

2025 Storm Drainage Master Plan (SDMP)

Transportation & Infrastructure Committee
November 5, 2025

Presented by:

DOTI Citywide Infrastructure | Environmental Implementation Division

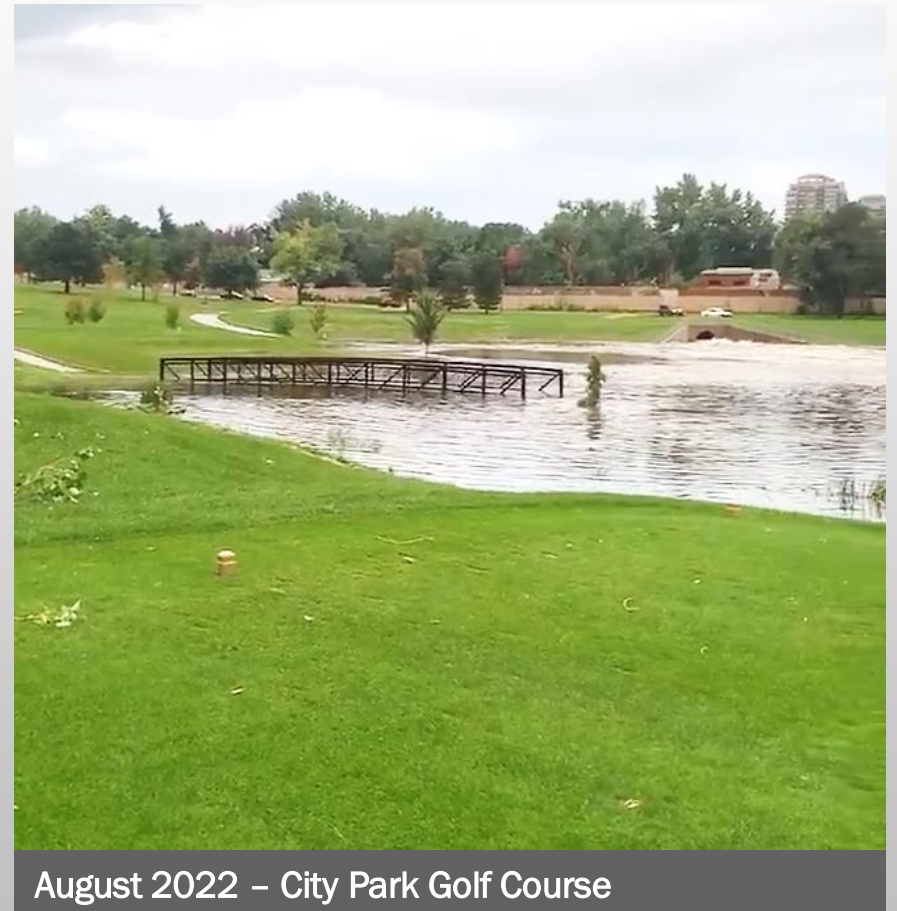
RESOLUTION 25-1628

A Resolution approving the adoption of the 2025 Storm Drainage Master Plan as the official master drainage plan of the City and County of Denver.



