

ENVIRONMENT COMMITTEE AGENDA

April 15, 2021 – VIA Zoom

4:00P – 4:50P

Chair to call the meeting to order at 4:00 p.m.

1. Approval of the minutes from the meeting of 02.18.2021

2. CIP Project Update (4:00 to 4:15 p.m.)

Staff will provide an update on the 2021 SWM Projects.

3. SWM Comprehensive Plan Update (4:15 to 4:50 p.m.)

Parametrix will be presenting the CIP options and financial plan sections of the Comprehensive Plan Update.

DRAFT MINUTES – ENVIRONMENT COUNCIL COMMITTEE MEETING 02.18.2021

The meeting was called to order at 4:00 PM, Thursday, February 18, 2021, via Zoom, with the following in attendance:

Council Members

Mayor Matt Pina (Chair)
Luisa Bangs (Vice-Chair)
JC Harris

City Staff

Michael Matthias – City Manager
Dan Brewer – Chief Operations Officer
Brandon Carver – PW Director
Loren Reinhold – SWM Utility Manager
Scott Wilkins - Harbormaster
Beth Anne Wroe – Finance Director
Matthew Hutchins – Asst. City Attorney
Tyler Beekley – SWM Civil Engineer II
Ben Stryker – Civil Engineer
Jodi Grager – Admin. Asst.

Guests

Councilmembers Traci Buxton and Anthony Martinelli, Dave Kaplan

AGENDA:

1. Approval of 01.21.21 Minutes
2. WRIA 9 Salmon Habitat Plan Update
3. NPDES Program Update

MEETING:

1. Unanimous approval of the 01.21.21 minutes
2. SWM Utility Manager Loren Reinhold presented a memo titled Executive Summary which is an update to the 2005 WRIA 9 Plan (Attachment #2). From this plan Manager Reinhold highlighted three Des Moines projects.
 - McSorley Creek Pocket Estuary and Feeder Bluff Restoration is a Tier 1 project which could be slated for construction in 2022. The City is not contributing to funding this project, currently. Work would include removing the seawall along the shoreline at Saltwater State Park. The Committee expressed concern about the impact to this critical area and the potential for landslide occurrence. It was suggested that once the design phase is complete, a WRIA 9 presentation would be appropriate. COO Brewer agreed that staff would follow up with the Committee once more information is available.
 - Massey Creek Pocket Estuary and Fish Passage Project is a Tier 2 project which would be critical to restoring salmon habitat and possibly allowing for new public access to the shoreline just south of the Marina. Manager Reinhold advocated for City funding of this

project. This would be added into the 6 year CIP. COO Brewer indicated that there are many agencies interested in this estuary with funding partnership potential.

- Des Moines Creek Pocket Estuary Restoration is a Tier 2 project which focuses on the removal of armoring in the park to provide a more natural shoreline and improve the wildlife habitat. The Council recently approved the City participating in the Habitat Mitigation Bank which may assist in funding Des Moines projects. It is possible, many agencies may have an interest in the restoration of Des Moines Creek.

3. Tyler Beekley, SWM Civil Engineer II, introduced Ben Stryker, SWM Civil Engineer I to review the NPDES (National Pollutant Discharge Elimination System) Program. CE Stryker stated the NPDES stems from the Clean Water Act of 1972, The City's drainage system requires an NPDES permit in order to control and regulate the discharge of point source pollution. Des Moines currently operates under the 2019-2024 Western Washington Phase II Permit. (See Attachment #3 for requirements and details regarding the eight categories of the permit.) CE Stryker described how the City is meeting the NPDES goals. Discussion after the presentation included:

- How does the City account for pipe replacement and catch basin inspections?

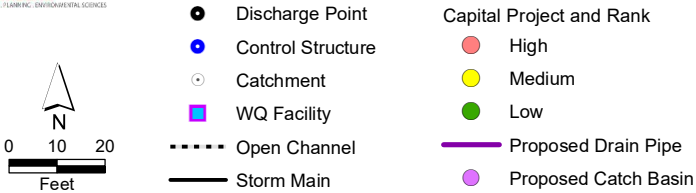
CE Beekley described the inspections that the SWM Maintenance crew performs. Additionally, a pole camera has been purchased for use during inspections. Public Works Director Brandon Carver stated pipe replacement projects are listed on the CIP.

Meeting adjourned at 4:48 p.m.

