

Why increase rates?

1. New Phosphorus Limit
2. Reduced Ammonia Limits
3. Additional Solids Treatment Capacity
4. Aging Treatment Infrastructure





Notice

An algae bloom has made this area potentially unsafe for water contact. Avoid direct contact with visible surface scum.



ADVISORY

Blue-green algal blooms have been observed in this area.

If a bloom **IS** present:



Do not swim



Do not drink the water

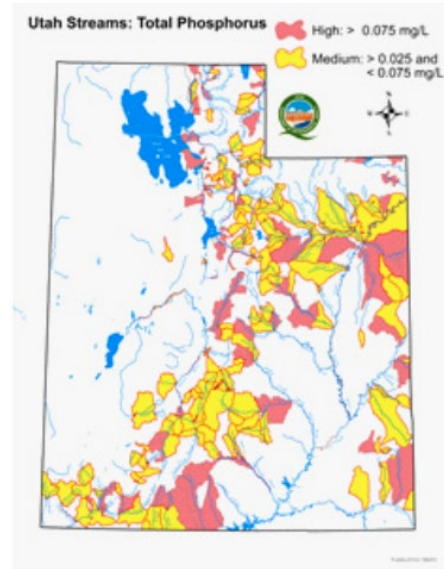


Do not allow pets in the water

may be

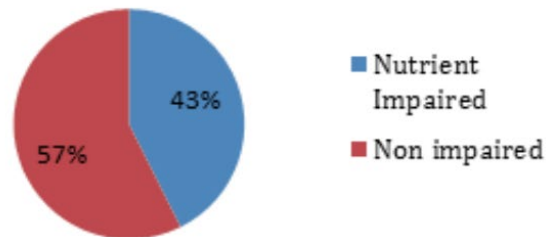


NEW PHOSPHORUS LIMIT



June 2014

Utah Lakes and Reservoirs (total acres)



Phosphorus Rule Highlights

Under the proposed rule, all wastewater treatment plants will play a role in reducing phosphorus discharges into state waters.

- Mechanical plants will be required to produce treated wastewater that contains 1.0 mg/L or less before that water can be discharged.

Reduced Ammonia Limits:

- Used to have to treat down to 9 mg/L
 - This was attainable, but still challenging with Trickling Filters.
- New limit is 6 mg/L
 - Trickling Filters cannot reliably treat to this standard.
 - Add Moving Bed Biofilm Reactor (MBBR) to treat for ammonia.



Compliance Schedule with State DWQ

3. Compliance Schedule for Ammonia

a. Total Ammonia Compliance Schedule:

