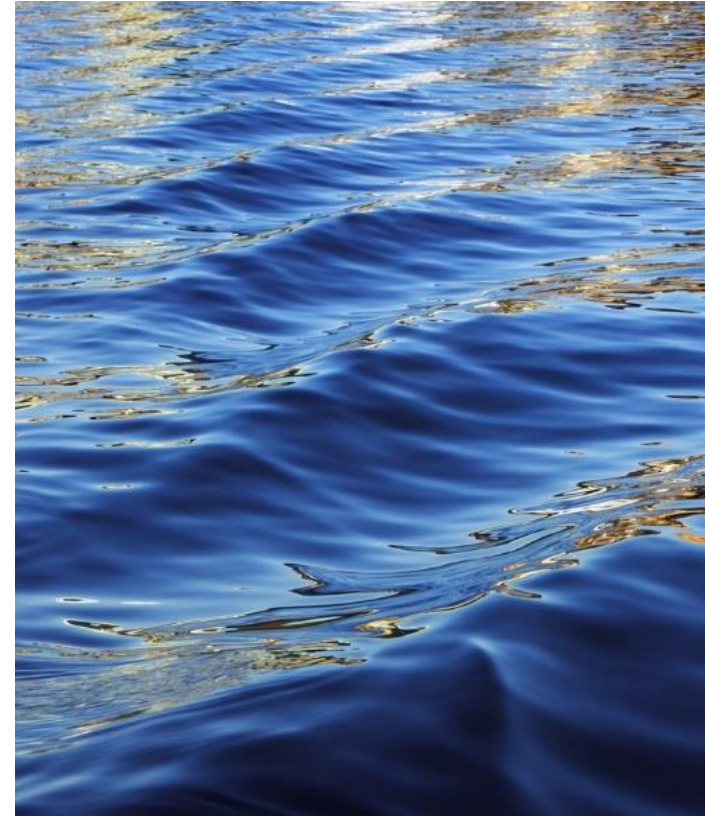




# Storm Drain Rate Study

City of Davis  
Utilities Commission  
October 21, 2020



# Steps

- Introduction to Stormwater Rate Setting (May 20)
  - Prop 218 Quirks
- Financial Analysis (June 17)
  - Revenue Requirement
- Preliminary Rates (July 15)
  - Method & Structure
  - Rate Ranges
  - Political Realities
- ***Draft Rate Study & Recommendation to City Council***

