



# UPCOMING WASTEWATER PROJECTS AND POTENTIAL EFFECT ON RATES

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December 3, 2013



# PURPOSE OF PRESENTATION

- *Provide insight into upcoming projects*
- *Information about the projects' effects on rates*
- *WWTP Expansion (Kul)*



# QUICK REVIEW

- *Rates are set based on flow and strength of wastewater*
- *When we adjust rates, all ratepayers see an increase, not just residential*
- *Rates are set equitably*



# THREE TYPES OF FINANCING AND PROJECTS THAT EFFECT WASTEWATER RATES

- *Pay as you go – Collection System Asset Management*
- *Bond finance - Outfall Pipeline Project*
- *Operational cost - Desalination Project*



# WASTEWATER COLLECTION SYSTEM ASSET MANAGEMENT

- *Pay as you go projects*
- *Assets are infrastructure*



# WHAT IS ASSET MANAGEMENT

- *A decision making process on when to replace/renew assets*



# PURPOSE

- *Minimize Life-cycle Costs while maintaining an acceptable level of risk*



# HOW

*Consequence of failure*

+

*Likelihood of failure*

=

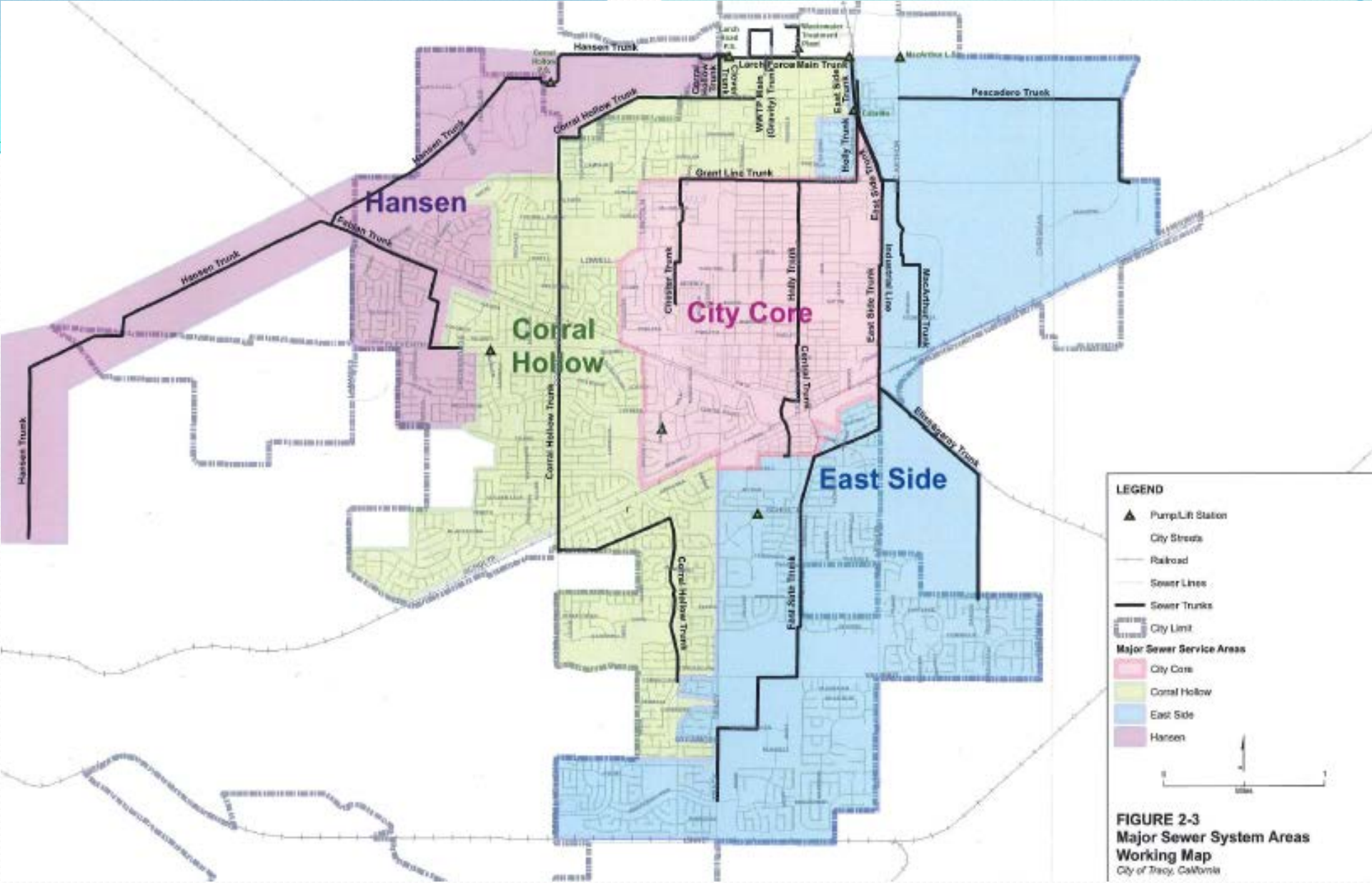
*Risk Score*





# ASSET MANAGEMENT IS A "REPORT CARD"

- *High risk assets = 5% of total*
- *High risk assets = 8 out of 166*
- *High risk assets addressed with  
CIP projects*



