

# CITY OF HUGHSON

## CITY COUNCIL WORKSHOP

# WATER & WASTEWATER

Monday, December 11, 2017



# WORKSHOP

## PURPOSE

Discuss City's Water and Wastewater Operation and Infrastructure



# CITY UTILITY BILL

The monthly City  
Utility Bill is comprised  
of 3 services

TYPE	BASE RATE	AVERAGE USAGE RATE
SEWER	\$95	
WATER	\$32	\$53
GARBAGE	\$21	
<b>TOTAL</b>	<b>\$148</b>	<b>\$169</b>

# SEWER

## AGENDA

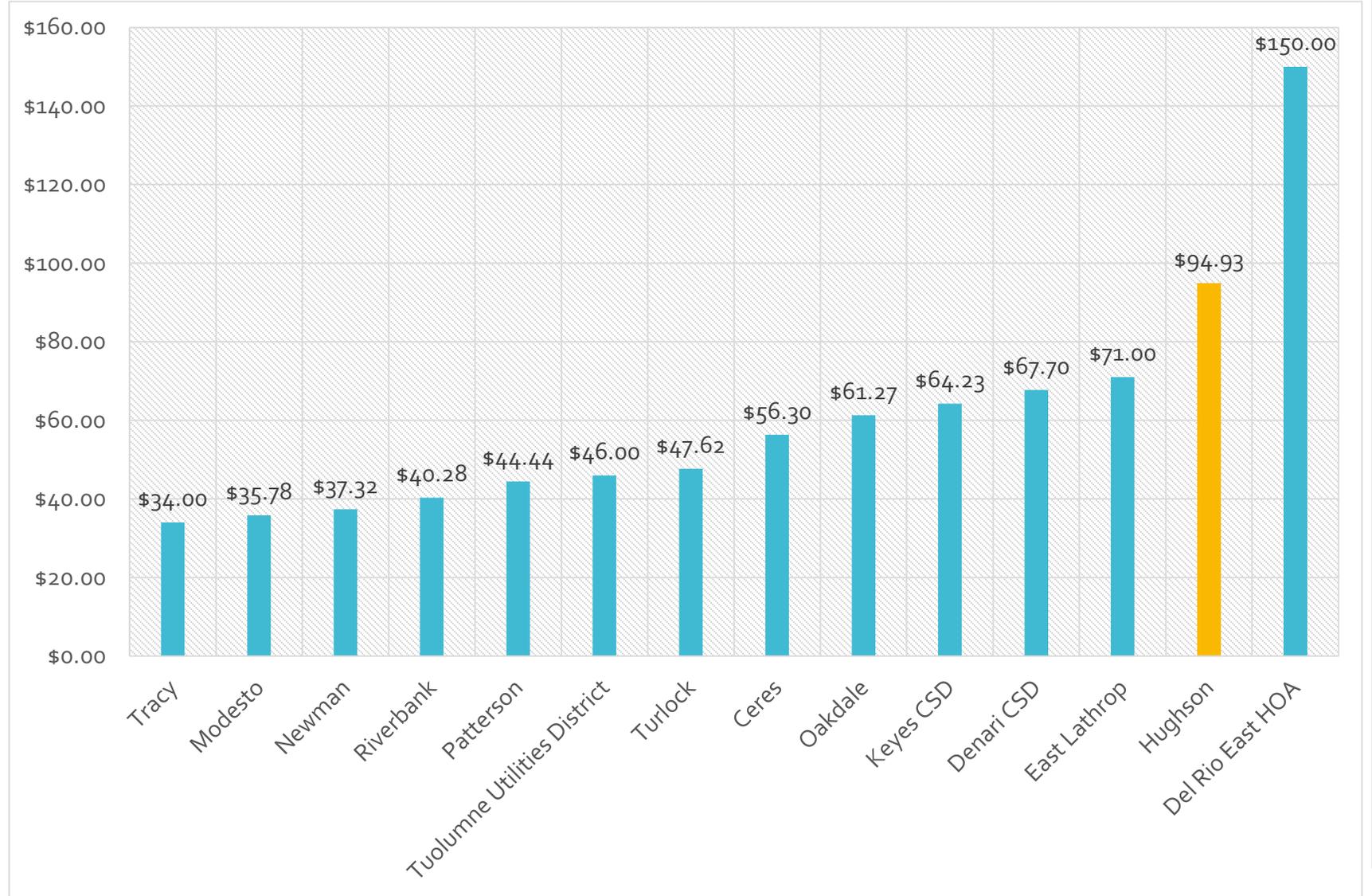
- BACKGROUND/HISTORY
- CURRENT INFRASTRUCTURE
- ADOPTED RATES / PROP 218
- FUTURE NEEDS