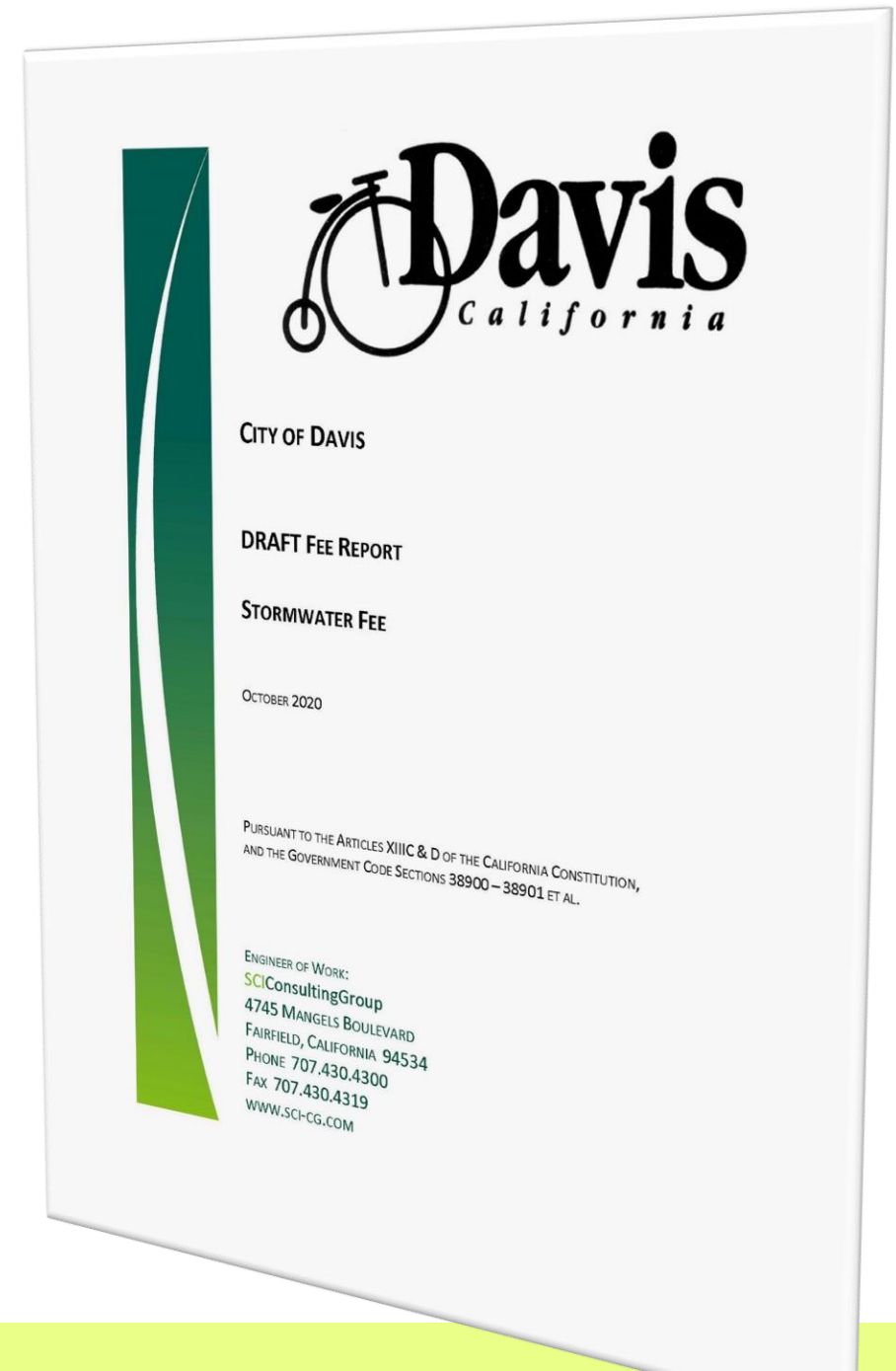
## Future Tasks

- *City Council Consideration*
- *Prop 218 Implementation*
- *Public Outreach*



# Stormwater Fee Study (Fee Report)

1. Define Facilities and Services
2. State Revenue Requirement
  - *Operations*
  - *Regulatory*
  - *Capital*
3. Establish Apportionment
  - *Structure*
  - *Prop 218-Compliant*
4. Fee Schedule
  - *First Year Rates*
  - *Inflationary Factor for Future Years*



# Facilities & Services

## FACILITIES AND SERVICES

The City operates and maintains a municipal separate storm sewer system within the City's boundaries. The system is made up of man-made drainage systems including, but not limited to, curbs and gutters, integrated storm drainage pipes, inlets, outfalls, culverts, channels, pump stations, force mains, detention ponds, siphons and access roads. The system serves the entire City.

The primary storm drainage service provided by the City is the collection, conveyance, and overall management of stormwater and non-stormwater runoff from parcels.

By definition, all parcels that shed stormwater into the City's system, either directly or indirectly, utilize, or are served by, the City's storm drainage system. The need and necessity of this service are derived from property improvements, which historically have increased the amount of stormwater runoff from the parcel by constructing impervious surfaces such as rooftops, pavement areas, and certain types of landscaping that restrict or retard the percolation of water into the soil beyond the conditions found in the natural, or unimproved, state. As such, open space land (in a natural condition) and agricultural lands that demonstrate stormwater absorption equal to or greater than natural conditions, are not charged a fee. Other vacant land that was once improved or has been prepared for future improvements do not qualify as open space or natural land and will typically be charged a fee.

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# Revenue Requirements FY 22