Major Sewer System Areas

FIGURE 2-13 (page 4 of 8)  
 City of Tracy Wastewater Hierarchy

								CONSEQUENCE (1, 4, 7, 10)					LIKELIHOOD (1, 2, 4, 7, 10)					
Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Regulatory Compliance	Public Image and Customer Service	Financial Impact	System Reliability	Consequence Score	Physical Condition and Material	Performance	Evaluation Frequency	Surrounding Features and Infrastructure	Likelihood Score	Risk Score
					Garden Square			1	1	4	1	1.60	1	1	7	1	1.60	2.56
					Edgewood			1	1	4	1	1.60	1	1	7	1	1.60	2.56
					Corral Hollow Sewer System													
					Larch Road Pump Station													
					Larch Pumps													
					Pump 1			10	7	7	4	7.30	4	2	2	1	2.70	19.71
					Pump 2			10	7	7	4	7.30	4	2	2	1	2.70	19.71
					Pump 3			10	7	7	4	7.30	4	2	2	1	2.70	19.71
					Pump 4			10	7	7	4	7.30	4	2	2	1	2.70	19.71
					Larch Controls													
					MCC			10	7	7	4	7.30	2	2	2	1	1.90	13.87
					SCADA Controls			10	7	7	4	7.30	1	1	1	1	1.00	7.30
					Check Valve Indicator			10	7	1	1	5.50	1	1	2	1	1.10	6.05
					Flow Meter			10	7	4	1	6.10	2	2	2	1	1.90	11.59
					Larch Electrical													
					Generator			10	7	4	4	6.70	4	2	1	1	2.60	17.42
					HVAC 1			7	1	4	7	4.60	4	2	1	1	2.60	11.96
					HVAC 2			7	1	4	7	4.60	4	2	1	1	2.60	11.96
					Padmounted Transformer			10	7	4	4	6.70	1	1	2	1	1.10	7.37
					Larch Structure													
					Wet well			10	10	10	10	10.00	4	4	1	1	3.40	34.00
					Larch Yard Piping													
					Check Valve 1			4	4	4	4	4.00	4	2	2	1	2.70	10.80
					Check Valve 2			4	4	4	4	4.00	4	2	2	1	2.70	10.80
					Check Valve 3			4	4	4	4	4.00	4	2	2	1	2.70	10.80
					Check Valve 4			4	4	4	4	4.00	4	2	2	1	2.70	10.80
					Pipes			4	4	7	4	4.60	2	2	2	1	1.90	8.74
					Valves			4	4	4	4	4.00	4	2	2	1	2.70	10.80
					Larch Site			1	1	4	1	1.60	2	2	2	1	1.90	3.04
					Cinder block wall			1	1	4	1	1.60	2	2	2	1	1.90	3.04
					Pavement			1	1	4	1	1.60	2	1	2	1	1.50	2.40
					Corral Hollow Interceptor													
					Corral Hollow Trunk - Sycamore			4	7	4	7	5.50	2	2	4	2	2.20	12.10
					Corral Hollow Trunk - Sycamore to RxR			4	7	4	7	5.50	2	7	4	2	4.20	23.10

FIGURE 3-2  
 Risk Scores for All City of Tracy Wastewater Collection System Level 5 Assets – Part 1