Minutes respectfully submitted by: Jodi Grager, Admin Asst



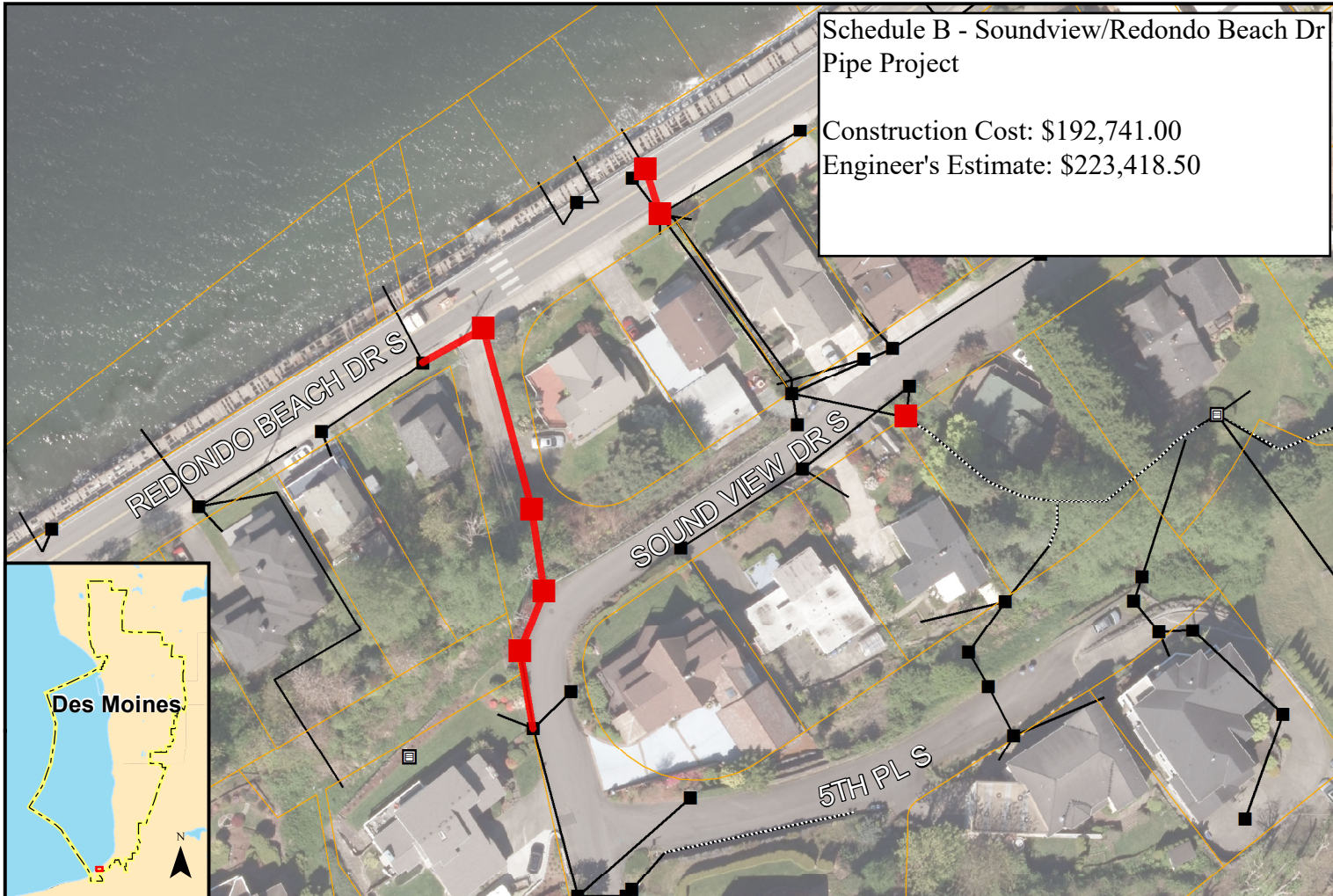
Parametrix
ENGINEERING, PLANNING, ENVIRONMENTAL SCIENCES

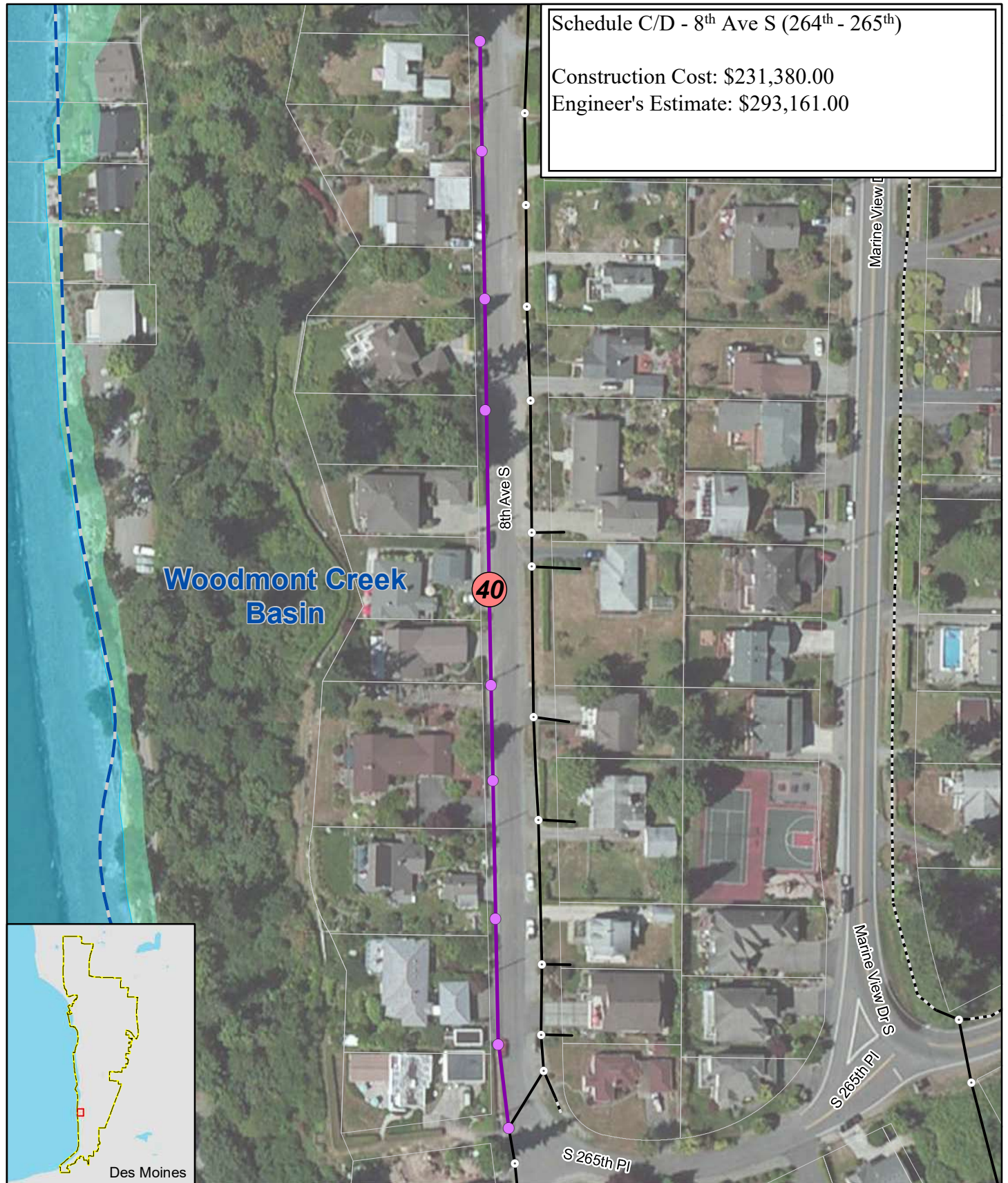


Capital Project 39.
 6th Avenue/239th St. Pipe Replacement

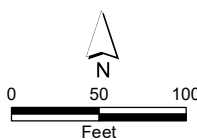
City of Des Moines
 Surface Water Comprehensive Plan