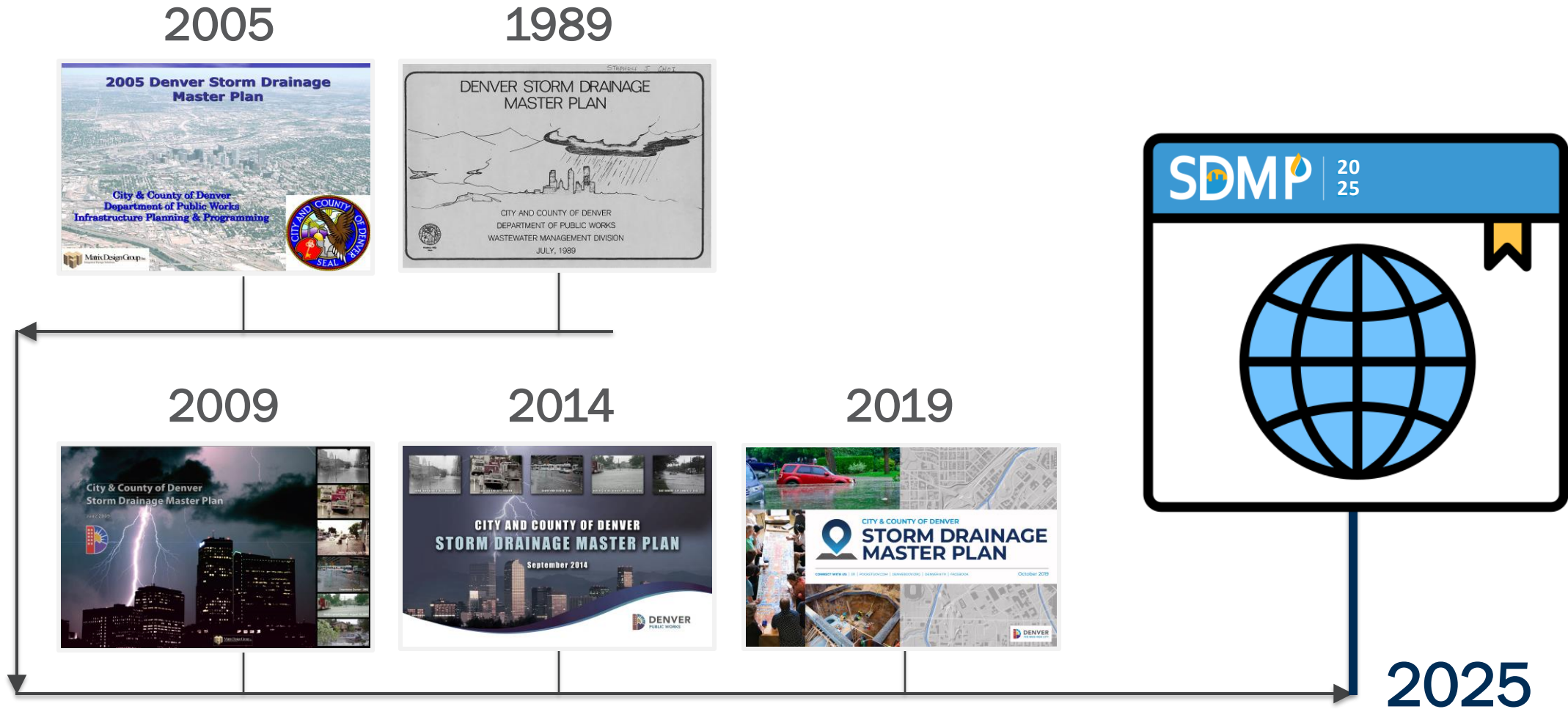
D.R.M.C. Sec 56-110

Requires City Council adoption every 5 years



August 2022 – City Park Golf Course

The SDMP evaluates Denver's existing urban flood risk and identifies future capital improvements to reduce flood damages and increase safety.



Purpose

- Identifies, without prioritizing, **ALL NEEDS** for upgrading & installing existing storm drains to comply with the City's current Drainage Criteria



INVENTORY
SYSTEM



EVALUATE
FLOOD RISK



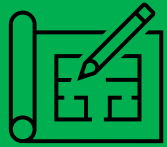
IDENTIFY
NEEDS

- DOES NOT** Evaluate capacity of open channels
- DOES NOT** Prioritize capital projects
- DOES NOT** Allocate funding for projects

SYSTEM FACTS

- >1,000 mi. of pipes (6-in. to 120-in.)
- >40 mi. of open channels
- 29,000+ inlets
- 17,000+ manholes
- 100+ water quality and detention ponds
- Average age >40+ years old**
- > 25% existing pipes are too small**
- >4,500 buildings have Non-FEMA Urban Flood Risk (Local Flooding)**

Storm Master Plan is created for:



City Agencies

- DOTI Capital Projects
- Wastewater Operations
- Denver Permitting Office
- Regulatory Floodplain Team
- Community Planning and Development