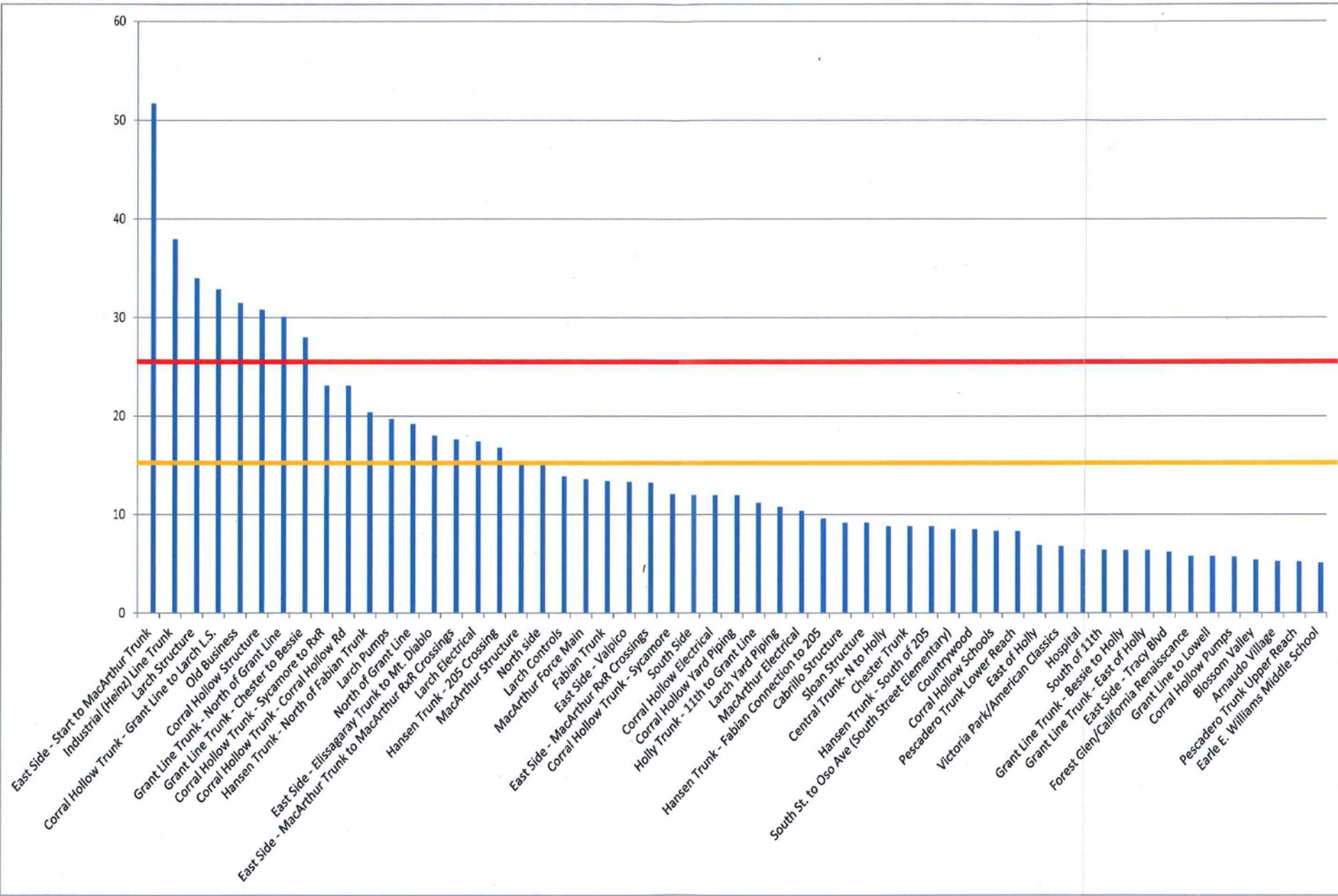


FIGURE 3-3  
 Risk Scores for All City of Tracy Wastewater Collection