

## Follow up on Questions from I&C Committee 5/18

Q1: Why aren't the drainage basin priorities noted in the 2014 Storm Drainage Master Plan?

A: The Storm Drainage Master Plan update effort started in February 2013 and was completed and adopted in September 2014. The Storm Metrics study began on June 8, 2015 after adoption of the Storm Drainage Master Plan, and is currently underway.

Q2: What are the 12 scoring categories used in the Metrics Study?

A: The 12 scoring categories are as follows:

1. Significant Flooding Locations (aka Red Stars in the Storm Drainage Master Plan where significant flooding and/or property damage has been reported since 2000)
2. Minor Storm Effectiveness (identify areas where the existing storm drains are the most undersized)
3. Hydraulic Capacity (categorizes by how much the system is undersized)
4. Potential Inundation Areas (yellow areas shown in the Storm Drainage Master Plan where flooding would be 12" deep or greater in a major storm)
5. Population Impacted/Population Density (census data)
6. Major Storm Effectiveness (similar to minor storm effectiveness, but with lower scoring)
7. Areas of Change (from Blueprint Denver)
8. Social Justice (census data percentage of persons within the low to moderate income category within a drainage basin; lower income areas get higher score than high income areas)
9. Detention opportunities (Yes/No: if a drainage basin in the Storm Drainage Master Plan identifies a stormwater detention opportunity)
10. Critical Facilities (e.g., Hospitals, Fire Stations, police stations)
11. Roadway classification (mobility and emergency response during storms...ex: arterial roads score higher than local roads)
12. Land Use classification (residential land use, commercial land use and industrial land use: acreage within the drainage basin)

Q3: Why is Public Works doing a metrics analysis of the Storm Drainage Master Plan?

A:

- It assists in the communication of the storm drainage needs and priority areas.
- It creates a data-driven, defensible method of objective prioritizing, which can be used for the annual review of the 6-year CIP.
- It creates a legacy process that is not dependent upon one person's institutional knowledge (succession plan).
- It can be re-run following each Storm Drainage Master Plan update (required every 5 years) to keep current with new information.

Q4: Can you provide scoring for the top basins including Montclair?

A: Listed in scoring order, the top basins are as follows:

Collection System Basin Number	Basin Common Name	Score
4500-01	Lower Montclair	70
4500-04	Upper Montclair-South Branch	61
0060-02	I-70 & York	58
0062-01	Lower Platte Valley	58
4500-02	36 <sup>th</sup> & Downing	55
0059-01	Globeville-Utah Junction	55
4500-03	Upper Montclair-East Branch	53
4400-02	Greater Park Hill	53
0061-02	Highland	52

Note: Some basin names are evolving conversationally and may not be the same as names in the 2014 Storm Drainage Master Plan. New names will be assigned in the 2019 Storm Drainage Master Plan to reflect more commonly used names.

Q5: How many projects listed in the slides would not get done if the rate increase is not approved?

A: Without a rate increase, the Wastewater storm fund could not invest \$30M a year in capital. Estimated CIP dollars and a determination of how much investment could be debt-financed would determine a new 6-year capital project list and prioritization of projects. The annual Wastewater CIP budget submitted to Council would reflect these project and priority changes.

Q6: How much does the Metro Wastewater Reclamation District collect in revenues and how much is spent where?

A: The Metro Wastewater Reclamation District is the wastewater treatment authority for most of metropolitan Denver and was formed as a special district in 1961 to provide wastewater transmission and treatment services to 60 member municipalities and special connectors in compliance with federal, state and local laws. The Metro District adopts an annual budget for day-to-day operating expenses necessary to provide wholesale wastewater treatment and transmission services to local governments. To meet annual operating expenses, debt service payments, capital needs, and other financial requirements, the district makes annual charges for service based on projected costs to treat wastewater each year. The following link provides annual budgets, audits and financial reports for the district.

<http://www.metrowastewater.com/aboutus/Pages/reports.aspx>

Q7: Have environmental costs been factored into the overall costs for Platte to Park Hill?

A: Environmental cost contingencies have been included in the overall budgeting figures to complete environmental investigations, mitigation and remediation. The range of costs for environmental mitigation and remediation are based upon Public Works' previous project experience with work of a similar type and nature. More detail on these requirements and associated costs will be available after preliminary design.

