



DENVER
THE MILE HIGH CITY

INC Briefing



Department of Public Works
Budget and Management Office

FOR CITY SERVICES VISIT | CALL
DenverGov.org | **311**

Today's Presentation

- Wastewater rate proposal
- Citywide drainage needs
- Platte to Park Hill: Stormwater Systems program



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Why is a Rate Increase Needed



Storm & Sanitary Combined

Recommended Rate Structures

Year	Avg. Annual Combined Single Family Bill (1)	Total Increase in Annual Bill
2016	\$341.85	\$21.56
2017	\$365.15	\$23.30
2018	\$387.90	\$22.75
2019	\$411	\$23.10
2020	\$436	\$25

Total increase over five-year period is approximately \$116 per single family residential home or an average increase of **\$23 per year**.

(1) Assumes 5/8-inch meter, 5,000 gallons of flow, and 7,500 sq. ft. lot with 2,750 sq. ft. impervious area.



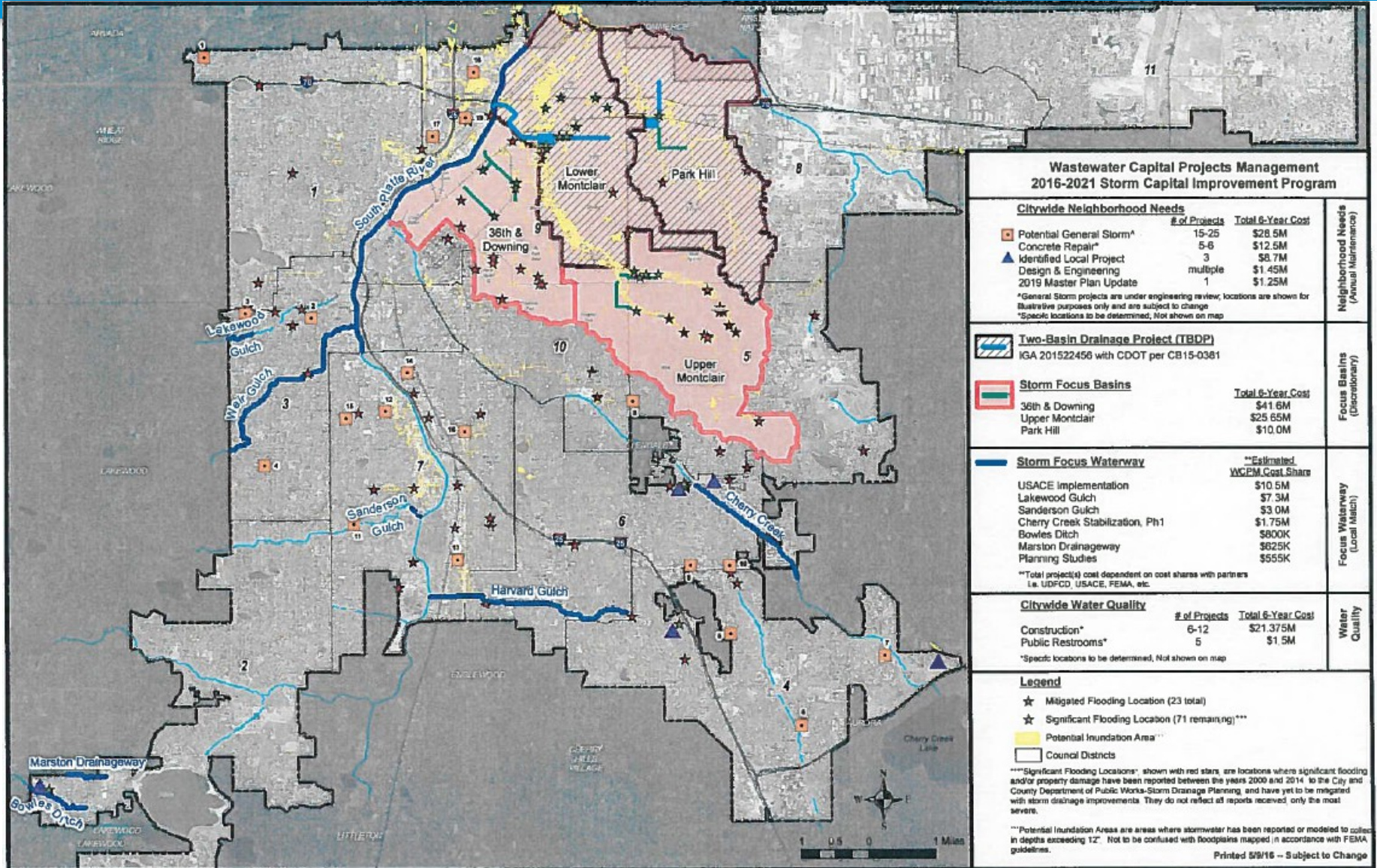
Sewer & Storm Combined Single Family Residential Annual Bill Comparison (2)