System Level 5 Assets – Part 2

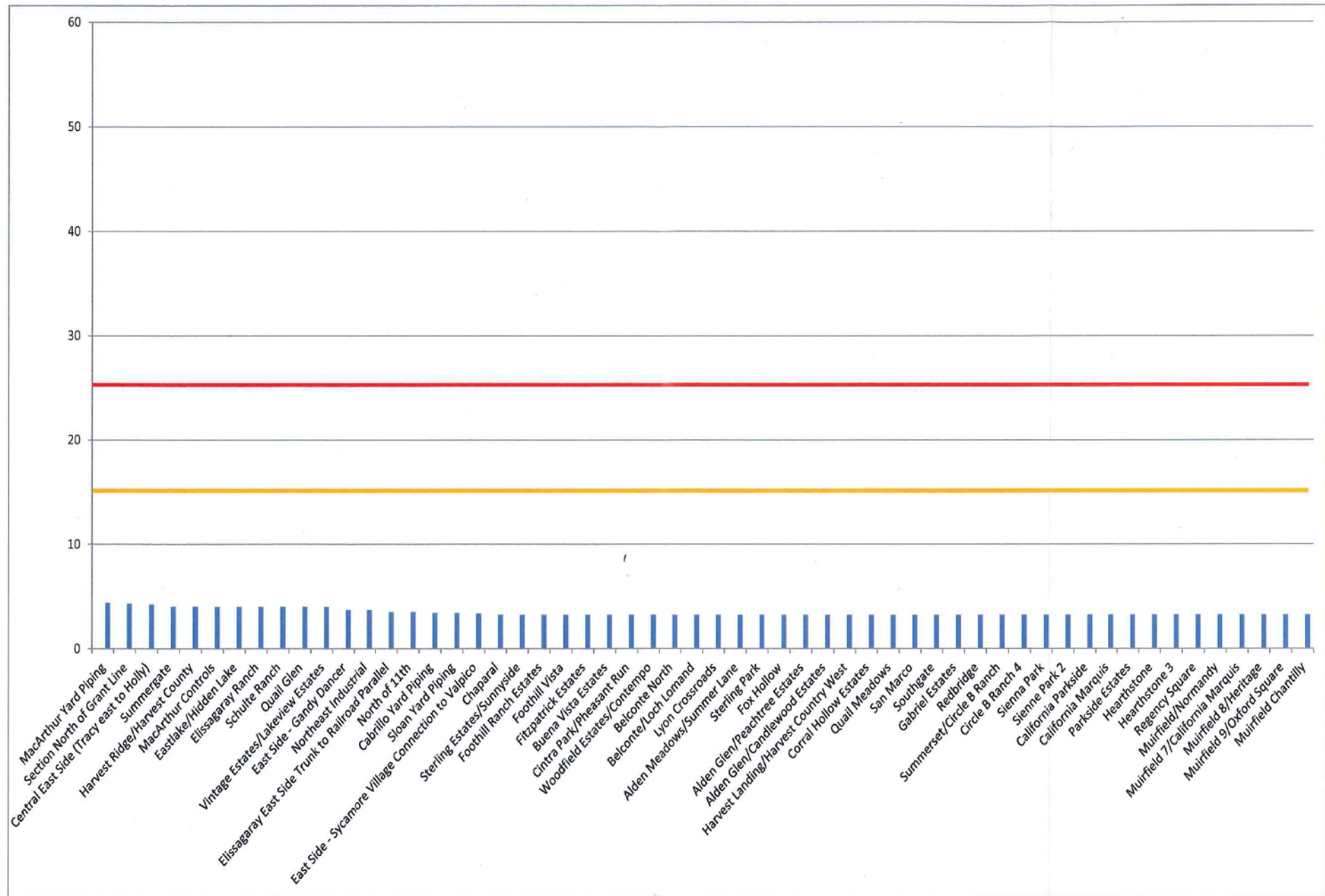
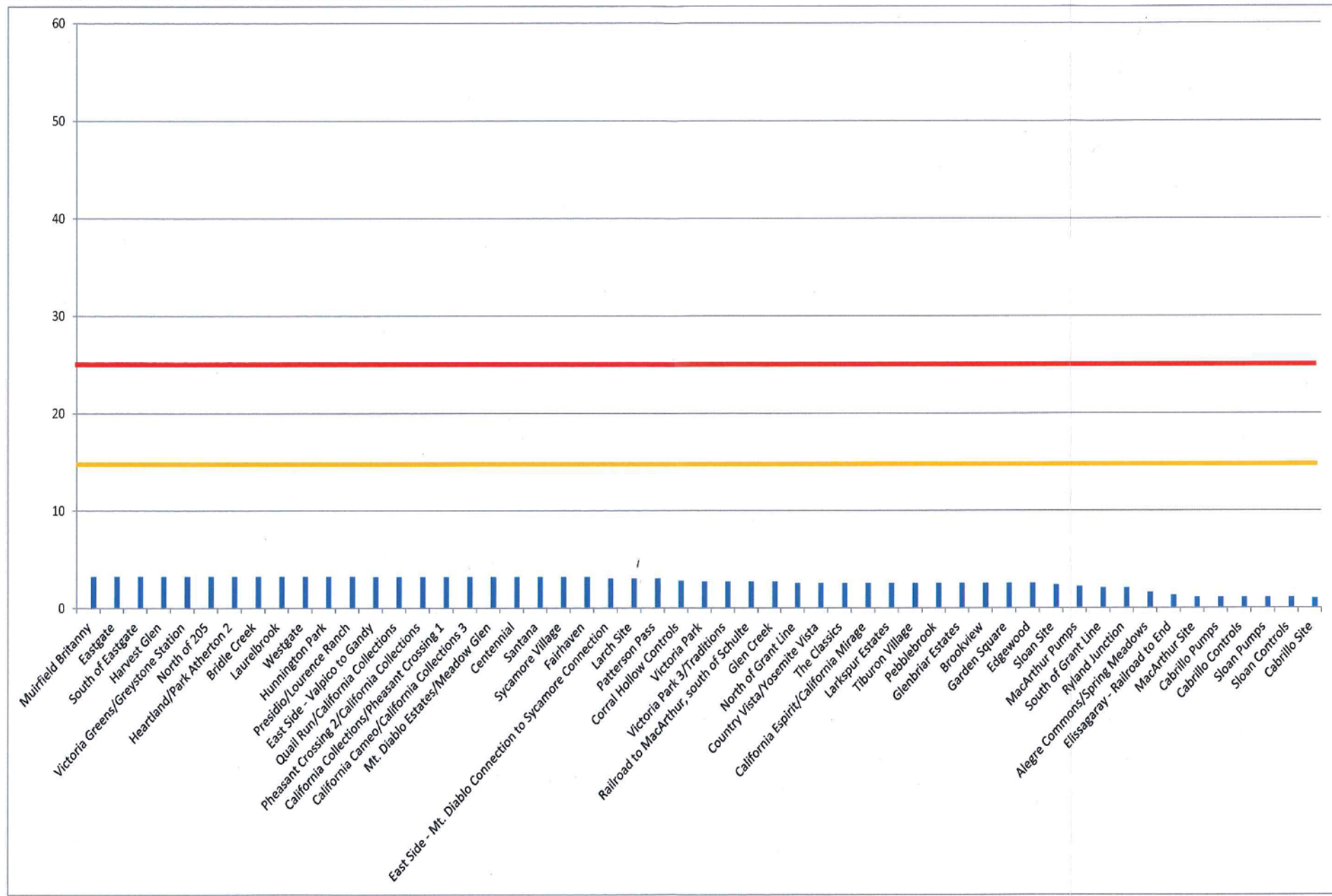