# SEWER

## BACKGROUND / HISTORY

### SEWER RATE SURVEY



# SEWER

## BACKGROUND / HISTORY

### *TIMELINE*

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1972

Hughson Becomes a City

1900's-1980's

City Disposed of Raw Sewage on Drying Ponds Near River  
State Requirements Disallowed this Practice in 1980's

1987

First Hughson Sewer Treatment Plant Constructed  
Estimated Plant Life = 20 years

2003

City Makes Minor Upgrade to Sewer Treatment Plant Capacity

2005

State Requires Treatment of Nitrates in Wastewater

2008

State Requires Treatment of Nitrates in Wastewater

2009

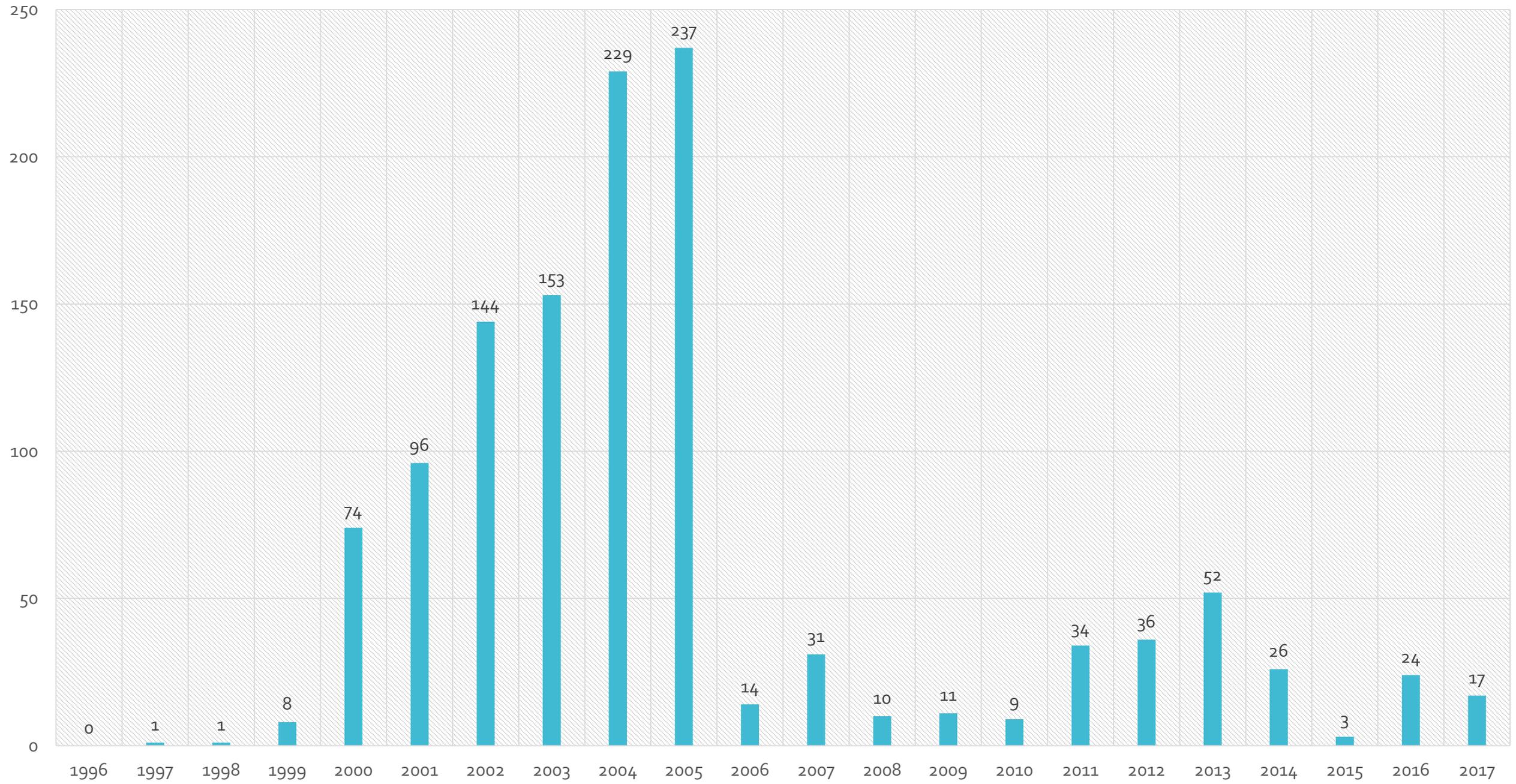
Sewer Rate Increase Approved by City Council  
Cost of New Treatment Plan = \$21.5M

