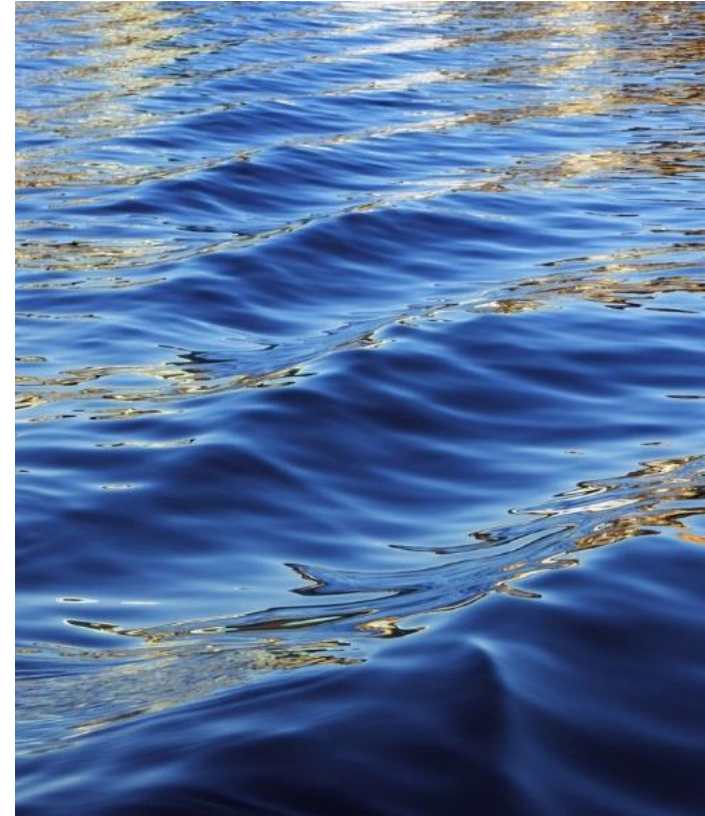




Preliminary Storm Drain Rates

City of Davis
Utilities Commission
July 15, 2020



Steps

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

Future Tasks