Soundview Drive/Redondo Beach Drive Pipe Upgrade





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- Discharge Point
 - Control Structure
 - Catchment
 - WQ Facility
 - Open Channel
 - Storm Main
- Capital Project and Rank**
- High
 - Medium
 - Low
 - Proposed Drain Pipe
 - Proposed Catch Basin

- Streams
- 100 Year Flood
- Drainage Basin
- City Limits

Capital Project 40.
8th Avenue (264th to 265th)
Pipe Project

City of Des Moines
Surface Water Comprehensive Plan

Parametrix, Inc.
1019 39th Ave SE, Ste. 100
Puyallup, WA 98374

Project Name: Surface Water Capital Projects

BID SUMMARY	ENGINEERS ESTIMATE		RW Scott Construction	
TOTAL SCHEDULE A:	\$	296,978.00	\$	256,930.00
TOTAL SCHEDULE B:	\$	223,418.50	\$	192,741.00
TOTAL SCHEDULE C:	\$	293,161.00	\$	231,380.00
TOTAL SCHEDULE D:	\$	662,774.48	\$	601,197.20
SCHEDULE A + B + C + D TOTAL:	\$	1,476,331.98	\$	1,282,248.20

BID SUMMARY	Road Construction Northwest, Inc.		Rodarte Construction, Inc.		Westwater Construction Company		HCON Incorporated		Northwest Cascade, Inc.	
TOTAL SCHEDULE A:	\$	277,486.00	\$	252,323.00	\$	322,425.00	\$	438,857.00	\$	477,871.00
TOTAL SCHEDULE B:	\$	252,009.75	\$	252,300.00	\$	339,055.00	\$	296,987.00	\$	265,291.00
TOTAL SCHEDULE C:	\$	306,197.50	\$	306,242.50	\$	352,125.00	\$	260,128.00	\$	277,893.00
TOTAL SCHEDULE D:	\$	589,815.61	\$	703,583.04	\$	530,656.68	\$	606,645.50	\$	718,248.36
SCHEDULE A + B + C + D TOTAL:	\$	1,425,508.86	\$	1,514,448.54	\$	1,544,261.68	\$	1,602,617.50	\$	1,739,303.36

*Note that these bid tabulations may include minor corrections to the bid proposal values based on verification of price extensions using MS Excel, any minor corrections made did not alter the order of the tabulation.

SURFACE WATER COMPREHENSIVE PLAN UPDATE

CITY OF DES MOINES

APRIL 15, 2021

Parametrix
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 **FCS GROUP**
Solutions-Oriented Consulting

AGENDA

- Recap
- Capital Improvement Plan Options
- Financial Plan Results  **FCS GROUP**
Solutions-Oriented Consulting

OVERVIEW

- Reviewed new NPDES Stormwater Permit against City's existing program, highlighted key action items.
- Summarized stormwater planning effort during last Permit cycle for City's Annual Report to Ecology.
- Evaluated capital projects in the plan and determined projects that would move to out years of 2027-29 in order to maintain rates.
- Evaluated Financial impacts of adding an annual \$100K transfer to capital

CAPITAL IMPROVEMENT PROJECTS

- In order to preserve the current rate structure, which was approved in the previous plan and includes only inflationary step increases of approximately 3% annually, we previously stated that the current capital plan expenditures would need to push out 3 additional years to 2029.
- There are 4 projects that would be pushed to the out years 2027-29.

CAPITAL IMPROVEMENT PROJECTS

ID	Description	Useful Life (Years)	Percent Replacement?	Unescalated Total
	2021 - 2026 CIP - Draft	50.00	0%	-
131	Barnes Crk/Kent-Des Moines Rd Culvert	50.00	0%	2,477,000
133	S. 251st Street Storm Outfall	50.00	0%	49,000
135	216th/11th Ave Intersection Pipe Replacement	50.00	0%	1,000
137	Deepdene Plat Outfall Replacement	50.00	0%	272,000
139	N. Fork McSorley Ck Diversion	50.00	0%	1,070,000
141	6th Ave/239th Pipe Replacement	50.00	0%	490,000
143	S 251st Pipe Replacement Project	50.00	0%	53,000
145	Soundview Dr./Redondo Beach Dr. Pipe Upgrade Project	50.00	0%	400,000
147	8th Ave (264th to 265th)	50.00	0%	518,000
149	24th Ave Pipeline Replacement/Upgrade	50.00	0%	808,000
151	DMMD/200th Stormwater Extension	50.00	0%	215,000
153	10th Ave Pipe Replacement	50.00	0%	152,000
155	Woodmont Landslide Repairs	50.00	0%	173,000
	WRIA 9 - Massey Creek Pocket Estuary & Fish Passage	50.00	0%	3,000,000
	WRIA 9 - Des Moines Creek Estuary Restoration	50.00	0%	2,000,000
157	DMMD 208th to 212th Pipe Project	50.00	0%	1,156,000
159	KDM /16th Avenue A Pipe Replacement	50.00	0%	466,000
161	216th Pl./ Marine View Dr. Pipe Upgrade	50.00	0%	584,000
163	S. 200th St. Drainage Improvements	50.00	0%	500,000
165	5th Ave/212th Street Pipe Upgrade	50.00	0%	1,788,000
167	Service Center Material Storage Improvments	50.00	0%	100,000
169	KDM/16th Ave B Pipe Replacement	50.00	0%	1,741,000
171	232nd Street (10th to 14th) Pipe Project	50.00	0%	1,297,000

CAPITAL IMPROVEMENT PROJECTS



- Projects pushed to out years include:
 - 5th Ave/212th Street Pipe Upgrade
 - Service Center Material Storage Improvements
 - KDM/16th Ave B Pipe Replacement
 - 232nd Street (10th to 14th) Pipe Project

5th Ave/212th Street Pipe Upgrade



CITY OF DES MOINES
2021-2026 CAPITAL IMPROVEMENT PLAN
(Amount in Thousands)

5th Ave/212th Street Pipe Upgrade

Project # 451.000

Summary Project Description:

Replacement of approximately 2,630 feet of cmp pipe with new 1,700 feet of 12-inch pipe and 930 feet of 18-inch pipe in the North Hill area in the vicinity of 212th Street and 5th Avenue South.