2012

Current Sewer Treatment Plant Completed



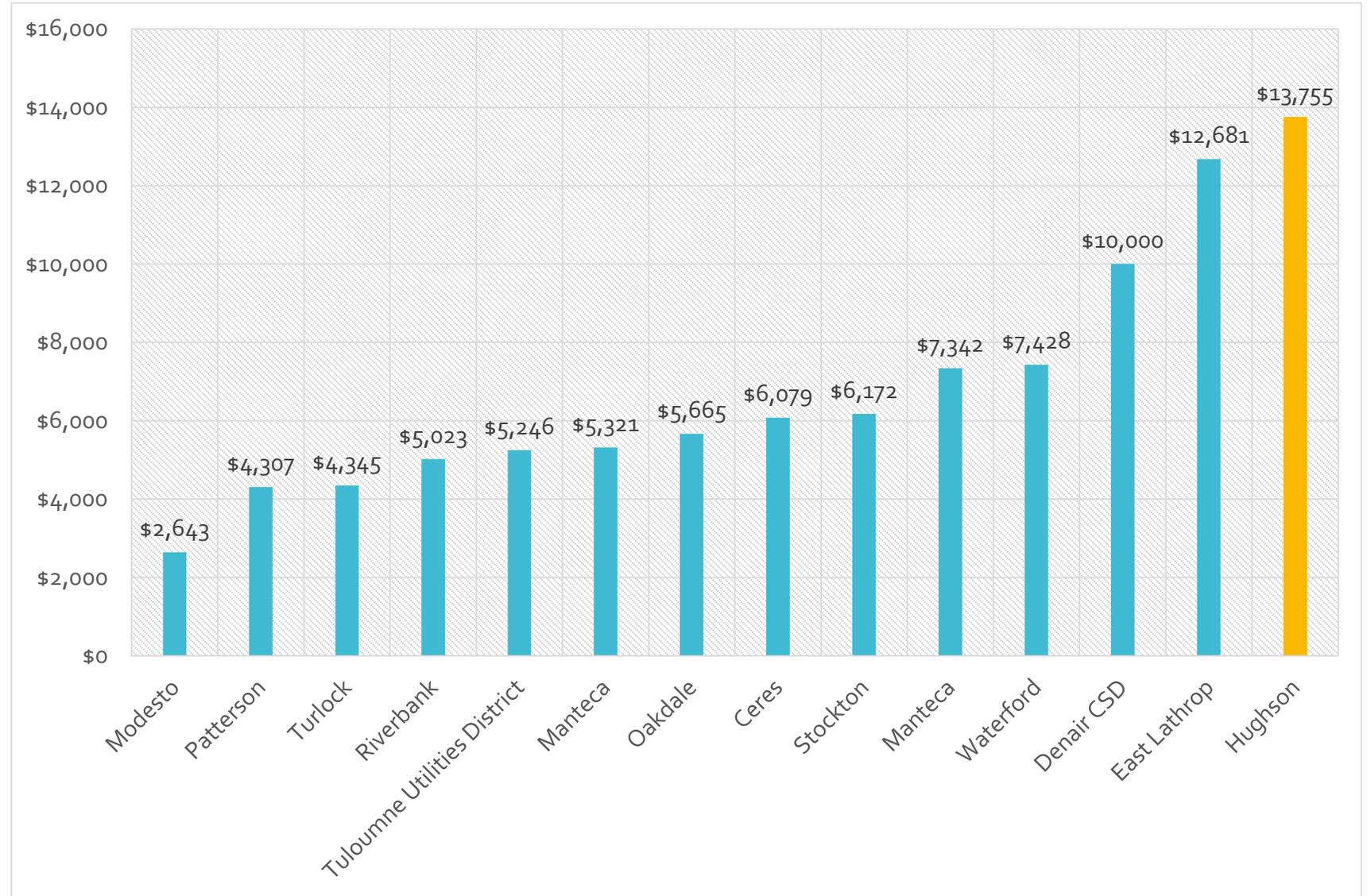
# NEW HOUSING STARTS



# SEWER

## BACKGROUND / HISTORY

### SEWER IMPACT FEE SURVEY



# SEWER

## ADOPTED RATES / PROPOSITION 218

Current Sewer Rate

**\$95**

**\$46**

Debt Service

**\$32**

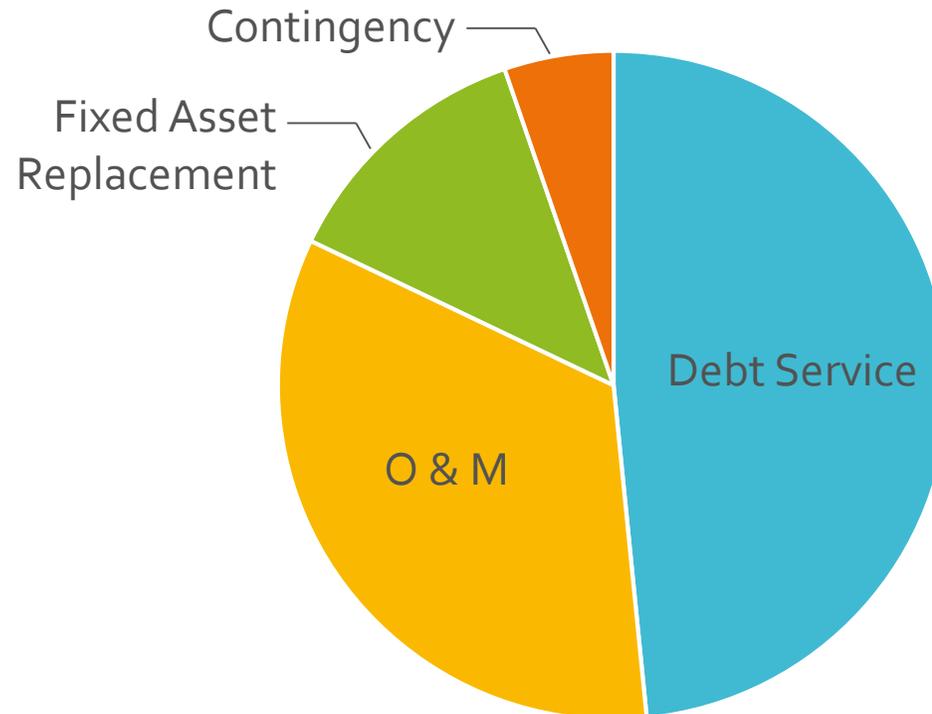
O & M

**\$12**

Asset Replacement

**\$5**

Contingency



# SEWER

## PLANT DETAILS

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PLANT CAPACITY **1.8 MG**

PLANT COST **\$22,000,000**

PLANT SIZE **35 acres**

Original Estimate **\$35,000,000**

# OF CONNECTIONS **~2,000**

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ANNUAL PLANT OPERATING COST **\$295,000**

Electricity **\$160,000**

Chemicals **\$24,000**

Sludge Removal **\$60,000**

Testing/Monitoring **\$30,000**

Other **\$20,000**

TOTAL ANNUAL O & M COSTS **\$845,000**