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



Revenue Requirements

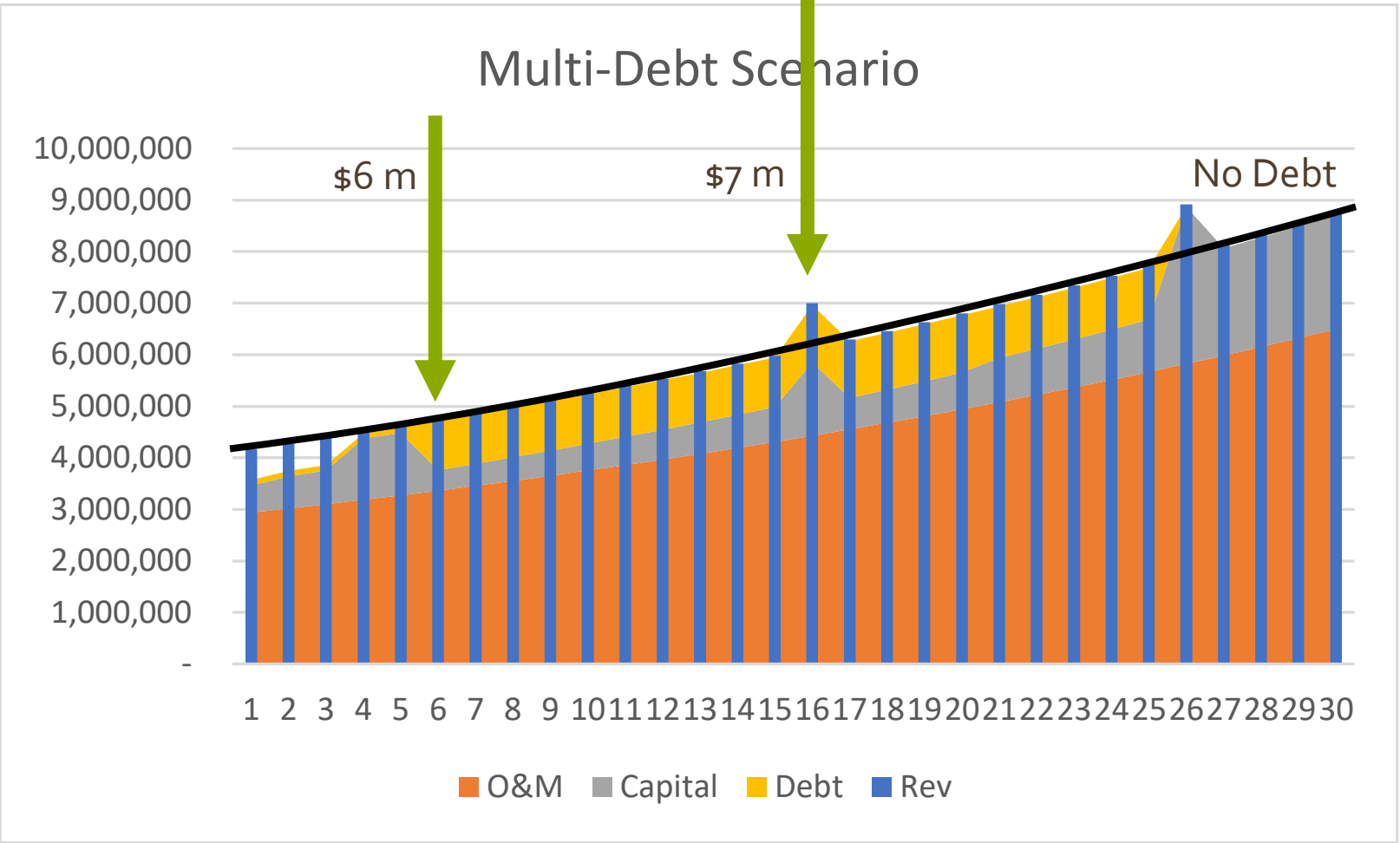
- Baseline O&M = \$2.1 m
- Add Enhanced O&M = \$2.9 m
- Add 30-year CIP => \$4.1 m
- *Works regardless of Debt approach*