## EXPENSES

- \$2.07 m Baseline O&M
- \$0.87 m Additional O&M Needs
- \$29.3 m Capital Needs

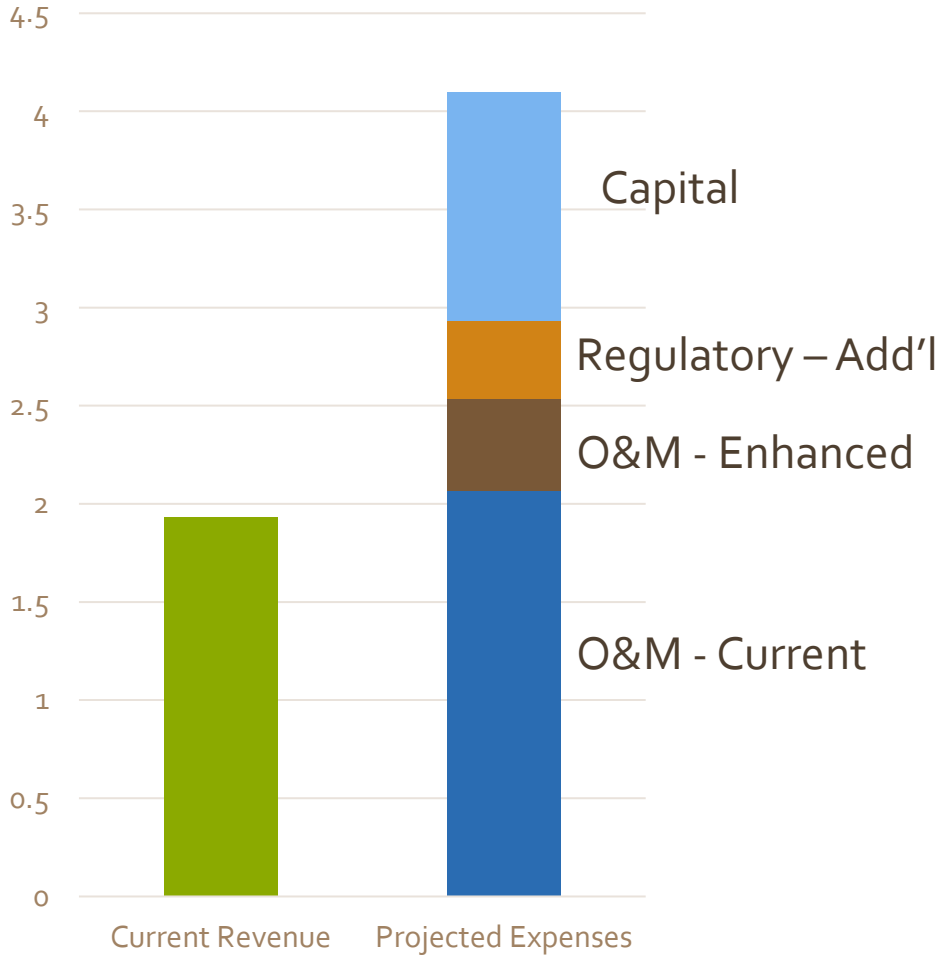
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- Convert to Annual Revenue Requirement
- Apply a 30-year rate model