CIP Category: Surface Water Management

Managing Department: Plan, Build & PW Admin

Justification/Benefits: This project will replace over 2,000 feet of aged corrugated metal pipe and upgrade over 900 feet of pipe to 18-inch pipe that has inadequate capacity during major storms. During two major storm events in 2013 and 2014, the pipe system overflowed creating significant erosion near the stairway at 212th Street and Des Moines Memorial Drive. The project will connect to the DMMD pipe upgrade installed in 2014. This project is identified as a high-priority project (CIP-16) in the 2015 Stormwater Comprehensive Plan.

PROJECT SCOPE			
Expenditures	Current Budget	Requested Change	Total Budget
Design	170	209	379
Land & Right of Way	-	-	-
Construction	578	512	1,090
Contingency	136	183	319
Total Expenditures	884	904	1,788

Funding Sources	Current Budget	Requested Change	Total Budget
Surface Water Utility	884	904	1,788
Total Funding	884	904	1,788

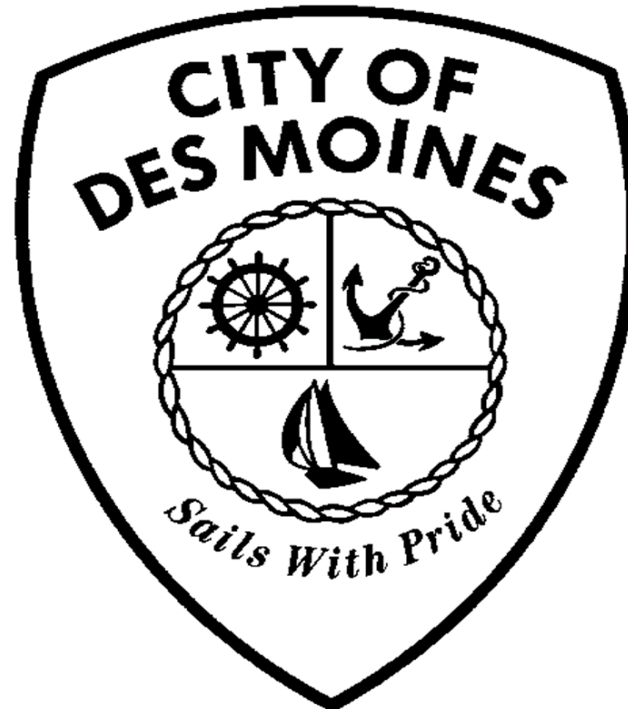
OPERATING IMPACT			
Operating Impact	6 Year Total		
Revenue	-	-	-
Expenses	-	-	-
Net Impact	-	-	-

ANNUAL ALLOCATION							
Project to Date 12/31/19	Plan Year 2020	Plan Year 2021	Plan Year 2022	Plan Year 2023	Plan Year 2024	Plan Year 2025	Plan Year 2026
-	-	-	-	-	379	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	1,090	-
-	-	-	-	-	78	241	-
-	-	-	-	-	457	1,331	-

Project to Date 12/31/19	Plan Year 2020	Plan Year 2021	Plan Year 2022	Plan Year 2023	Plan Year 2024	Plan Year 2025	Plan Year 2026
-	-	-	-	-	457	1,331	-
-	-	-	-	-	457	1,331	-

ANNUAL OPERATING IMPACT							
	2020	2021	2022	2023	2024	2025	2026
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-

Service Center Material Storage Improvements



CITY OF DES MOINES
2021-2026 CAPITAL IMPROVEMENT PLAN
(Amount in Thousands)

Service Center Material Storage Improvments

Project # 451.845

Summary Project Description:

Construct covered material storage bins with associated drainage facilities. Surface Water Management will be contributing 25% of the overall cost.

CIP Category: Surface Water Management

Managing Department: Plan, Build & PW Admin

Justification/Benefits: The Department of Ecology has required the material storage areas in the service center to be covered as an element of the City's NPDES permit.

PROJECT SCOPE

<i>Expenditures</i>	<i>Current Budget</i>	<i>Requested Change</i>	<i>Total Budget</i>
Design	-	10	10
Land & Right of Way	-	-	-
Construction	-	90	90
Contingency	-	-	-
Total Expenditures	-	100	100

ANNUAL ALLOCATION

<i>Project to Date 12/31/19</i>	<i>Plan Year 2020</i>	<i>Plan Year 2021</i>	<i>Plan Year 2022</i>	<i>Plan Year 2023</i>	<i>Plan Year 2024</i>	<i>Plan Year 2025</i>	<i>Plan Year 2026</i>
-	-	-	-	-	10	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	90	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	100	-	-

Funding Sources

<i>Funding Sources</i>	<i>Current Budget</i>	<i>Requested Change</i>	<i>Total Budget</i>
Surface Water Utility	-	100	100
Total Funding	-	100	100

<i>Project to Date 12/31/19</i>	<i>Plan Year 2020</i>	<i>Plan Year 2021</i>	<i>Plan Year 2022</i>	<i>Plan Year 2023</i>	<i>Plan Year 2024</i>	<i>Plan Year 2025</i>	<i>Plan Year 2026</i>
-	-	-	-	-	100	-	-
-	-	-	-	-	100	-	-