CURRENT  
INFRASTRUCTURE

# SEWER

## CITY DEBT SUMMARY

Debt Issuance	Fund	Interest Rate	Original Principal	Year Issued	Outstanding Principal	Outstanding Interest	Annual Payment	Due Thru
<b>FORMER PLANT EXPANSION PROJECT</b>	60 Wastewater Enterprise Fund	3.40%	\$ 6,780,000	2008	\$4,353,784	\$901,269	Principal \$332,506 Interest \$145,226	2028
							<b>Total: \$477,732</b>	
<b>NEW SEWER TREATMENT PLANT</b>	66 WWTP Enterprise Fund	1%	\$20,871,789	2010	\$14,519,377	\$986,779	Principal \$1,112,944 Interest \$145,194	2030
							<b>Total \$1,258,138</b>	

ADOPTED RATES / PROPOSITION 218

# SEWER

## CITY SEWER RATE

TYPE	2009	2010	2011	2012	2013	2014	2015	2016	2017
Residential	\$51.00	\$59.42	\$69.22	\$82.37	\$84.51	\$87.05	\$89.05	\$91.45	\$94.93

ADOPTED RATES /  
PROPOSITION 218

## 2009 RATE STRUCTURE

2009 – 2012: Average 16.5% Increase for 4 years.