\*\*\*\*\*

- **\$4.10 m Revenue Requirement**
  - **FY 22**

Revenues & Expenses – FY 22



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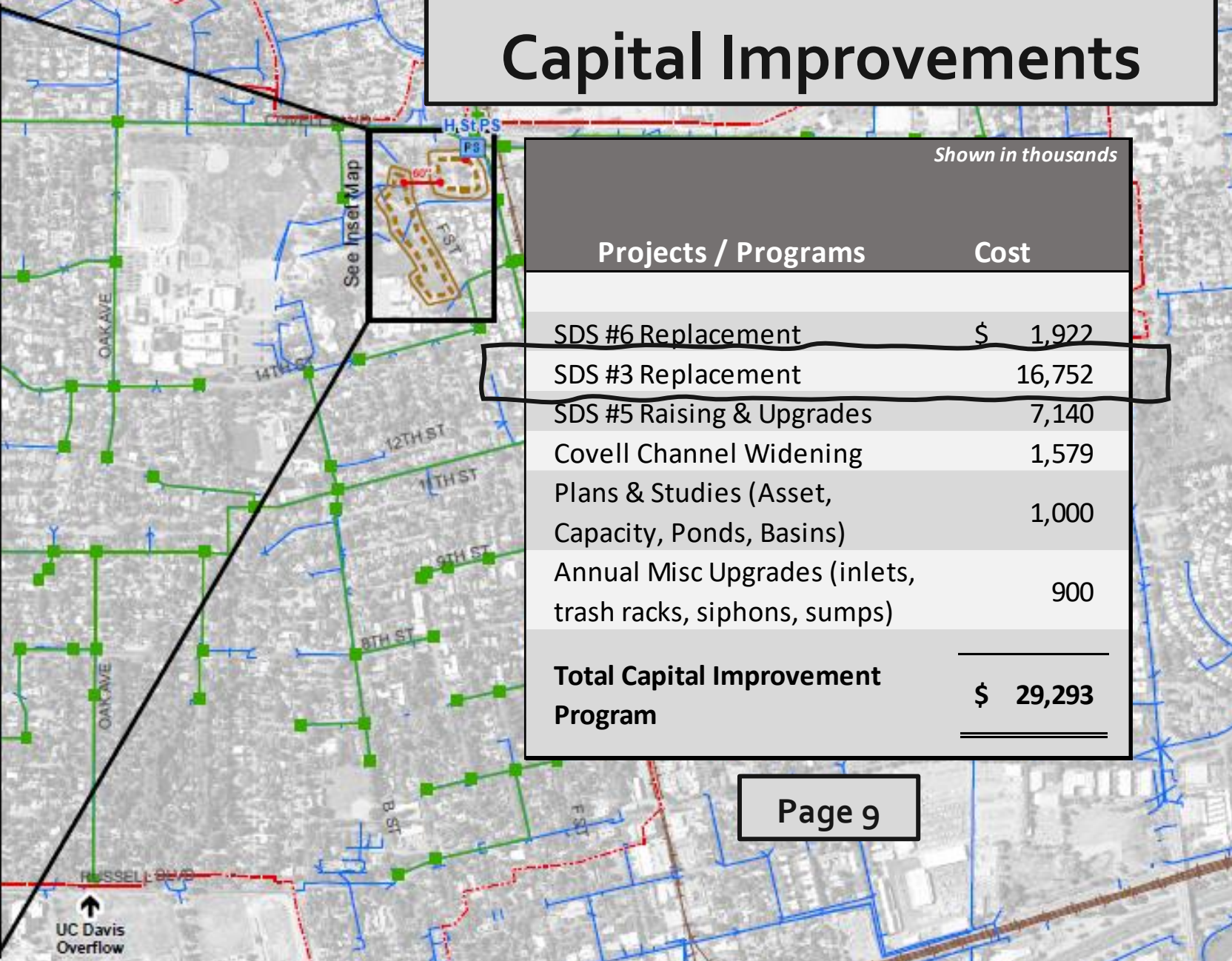
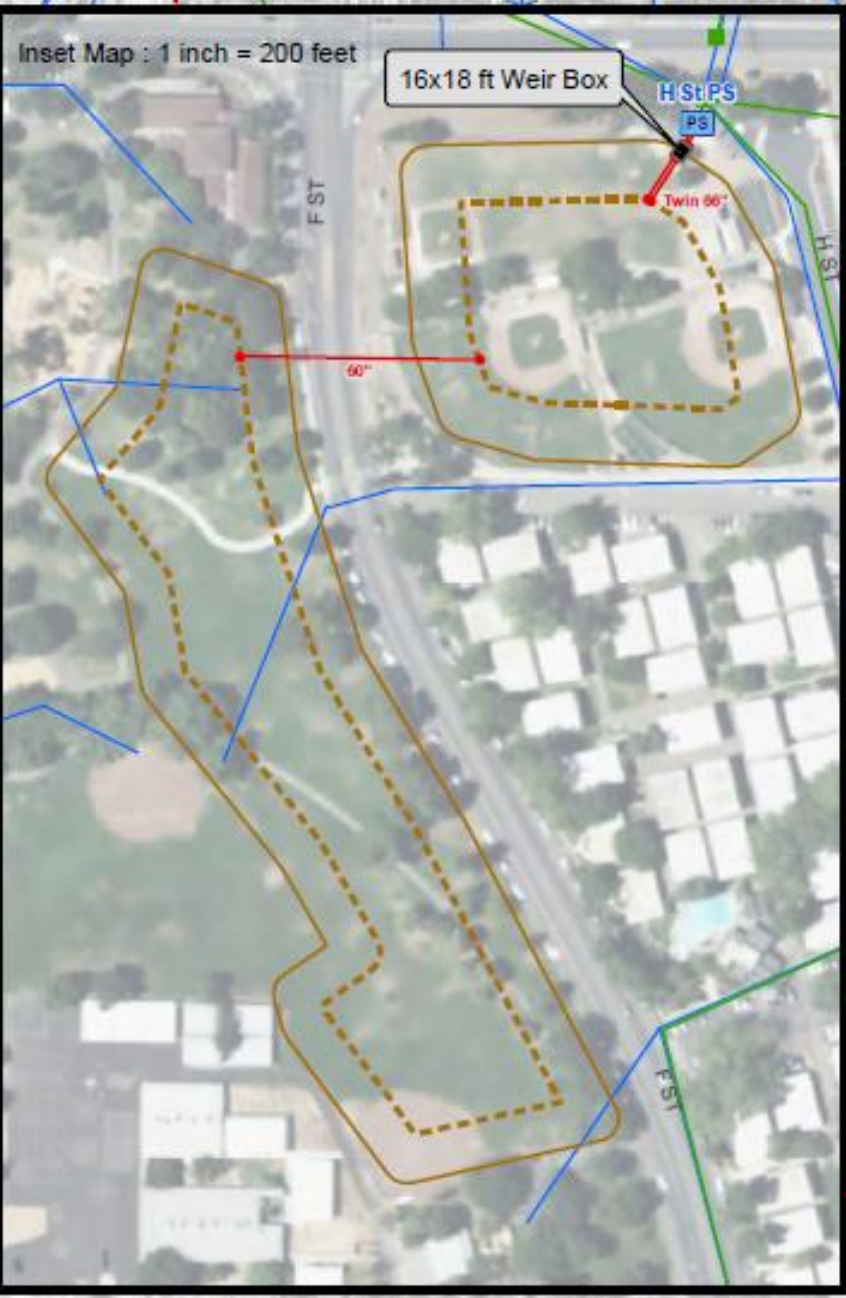
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# Capital Improvements

