

2023-2032 Capital Master Plan

Southwest Metropolitan Water & Sanitation District

Goal of Effort

- ▶ To itemize and schedule:
 - Water and wastewater facility expansion
 - Rehabilitation and replacement projects
 - Vehicle and equipment purchases

Two Major Factors

- ▶ Performance - Likelihood of failure
 - ▶ Pipe material
 - ▶ Age of pipe
 - ▶ Number of breaks
- ▶ Impact - Consequence of failure
 - ▶ Condition score
 - ▶ Number of Isolation valves

Condition Score

District:	PROVIDED			Date:	CURRENT DATE
Subdivision:	PROVIDED			Name:	ASSESSORS NAME/ INITIALS
Pipe Segment:	PROVIDED			Name:	ASSESSORS NAME/ INITIALS
CONSEQUENCE OF FAILURE					
Criteria	1	2	3	4	5
No. of Units Served	Less than 5	5 – 10	11 – 20	21 – 40	More than 40
No. of Critical Customers or Large Businesses Served	0	---	1-2 Businesses	---	3+ Businesses OR 1+ critical customer
Cost to Repair	Less than \$2,000	\$2,000 - \$5,000	\$6,000 - \$10,000 MOST COMMON	\$11,000 - \$15,000	More than \$15,000
Time to repair	Less than 4 hours	4 – 6 hours MOST COMMON	6 – 24 hours	24 – 48 hours	More than 48 hours
Other factors Env. impacts; potential property damage; public safety issue; traffic impacts; excessive repair costs or outages; customer class	Minimal	Low	Average	High	Most critical
Describe factor:	i.e. Very low traffic impact, typical of cul-de-sacs.	i.e. Low traffic impact,	i.e. Moderate traffic impact	i.e. High traffic impact, moderate potential flooding. Typical of main thoroughfares.	i.e. Extreme traffic impact, high potential flooding of property.
Total (sum up each column)					
Average CoF Score (add numbers in Total and divide by 5)					

This Year's Process

- ▶ Review the equation for the Overall Score that is unique to the Southwest Metro system
- ▶ Add assets into projects that were not identified by the first pass of the software
- ▶ Easily changed linear foot values based upon current construction climate
- ▶ Quickly update projects when required to upsize lines due to Denver Water hydraulic analysis

Technical Approach - Sedaru

Sedaru CIP - 2021-2030 SWM CIP - Revised Unit Costs (fi...

start create project plans | performance likelihood of failure | impact consequence of failure | construction ease of construction | action plan manage projects & phases

map | assets | projects

projects - 2021-2030 SWM CIP - Revised Unit Costs
\$37,785,532 (8.30% of total footage)

project cost | project parameters

#	project name	project cost	diameter	length	composite score	paving	project type	project status	project phase
1	S. Flower Way	\$103,800	6	362'	66.75	-	Replace - In Kind	pending	1
2	W. Walden Ave.	\$146,700	12	376'	66.75	-	Replace - In Kind	pending	1
3	S. Holland Way	\$117,100	12	300'	74.74	-	Replace - In Kind	pending	1
4	S. Kipling Street (north of Coal Mine Ave.)	\$989,700	16	2239'	45.32	-	Replace - In Kind	pending	1
5	Old Coal Mine Ave.(east of Kipling)	\$344,700	16	779'	59.71	-	Replace - In Kind	pending	1
6	Santa Fe Drive north of C470	\$1,290,700	16	2920'	67.81	-	Replace - In Kind	pending	Phase 1
7	Chatfield Ave (Upham to Pierce)	\$529,900	8	1698'	65.06	-	Replace - In Kind	pending	1
8	Lexington Way	\$110,000	8	352'	54.79	-	Replace - In Kind	pending	1
9	W. Walker Drive	\$427,900	6	1496'	48.28	-	Replace - In Kind	pending	1

create new project | merge selected | remove selected | export data

2023-2032 Water Projects

Year	Construction Cost	Contingency	Engineering Cost	Per Year Length
2023	\$ 1,325,000	\$ 265,000	\$ 132,500	2,500
2024	No projects			
2025	No projects			
2026	\$ 445,600	\$ 89,200	\$ 44,600	780
2027	No projects			
2028	\$ 1,621,000	\$ 324,000	\$ 162,000	4,016
2029	\$ 225,600	\$ 51,200	\$ 25,600	666
2030	\$ 3,349,000	\$ 669,800	\$ 334,900	5,678
2031	\$ 1,497,000	\$ 229,400	\$ 149,700	3,246
2032	No projects			

17,631 linear feet (0.21% per year)