- (1) Annual charge does not include Storm Utility charges
- (2) 5/8-inch meter; 5,000 gallons usage; Lot size 7,500 sq. ft.; Impervious Area 2,750 sq. ft

- **Six-Year Storm Drainage Capital Improvement Plan**
 - \$177M, or approximately \$30M per year, for storm drainage capital improvements, addressing
 - **Neighborhood Needs** – localized storm drainage improvements citywide (\$53M)
 - **Focus Basins** – Major critical storm drainage system capital projects to reduce flood risk to life and property (\$78M)



Citywide Improvements Planned

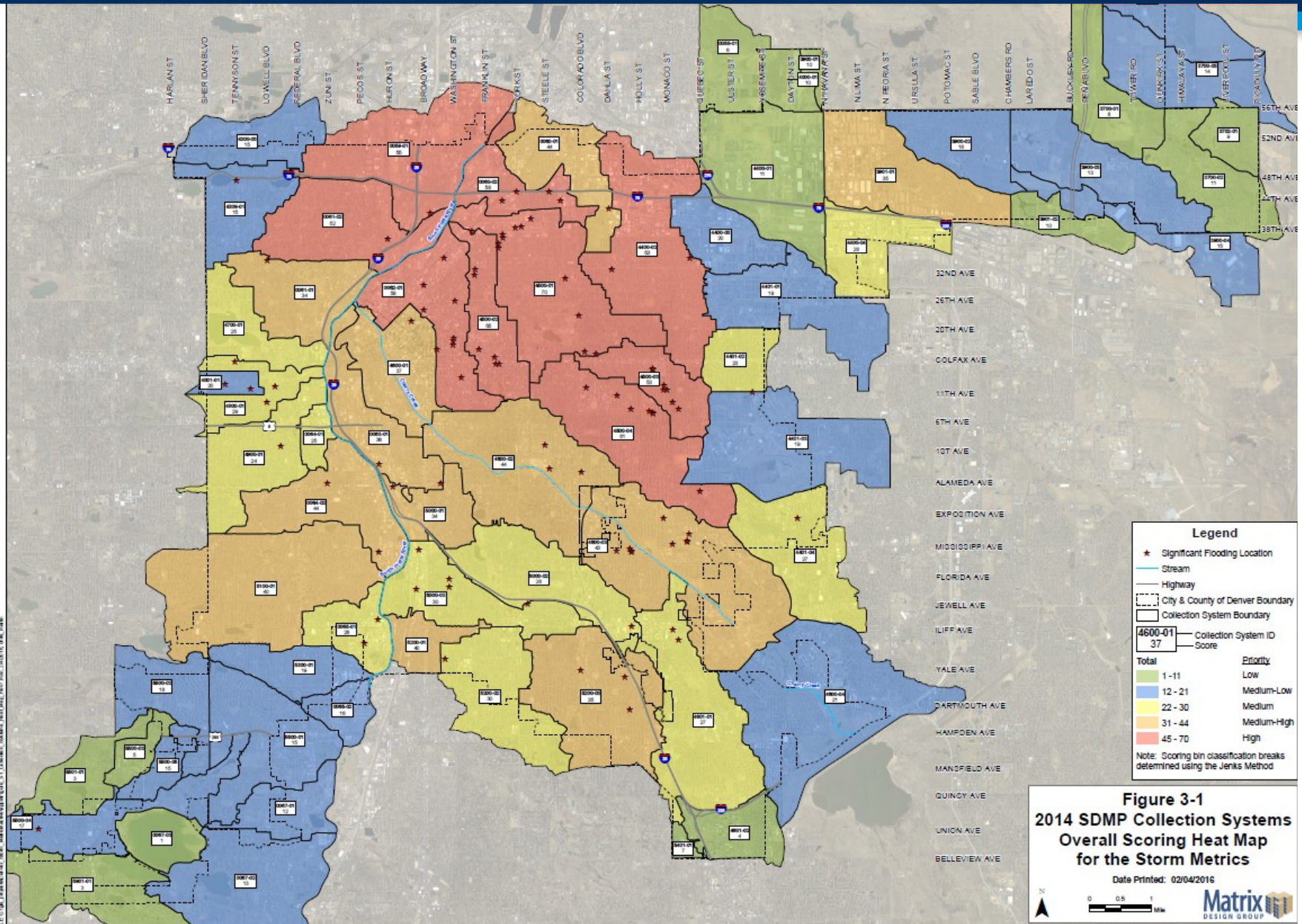


Wastewater Capital Projects Management 2016-2021 Storm Capital Improvement Program			Neighborhood Needs (Annual Maintenance)																
Citywide Neighborhood Needs																			
<ul style="list-style-type: none"> □ Potential General Storm* □ Concrete Repair* ▲ Identified Local Project ▲ Design & Engineering ▲ 2019 Master Plan Update 	<table border="1"> <thead> <tr> <th># of Projects</th> <th>Total 6-Year Cost</th> </tr> </thead> <tbody> <tr> <td>15-25</td> <td>\$28.5M</td> </tr> <tr> <td>5-6</td> <td>\$12.5M</td> </tr> <tr> <td>3</td> <td>\$8.7M</td> </tr> <tr> <td>multiple</td> <td>\$1.45M</td> </tr> <tr> <td>1</td> <td>\$1.25M</td> </tr> </tbody> </table>	# of Projects	Total 6-Year Cost	15-25	\$28.5M	5-6	\$12.5M	3	\$8.7M	multiple	\$1.45M	1	\$1.25M						
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<p>*General Storm projects are under engineering review, locations are shown for illustrative purposes only and are subject to change **Specific locations to be determined, Not shown on map</p>																			
<p>Two-Basin Drainage Project (TBDP) IGA 201522456 with CDOT per CB15-0361</p>			Focus Basins (Discretionary)																
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<p>Legend</p> <ul style="list-style-type: none"> ★ Mitigated Flooding Location (23 total) ☆ Significant Flooding Location (71 remaining)*** ■ Potential Inundation Area*** □ Council Districts 																			
<p>***Significant Flooding Locations: shown with red stars, are locations where significant flooding and/or property damage have been reported between the years 2009 and 2014, to the City and County Department of Public Works-Storm Drainage Planning, and have yet to be mitigated with storm drainage improvements. They do not reflect all reports received, only the most severe.</p> <p>***Potential Inundation Areas are areas where stormwater has been reported or modeled to collect in depths exceeding 12". Not to be confused with floodplains mapped in accordance with FEMA guidelines.</p>																			