*Shown in thousands*

Projects / Programs	Cost
SDS #6 Replacement	\$ 1,922
SDS #3 Replacement	16,752
SDS #5 Raising & Upgrades	7,140
Covell Channel Widening	1,579
Plans & Studies (Asset, Capacity, Ponds, Basins)	1,000
Annual Misc Upgrades (inlets, trash racks, siphons, sumps)	900
<b>Total Capital Improvement Program</b>	<b>\$ 29,293</b>

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# 30-year Model

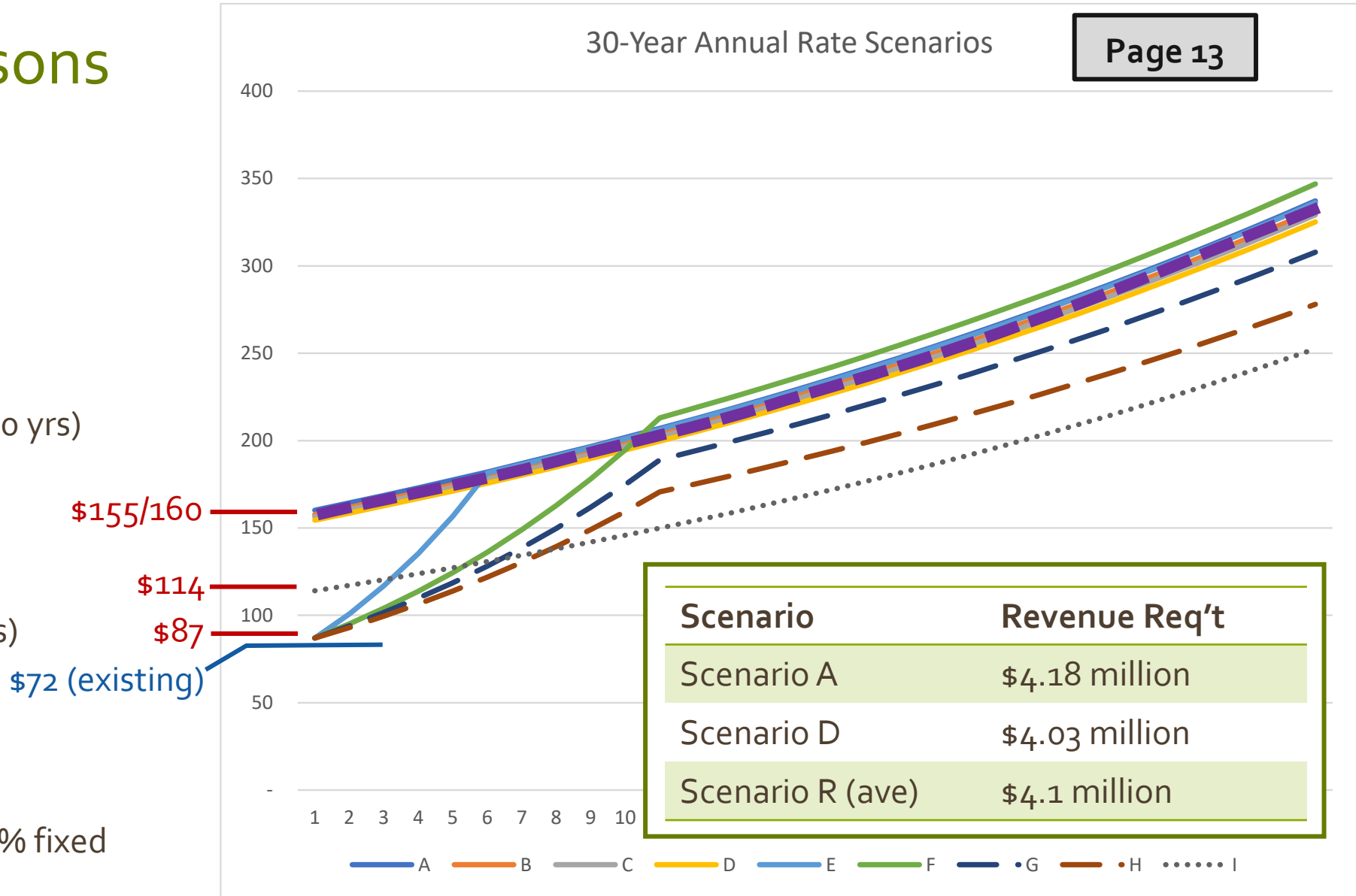
- Utilities often look at 10- or 20-year horizon
  - Basis for 5-year rate schedule
- Stormwater Rates extend well beyond 5-year window
- Some debt runs up to 30 years
- Elements
- Assumptions