- One Addition Since Last Month
 - Existing \$2 million debt
 - \$102,646 per year for 20 years
 - Now in 30-year model

		FY20	FY 21	FY 22
Revenues				
541	Storm Sew/Drn - M & O	1,305	1,342	70
542	Storm Sew/Drn - Cap Repl			
543	Storm Sew/Drn - Cap Exp			
544	Storm Sewer - Quality	626	626	
	New Fee - O & M Baseline	-		2,113
	New Fee - O & M Add'l			417
	New Fee - CIP	-	-	1,278
	Total Rev	1,931	1,968	3,879
Expenditures				
7411	El Macero Mtce District	206	211	216
7414	Storm Drain Facility Mtce	1,062	1,103	1,134
7730	Stormwater Regulatory	381	387	398
	Support Costs	335	312	319
	Baseline Subtotal	1,983	2,013	2,067
	Add'l Regulatory Needs		375	397
	Add'l Operational Needs		457	469
	OPERATIONS TOTAL	1,983	2,846	2,934

Example of 30-year Model

- Multi-Debt Scenario
 - \$6 m in Yr-6
 - \$7 m in Yr-16
- First three years
 - Establish Reserves



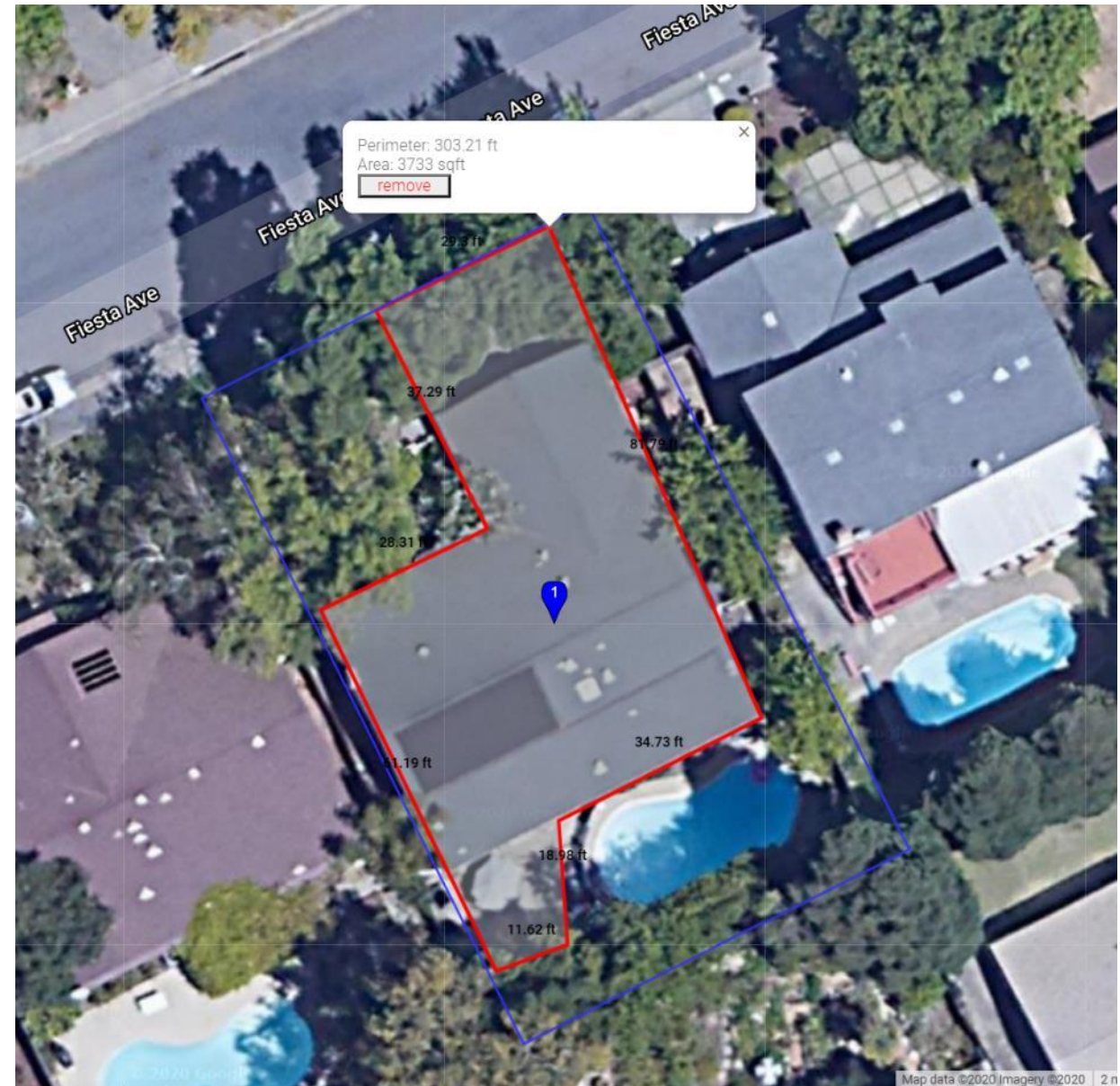
Rate Structure

- Based on impervious surface for each parcel
 - Sponge / duct tape example
- Rate Classes
 - Residential
 - Non-residential
- Statistical sampling

Land Use Category			
Residential ^A			
Small	<i>Under 0.14 ac</i>		per parcel
Medium	<i>0.14 to 0.22 ac</i>		per parcel
Large	<i>0.23 to 0.27 ac</i>		per parcel
Extra Large	<i>Over 0.27 ac</i>		per parcel
Condo - 1 Level			per parcel
Condo - 2+ Levels			per parcel
Non-Residential ^B			
Mobile Home Park			per acre
Apartment			per acre
Comm / Industrial / Retail			per acre
Office			per acre
Institutional			per acre
Institutional w/ Field			per acre
Park / Golf			per acre
Vacant (developed)			per acre
Open Space / Agricultural			not charged