Engineers & Developers



Council Offices & Communities

Organizational Planning Framework



Lead Agency & Internal Stakeholders



Citywide Infrastructure
Environmental
Implementation Division

- Right of Way Services Engineering & Regulatory
- Wastewater Operations
- Development Engineering Service

External Partner



Consultant



RFP Awarded



Data Collection
Complete

H&H Modeling
Complete

Portal
Complete

New Study
Initiated

December 2023

March 2024

May 2024

October 2024

December 2024

March 2025

2025 Storm Drainage Master Plan – GOAL

1

TECHNICAL
UPDATE

2

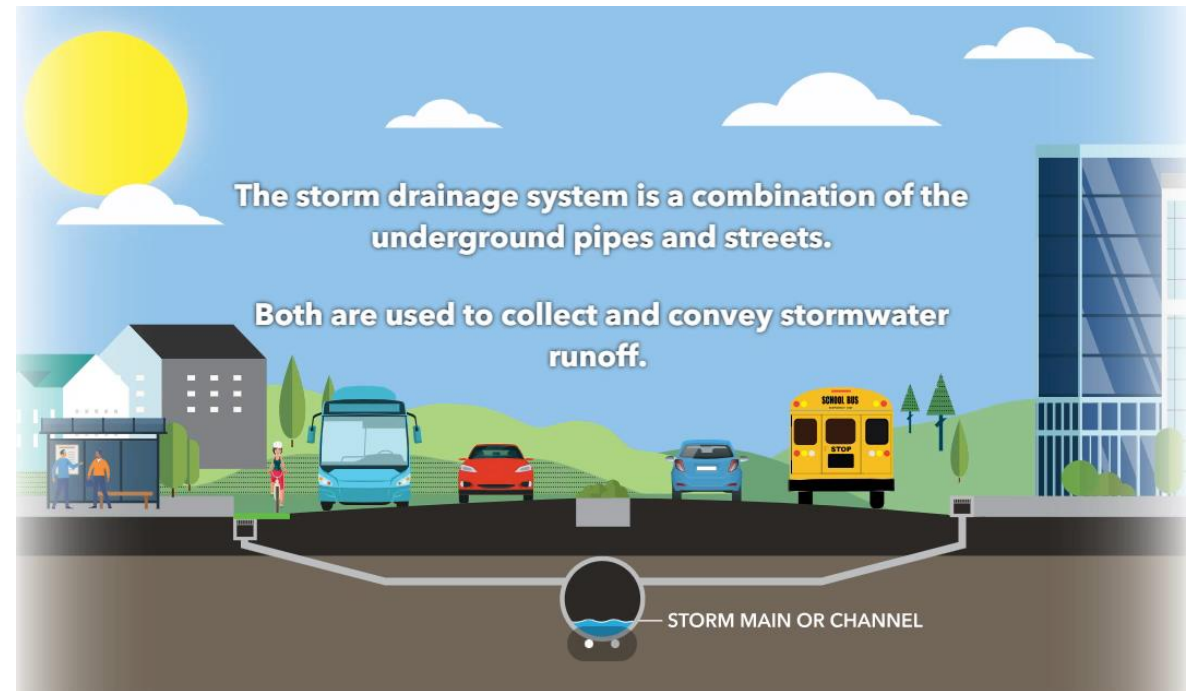
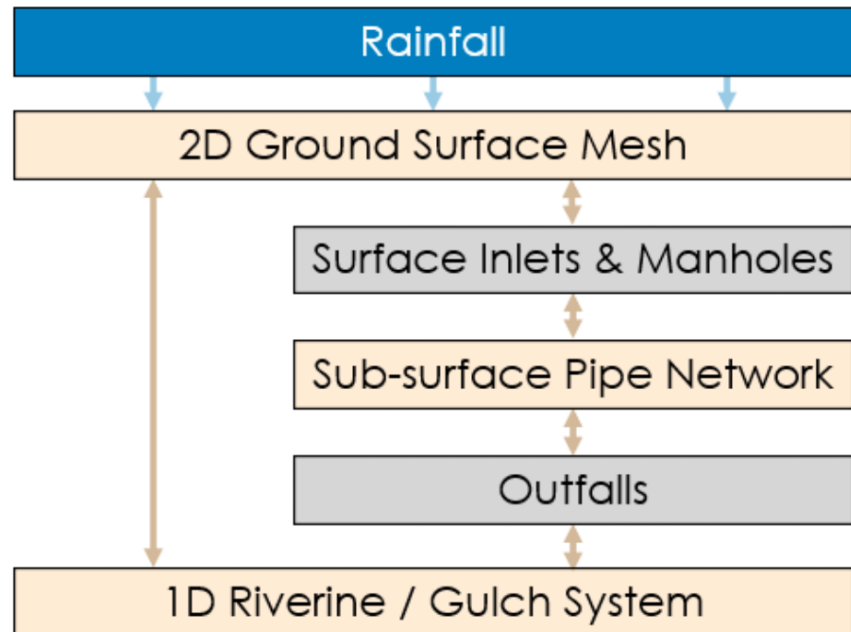
IDENTIFY FLOOD
RISK & DEVELOP
NEEDS