2012 – 2017: CPI Increase for 5 years.

# SEWER

## FUTURE NEEDS

### *FUTURE NEEDS*

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- **Staffing.** New Plant designed to be operated with 2.5 FTE. City currently employs 1.5 FTE with occasional part time assistance
- **Operation Costs.** All operations costs (electricity, chemicals, monitoring, removal) continue to rise
- **Maintenance Costs.** A plant has many moving parts, which require maintenance. Additionally, the life expectancy of major Plant equipment is shorter than the life of the plant
- **Regulations.** State regulations and requirements continue to increase



QUESTIONS &  
ANSWERS

SEWER



# WATER

## AGENDA

- BACKGROUND/HISTORY
- CURRENT INFRASTRUCTURE
- ADOPTED RATES / PROP 218
- FUTURE NEEDS



# WATER

## BACKGROUND / HISTORY

### *TIMELINE*

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1972 – 1990's

City constructed Wells No. 3 – 7

2006

State reduces Arsenic MCL from 50 ppb (1977) to 10 ppb

2012

State issued City Compliance Orders for Arsenic & Nitrates

2015

City Adopted Rate Study to Fund New Well Project

2017

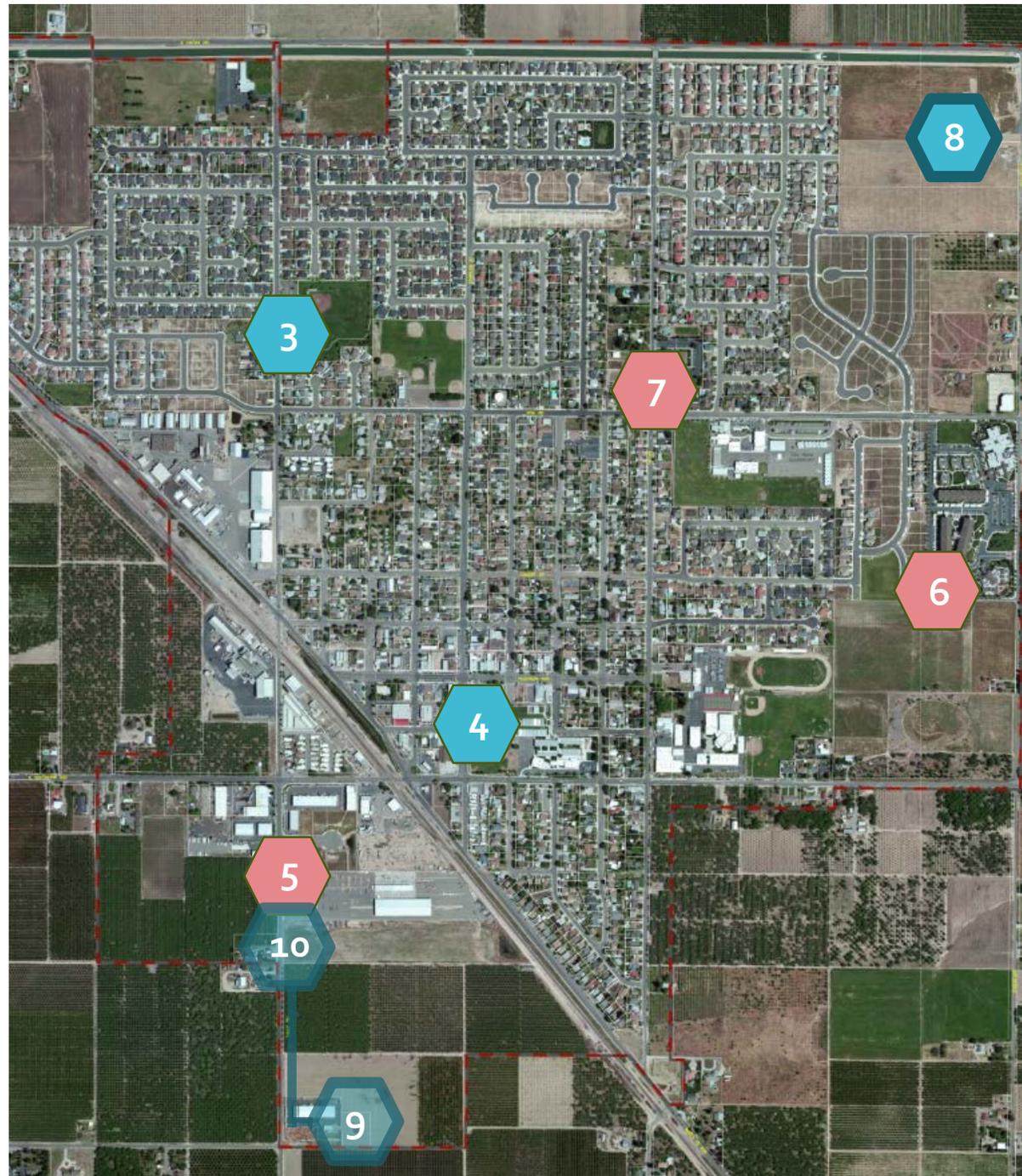
Funding Agreement With State for New Well Project Fully Executed

