

Public Safety & Infrastructure Committee Stormwater Advisory Group

Meeting 4:
Recommended Stormwater Program Components
May 24, 2017

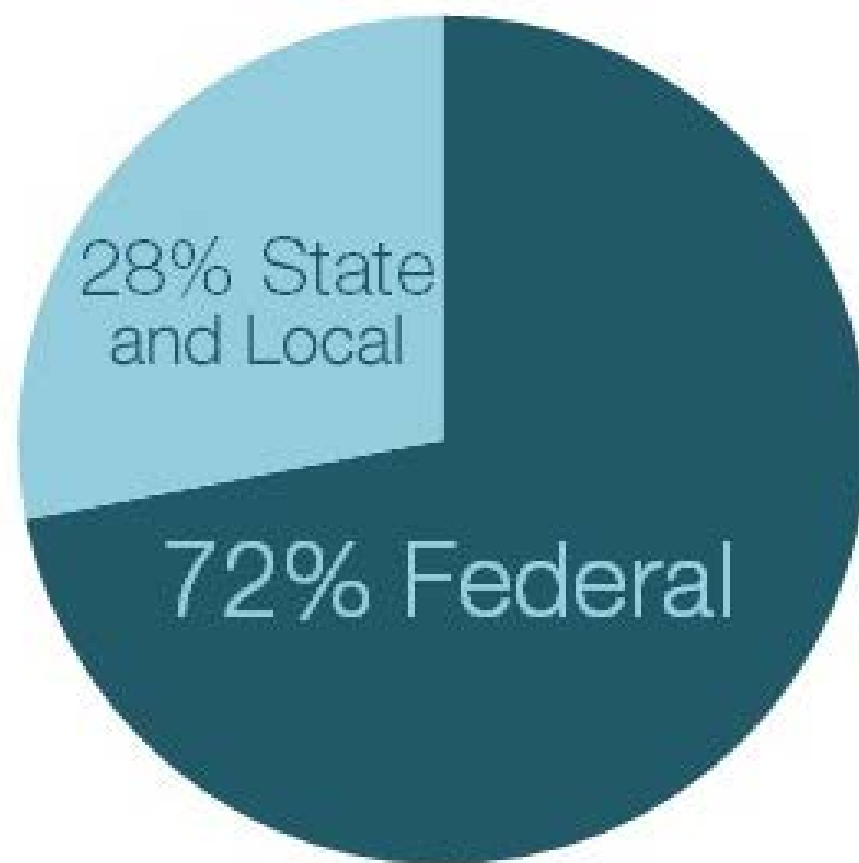




Agenda

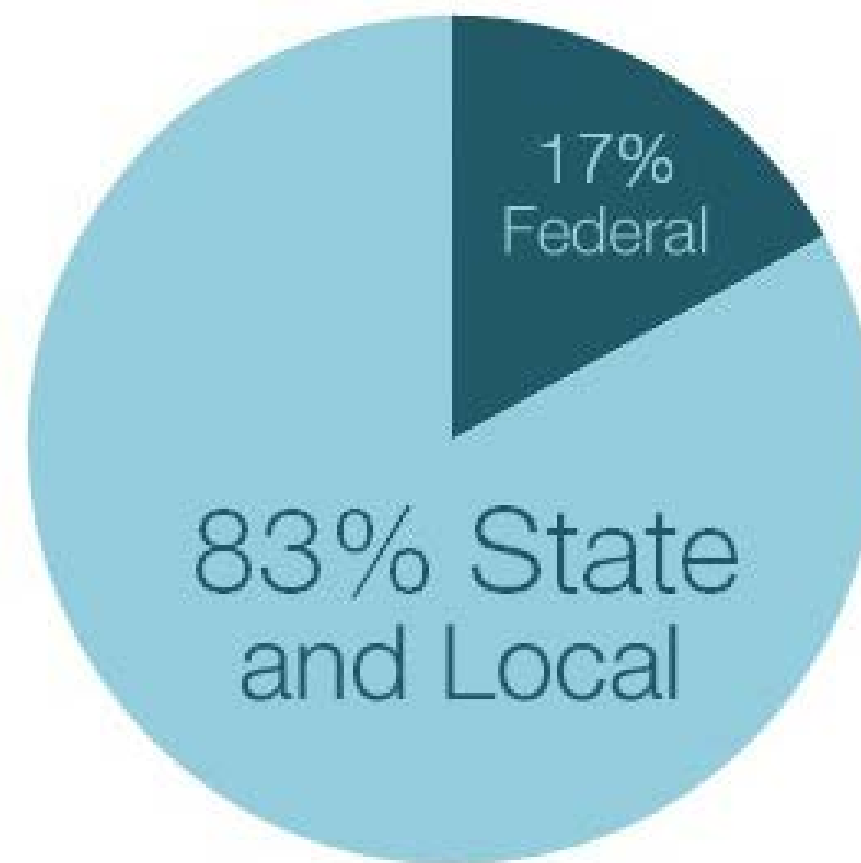
- Recap Previous Meeting & Priorities
- Condition Assessment - Final Overview
- Components of Future Stormwater Program
- Stormwater Funding Options