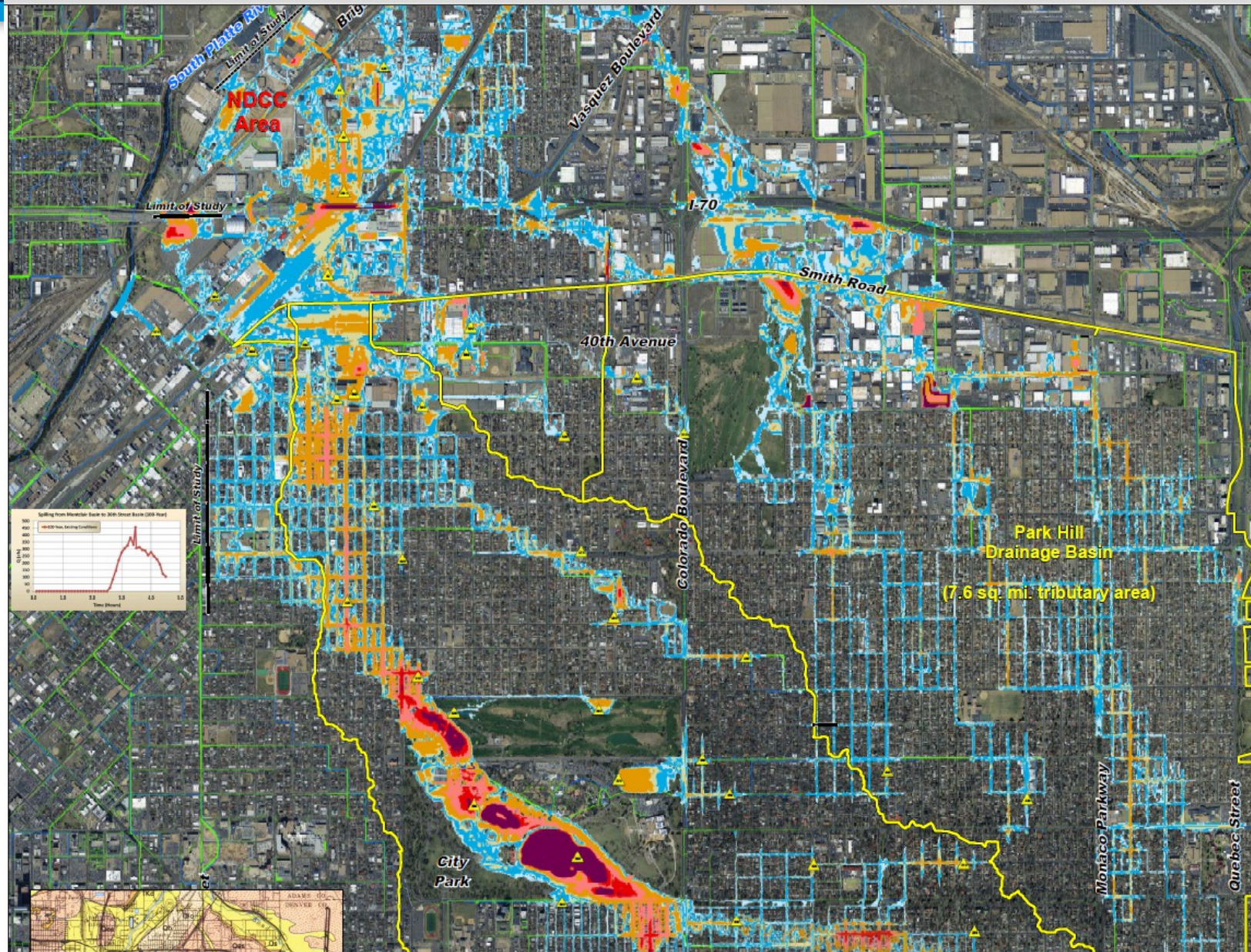


Citywide list of planned projects

Priority Basins