2019

Expected Completion of New Well Project

# WATER

## CURRENT INFRASTRUCTURE



### WATER SYSTEM DETAILS

water source  
GROUNDWATER

active city wells

3

inactive city wells

3

future city wells

2

### LEGEND

-  Well w/ Arsenic Treatment
-  Future Well w/ Arsenic Treatment
-  City Well
-  Offline City Well

# WATER

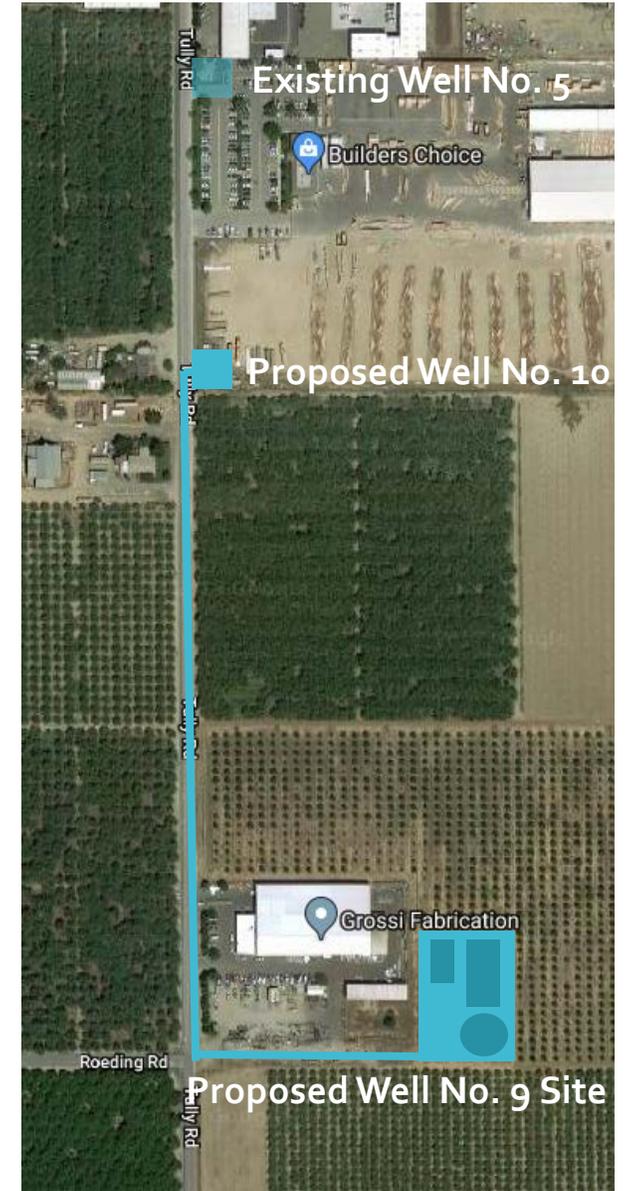
## Hughson Water Well Project

### *PROJECT DESCRIPTION*

To provide the cleanest drinking water possible and to comply with the State's 2012 Compliance Order, the City has carefully developed a water well project, including:

