

# 2023-2032 Capital Master Plan

Platte Canyon 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:	<b>PROVIDED</b>			Date:	CURRENT DATE
Subdivision:	<b>PROVIDED</b>			Name:	ASSESSORS NAME/ INITIALS
Pipe Segment:	<b>PROVIDED</b>			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	---	<b>3+ Businesses OR 1+ critical customer</b>
Cost to Repair	Less than \$2,000	\$2,000 - \$5,000	\$6,000 - \$10,000 <b>MOST COMMON</b>	\$11,000 - \$15,000	More than \$15,000
Time to repair	Less than 4 hours	4 – 6 hours <b>MOST COMMON</b>	6 – 24 hours	24 – 48 hours	More than 48 hours
<b>Other factors</b> Env. impacts; potential property damage; public safety issue; traffic impacts; excessive repair costs or outages; customer class	Minimal	Low	Average	High	<b>Most critical</b>
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.
<b>Total</b> (sum up each column)					
<b>Average CoF Score</b> (add numbers in Total and divide by 5)					

# This Year's Process

- ▶ Review the equation for the Overall Score that is unique to the Platte Canyon 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 PC CIP - Revised Unit Costs (filter...)

clone

start  
create project plans

performance  
likelihood of failure

impact  
consequence of failure

construction  
ease of construction

action plan  
manage projects & phases

share  
create reports & export

map

assets projects

projects - 2021-2030 PC CIP - Revised Unit Costs  
**\$22,602,326** (5.28% of total footage)

project cost project parameters

#	project name	project cost	diameter	length	composite score	paving	project type	project status	project phase
1	2020 1W	\$373,600	6	1306'	75.48	-	Replace - In Kind	pending	
2	2020 2W & 3W	\$485,900	6, 8	1595'	79.63	-	Replace - In Kind	pending	
3	2020 4W & 5W	\$543,400	6	1899'	77.93	-	Replace - In Kind	pending	
4	Depew Street (2021)	\$593,000	8	1900'	70.24	-	Replace - In Kind	pending	
5	Alder Way (2021, moved up)	\$199,600	6	697'	67.54	-	Replace - In Kind	pending	
6	Newland Circle (2021)	\$485,800	6	1698'	74.99	-	Replace - In Kind	pending	
7	Elmhurst Ave (2022)	\$659,600	6	2306'	62.95	-	Replace - In Kind	pending	
8	Chestnut Drive (2022)	\$317,600	6	1110'	73.09	-	Replace - In Kind	pending	
9	Depew Street (2023)	\$557,100	8	1785'	59.91	-	Replace - In Kind	pending	

2020 1W

location assets

project name  
2020 1W

description  
enter project description

composite project score  
75.48

project type  
Replace - In Kind

project cost  
\$373,600

project status  
pending

# of customers benefitted  
28

# of deficiencies addressed  
5

project phase  
n/a

create new project

merge selected

remove selected

export data

# 2023-2032 Water Projects

Year	Construction	Contingency	Engineering	TOTAL PROJECT COST	Per Year Length
2023	\$668,258	\$133,660	\$66,826	\$868,743	1,785
2024	\$1,849,808	\$369,970	\$184,981	\$2,404,759	4,488
2025	\$1,855,125	\$371,030	\$185,512	\$2,411,667	4,689
2026	\$1,471,404	\$294,290	\$147,140	\$1,912,834	3,800
2027	\$2,414,847	\$482,970	\$241,485	\$3,139,302	4,614
2028	\$2,166,992	\$433,400	\$216,699	\$2,817,091	5,072
2029	\$1,248,985	\$249,800	\$52,280	\$1,551,064	2,817
2030	\$1,903,683	\$380,740	\$190,368	\$2,474,791	4,366
2031	\$1,941,998	\$388,400	\$194,200	\$2,524,598	4,428
2032	\$2,103,255	\$420,660	\$210,326	\$2,734,241	4,094

40,152 linear feet (1.0% per year)

# 2023-2032 Sewer Projects

- ▶ No sanitary sewer replacements have been scheduled for 2023.
- ▶ No sewer replacement or rehabilitation projects are scheduled between 2024 and 2032.



# 2023-2032 Vehicles/Equipment

2023	4WD pickup 4WD pickup 4" Trailer Mounted Trash Pump	\$120,000
2024	4WD pickup Combination Valve/Vacuum Operator 6" Trailer Mounted Trash Pump	\$159,000
2025	Combination Sewer Cleaner/Vac Unit	\$525,000
2026	No purchases scheduled in this year	
2027	4WD pickup Trailer-Mounted Arrow Board	\$51,000
2028	4WD Pickup Television Unit Trailer Mounted Message Board	\$452,000

