

Watershed Master Plan (WSMP) Overview



Citywide WSMP Overview





Watershed Master Plan





Level of Service

- Closed Pipe Systems 10-year (10% chance/year, 5.8" rainfall/24 hrs)
- Minor Thoroughfare Crossings 25-year (4% chance/year, 7.2" rainfall/24 hrs)
- Major Thoroughfare Crossings 50-year (2% chance/year, 8.5" rainfall/24 hrs)
- Railroads Crossings– 100-year (1% chance/year, 9.8" rainfall/24 hrs)



Data Collection

The following was collected for project:

- 1.25 M linear feet (If) of pipe 237 miles
- 17,000 drainage structures
- 236,000 lf of stream walks 44 miles



Benefits of Inventory Moving from reactive to proactive

- Debris blockages removed
- Broken structures repaired
- Illicit discharges
- System connectivity
- Increased efficiency for maintenance and service calls



Modeling

- Model results show existing and future level of service (LOS)
- Results for existing LOS validated against data collected in public outreach efforts
- Future build-out conditions based on City and County zoning, land use plans, and feedback from City Planning







Culvert/Bridge Improvements



Recommendations Floodplain Storage/Benching







Closed System Improvements





Detention





Stream Stabilization







Prioritization

- Projects within each watershed prioritized based on 9 categories
- Four prioritization lists for each watershed created based on project type
- Primary flood control projects may be grouped based on dependency on other projects
- Prioritization consistent across watersheds to create Citywide Prioritization lists



Prioritization

Prioritization can be adjusted for numerous reasons:

- Development
- Failures
- Funding (MOAs, grants, loans, etc.)



Summary of Costs

Capital Costs:

Primary System Secondary systems Stream Bank Stabilization Water Quality

\$130 M \$40 M \$12 M \$20 M



Capital Projects

- Prioritization (Detention, WQ, Stabilization)
- Equitability across the City
- Bond Package
- Long-term Planning