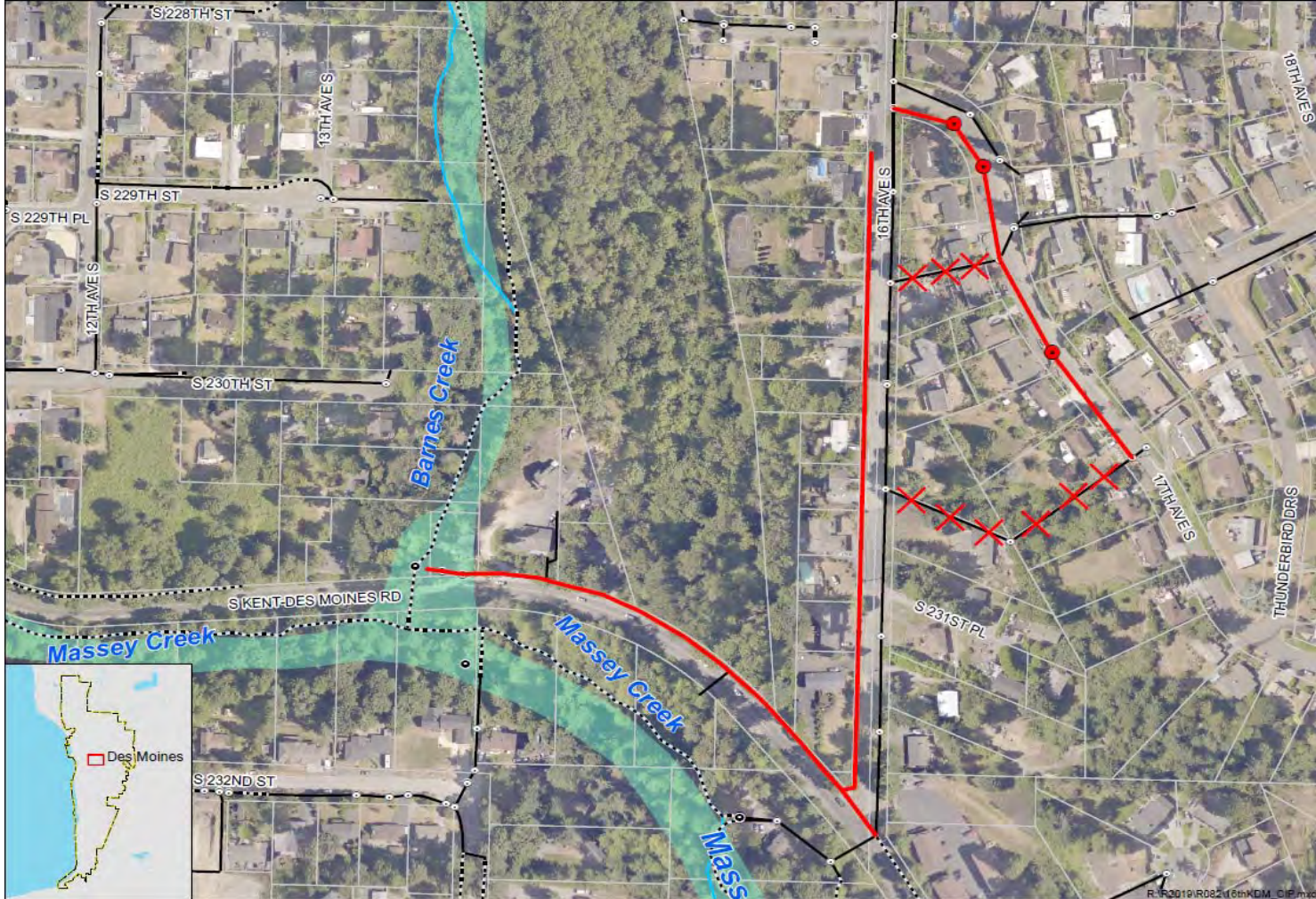
OPERATING IMPACT

<i>Operating Impact</i>	<i>6 Year Total</i>		
Revenue	-	-	-
Expenses	-	-	-
Net Impact	-	-	-

ANNUAL OPERATING IMPACT

	<i>2020</i>	<i>2021</i>	<i>2022</i>	<i>2023</i>	<i>2024</i>	<i>2025</i>	<i>2026</i>
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-

KDM/16th Ave B Pipe Replacement



CITY OF DES MOINES
2021-2026 CAPITAL IMPROVEMENT PLAN
(Amount in Thousands)

KDM/16th Ave B Pipe Replacement

Project # **451.000**

CIP Category: Surface Water Management

Managing Department: Plan, Build & PW Admin

Summary Project Description:

Install a new stormwater conveyance system on the west side of 16th Avenue S consisting of approximately 1220 feet of 12 inch pipe and 6 catch basins. Replace the existing ditch along the north side of Kent-DesMoines Road (KDM) with approximately 935 feet of 36 inch pipe and 9 storm drain manholes. Install 775 feet of 12-inch and 18-inch pipe, 4 catch basins and 2 manholes along the west side of 17th Avenue South connecting to 16th Avenue South and abandon the two existing pipe segments located on private property. The new 16th Ave S storm system will connect to the new system on KDM and outfall to Barnes Creek.

Justification/Benefits: During periods of heavy rainfall, runoff from 16th Avenue will overtop Kent-Des Moines Road (KDM) and erode/flood the properties on the south side of the road. This project will better collect the runoff from the west side of 16th Avenue and the north side of KDM and allow the abandonment of at least one KDM storm crossing. The project will also enclose the existing ditch system along KDM for vehicle and pedestrian safety. This project is a high priority project (CIP-25B) listed in the 2015 SWM Comprehensive Plan.