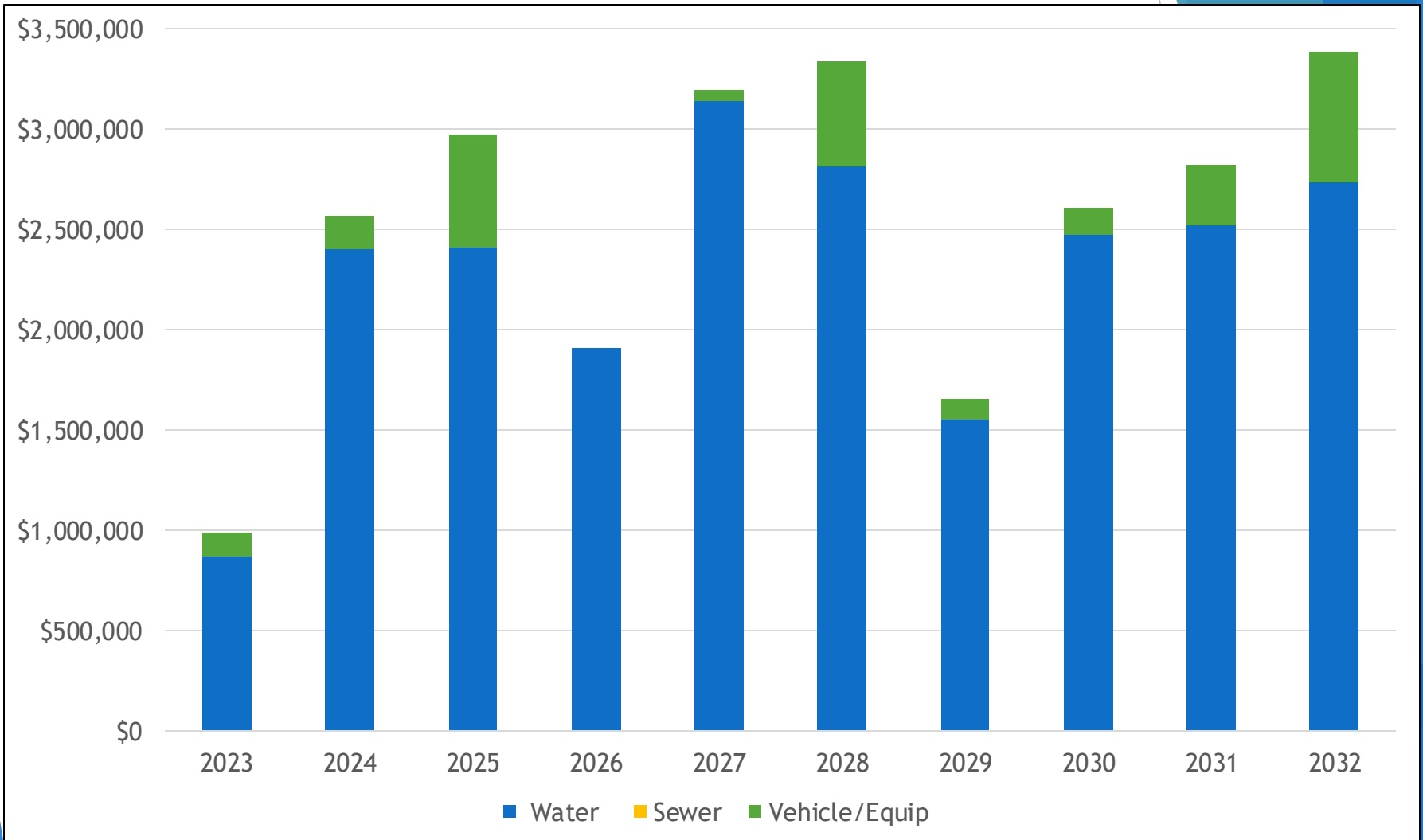
# 2023-2032 Vehicles/Equipment

2029	4WD Pickup Utility Vehicle	\$ 88,000
2030	4WD Pickup 4WD Pickup Trailer-Mounted Valve Operator	\$112,000
2031	4WD Pickup 4WD Pickup Flatbed with compressor and Crane 4" Trailer Mounted Trash Pump	\$236,000
2032	4WD pickup Combination Valve/Vacuum Operator Sewer Cleaner 6" Trailer Mounted Trash Pump	\$509,000

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Year	Water	Sewer	Vehicle/Equip	Totals
2023	\$868,800	\$0	\$123,000	\$991,900
2024	\$2,404,800	\$0	\$167,100	\$2,571,900
2025	\$2,411,600	\$0	\$566,100	\$2,977,700
2026	\$1,912,900	\$0	\$0	\$1,912,900
2027	\$3,139,300	\$0	\$57,900	\$3,197,200
2028	\$2,817,100	\$0	\$525,500	\$3,342,600
2029	\$1,551,100	\$0	\$104,900	\$1,656,100
2030	\$2,474,800	\$0	\$136,900	\$2,611,700
2031	\$2,524,600	\$0	\$295,800	\$2,820,400
2032	\$2,734,300	\$0	\$654,100	\$3,388,400
<b>TOTAL</b>	<b>\$22,839,100</b>	<b>\$0</b>	<b>\$2,631,200</b>	<b>\$25,470,300</b>

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Questions?