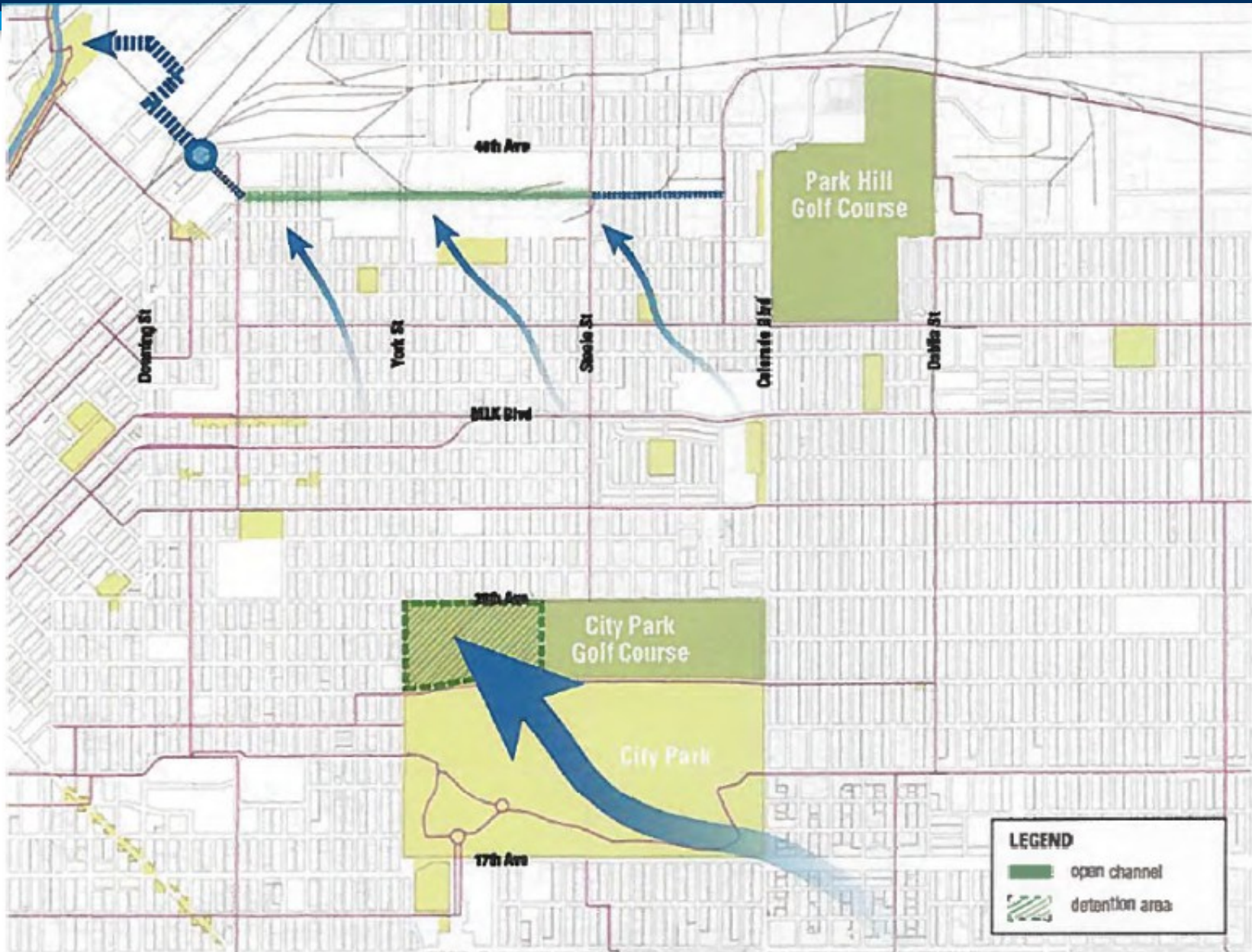
Flood Modeling





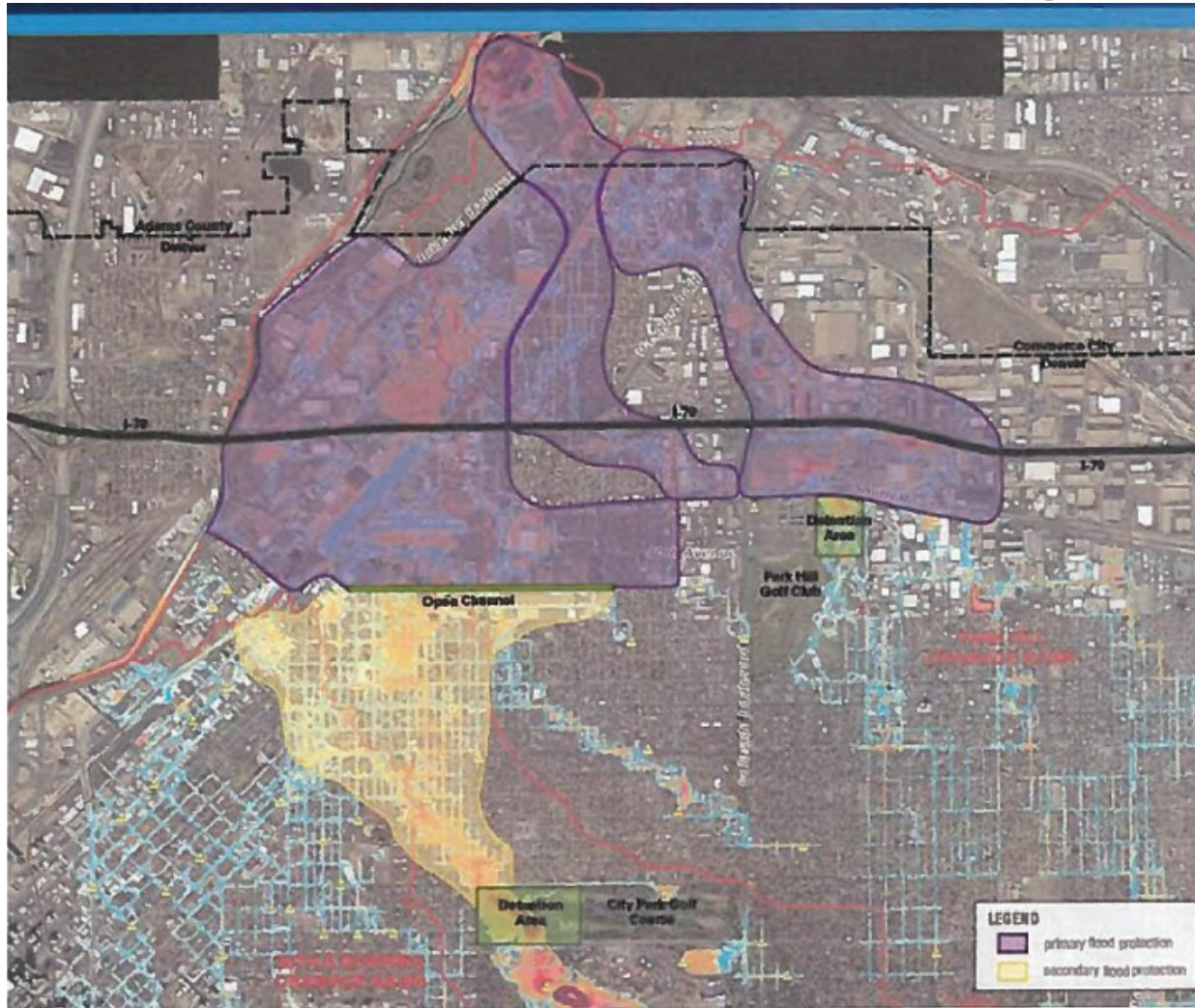
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Platte to Park Hill Projects