FIGURE 3-4  
Risk Scores for All City of Tracy Wastewater Collection System Level 5 Assets – Part 3





# RATE IMPACT

- *Currently included in annual budget at approximately **\$2 million** per year (\$1 million for collection system and \$1 million for WWTP)*
- *No rate increase needed for current funding level*



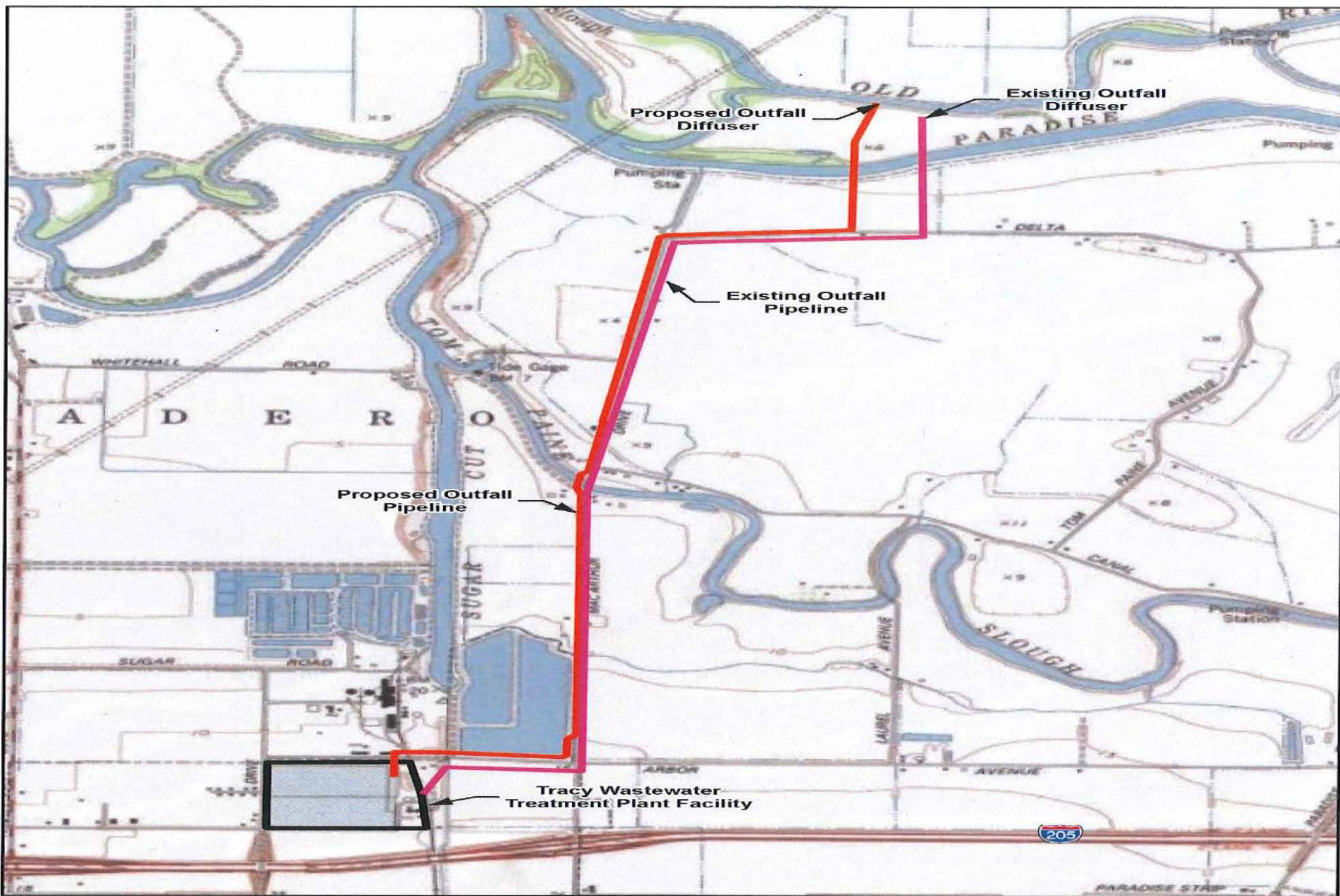
24" RCP - To Holding  
Ponds - Sulfide-Damage  
10/30/98





# OUTFALL PIPELINE PROJECT

- *Bond financed project for ratepayers share*
- *Developers share by developers*



**LEGEND**

- Existing Outfall
- Proposed Outfall
- Wastewater Treatment Plant Boundary



**Figure 2**  
**Current and Proposed**  
**Outfall Locations**  
*City of Tracy Outfall Project*

Source: CH2M HILL Outfall location 2010 and Tracy WWTP Facility Plan 2003 (Updated by CH2M HILL, June 2011)



# PURPOSE

- *Replacement/Redundant pipeline to dispose of treated wastewater effluent*
- *Provides capacity for future*
- *Minimize risk*



# PROJECT COST

- *\$14 million – Ratepayers (bond financed)*
- *\$ 11 million – Developers*
- *\$25 million - Total*



# BOND FINANCE

- *Large amount of capital money needed up front*
- *Pipeline will have a long service life – 60 to 80 years*
- *Ratepayer pay off over 20 years*



# RATE IMPACT

- *\$2 /month for residential*
- *Included in rate adjustment last September*



# DESALINATION PROJECT

- *Increased operational cost - ongoing*



# SALINITY ISSUE

- *Salinity regulated in the Delta*
- *Tracy does not meet current or proposed standards*
- *In time, compliance will be necessary*





# PROPOSAL

- *CST construct and operate combined ethanol plant and desalination plant*
- *Desalination plant would be similar to the facility at Musco Olive*