3

ENGAGEABLE
TRANSPARENT
FRAMEWORK

TECHNICAL UPDATE

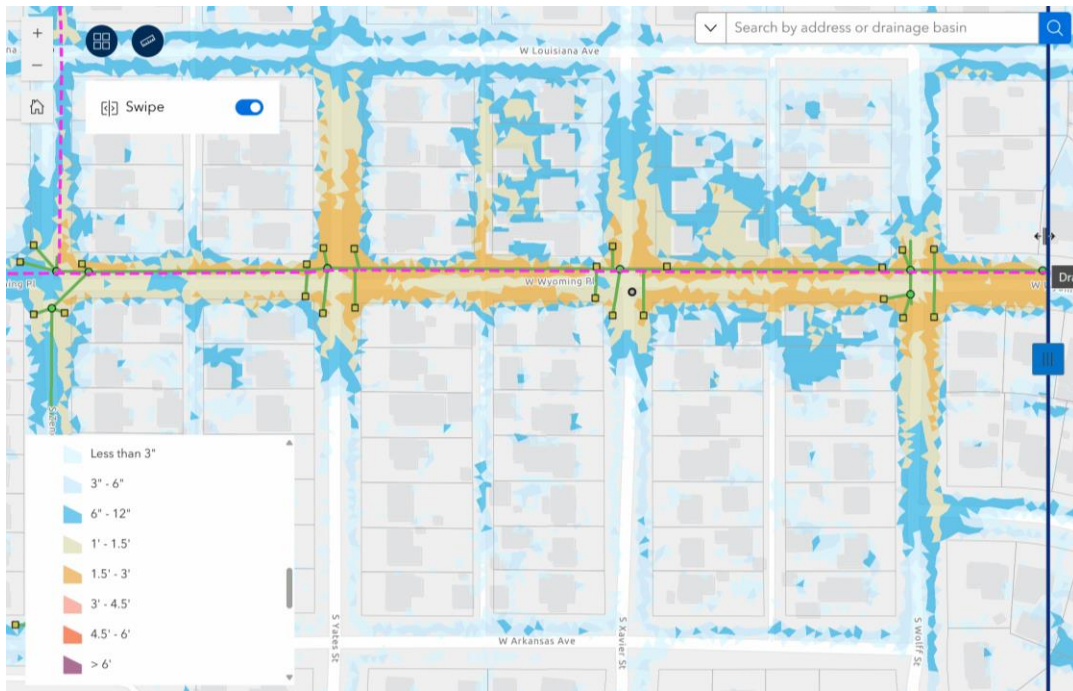
- Best-in-class hydrologic and hydraulic (H&H) modeling software & modeling approach;
- All inclusive H&H model w/ High level of detail



Denver's Storm Drainage Design Criteria

TECHNICAL UPDATE (cont'd)