Areas of Reduced Flooding



Platte to Park Hill

Funding Sources

- The budget for Platte to Park Hill is a range of \$267-\$298M depending on the use of contingencies.
- Sources
 - \$206M Wastewater debt issuance
 - \$63M CDOT funds
 - \$29M Urban Drainage and non-rate Wastewater & Environmental Service funds
- The project represents a little over \$5 of the \$23 yearly storm and sanitary rate

The Post Editorials

MAY 25 2016

City's flood plans bold but justified

Denver councilwoman Debbie Ortega was understandably irritated last week when time ran out at a committee hearing before she could ask questions regarding plans for a series of costly flood-control projects in northeast Denver.

And, she noted, it was the second time this happened.

A divided committee nevertheless sent the storm and sanitary plan to the full City Council for consideration next week. And while we think the ambitious package generally makes sense, Ortega is right that it has the feel of being rushed.

It was just last month, in fact, that the city announced the cost

\$74 million of that total will come from sources other than the city.

Unfortunately, the major source of skepticism toward Platte to Park Hill seems to be opposition to the state's Interstate 70 project, which would rebuild and expand the highway as well as lower it below ground-level between Brighton and Colorado boulevards.

Yet critics of the I-70 project shouldn't kid themselves about the degree to which the Colorado Department of Transportation is counting on the city's flood-control investment. It is simply not credible to maintain the highway project will grind to a halt if Denver were to abandon its

Statement: the Annual Storm Drainage Service Charge will be increased after Jan. 1, 2021 in perpetuity, without a vote by City Council

Response: Per City Ordinance, increases to the annual storm and sanitary service charge above and beyond Consumer Price Index (CPI) requires a City Council approval.

Statement: the P2PH project did not exist in Denver’s 2014 Storm Drainage Master Plan and proceeding with this project will delay other fixes identified in the plan.

Response: The master plan is a high level planning tool, not a design document. Justification for P2Ps enlarged backbone drainage systems is based upon engineering analysis (defines the problem) and the corresponding system size that would be needed to address the potential flood risk (defines the solution).

The statement that “proceeding with this project will delay other fixes identified in the plan” is false. The city continually assesses needs based upon a variety of technical and social criteria to create a citywide storm capital program that balances addressing both large projects with small projects, neighborhood needs with priority basin needs, and water quality.

Statement: The P2PH project, in contrast to the City's representations and photos, will provide little to no flood benefit to the majority of Denver residents who are paying for it, including neighborhoods located within the Montclair and Park Hill basins.

Response: The statement is false. P2P is the start to a necessary backbone drainage system for Montclair and a continuation of the backbone system for Park Hill that began in the early 2000's. For Montclair specifically, P2P will have significant immediate benefit to hundreds of properties north of 39th Avenue.

The city recognizes that P2P is not the full solution for Montclair, and even with CPGC detention, more improvements south of the 39th Ave channel will still be needed to fully protect the residents in Cole, Clayton, Skyland & Whittier, however P2P is a big first step in creating a reliable system.

Statement: According to the January, 2015 MATT Letter of Recommendation, P2PH provides storm drainage primarily for new development: the I-70 expansion, the North Denver Cornerstone Collaborative and the RTD North Metro Rail Line....

