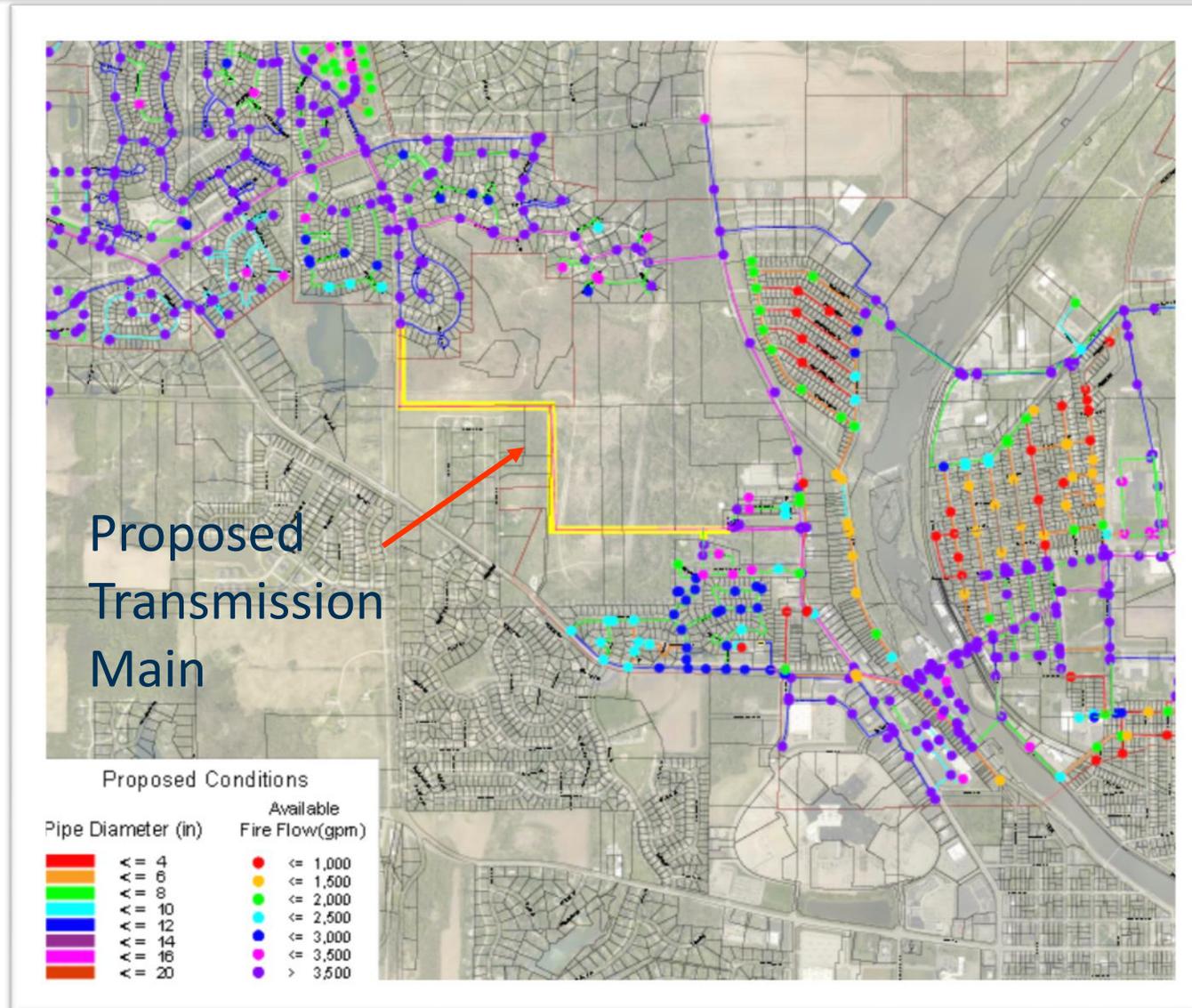
# Redundant Feed- West Side Water Main



7300 linear feet of new 16" water main through Raceway from Booster Station 2 to Sleepy Hollow Road