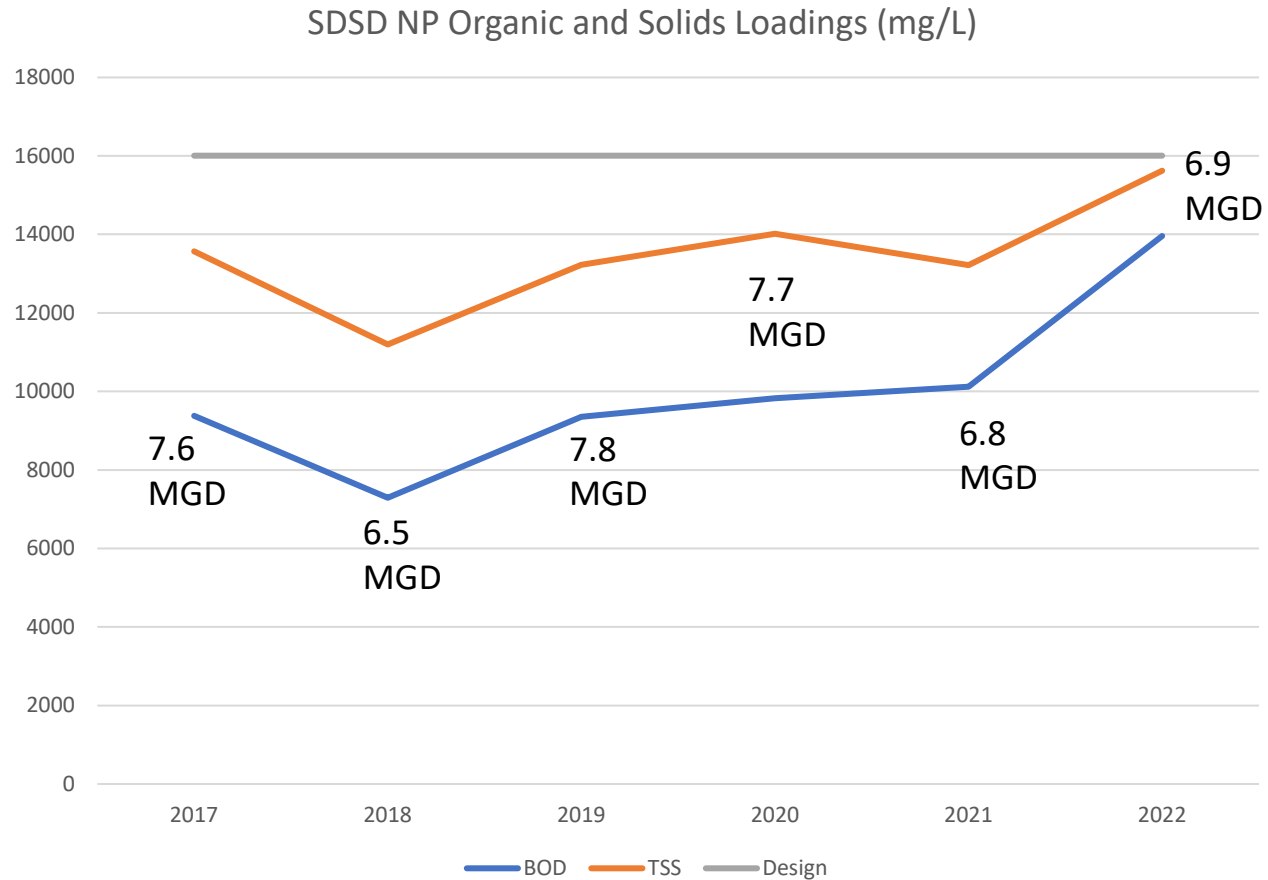
Date	Milestone
September 1, 2022	SDSD shall commence the design of Phase 1
December 31, 2022	SDSD submits a completed capital facilities plan revision consistent with SRF requirements, which will include Phase 1 and options for Phase 2