PROJECT SCOPE			
Expenditures	Current Budget	Requested Change	Total Budget
Design	204	165	369
Land & Right of Way	-	-	-
Construction	695	366	1,061
Contingency	250	61	311
Total Expenditures	1,149	592	1,741

Funding Sources	Current Budget	Requested Change	Total Budget
Surface Water Utility	1,149	592	1,741
Total Funding	1,149	592	1,741

ANNUAL ALLOCATION							
Project to Date 12/31/19	Plan Year 2020	Plan Year 2021	Plan Year 2022	Plan Year 2023	Plan Year 2024	Plan Year 2025	Plan Year 2026
-	-	-	-	-	-	369	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	1,061
-	-	-	-	-	-	76	235
-	-	-	-	-	-	445	1,296

Project to Date 12/31/19	Plan Year 2020	Plan Year 2021	Plan Year 2022	Plan Year 2023	Plan Year 2024	Plan Year 2025	Plan Year 2026
-	-	-	-	-	-	445	1,296
-	-	-	-	-	-	445	1,296

OPERATING IMPACT			
Operating Impact	6 Year Total		
Revenue	-	-	-
Expenses	-	-	-
Net Impact	-	-	-

ANNUAL OPERATING IMPACT							
	2020	2021	2022	2023	2024	2025	2026
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-

232nd Street (10th to 14th) Pipe Project



CITY OF DES MOINES
2021-2026 CAPITAL IMPROVEMENT PLAN
(Amount in Thousands)

232nd Street (10th to 14th) Pipe Project

Project # 451.000

Summary Project Description:

Install 2200-2300 linear feet of storm pipe along the north side of 232nd Street between 10th Avenue and 14th Avenue and along the east side of 10th Avenue between 232nd and Kent-Des Moines Road. Project also includes adding a 2-foot paved shoulder and curb on the north side of 232nd.

CIP Category: Surface Water Management

Managing Department: Plan, Build & PW Admin

Justification/Benefits: The drainage along 232nd is comprised of a ditch with a series of driveway culverts. The slope of the existing drainage system is extremely shallow and slow to drain and during certain storm events, flows encroach into the east bound travel lane. This proposed project will add a new drainage system to the north side of the 232nd (with lateral crossings to the south side) and replace the existing 12-inch storm drain along the east side of 10th Avenue with a larger 18-inch pipe before discharging to Massey Creek.

PROJECT SCOPE			
Expenditures	Current Budget	Requested Change	Total Budget
Design	101	174	275
Land & Right of Way	-	-	-
Construction	431	359	790
Contingency	97	135	232
Total Expenditures	629	668	1,297

ANNUAL ALLOCATION							
Project to Date 12/31/19	Plan Year 2020	Plan Year 2021	Plan Year 2022	Plan Year 2023	Plan Year 2024	Plan Year 2025	Plan Year 2026
-	-	-	-	-	-	275	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	790
-	-	-	-	-	-	57	175
-	-	-	-	-	-	332	965

Funding Sources	Current Budget	Requested Change	Total Budget
Surface Water Utility	629	668	1,297
Total Funding	629	668	1,297

Project to Date 12/31/19	Plan Year 2020	Plan Year 2021	Plan Year 2022	Plan Year 2023	Plan Year 2024	Plan Year 2025	Plan Year 2026
-	-	-	-	-	-	332	965
-	-	-	-	-	-	332	965

OPERATING IMPACT			
Operating Impact	6 Year Total		
Revenue	-	-	-
Expenses	-	-	-
Net Impact	-	-	-

ANNUAL OPERATING IMPACT							
	2020	2021	2022	2023	2024	2025	2026
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-

CAPITAL IMPROVEMENT PROJECTS

- *Up next: Revised Financial Plan Update*

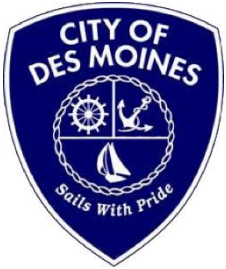


Questions

Austin Fisher, PE, Project Manager

Direct: (253) 320-0993

afisher@parametrix.com



City of Des Moines Environmental Committee

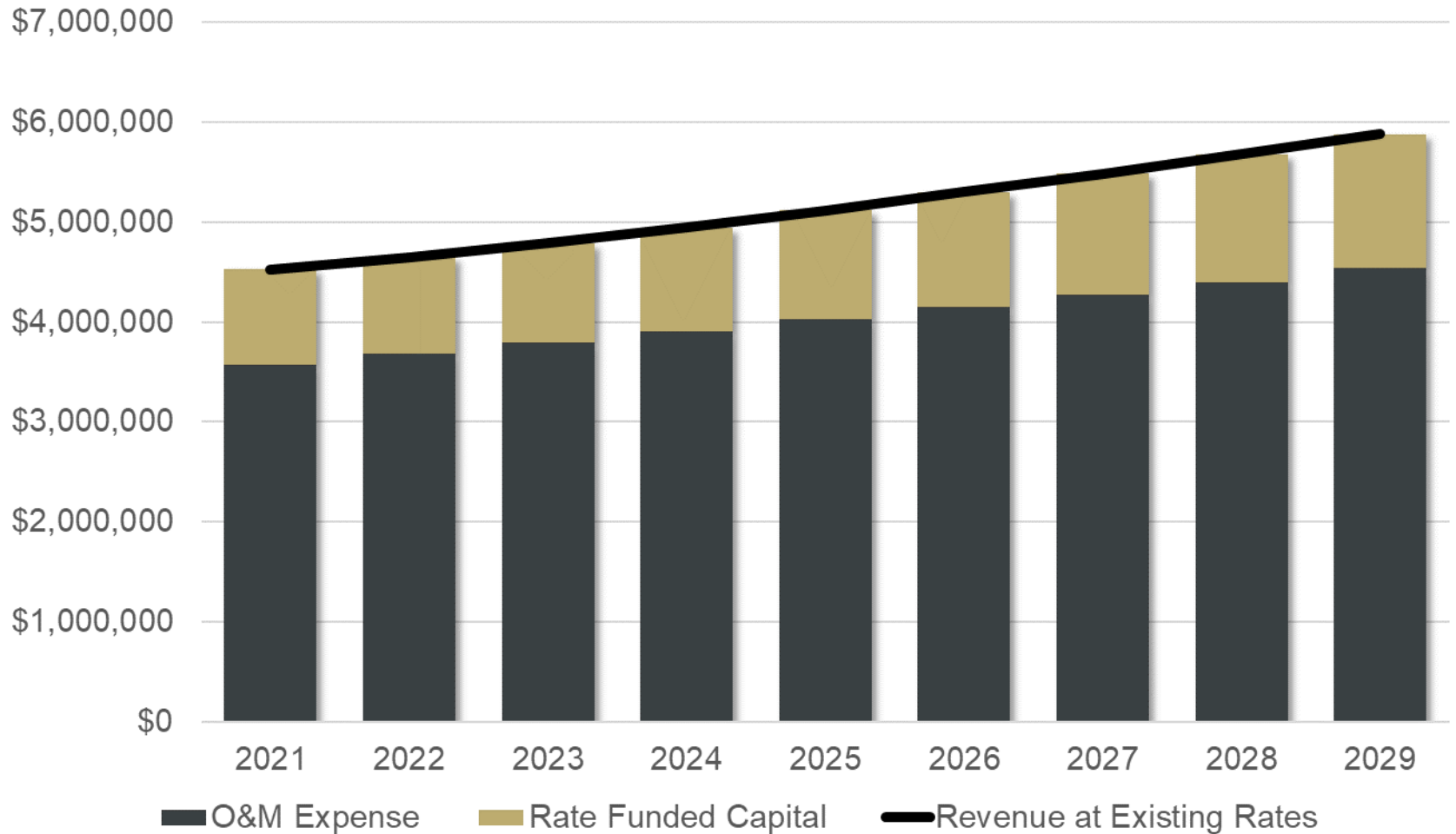
Surface Water Financial Plan and Rate Forecast - Updated