# Redundant Feed- West Side Water Main



## Benefits

- Redundant Feed to West Side
- Improved Fire Flows

# Water System Annual Costs

<i>Water System Annual Costs</i>		
Annual Fire Hydrant Painting		\$ 30,000
Maintenance Costs		\$ 70,000
Annual Fire Hydrant and Valve Replacement		\$ 90,000
Well Inspection and Maintenance		\$ 60,000
Valve Maintenance		\$ 55,000
	Total=	\$ 305,000

# Capital Projects –Wastewater - Priorities

Staff Ranking	Project Title	Description/Benefit	Total
1	Golfview Highlands Unit 8 Sanitary Line	New sanitary sewer to reduce surcharging	\$320,000
2	Lift Station Rail Conversion (rails/labor/pumping) @ # 12	Replace Failing rails	\$37,620
3	Lift Station Rail Conversion (rails/labor/pumping) @ # 14	Replace Failing rails	\$17,100
4	Lift Station Rail Conversion (rails/labor/pumping) @ # 15,	Replace Failing rails	\$26,220
5	LS Rail Conversion (rails/labor/pumping) @ # 16,	Replace Failing rails	\$30,780
6	LS Rail Conversion (rails/labor/pumping) @ # 17,	Replace Failing rails	\$17,100
7	Digestion System - Mixing System Installation AD1 and AD2	Add a new mixing system into digesters	\$313,500
8	Digestion System - Blower replacement cost- High Efficiency (equipment only)	Replace existing blower with high efficiency equipment to reduce energy costs	\$228,000
9	Digestion System - Diffuser Replacements/Retro fits	Replace diffusers with more efficient diffusers	\$57,000
10	Hopi Lane Drainage Improvements- Sanitary Sewer	Line 8, 10 and 12" Sanitary Sewer	\$56,000
			<b>\$ 1,103,320</b>

# Capital Projects – 2019 Wastewater



New mixing system improves aeration efficiency and will reduce operating power costs.