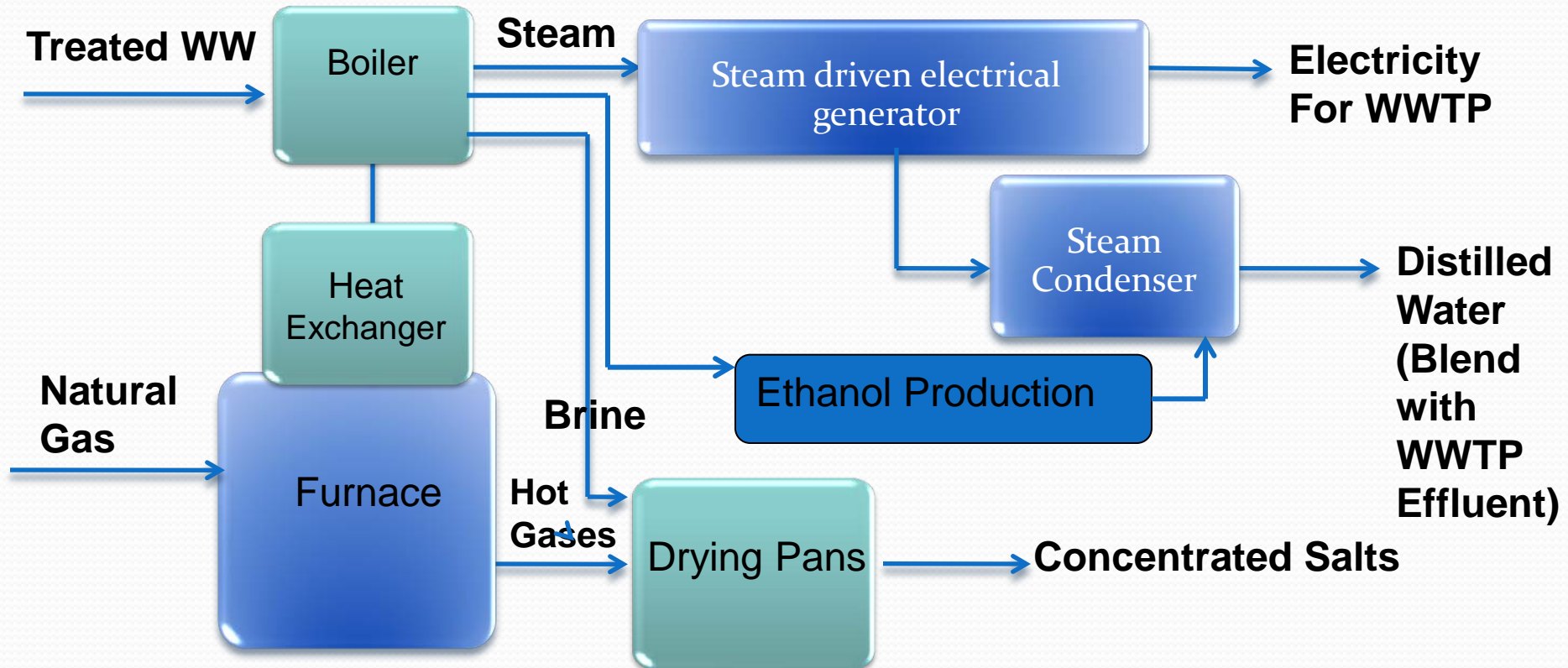


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# TRACY DESALINATION & GREEN ENERGY PROJECT AT THE WASTEWATER TREATMENT PLANT