John Ghilarducci, President
Matt Hobson, Project Manager

March 18, 2021

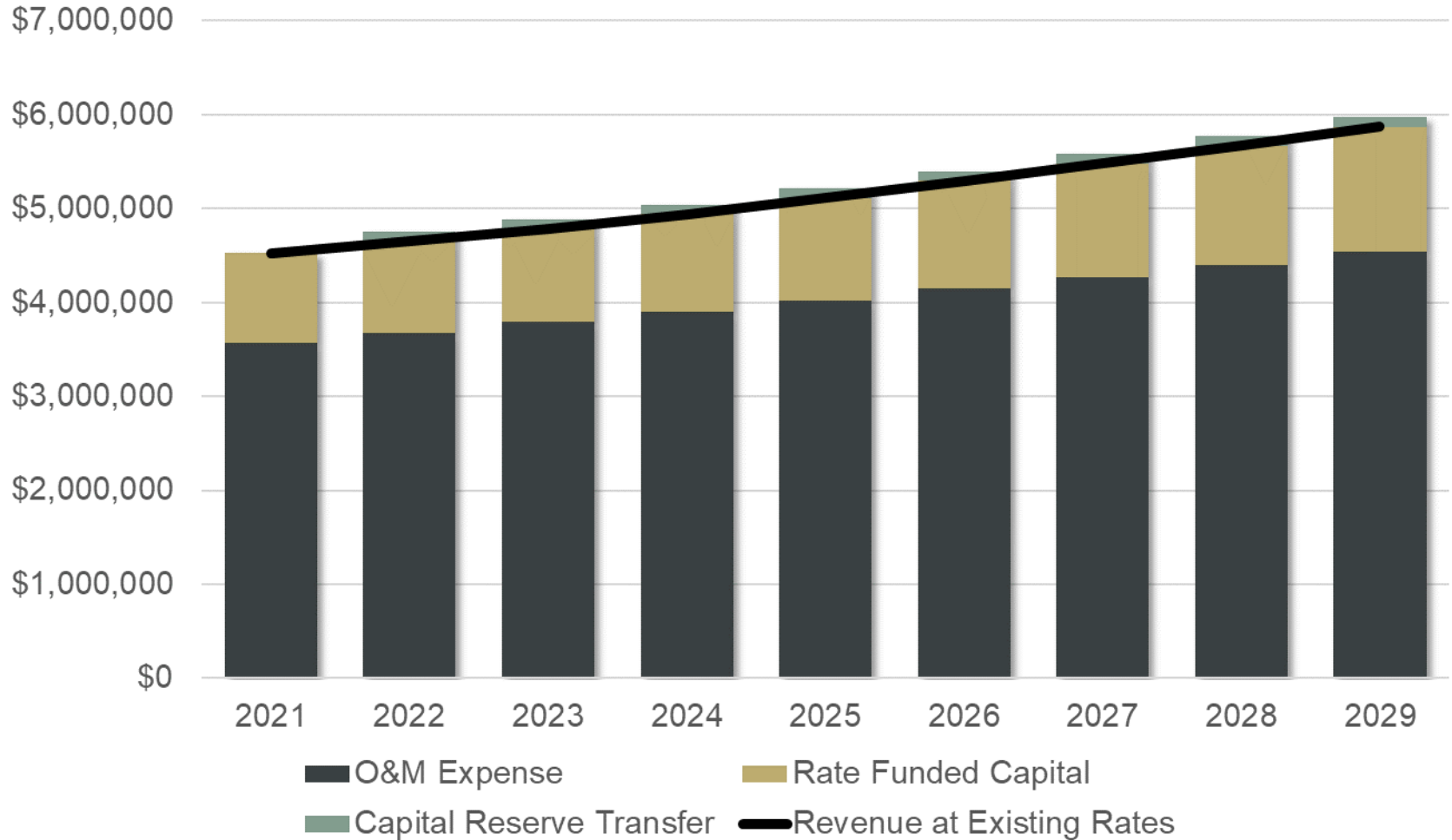


Extended Capital Plan (2021-2029)