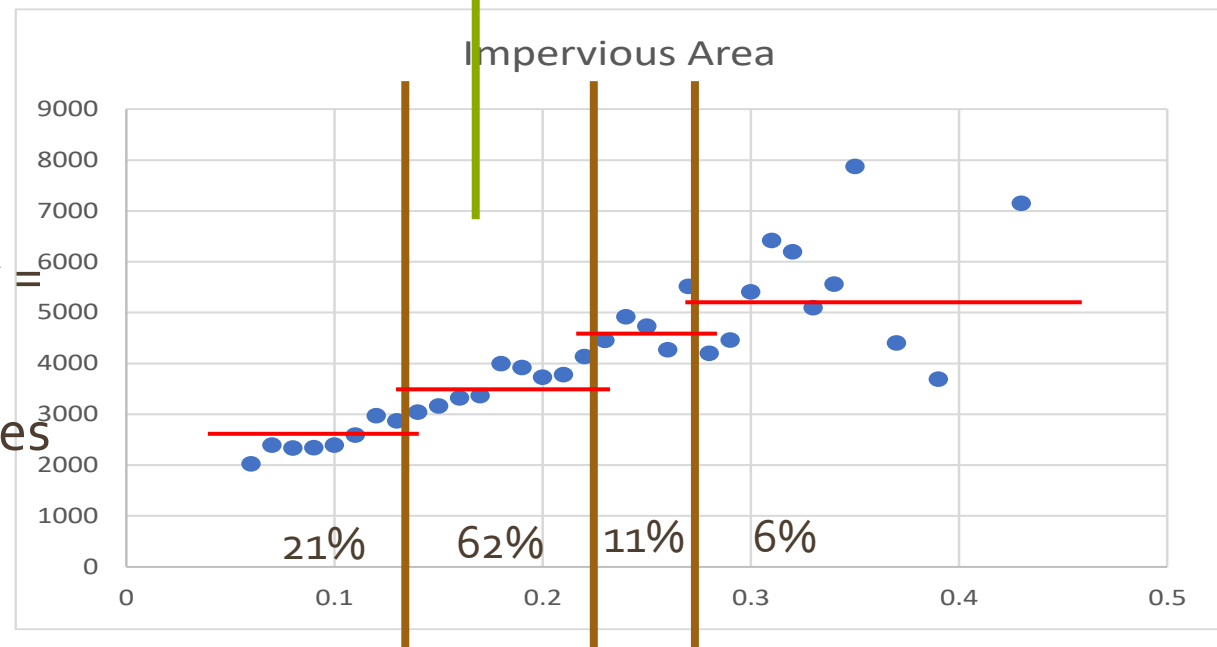
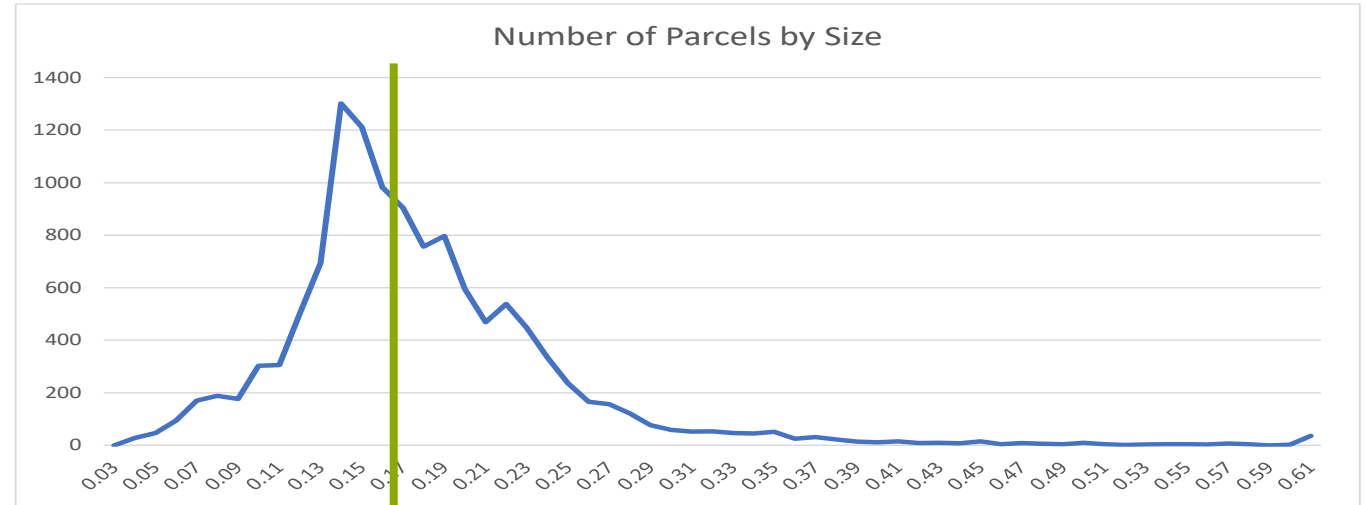
Aerial Photography