- Reconstruction of Well No. 5
- Construction of a new Well No. 9
- Arsenic Treatment Facility
- Water Lines connecting Wells
- 1 MG Storage/Blending Tank

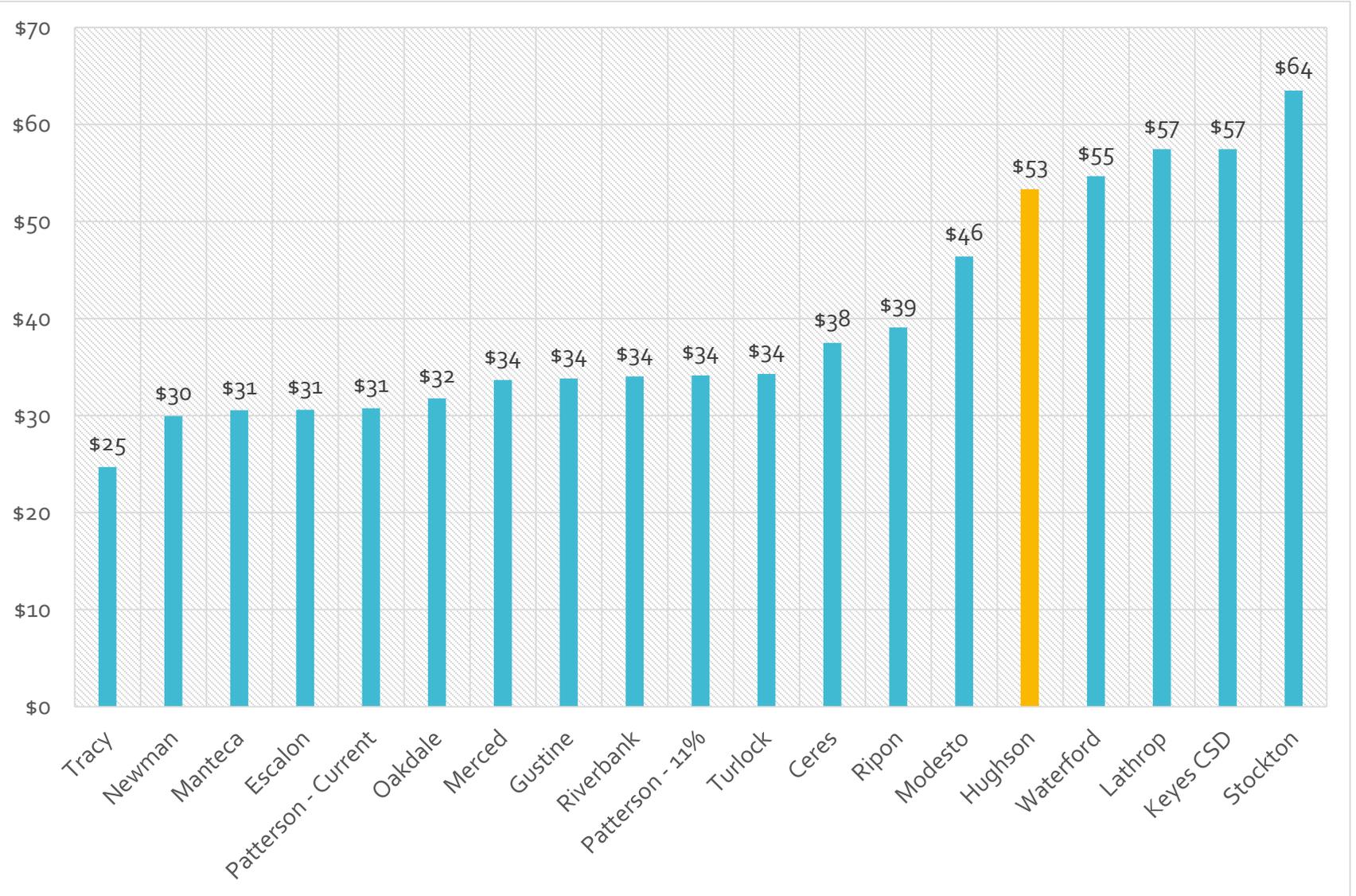
Project Cost: \$8.3M



# WATER

## WATER RATE SURVEY

ADOPTED RATES /  
PROPOSITION 218



# WATER

## ADOPTED RATES / PROPOSITION 218

Average Water Rate

\$53

\$30

O & M

\$8

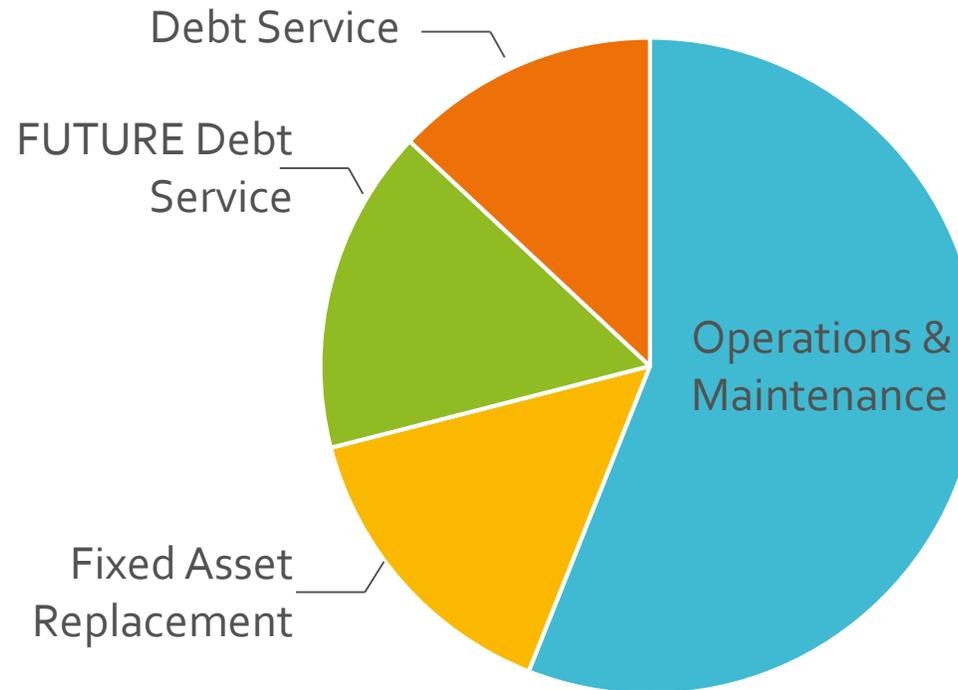
Debt Service

\$8

Asset Replacement

\$7

Future Debt Service



# WATER

## CITY DEBT SUMMARY

Debt Issuance	Fund	Interest Rate	Original Principal	Year Issued	Outstanding Principal	Outstanding Interest	Annual Payment	Due Thru
<b>Fox Road Water Tank</b>	80 Water Enterprise Fund	3.40%	\$ 2,400,000	2006	\$1,335,315	\$225,937	Principal \$129,160 Interest \$44,312	2026
							<b>Total: \$173,472</b>	
<b>1997 Water System Improvement Project</b>	80 Water Enterprise Fund	0.37%	\$380,000	2016	\$304,000	\$2,812	Principal \$76,000 Interest \$2,812	2021