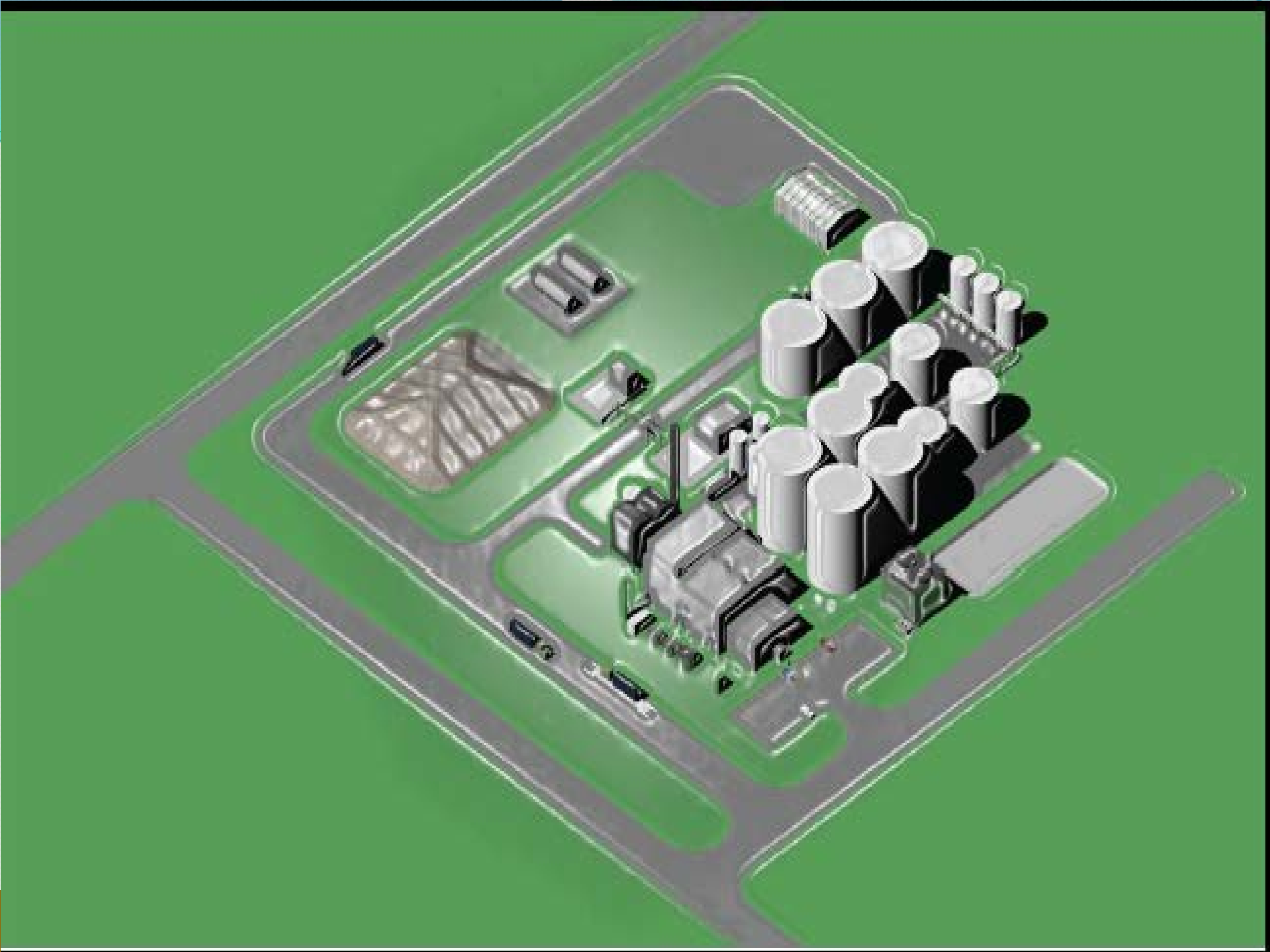
LET  
KEEP  
PUBLIC  
ALL

ALL  
PUBLIC

MOLE  
SUGAR



HOLLY  
SUGAR





# PROPOSAL CONTINUED

- *CST would process water and return distilled water to City*
- *City would not provide up front capital funding*
- *City would have a pay-for-performance contract*





# ESTIMATED COST

- *\$1.5 million per year*

## RATE IMPACT

- *10% rate impact (\$3.30 / month)*

## WHEN

- *When desalination plant starts service in 2+ years*



# SUMMARY

- *Projects cost \$ which effect rates*
- *Tracy does a reasonable number of projects to maintain infrastructure*
- *Over time, as the system ages, we will need to do more replacement projects*



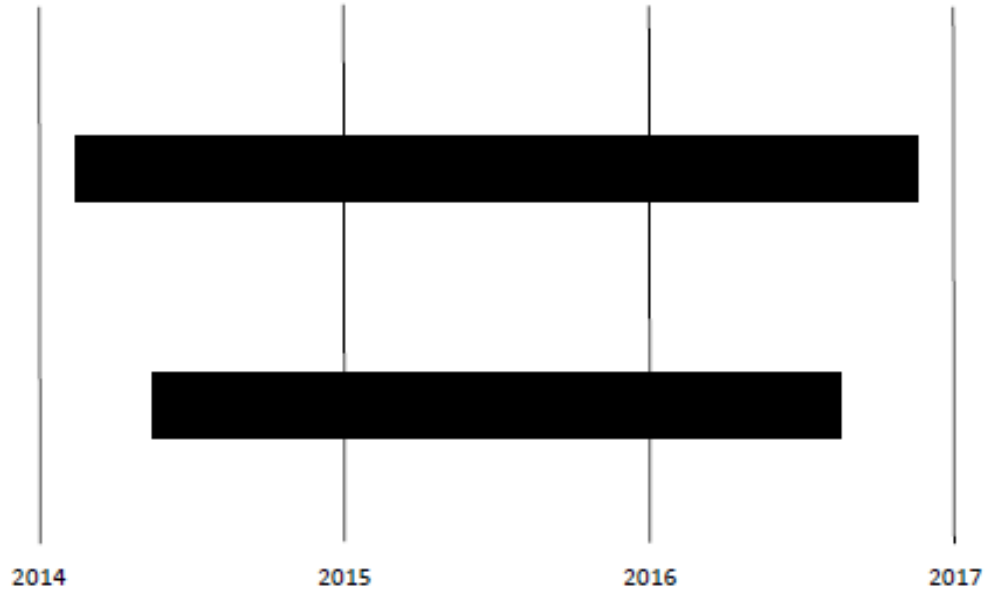
# SUMMARY (CONT.)

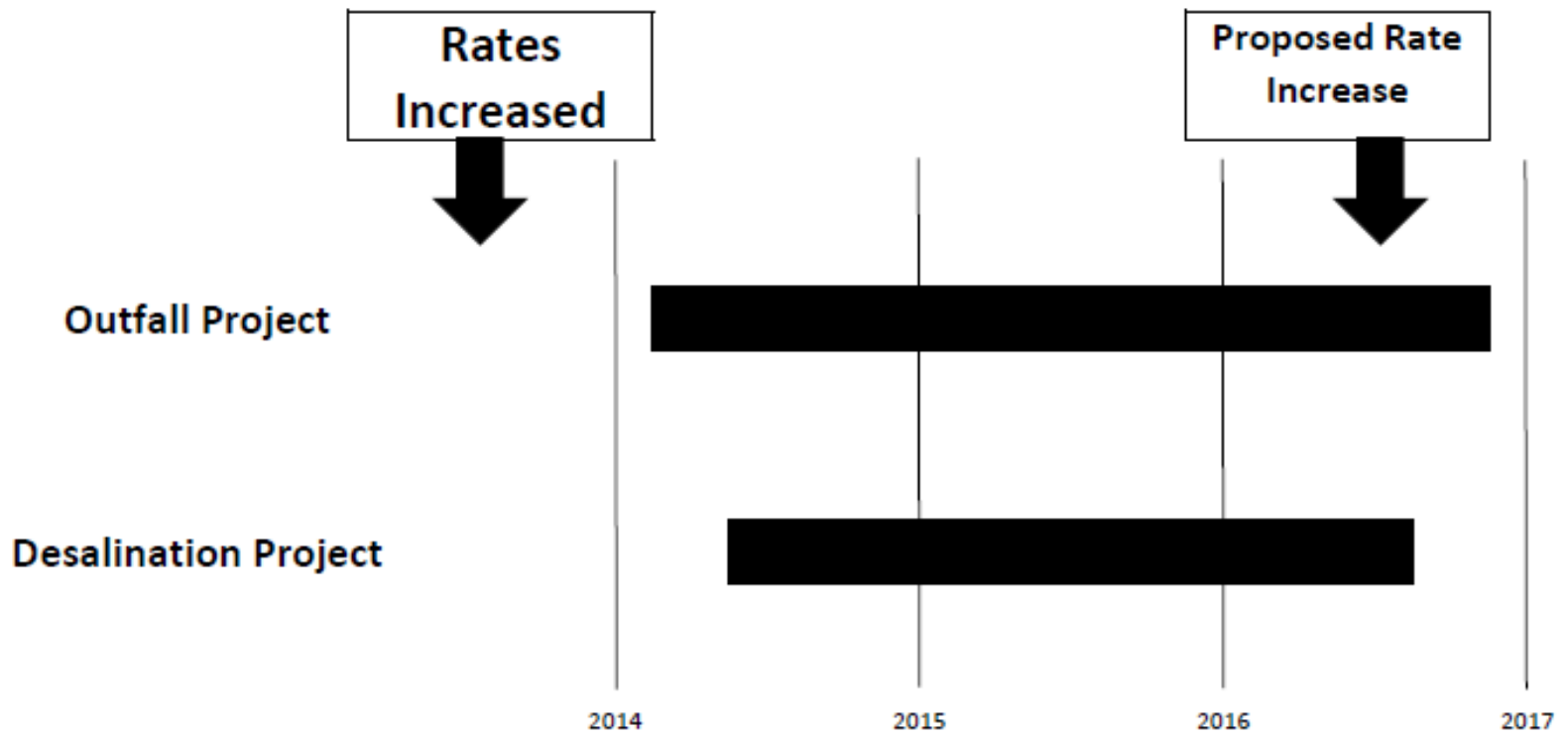
*Tracy has a well managed system as evidenced by:*