Escalation Rates		
Revenues	2.60%	Based on Consumer Price Index ("CPI") average over past 30 years, with an annual cap of 3% and "banking" allowed
O & M Costs	2.78%	Based on the "Leland Model" with personnel at 3.26% and other operating costs at 2.0%
CIP Costs	2.60%	Based on Construction Cost Index average over past 30 years
Interest Earned		
Reserve Interest	2.00%	As recommended by City staff
Debt Assumptions		
Interest	4.00%	
Debt Issuance Cost	2.00%	
Debt Reserve Amount		One year's debt service
Debt Service Structure		Level payments
Debt Service Coverage	110%	Ratio of pledged revenue to debt service

# Rate Comparisons

- Family A – D
  - \$29 m CIP in 30-years
  - Rates not phased in
- Family E – F
  - \$29 m CIP in 30-years
  - Rates phased in (5 or 10 yrs)
- Family G – H
  - Partial CIP in 30-years
    - \$20 m / \$10 m
  - Rates phased in (10 yrs)
- Line I
  - Minimal CIP
  - Rates not phased in
  - Rates increase @ 2.78% fixed





# Revenue Recommendation

- Average of four basic scenarios (A – D)

## Pros

- Includes full \$29.3 m CIP
- Allows early CIP and Reserve implementation
- Not sensitive to if (how much) debt is used
  - Allows City flexibility in applying debt / delivering projects

## Cons

- Rates are 2x current rates
  - Community Acceptance



# Rate Calculation – Single-Family Equivalent (SFE)

SFE = 3,486 sf Impervious Area  
**Meets Proposition 218 Requirement**

Res Category	Imperv Area	SFE
Small	2,710 sf	0.78
<b>Medium</b>	<b>3,468 sf</b>	<b>1.00</b>
Large	4,622 sf	1.33
Very Large	5,156 sf	1.49
<i>Condo-Med Density</i>	<i>2,257 sf</i>	<i>0.65</i>
<i>Condo-Hi Density</i>	<i>1,045 sf</i>	<i>0.30</i>

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Non-Res Category	% IA	SFE / ac
Apartment	63.3%	7.95
Commercial	83.8%	10.53
Office	69.1%	8.68
Institutional	59.7%	7.50
Instit w/ field	41.9%	5.26
Park / Vacant	5%	0.63

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# Convert Revenue Requirements to Rates

- Total SFEs = 26,090
- Revenue Requirement = \$4.1 m
- Rate = ( $\$4.1\text{ m} / 26,090 =$ ) \$157.15 per year
  - *\$13.10 per month for average home*