Capital Investment in Water & Sewer Infrastructure



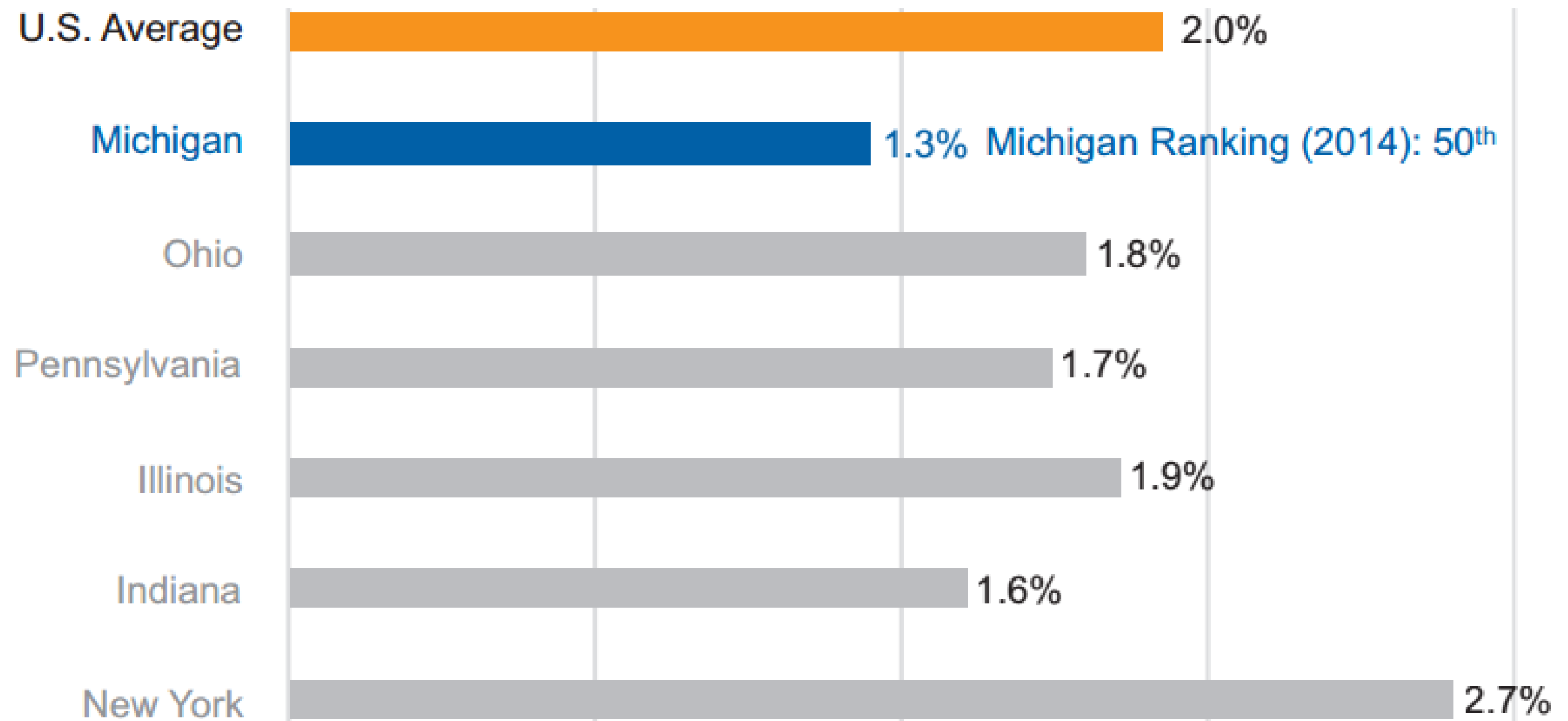
1977

VS



2010

State & Local Capital Spend as a % of GSP (2014)