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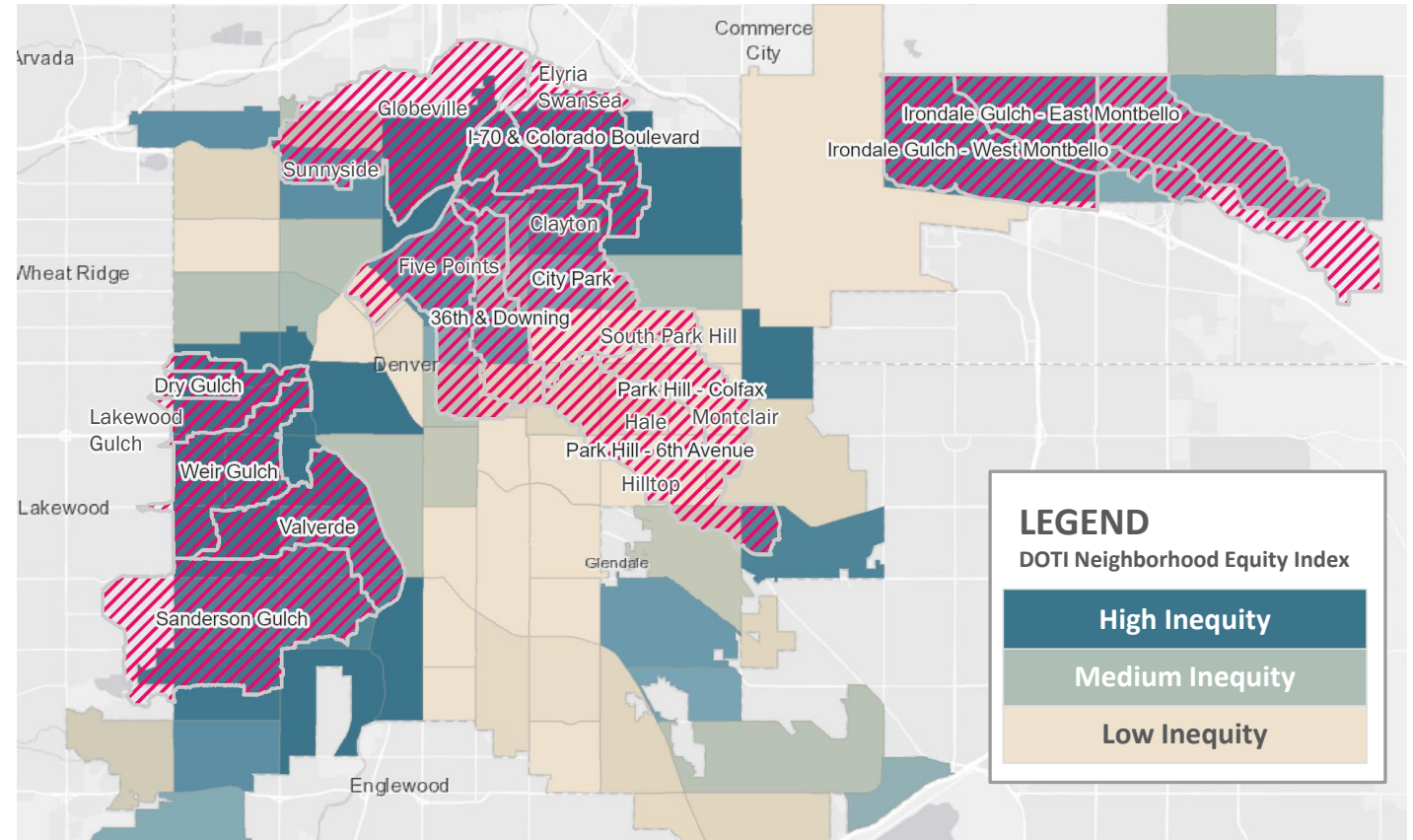
IDENTIFY FLOOD RISK & DEVELOP NEEDS

New Urban Flood Risk Modeling for:

- Montclair Basin (Platte to Park Hill, Central 70)
- I-70 & York Basin
- I-70 & Colorado Blvd Basin
- Dry Gulch Basin
- Weir Gulch Basin
- Lakewood Gulch Basin
- Sanderson Gulch Basin