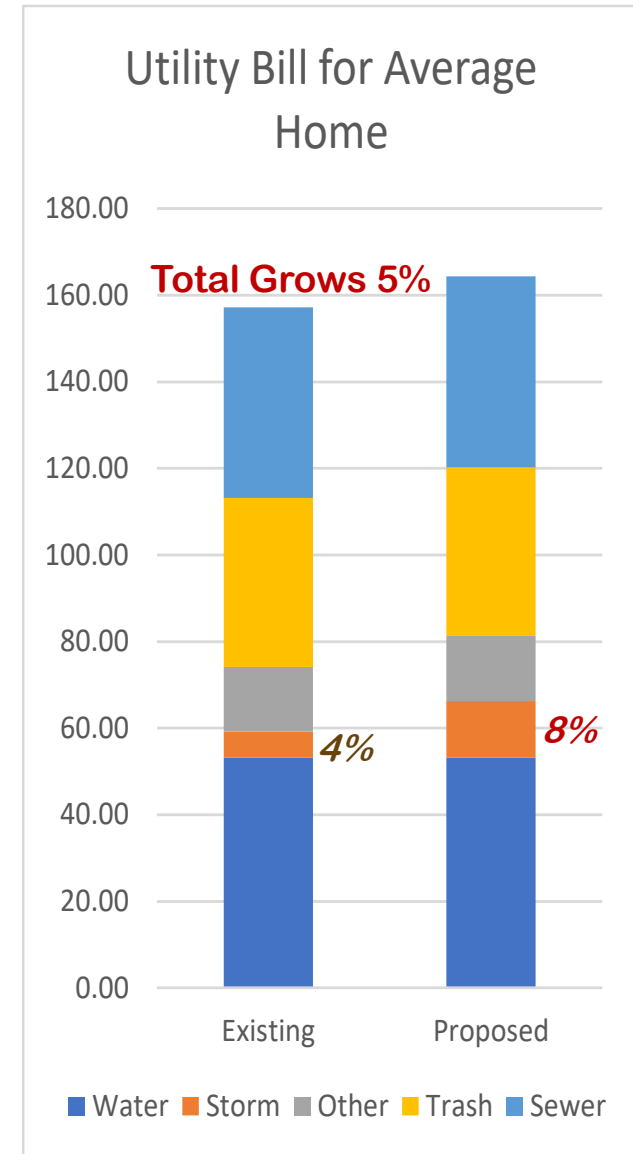
Land Use Category			Proposed Monthly Rate FY 2022		
<b>Residential *</b>					
Small	Under 0.14	ac	\$	10.23	per parcel
Medium	0.14 to 0.22	ac	\$	13.10	per parcel
Large	0.23 to 0.27	ac	\$	17.45	per parcel
Very Large	Over 0.27	ac	\$	19.47	per parcel
Condo - 1 Level			\$	8.52	per parcel
Condo - 2+ Levels			\$	3.95	per parcel
<b>Non-Residential **</b>					
Mobile Home Park			\$	98.20	per acre
Apartment			\$	104.08	per acre
Comm / Industrial / Retail			\$	137.86	per acre
Office			\$	113.63	per acre
Institutional			\$	98.20	per acre
Institutional w/ Field			\$	68.89	per acre
Park			\$	8.22	per acre
Vacant (developed)			\$	8.22	per acre
Open Space / Agricultural					not charged

\* Single-Family Residential category also includes du- tri- and four-plex units  
 \*\* Non-SFR parcels size is calculated to a hundredth of an acre