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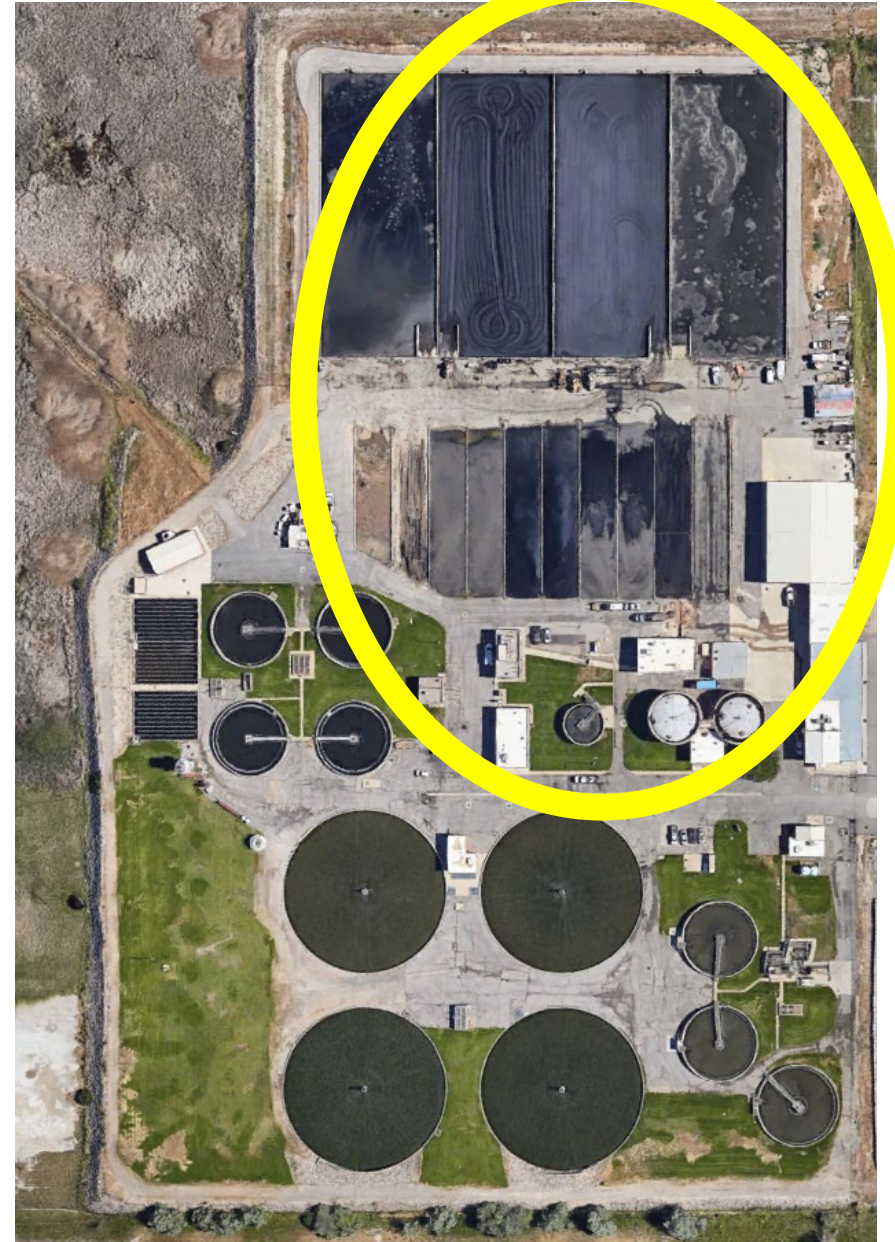
**PART I
DISCHARGE PERMIT NO. UT0021636
WASTEWATER**

September 1, 2023	SDSD submits detailed construction plans and specifications to DWQ to obtain a construction permit for Phase 1
December 1, 2023	SDSD obtains construction permit
January 31, 2024	SDSD bids construction of approved wastewater treatment upgrades as outlined in the DWQ construction permit
August 1, 2026	SDSD shall complete construction of the upgrades and begin startup and optimization of upgraded wastewater treatment upgrades
September 1, 2026	Final ammonia effluent limits will into effect, and mass-based ammonia limit will no longer apply

Solids Treatment Capacity:



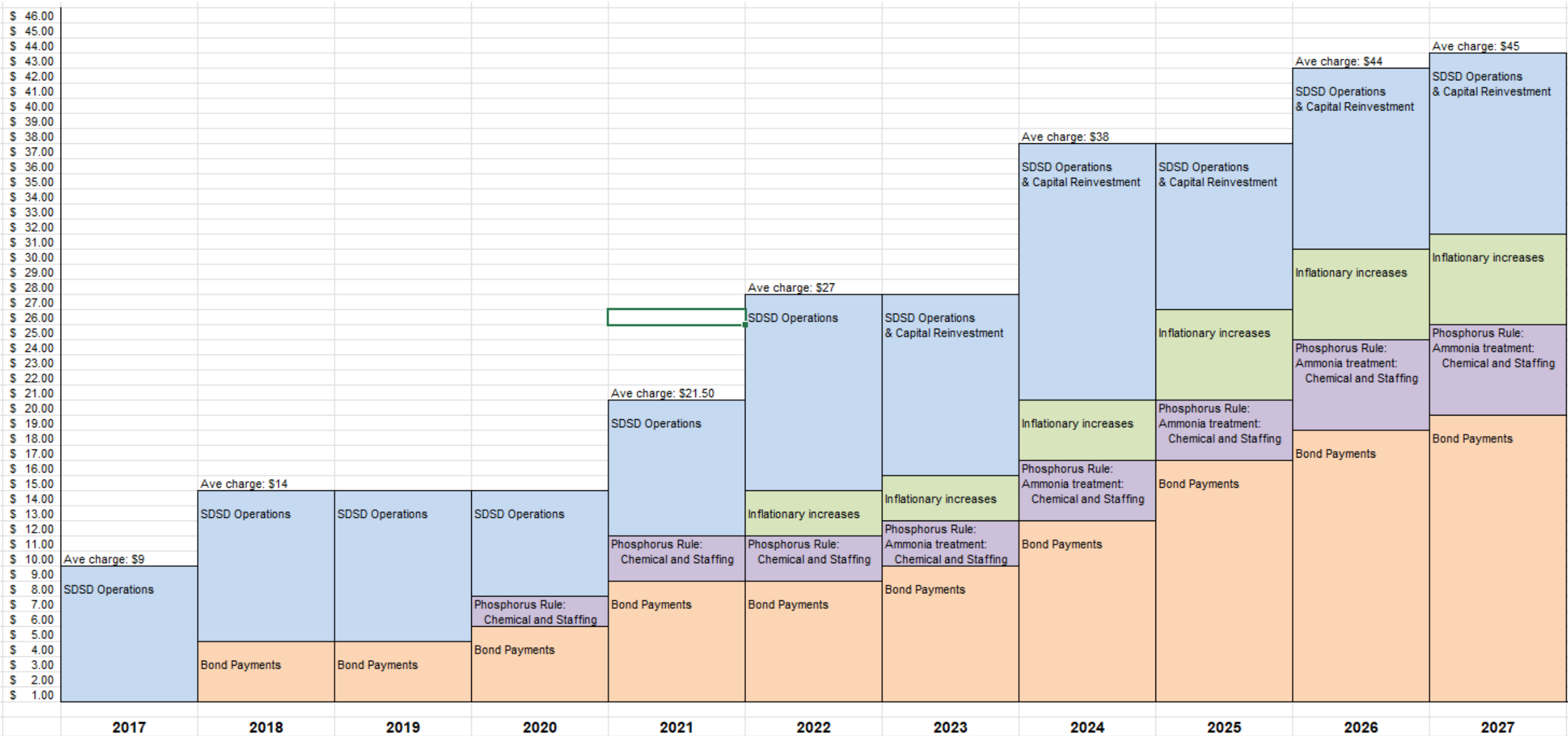
*Plus, Existing Digesters are over 60 years old, not sure of their structural integrity.