Inclusion of new Mile High Flood District studies:

- Irondale Gulch Outfall System Plan
- Valverde Basin Outfall System Plan



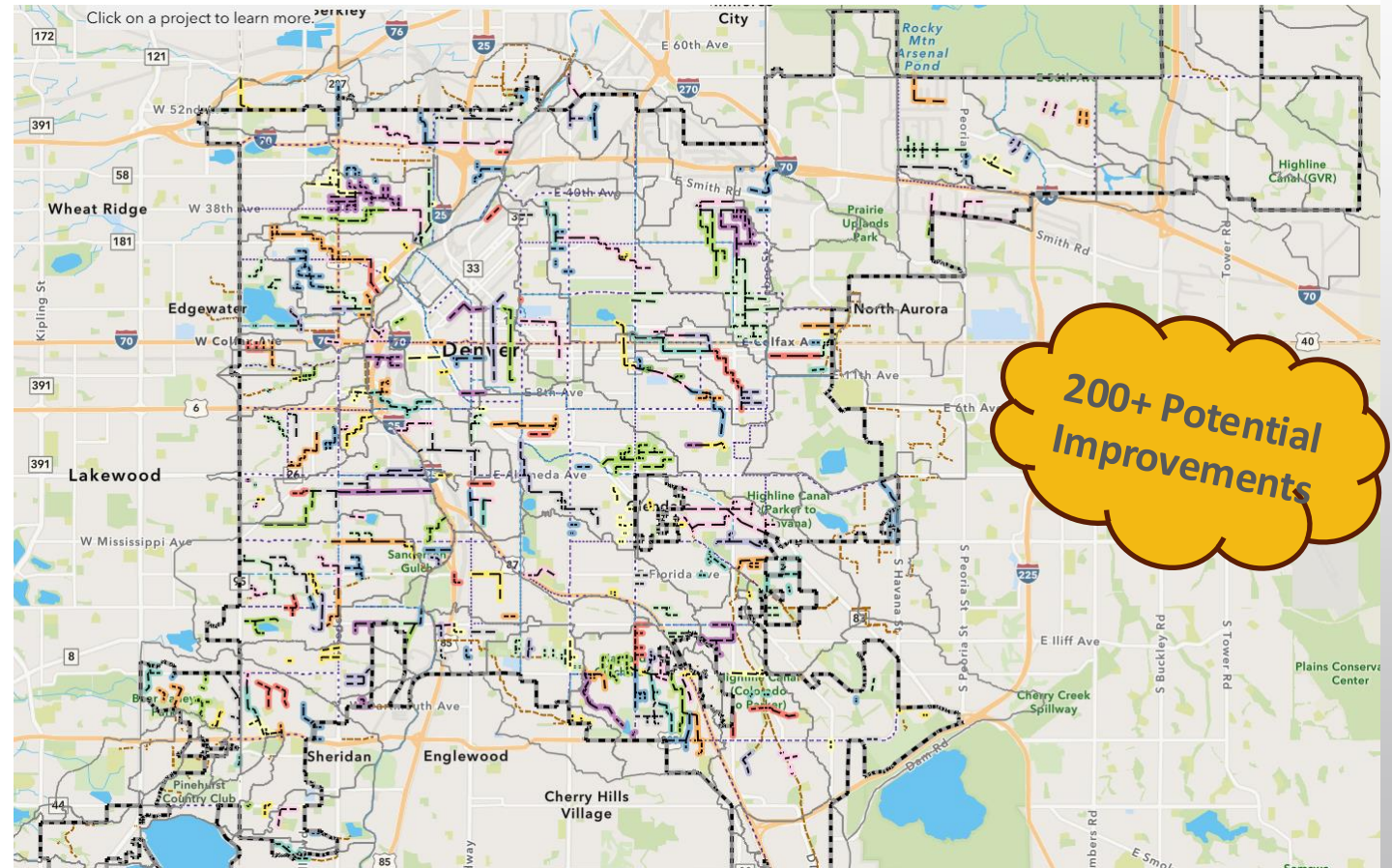
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Montclair Basin New Analysis