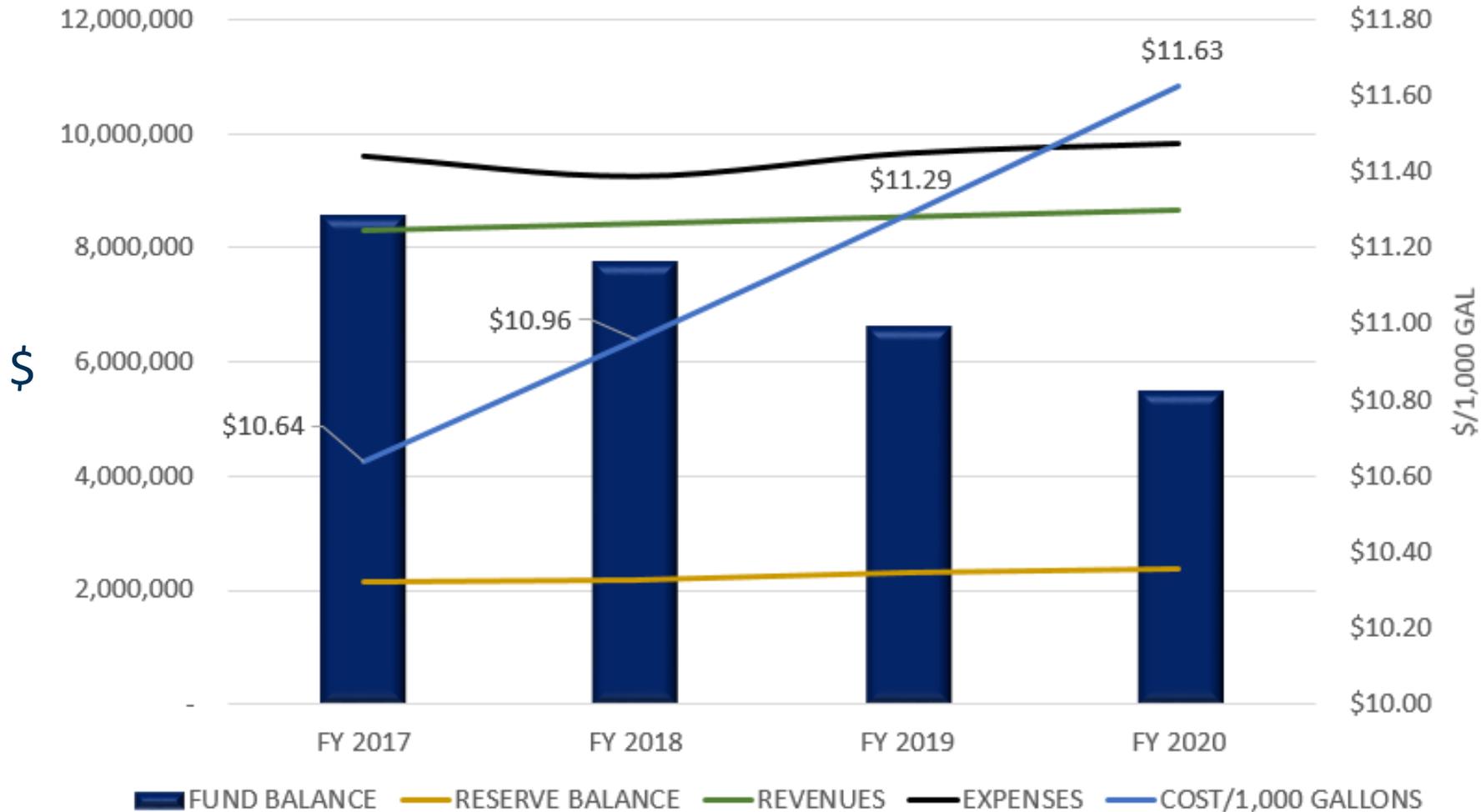
# Sanitary System Annual Costs

<i>Sanitary System Annual Costs</i>		
Annual Sanitary Sewer Pipe and Manhole Lining Program		\$ 220,000
Pump Replacement		\$ 50,000
Pump Maintenance and Inspection		\$ 20,000
	Total=	\$ 290,000

# Priority Capital Projects –Total

<b>PRIORITY PROJECTS</b>	<b>TOTAL</b>
<b>Water</b>	<b>\$ 3,853,150</b>
<b>Wastewater</b>	<b>\$ 1,103,320</b>
	<b>\$ 4,956,470</b>

# Updated Rate Analysis – 3 Years



# Sample Residential Rates

USER	AVERAGE COST ( 2 MONTHS)	GARBAGE COST	AVAILABILITY CHARGE	NET COST	3% INCREASE	AVERAGE MONTHLY INCREASE
USER- MINIMUM	\$ 44.06	\$ 13.00	\$ 10.68	\$ 20.38	\$ 0.61	\$ <b>0.31</b>
USER- AVERAGE	\$ 106.51	\$ 13.00	\$ 10.68	\$ 82.83	\$ 2.48	\$ <b>1.24</b>
USER- ABOVE AVERAGE	\$ 123.42	\$ 13.00	\$ 10.68	\$ 99.74	\$ 2.99	\$ <b>1.50</b>
USER- HIGHER USEAGE	\$ 182.22	\$ 13.00	\$ 10.68	\$ 158.54	\$ 4.76	\$ <b>2.38</b>