SDSD Timeline

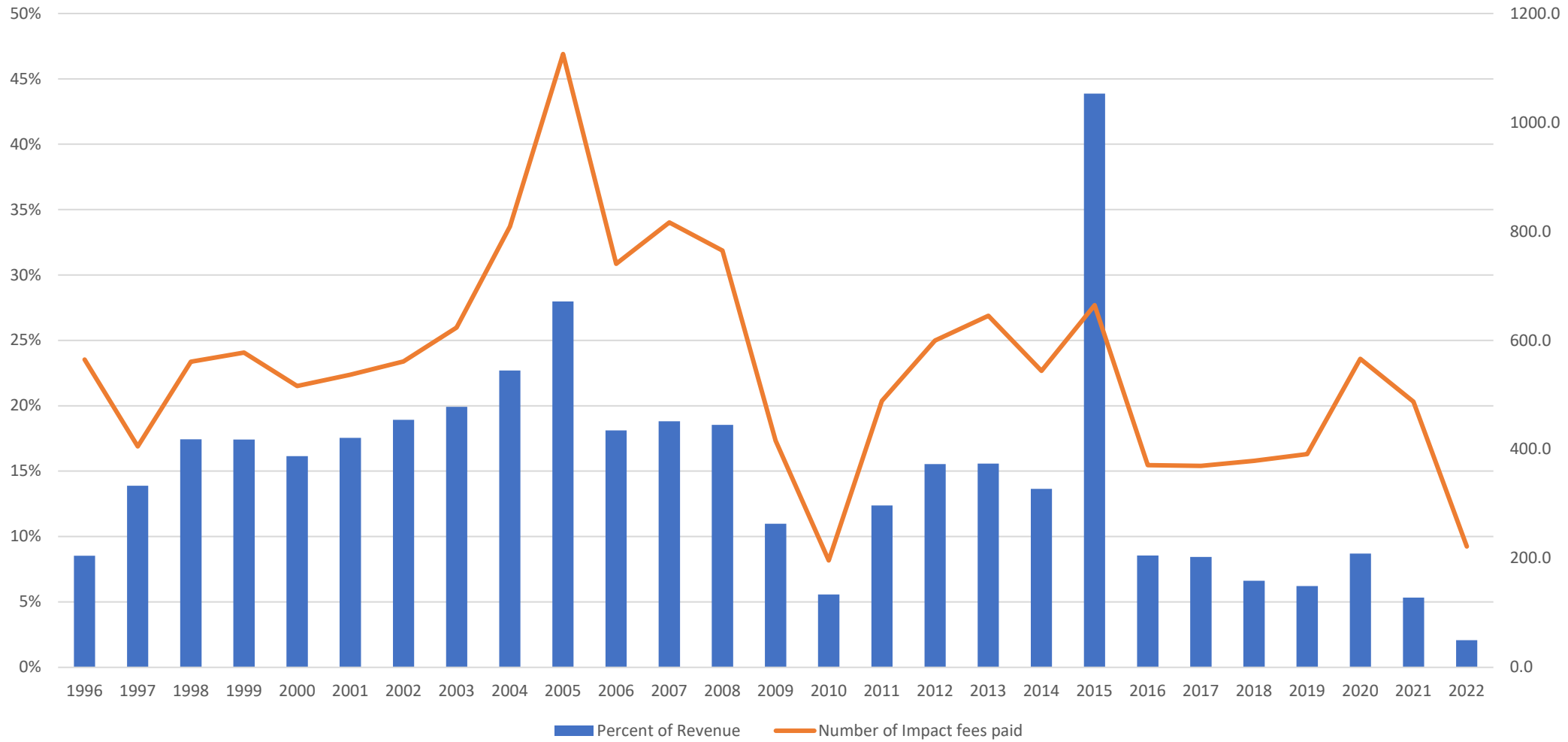
- New Phosphorus Rule: 2014 (Effective 2020)
- New Ammonia Reductions: 2019 and 2026
- Planning 2014
- South Plant Engineering 2015-2020
- South Plant Construction 2020-2023
- North Plant Engineering 2022-2023
- North Plant Construction 2024-2026
- Bond for South Plant Improvements: 2019: \$12M @ 2.1%
- Bond for South Plant Improvements: 2021: \$10M @ 2.05%
- More funding 2024: ultimately ~\$90M
- Total annual likely Debt Service: ~\$10.3M (around \$228 annually or about \$19 monthly per home)

Where are sewer revenues going?



Declining Impact Fee Revenue

DISTRICT IMPACT FEE HISTORY



Are we crazy?

SDSD Performance

Benchmarking:

How do we stack up
against our peers?



SDSD Performance Metrics:

Compared to AWWA Benchmarking



American Water Works Association

SDSD Performance Benchmarking			Percentile: Wastewater		
Metric	SDSD Score	SDSD Quartile	75th	Median	25th
MGD wastewater Processed per Employee(FTE)	0.33	1st	0.22	0.17	0.14
FTE's at 10 MGD:	30	1st	45	59	71
Noncapacity Overflow Events per 100 miles of pipe	0.52	1st	0.7	2.1	3.1
Capacity Overflow Events per 100 miles of pipe	0	1st	0	1.6	4.9
Aggregate Total Cost per Account	\$ 300	1st	\$ 306	\$ 413	\$ 584
Aggregate Total Cost per MG	\$ 2,354	2nd	\$ 1,550	\$ 3,302	\$ 5,525
Aggregate Total Treatment Cost per MG	\$ 1,021	2nd	\$ 955	\$ 1,379	\$ 2,351
Aggregate Total Cost per 100 Miles of Pipe	\$ 2,255,045	1st	\$ 2,256,657	\$ 4,118,490	\$ 7,285,853
Aggregate Total Collection Cost per 100 Miles of Pipe	\$ 586,089	1st	\$ 829,099	\$ 1,072,227	\$ 1,193,857
Aggregate Debt Ratio-Wastewater	27%	1st	38%	44%	65%
Aggregate Debt Ratio-Wastewater (after NP Project)	55%	3rd	38%	44%	65%

Are we crazy?