- *Effective wastewater treatment*
- *Few violations*
- *Few complaints*
- *Competitive rates*

**Outfall Project**

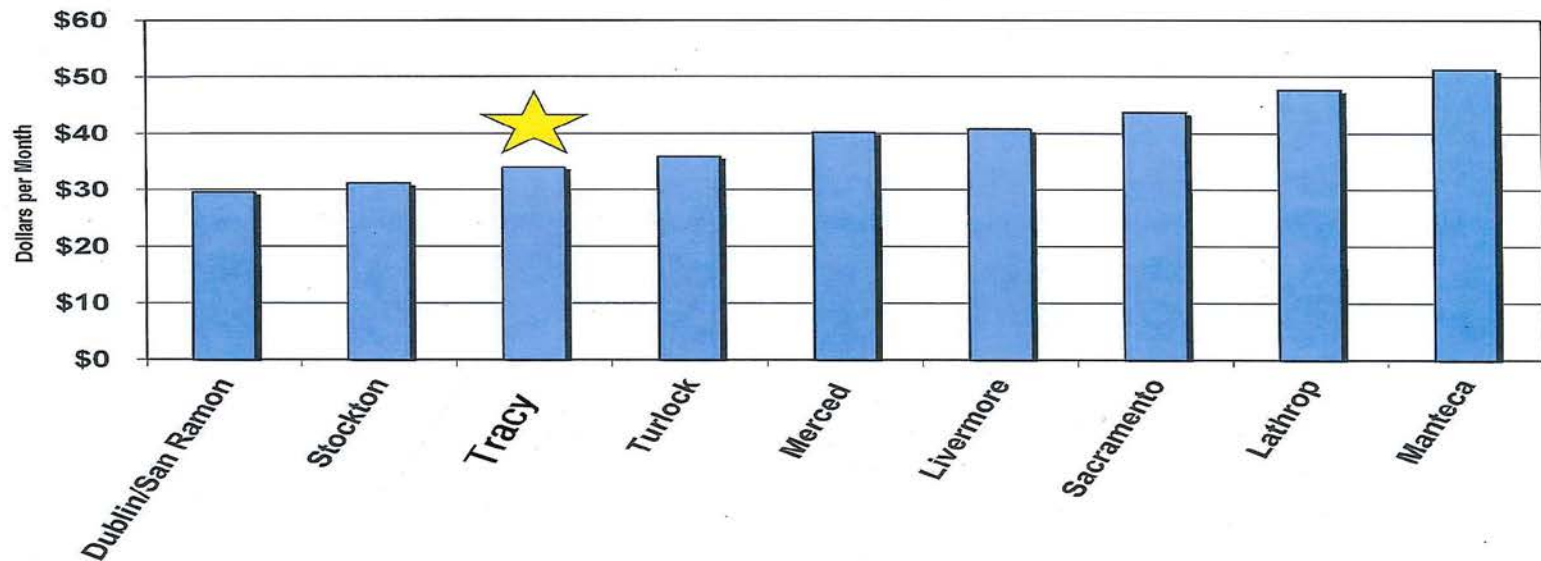
**Desalination Project**







# WASTEWATER RATES





# WASTEWATER TREATMENT PLANT FUTURE EXPANSION

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December 3, 2013



# CAPACITIES

	Existing	Future
<i>WWTP</i>	<i>10.8 mgd</i>	<i>12 mgd</i>
<i>Outfall</i>	<i>9 mgd</i>	<i>16 mgd</i>





# WWTP EXPANSION COST 10.8 mgd to 12 mgd

- *\$24.25 million – Developers*
- *\$ 0.75 million – Ratepayers*
- *\$25 million - Total*



# RATE IMPACT

- *No rate impact*
- *Ratepayers share included in existing rates*
- *Developers pay for the expansion project*