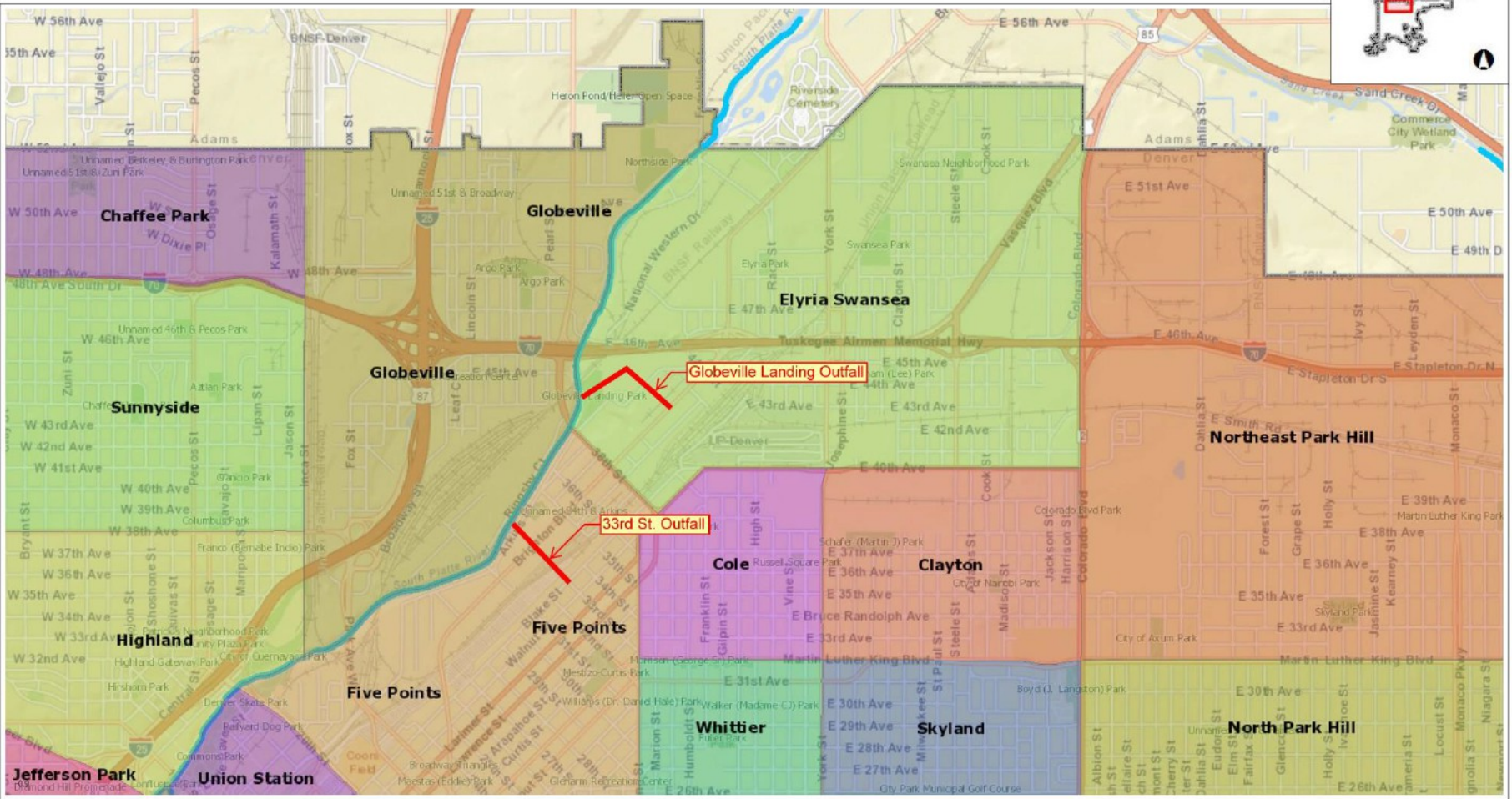
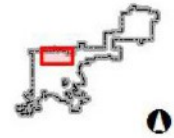
Response: The MATT letter says much more:

The recommended technical solution of a combined drainage system would provide benefits for I-70, the local community, NWC, RTD's EAGLE and North Metro Lines and the Montclair/Park Hill watersheds. Below are some of the potential benefits:

- A more robust drainage system for I-70, utilizing two drainage systems in the Montclair Basin potentially providing a higher factor of safety
- Additional 100-year storm protection for the area located between the two drainage systems (40th Avenue/Smith Road to I-70)
- Enhanced water quality improvements (open channel, green streets, detention/ water quality ponds)
- Provide drainage amenity to promote ecological enhancement and economic development
- Potential recreational amenities for the community
- Improved mobility/connectivity (vehicular, bicycle, pedestrian)
- Provides a usable outfall connection for future upstream flood control improvements in both the Montclair and Park Hill watersheds
- Increased drainage protection (100 year) for the North Metro Corridor, EAGLE and NWC.
- Potential cost savings to the North Metro Corridor and NWC depending on timing of the Combined Drainage Solution
- Ability to create a multi-agency partnership which provides a common solution that benefits all, inclusive of the public

Questions?

Denver Neighborhoods



- Globeville is NOT currently in a FEMA flood plain
- The Platte to Park Hill project will NOT put Globeville back in the flood plain
 - The Globeville Landing Outfall, which is a part of P2P, is located on the opposite (east) side of the river as the Globeville neighborhood
 - The potential river overtopping along Ringsby Court occurs upstream of where the P2P project enters the river.