SDSD Service Charge
Benchmarking:

How do we stack up
against our peers?



Recent and Current Wasatch Front Wastewater Upgrades

• Salt Lake City	\$700 Million	Now \$950 Million
• Central Valley Water Reclamation Facility	\$250 Million	
• Provo	\$150 Million	
• Central Weber Sewer Improvement District	\$120 Million	another \$120 Million
• North Davis Sewer District	\$120 Million	another \$70 Million
• Snyderville Basin Water Reclamation District	\$50 Million	
• Jordan Basin Water Reclamation Facility	\$150 Million	another \$50 Million
• Salem City	\$20 Million	
• Payson City	\$17 Million	another \$70 Million
• Logan City	\$150 Million	
• Timpanogos Special service District	\$900 Million	
• <i>South Davis Sewer (North and South Plants)</i>	<i>\$75 Million</i>	
• Wasatch Front total Wastewater Upgrades to date:	>\$3 Billion	

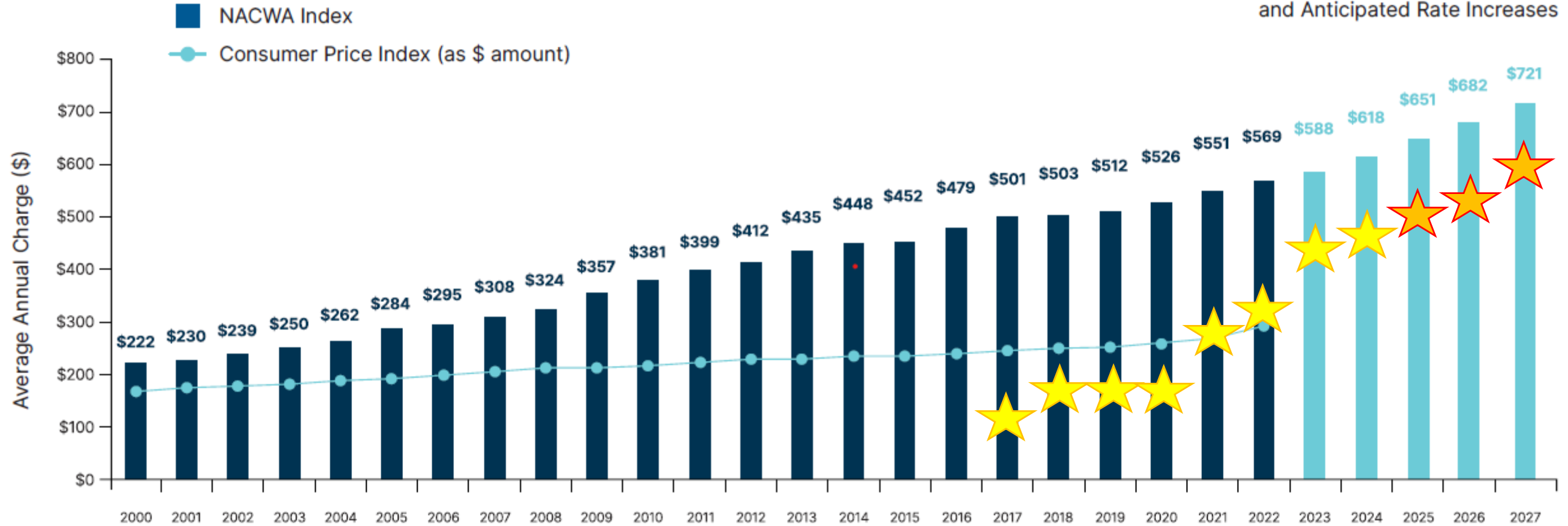
- NOTE: THESE ARE CAPITAL COSTS ONLY. DOES **NOT** CONSIDER COST OF OPERATION

Average Annual Service Charge

2000 – 2022 & Projected

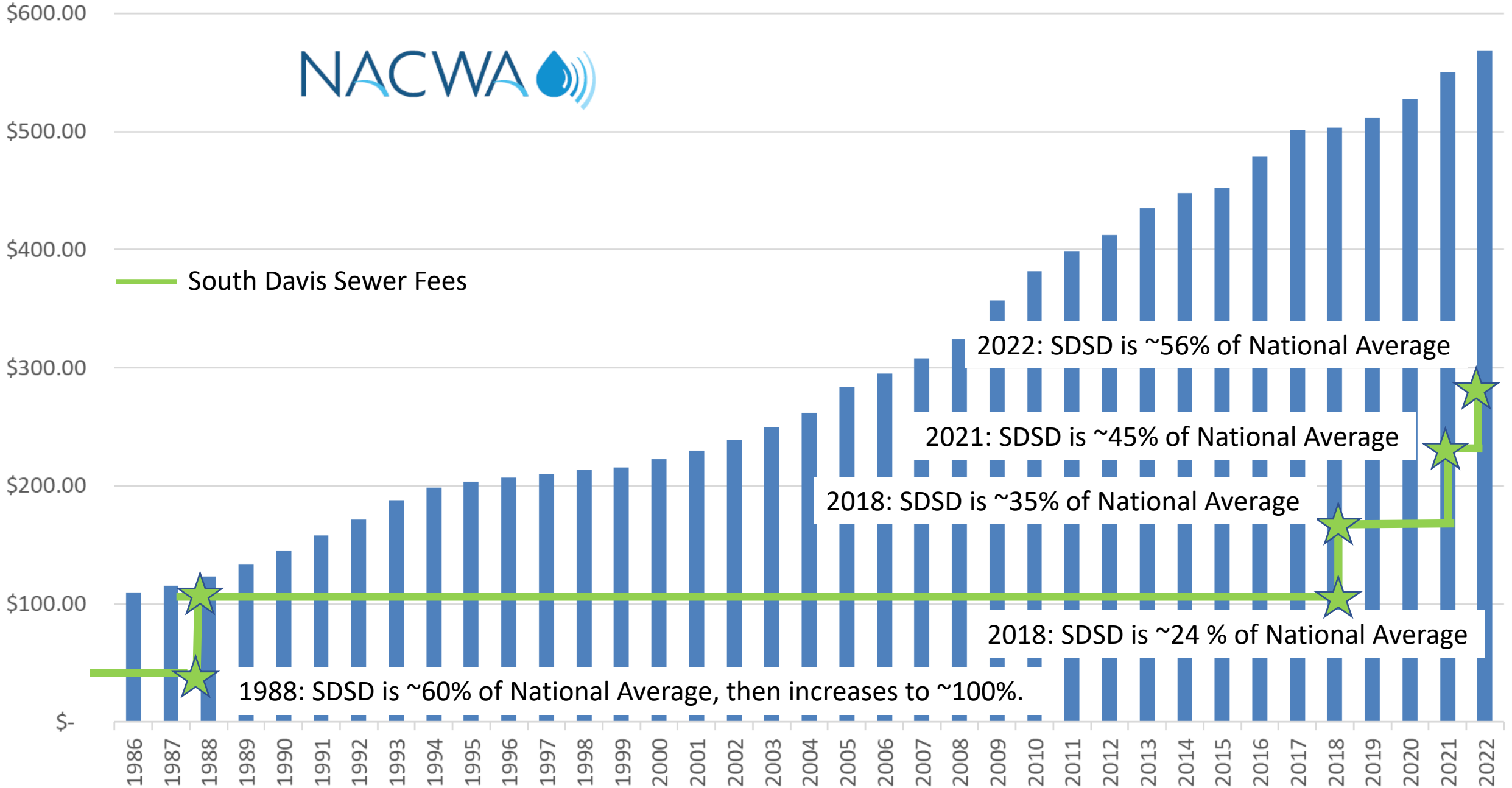


2023 to 2027 Projected Service Charge Changes Based on Approved and Anticipated Rate Increases



★ SDSL Total service charge (tax and rate)

National Average Annual Sewer Charge



1988: SDSD is ~60% of National Average, then increases to ~100%.