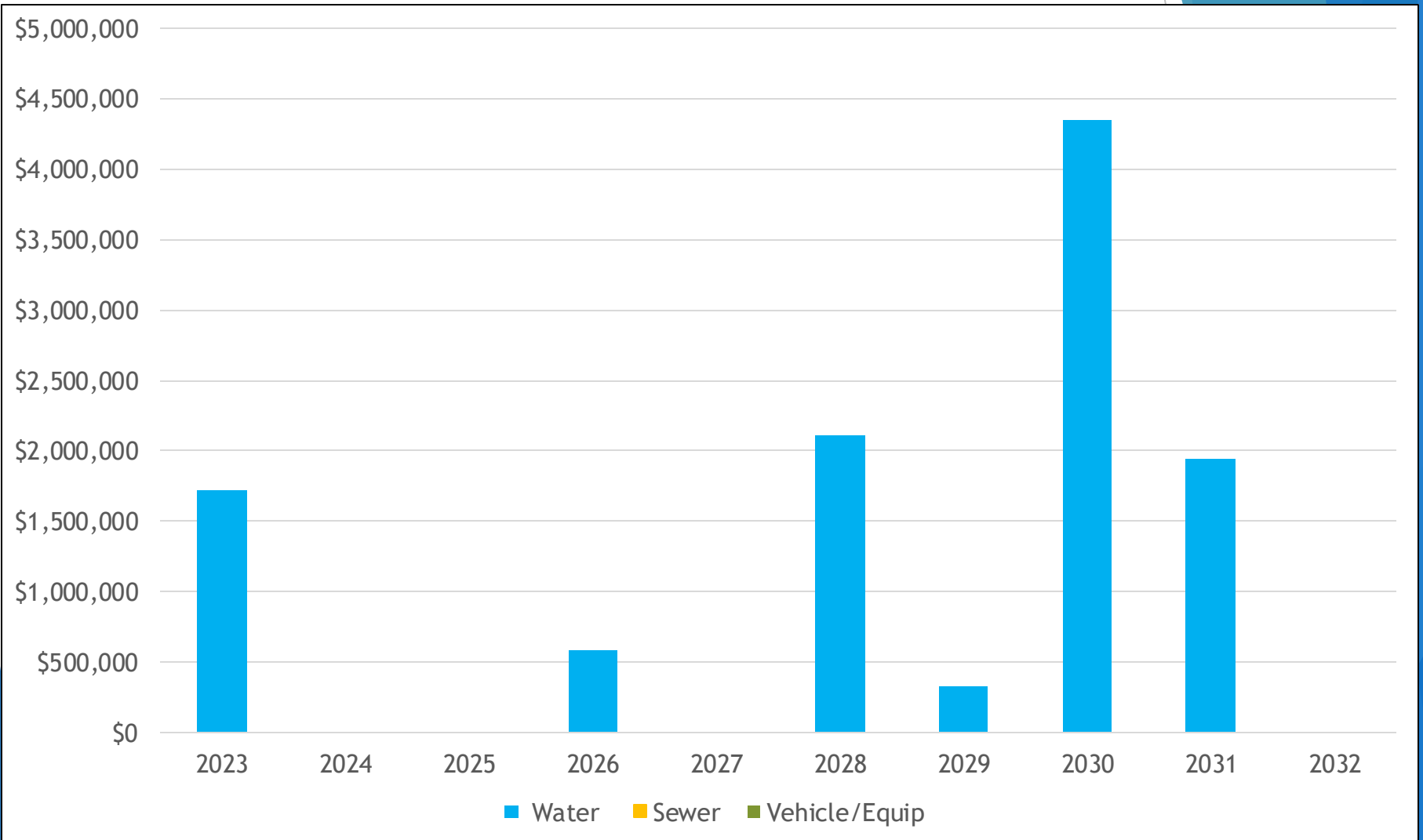
2023-2032 Sewer Projects

- ▶ No sewer replacement or rehabilitation projects are scheduled between 2023 and 2032.

2023-2031 Capital Master Plan

Year	Water	Sewer	Vehicle/Equip	Totals
2023	\$1,722,500	\$0	\$0	\$1,722,500
2024	\$0	\$0	\$0	\$0
2025	\$0	\$0	\$0	\$0
2026	\$580,000	\$0	\$0	\$580,000
2027	\$0	\$0	\$0	\$0
2028	\$2,106,000	\$0	\$0	\$2,106,000
2029	\$332,300	\$0	\$0	\$332,300
2030	\$4,353,400	\$0	\$0	\$4,353,400
2031	\$1,945,700	\$0	\$0	\$1,945,700
2032	\$0	\$0	\$0	\$0
TOTAL	\$11,040,000	\$0	\$0	\$11,040,000

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Questions?