Signature CIP Projects:

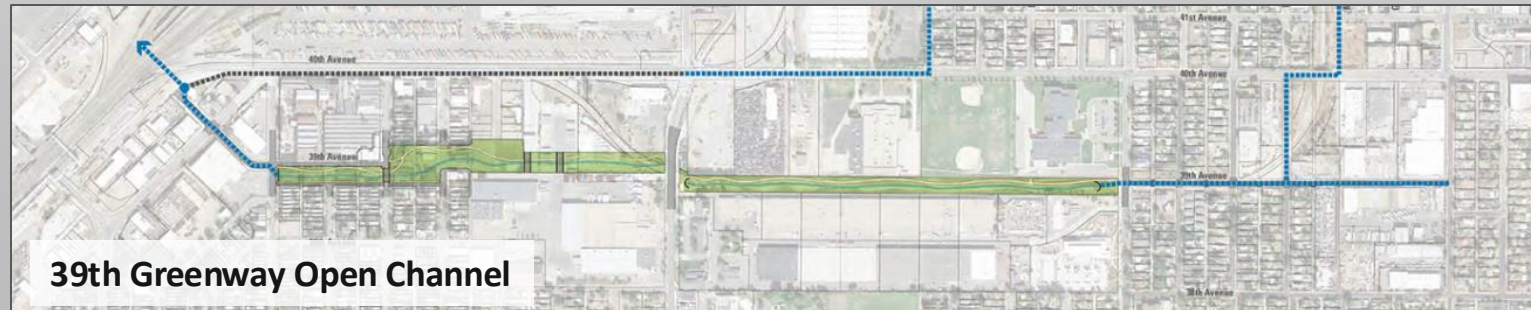
- Globeville Landing Outfall/Park
- 39th Greenway Open Channel
- Park Hill Detention
- City Park Golf Course Integrated Detention
- Central 70: I-70 improvements between Brighton Blvd and Chambers Rd