							<b>Total \$77,135</b>	
<b>Hughson Municipal Water Project</b>	80 Water Enterprise Fund	0.0%	\$3,327,753	2018	\$3,327,753	\$0	Principal \$110,925 Interest \$0	2050
							<b>Total \$110,925</b>	

## CITY WATER RATE

TYPE	2010	2011	2012	2013	2014	2015	2016	2017
Residential	\$26.40	\$23.75	\$24.37	\$25.00	\$25.75	\$27.22	\$29.62	\$32.24

ADOPTED RATES /  
PROPOSITION 218

# WATER

## FUTURE NEEDS

### *FUTURE NEEDS*

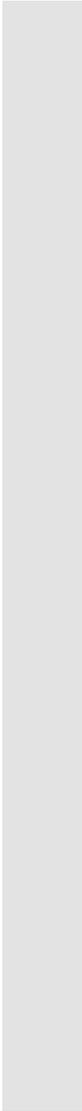
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- **Water Diversity.** The City will continue to explore the possibility of securing surface water.
- **Operation Costs.** All operations costs (electricity, chemicals, monitoring) continue to rise
- **Maintenance Costs.** Wells and treatment plants have many moving parts, which require maintenance.
- **Regulations.** State regulations and requirements continue to increase



QUESTIONS &  
ANSWERS

WATER



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