- Hand measurements
- Aerial (plan & oblique)
- Street view



Residential

- 12,292 parcels total
- 243 surveyed (2%)
- Spread across all lot sizes
- Median size = 0.17 acre
 - *7,405 square feet*
- Set up categories
 - Look for breaks in data (none)
- Center of medium category = overall median
- Larger and smaller categories outside that



Quantifying the Categories

Size	# Sampled	Ave IA	% IA x median
Small	50	2,631	2,700
Medium	151	3,506	3,468
Large	27	4,707	4,622
Very Large	15	5,854	5,156

Benchmark ——— **3,468 sf**
Single-Family Equivalent (SFE)

- Average IA
 - $12.154 \text{ ac} / 151 \text{ parcels} = 3,506 \text{ sf}$
- % IA applied to median size
 - $(12.154 / 25.95) \times 0.17 \text{ acres} = 3,468 \text{ sf}$

Non-Residential

- Same sampling as Residential
- Start with:
 - Commercial
 - Apartments
 - Institutional
- Adjust categories
 - Office carve-out
 - Institutional (w/ and w/o large grassy areas)
 - Add mobile home parks
- Parks and Golf Courses not sampled
 - Use a long-established minimum value of 5% ISA
- Open Space is not charged

- Methodology
 - Must be a % IA approach since parcel size is a variable

Example – Apartments

- 233 parcels
- 33 sampled (14%)
- 41.80 acres of IA
- 66.05 acres total
- **63.3% IA**
- Single-Family Equivalent
 - One Acre (43,560 sf)
 - x 63.3%
 - 27,566 sf IA per acre
 - If 1 SFE = 3,468 sf
 - **7.95 SFE per acre**

SFE Breakdown

Category	Existing Share	Proposed Share
SFR	50%	55%
MFR	22%	16%
Non-Res	28%	29%

Res Category	Imperv Area	SFE
Small	2,710 sf	0.78
Medium	3,468 sf	1.00
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>

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

Convert Revenue Requirements to Rates

- Total SFEs = 26,090
- Revenue Requirement = \$4.1 m
- Rate = ($\$4.1 \text{ m} / 26,090 =$) \$157 per year
 - *\$13.10 per month for average home*