Pre-P2P



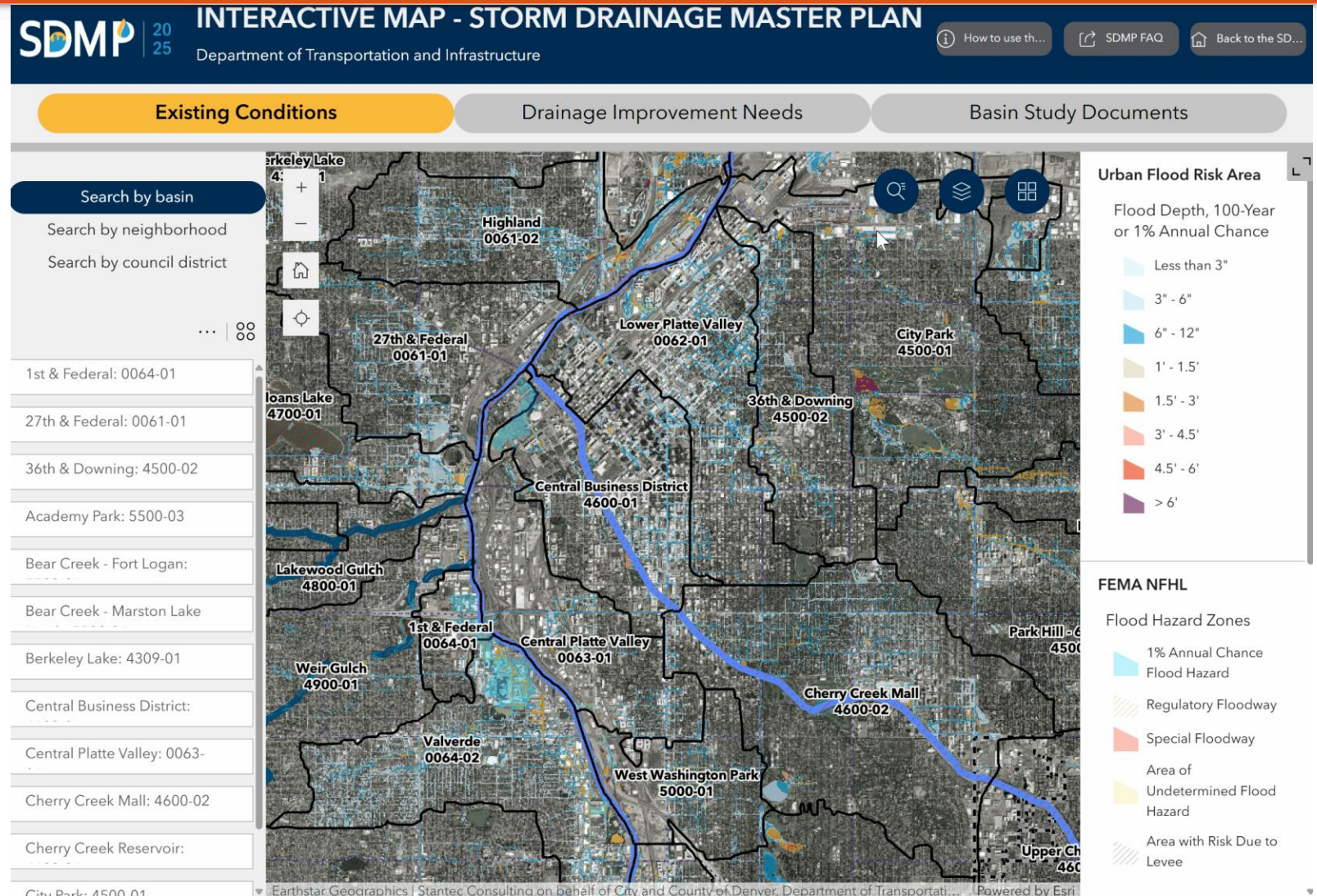
Post-P2P

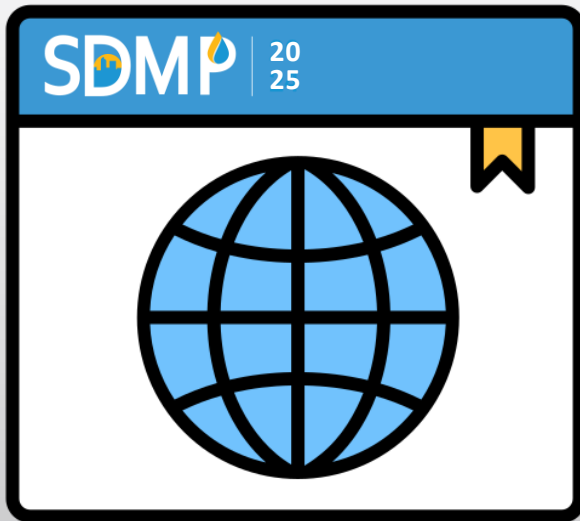


ENGAGEABLE & TRANSPARENT FRAMEWORK

Key Features:

- ✓ One-stop shop for drainage concerns
- ✓ Fully Online & Interactive
- ✓ Educational & Engageable
- ✓ Intuitive Online Maps
 - City-mapped Urban Flood Risk
 - FEMA Flood Risk
 - Potential Improvements
 - Technical Analysis
- ✓ ADA Compliant & Language Access
- ✓ Enable Continuous Improvement & Frequent Update





Online Master Plan DEMO

<https://DenverGov.org/Stormwater>

Scan QR Code to Visit 2025 Storm
Drainage Master Plan Website:





Colorado Association of Stormwater and Floodplain Manager

2025 Engineering Excellence Award



Thank You.

Questions?

Blackman, Thomas E. - DOTI Engineering Supervisor

DOTI INF INFRA Env Design & Planning

Thomas.Blackman@denvergov.org

Meng, Jun - DOTI Engineer-Architect Specialist

DOTI INF INFRA Env Design & Planning

Jun.Meng@denvergov.org



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