Source: US Census Bureau, US Bureau of Economic Analysis

RECAP: Stormwater 101

City budgets for infrastructure



330 miles of sewer
8,800 manholes
6 pump stations

Budget: \$6.4 million/year*

Revenue source: User Fee



441 miles of water main
Thousands of hydrants

Budget: \$7.1 million/year*

Revenue source: User Fee



110 miles of storm sewer
120 miles open channel
1,900 manholes
6,500 catch basins
major culverts

Budget: \$575,000/year

Revenue source: general fund

** Excludes GLWA transport/treatment costs passed through OCWRC*



Stormwater Expenditures as Percent of City Budget
for Cities with a Stormwater Utility (Midwest U.S.)

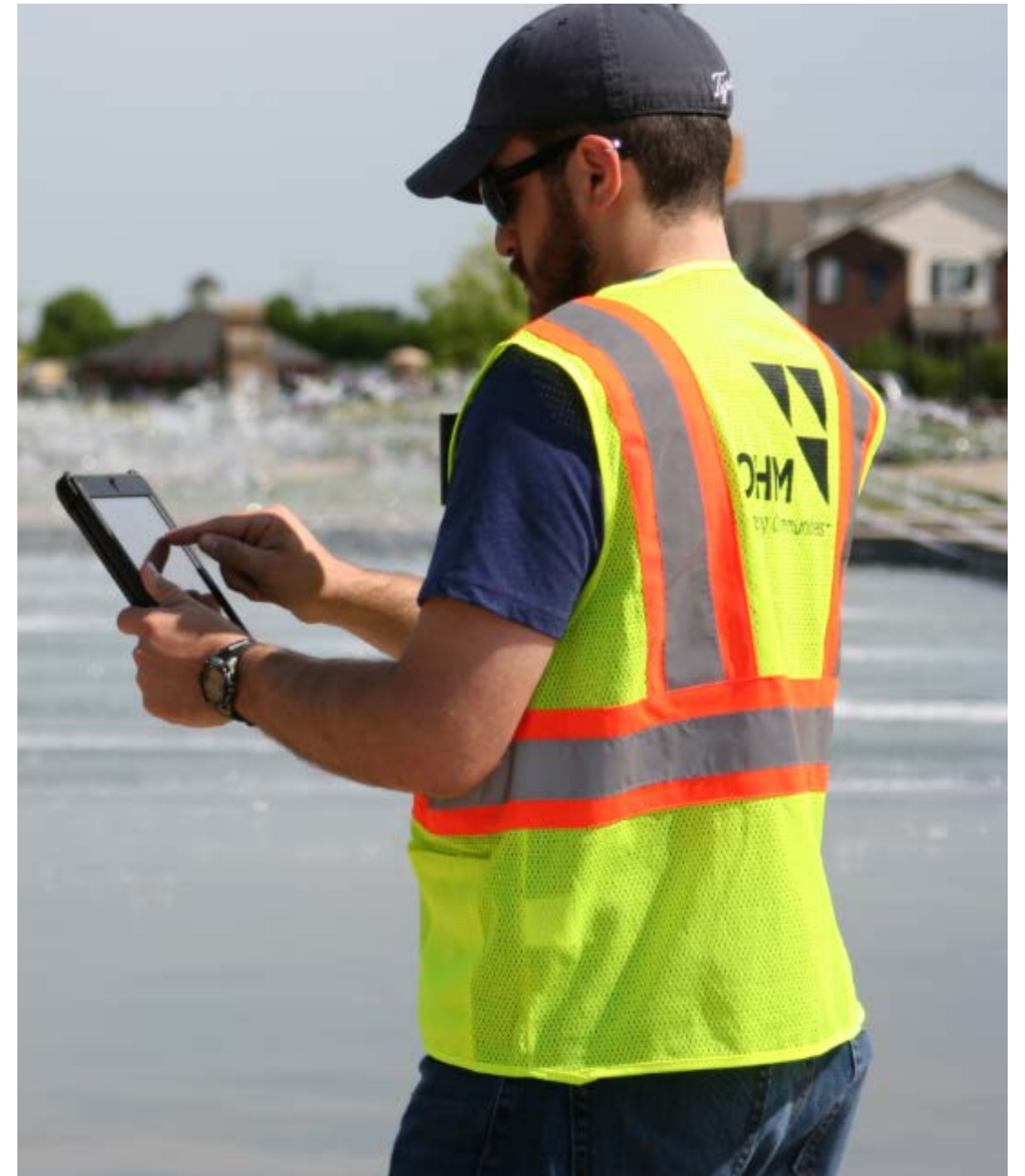


Stormwater:
2-3% of annual
budget is typical
in cities with
dedicated
funding source