When it comes to Globeville, we fully understand that there's also a need in this neighborhood to address some flooding issues.

This rate increase proposal includes:

- \$6M in funding to begin implementation of the Army Corps and UDFCD study of the South Platte River in this area to address overtopping issues along Ringsby Court. This will match an estimated \$12M in federal funding.
- \$5M per year for citywide “General Storm” projects. Globeville project needs will be considered each year as part of the annual budget process.
 - » Projects such as Platte Farm Open Space and 43rd and Sherman

Rate distribution for Cash CIP Programs

- Rates attributable to the pay-as-you-go projects for storm and sanitary:
 - Storm
 - Cash funded CIP – Average of 6.3% over 5 years
 - Debt program – Average of 4.3% over 5 years
 - Sanitary
 - Cash funded CIP - Average of 2.2% over 5 years
 - Annual O&M - Average of 2.2% over 5 years

Metro Wastewater Charges

- The Metro Wastewater Reclamation District treats Denver's sanitary system, along with dozens of other area cities.
- We have forecasted the rate they charge for treatment will increase 8% annually or \$17M over the five year forecast.
- This is a CCD estimate based on historical experience.
- Increases would erode the capital program and decreases would allow for more

- The use of CPI was approved by City Council in 2011 in order to keep up with basic costs.
- Automatic CPI increases have been noted as a credit positive by the rating agencies because they are seen as providing revenue certainty.
- Eliminating CPI increases may put the fund's credit rating at risk of being downgraded.

- Wastewater intends to submit a report each year to Council on the state of the fund and can also present each year as part of the budget process. We will include the review of the CIP projects planned for the following year.
- Council also has the ability to request that agencies present on their progress as part of the committee process.

- The General Fund is reimbursed by the Wastewater fund for activities that support the Wastewater fund activities and has been since 2004.
- These activities include alley improvements, snow removal, street sweeping, and curb and gutter.
- Percentage breakdowns (GF/WW)
 - Curb and gutter: 50/50
 - Sweeping – 50/50

Since providing costs estimates last year in the IGA with CDOT, we've:

- Expanded P2P to provide flood protection to neighborhood areas south of the channel with detention at City Park Golf Course.
- Accounted for labor, materials, and real estate cost escalations
- Added additional contingency



Storm Drainage System

Recommended Rate Structure

Storm Drainage Estimated Rate Structure (Annual Billing)

\$115M revenue bond – Platte to Park Hill (2016)

\$121M revenue bond - \$91M Platte to Park Hill; \$30M Storm (2018)

Year	Total Avg. Residential Annual Bill	Total Rate Change % (Rate w/o CPI)	Residential Rate Change \$ (YoY)	Monthly rate*
2015	\$93.48	2.7%		\$7.89
2016	\$103.77	11% (8%)	\$10.28	\$8.64
2017	\$115.19	11% (8%)	\$11.42	\$9.59
2018	\$127.86	11% (8%)	\$12.67	\$10.65
2019	\$140.64	10% (7%)	\$12.78	\$11.72
2020	\$154.71	10% (7%)	\$14.07	\$12.89

- The total impact to residential rate payer is approximately \$61 over five years or average of \$12.24 per year.
- Meets \$177M storm capital improvement project needs of system (\$30M/year).
- In order to maintain \$30M/year program, a projected rate increase of approximately 9% will be needed in 2021-2023.

Proposed Sanitary Sewer Rate Plan

Sanitary Sewer Estimated Rate Structure (Monthly Billing)

Year	Total Avg. Residential Annual Bill	Total Avg. Monthly Bill	Total Rate Change % (Rate w/o CPI)	Annual Rate Change \$	Monthly Rate Change \$
2015	\$226.80	\$18.90	2.7%	\$6.00	\$0.50
2016	\$238.08	\$19.84	5% (2%)	\$11.28	\$0.94
2017	\$249.96	\$20.83	5% (2%)	\$11.88	\$0.99
2018	\$260.04	\$21.67	4% (1%)	\$10.08	\$0.84
2019	\$270.36	\$22.53	4% (1%)	\$10.32	\$0.86
2020	\$281.28	\$23.44	4% (1%)	\$10.92	\$0.91

- **Meets capital project needs of sanitary sewer system.**
 - Annual program of \$8M (\$5.3M annual sanitary capital maintenance, \$3M in discretionary sanitary projects).
- **Maintains sufficient cash reserves and debt service requirements.**