- Current Rates ~ \$72.00 (projected to FY 22)
 - *\$6.00 per month*

- **118% increase...!!**



Options to Consider

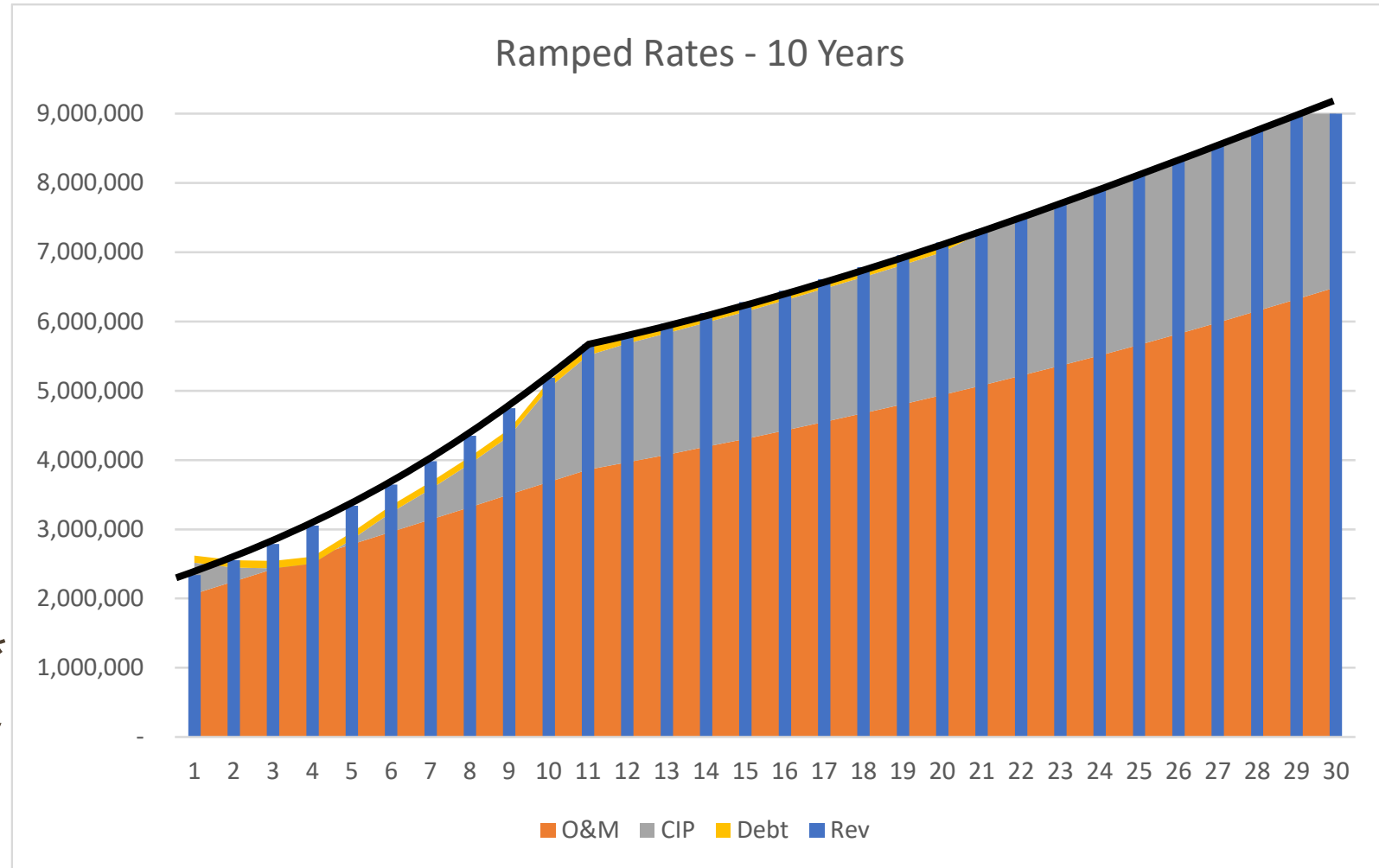
- Phase-In Cost Increases
 - Additional O&M Needs (*42% increase*)
 - 3.5 new staff
 - \$270 k for contract services
 - Capital Expenditure (*\$29.3 m*)
 - Ramp up rates over five or ten years
 - *Only defers – does not reduce*
- Reduce Expenditures
 - O&M Enhancement
 - CIP amount



30-year Model – Ramped Rates Examples

- \$29 m CIP done in 30 years
- Rates phased in over 10 years
- Reserves also phased in (9 yrs)
- Debt could be included
 - If deferred a few years
 - *Existing Debt shown in gold*