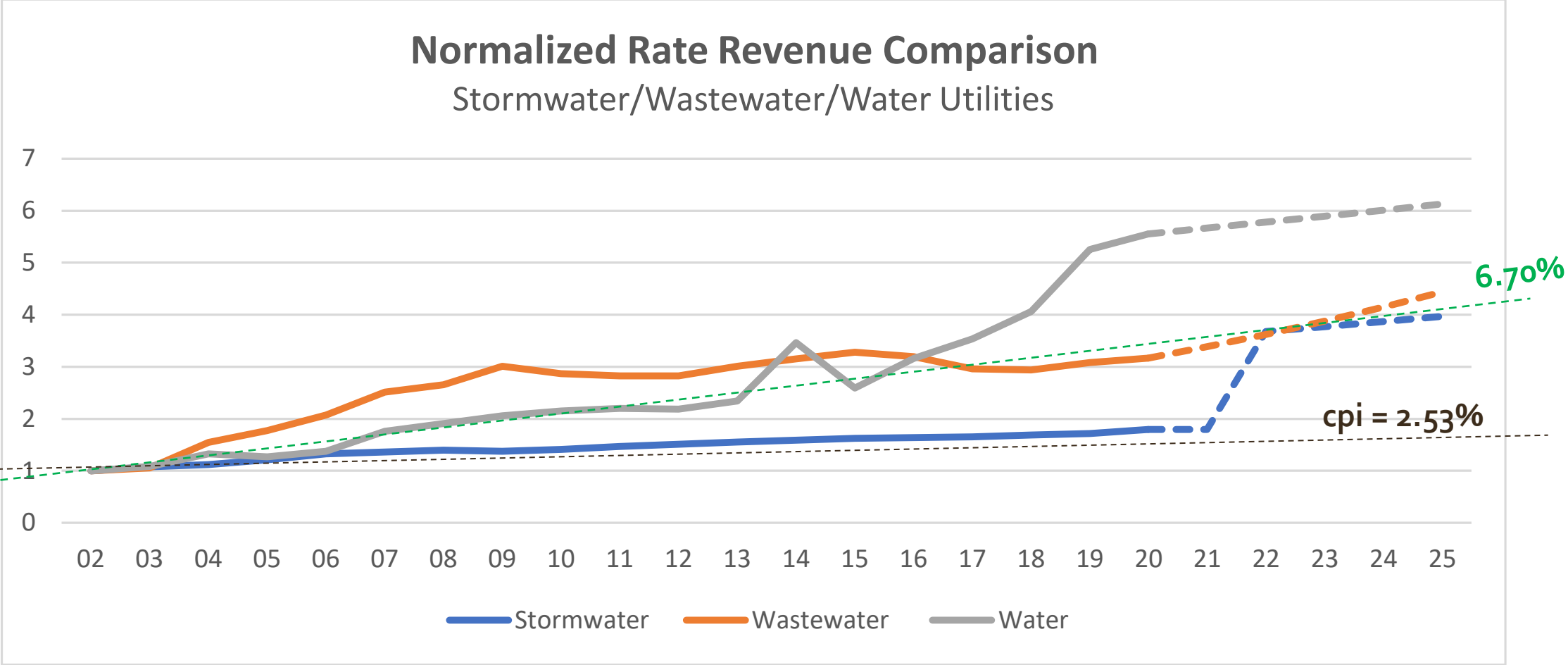
# Context of Other City Utilities

## Average SF Customer Utility Bill

<b>Water Charges</b>	Water Base Charge (Meter Size)	\$	13.07
	Water Consumption Charge	\$	40.08
<b>Stormwater Charges</b>	Storm Drainage	\$	3.43
	Sanitary Sewer (Drainage Water Quality)*	\$	1.46
<b>Non-PWUO Charges</b>	Municipal Service Tax*	\$	8.43
	Public Safety Charge*	\$	6.61
<b>Solid Waste Charge</b>	65 gal garbage	\$	38.95
<b>Sewer Charges</b>	Sewer Base Charge	\$	3.94
	Sewer Volume Charge	\$	21.91
	Sewer Per Unit Charge	\$	18.26
		<b>\$</b>	<b>156.14</b>



# Rate History



# Other Rate Considerations

- Credit for Low Impact Development (LID)
  - 25%
  - Mostly for new development
- Inflationary Factor
  - Equal to Consumer Price Index (CPI-U, SF Bay Area)
  - Not to exceed 3% in any single year
  - Excess CPI can be “banked” and used later
  - Keeps future rate increases capped

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# Next Steps

- **Tonight**

- **Commission Determines Rate Recommendation to Council**

- **Council to Receive Report**

- Likely two meetings:
  - Study session
  - Formal Action (begin Prop 218 Process)

- **Prop 218 Process (4+ months)**

- Notice of Hearing
- Conduct Hearing
- Mail Ballots
- Tabulate Ballots
- Concluding Action by Council

- **Community Engagement**

- Stakeholders Outreach
- Community Meetings
  - During 45-day Notice Period
- Media Outreach
  - Social
  - Print
  - Mail (prop 218 Mailings)
  - Other Channels