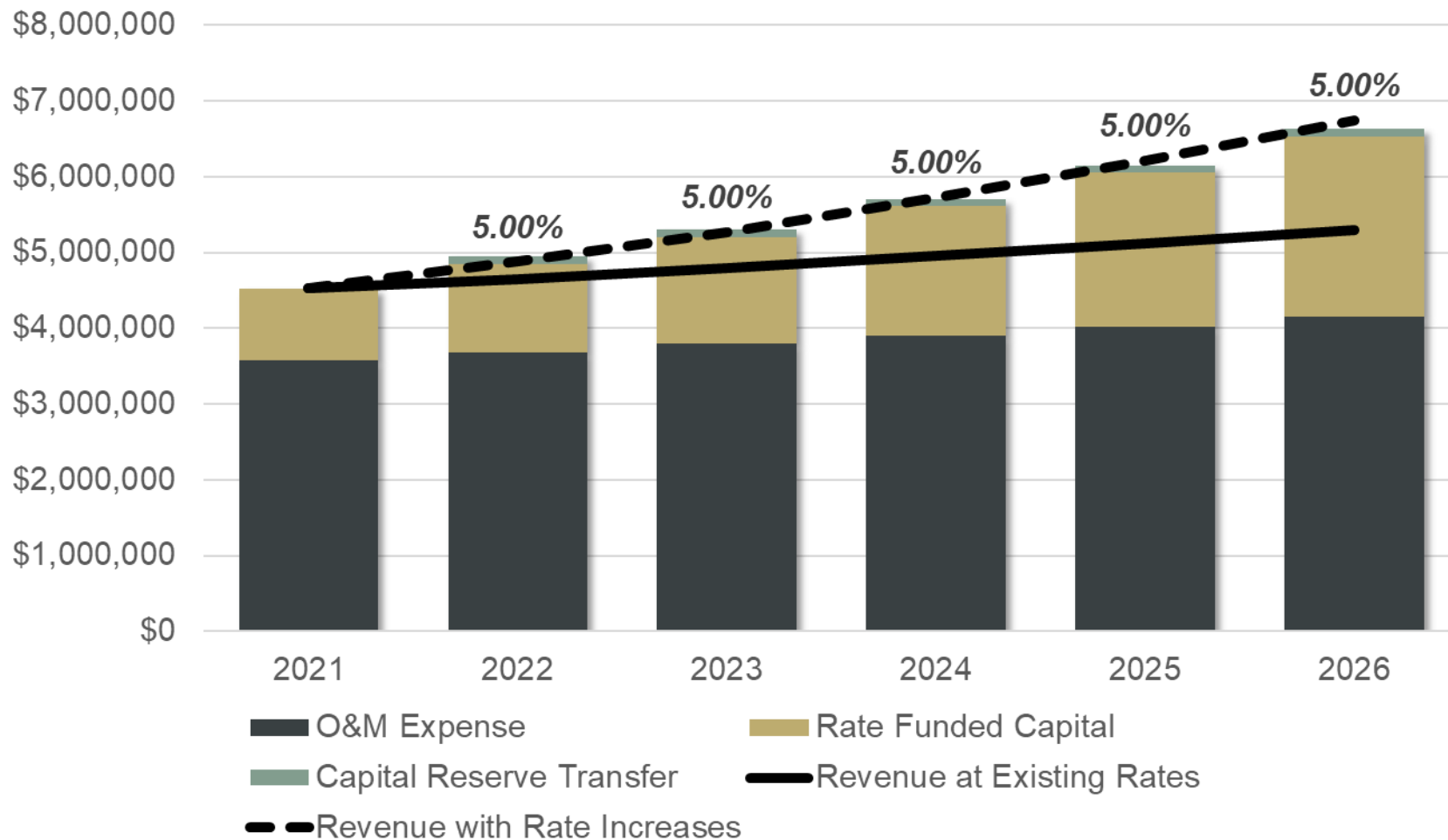


Extended Capital Plan & Capital Reserve





Original Capital Plan & Capital Reserve





Projected Rates with Increases

Across-the-Board Rate Schedule	Previous 2019	Existing 2020	ATB 2021	ATB 2022	ATB 2023	ATB 2024	ATB 2025	ATB 2026
Annual System-Wide Rate Increase			0.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Plus: Approved Rate Increase (Inflation Adjustment)			3.33%	3.00%	3.00%	3.00%	3.00%	3.00%
Total Rate Adjustment			3.33%	8.00%	8.00%	8.00%	8.00%	8.00%
<u>Classification (Impervious Area - sq ft)</u>								
Single Family Residential								
Less than 500	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
500 to 2,800	\$17.14	\$18.12	\$18.72	\$20.22	\$21.84	\$23.59	\$25.47	\$27.51
2,800 to 4,350	\$22.57	\$23.86	\$24.66	\$26.63	\$28.76	\$31.06	\$33.54	\$36.23
4,350 to 7,500	\$32.20	\$34.04	\$35.18	\$37.99	\$41.03	\$44.31	\$47.86	\$51.68
Greater than 7,500	\$22.57	\$23.86	\$24.66	\$26.63	\$28.76	\$31.06	\$33.54	\$36.23
Multi-Family Residential (per 3,450 sq ft Impervious)	\$22.57	\$23.86	\$24.66	\$26.63	\$28.76	\$31.06	\$33.54	\$36.23
Commercial	\$22.57	\$23.86	\$24.66	\$26.63	\$28.76	\$31.06	\$33.54	\$36.23
Non-Profit	\$22.57	\$23.86	\$24.66	\$26.63	\$28.76	\$31.06	\$33.54	\$36.23



Summary

- **Existing rates with annual inflationary adjustments projected to:**
 - » Fund forecasted operating expenses and extended capital plan (2021-2029)
 - » Fund \$100,000 annual transfer to capital reserve
- **Original capital plan (2021-2026) would require additional 5.00 percent annual rate increases beginning in 2022**

	2021	2022	2023	2024	2025	2026	2027	2028	2029
Inflation Adjustment	\$18.72	\$19.29	\$19.86	\$20.46	\$21.07	\$21.71	\$22.36	\$23.03	\$23.72
Increase from Prior Year		\$0.56	\$0.58	\$0.60	\$0.61	\$0.63	\$0.65	\$0.67	\$0.69
Inflation Adjustment + Rate Increase	\$18.72	\$20.22	\$21.84	\$23.59	\$25.47	\$27.51	\$28.34	\$29.19	\$30.06
Increase from Prior Year		\$1.50	\$1.62	\$1.75	\$1.89	\$2.04	\$0.83	\$0.85	\$0.88

Thank you!

Questions?

John Ghilarducci, President

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Matt Hobson, Project Manager

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MatthewH@fcsgroup.com

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