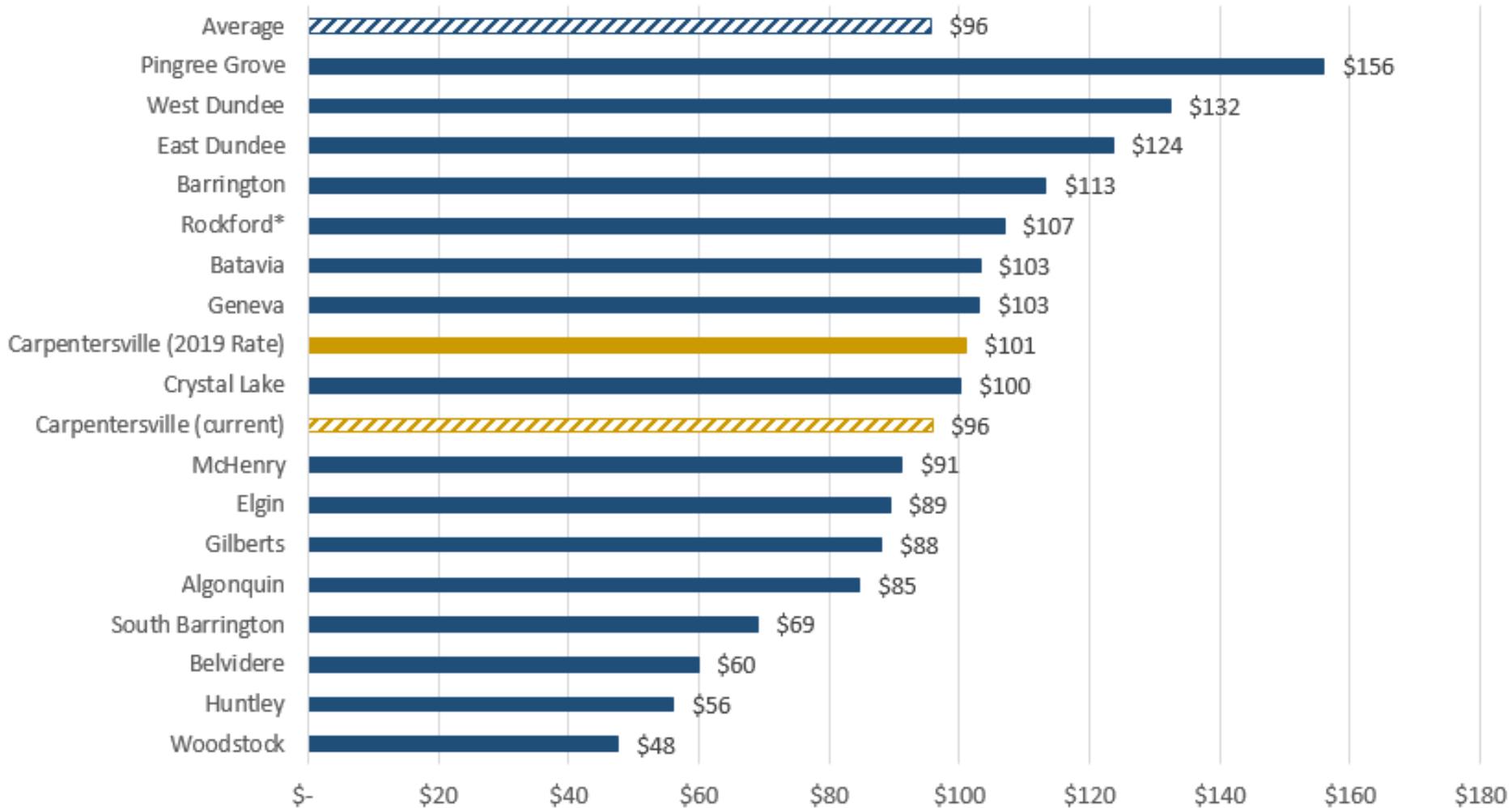
# Sample Industry Rates

INDUSTRY	AVERAGE COST ( 2 MONTHS)	GARBAGE COST	AVAILABILITY CHARGE	NET COST	3% INCREASE	AVERAGE MONTHLY INCREASE
INDUSTRY - MINIMUM	\$ 2,500.00	NA	NA	\$ 2,500.00	\$ 75.00	\$ <b>37.50</b>
INDUSTRY - AVERAGE	\$ 4,500.00	NA	NA	\$ 4,500.00	\$ 135.00	\$ <b>67.50</b>
INDUSTRY - ABOVE AVERAGE	\$ 9,500.00	NA	NA	\$ 9,500.00	\$ 285.00	\$ <b>142.50</b>
INDUSTRY- HIGHER USAGE	\$ 31,220.00	NA	NA	\$ 31,220.00	\$ 936.60	\$ <b>468.30</b>



# Updated Rate Analysis – Average Bill Comparison

Bi-monthly Water & Sewer Bill for Typical Residential User



\* Rate includes estimated property tax assessment by Sanitary District



# Rate Study Next Steps

- Incorporate input from Village Finance Committee and Village Board
- Finalize CIP and Rate Analysis