- Reduced CIP shaves off the gray area

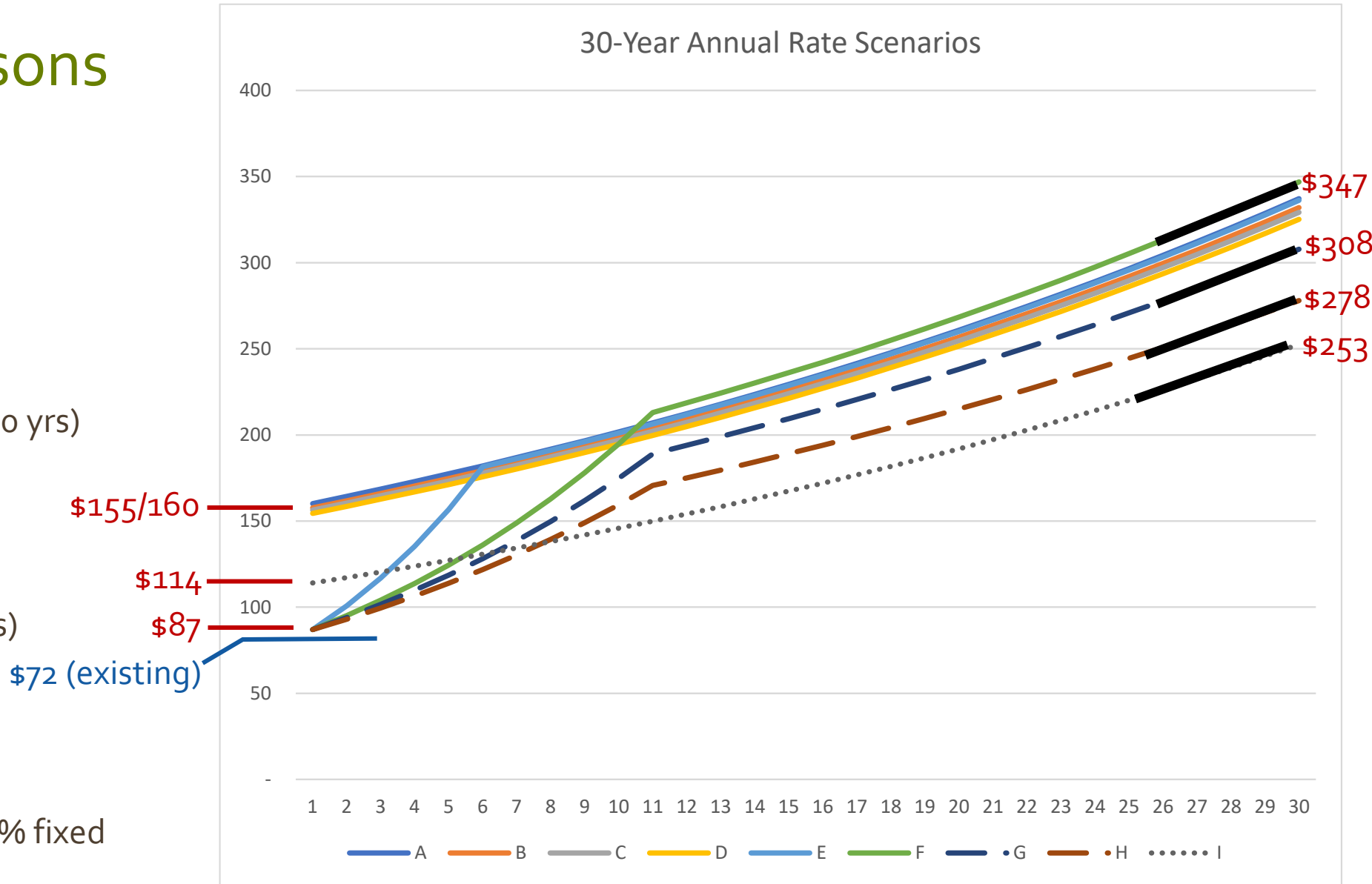


Rate Comparisons

Approach	A	B	C	D	E	F	G	H	I
	LT-20m Debt	LT-10m Debt	Multi-Debt	Paygo	Ramp 5	Ramp 10	Ramp 10 (20m CIP)	Ramp 10 (10m CIP)	No CIP
Beginning Revenue (m)	\$ 4.178	\$ 4.115	\$ 4.080	\$ 4.031	\$ 2.270	\$ 2.270	\$ 2.270	\$ 2.270	\$ 2.974
Beginning Rate * (average SFR**)	\$ 160.15	\$ 157.71	\$ 156.37	\$ 154.50	\$ 87.00	\$ 87.00	\$ 87.00	\$ 87.00	\$ 114.00
Ending Rate * (average SFR**)	\$ 337.13	\$ 332.00	\$ 329.18	\$ 325.24	\$ 336.15	\$ 346.98	\$ 307.87	\$ 277.93	\$ 252.50
Ramped Increase Percentage					15.9%	9.4%	8.1%	7.0%	
Cummulative Revenue*** (m)	\$ 186.4	\$ 183.6	\$ 182.0	\$ 179.8	\$ 179.5	\$ 178.5	\$ 160.3	\$ 146.2	\$ 136.6
Available for Capital Yr-31 (m)	\$ 2.264	\$ 2.339	\$ 2.264	\$ 2.158	\$ 2.450	\$ 2.740	\$ 0.879	\$ 0.453	\$ 0.231

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



Considerations

- Proposition 218 is Different for Storm Drainage
 - Need voter approval
- Forces the City to “back into” a rate
 - Community priorities
 - Value “shoppers”
 - Find the balance point
- Then Fine-Tune the Program to Fit Rates



Next Steps

- Staff / Consultant to further review:
 - Costs
 - CIP priorities
- Return in September for recommendation on rates
- Rate presentation to Council in mid-November
- Start Prop 218 process (if approved) in December / January