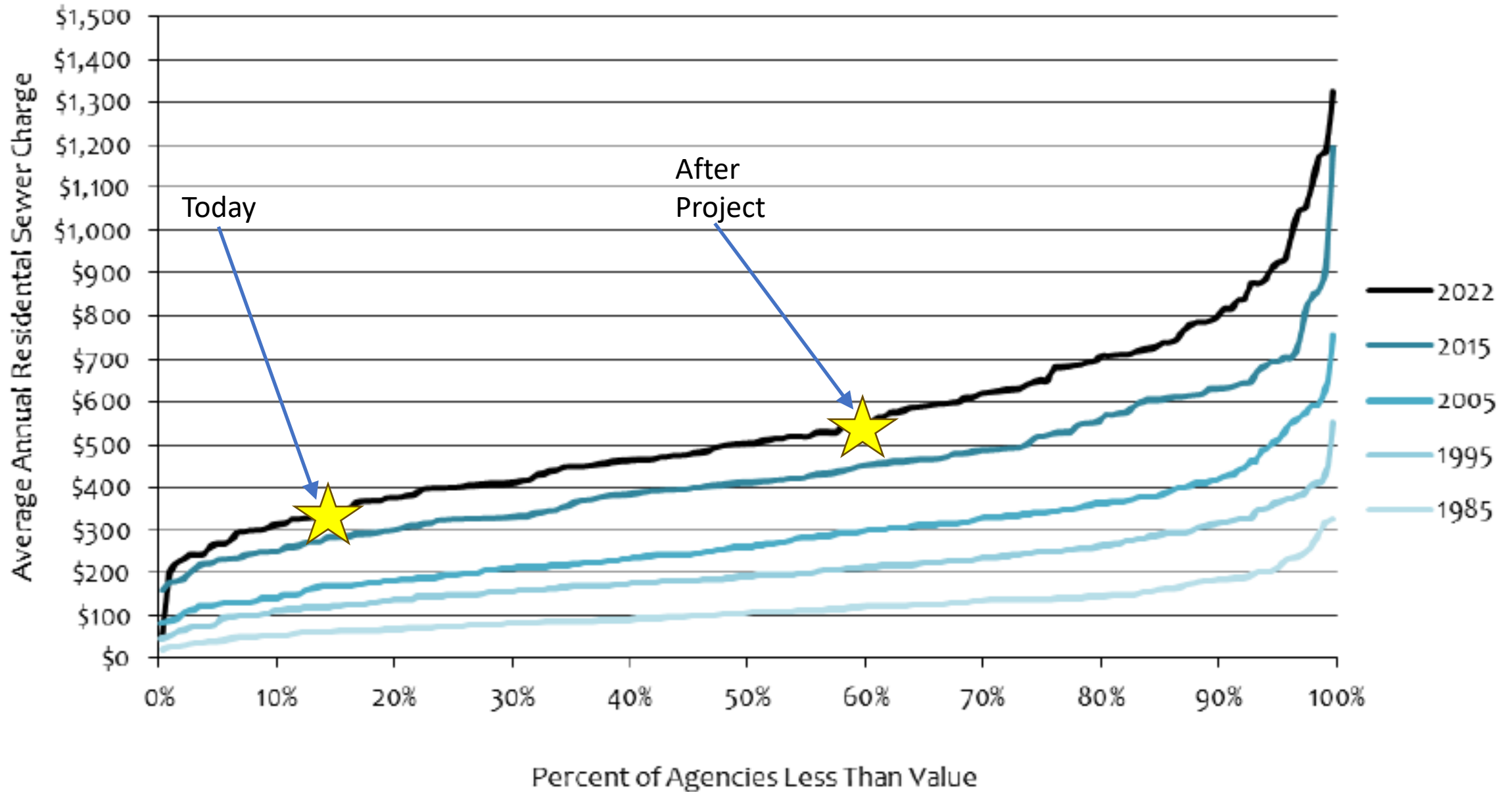
2018: SDSD is ~35% of National Average

2021: SDSD is ~45% of National Average

2022: SDSD is ~56% of National Average

2018: SDSD is ~24 % of National Average

Distribution Trend of Average Annual Residential Sewer Charge (National)



Utah Total Monthly Sewer Charge Distribution