Q8: How do we know the cost ranges for P2P will not escalate again?

A: The P2P Team has included factors for both construction and real estate cost escalation in the budgetary ranges provided. These cost escalation factors are in addition to project contingencies that are also included in the budgetary range. By providing a budgetary range that includes conservative assumptions for hard and soft cost contingencies and market escalation, we believe we are providing a reliable budget for this program.

Q9: Can you provide a historical reconciliation of actual dollars spent on curb and gutter and other shared uses (GF/WW)

	GF	WWMD
2011	\$1,976,017.84	\$ 652,205.43
2012	\$1,809,623.88	\$2,875,055.63
2013	\$828,141.53	\$1,709,675.67
2014	\$3,603,665.86	\$1,433,228.45
2015	\$1,473,766.93	\$3,384,528.57
<b>Total</b>	<b>\$9,691,216.04</b>	<b>\$10,054,693.75</b>

These amounts are charged to the Wastewater enterprise fund to ensure the General Fund is not subsidizing the Wastewater enterprise fund. The curb and gutter assets convey storm water to the greater storm system.

Q10: What is the history of debt issuance in the WWMD enterprise fund?

A: In 2002, we issued \$30,700,000 of new money bonds. Prior to this, the Wastewater enterprise fund did not have any debt. In 2012, we issued \$50,425,000 of bonds. The issuance provided \$32.5 million of new money proceeds and also advanced refunding all of the outstanding Series 2002 bonds.

Q11: Does the CPI rate double dip rate payers?

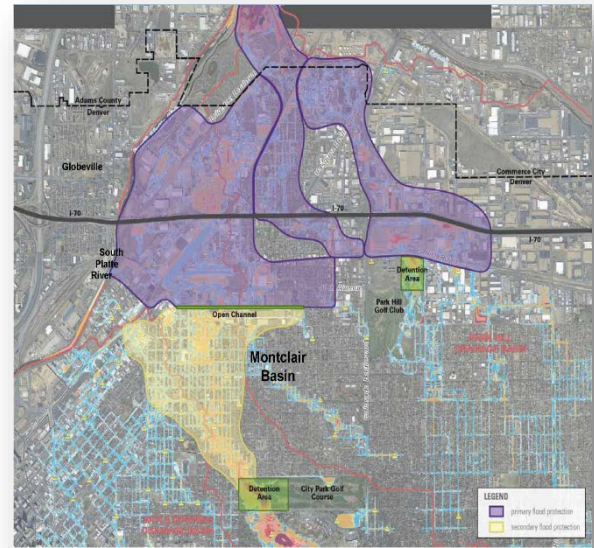
A: The slides called out the CPI increase and the increase above CPI in order to make it clear that CPI was included in the total rates for both programs. CPI will not be increased over the rates shown in the slides presented to council.

Q12: Can you quantify the primary vs. secondary protection (reflected in the map in the Powerpoint) provided by the expanded scope of the P2P project?

- A: Primary flood protection (purple areas) are defined as areas, generally north of 39<sup>th</sup> Avenue (Elyria, Swansea), that will receive significant flood protection during both minor and major events. There will still be local drainage systems needed, but these areas will be protected from the substantial offsite flows during large events.

There are roughly 485 at-risk structures north of 39<sup>th</sup> Avenue (total value ~\$570M) that would benefit from the primary flood protection.

Secondary flood protection (yellow areas) are defined as areas, generally south of 39<sup>th</sup> Avenue (Cole, Clayton, Skyland, Whittier), that will have some immediate benefit to CPGC Detention, but these areas will still require a major system upgrade in order to be fully protected.



#### BEFORE/AFTER: Number of Existing At-Risk Structures in Cole/Clayton/Skyland/Whittier

Event	Existing At Risk Structures	Post-CPGC At Risk Structures	Difference
5-year	42	Not Analyzed	N/A
10-year	58	44	14
25-year	200	124	76
100-year	554	449	105

#### BEFORE/AFTER: Reduction in flow rate immediately downstream of CPGC

Event	Existing Flowrate (cfs)	Post-CPGC Flowrate (cfs)	% Reduction
5-year	806	407	49%
10-year	875	424	52%
25-year	1,812	1,567	14%
100-year	4,443	3,618	19%

Graphical Street Depth BEFORE/AFTER Reduction 10yr, 25yr, 100yr – following 3 pages