Rochester Hills
spending =
~0.4%

Condition Assessment

- ~ 400 manholes inspected
- ~ 24 miles of storm sewer televised





**Manhole Defects:
Precursors to more serious problems**

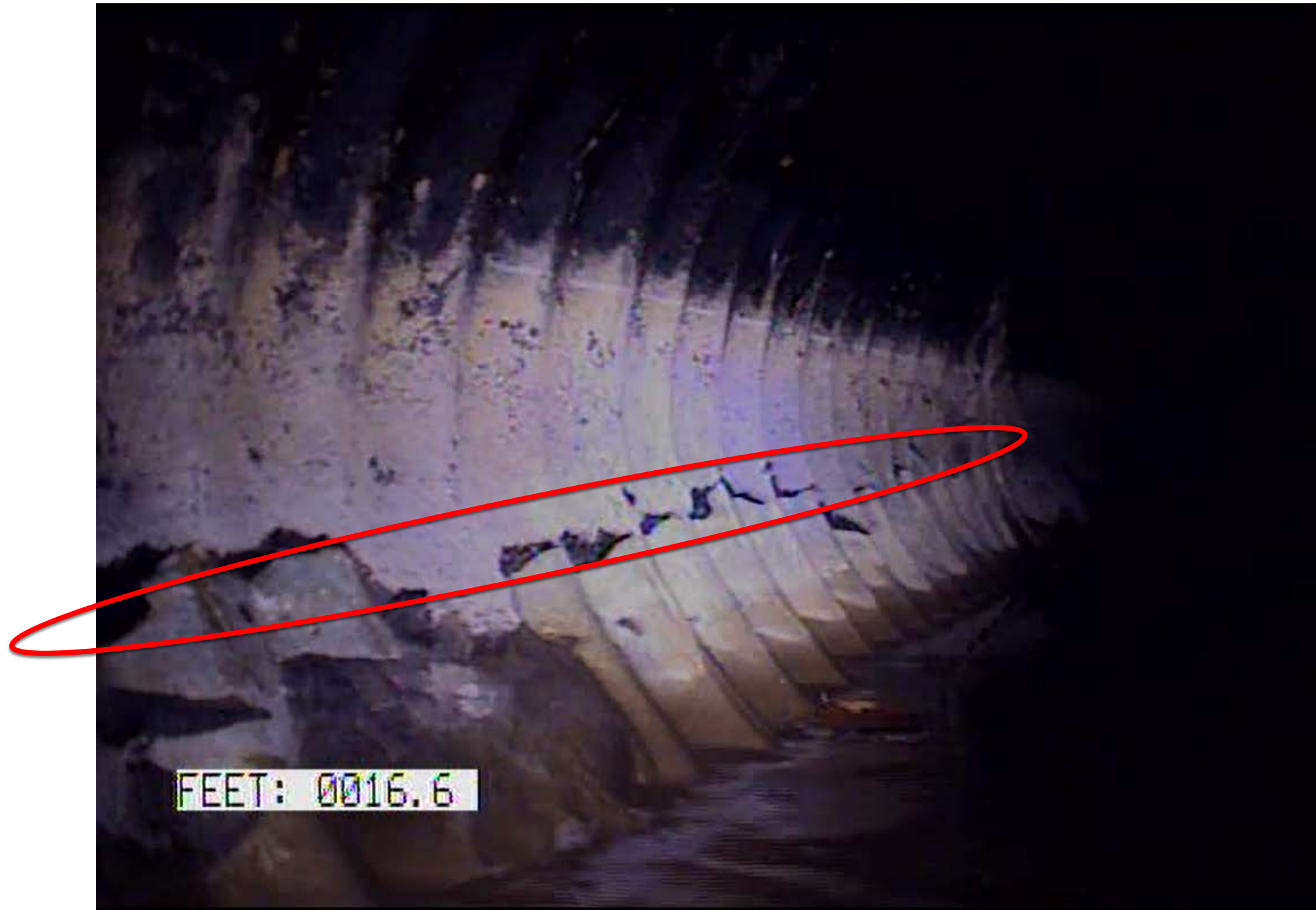
Failing manholes = roadway collapse (sinkholes)







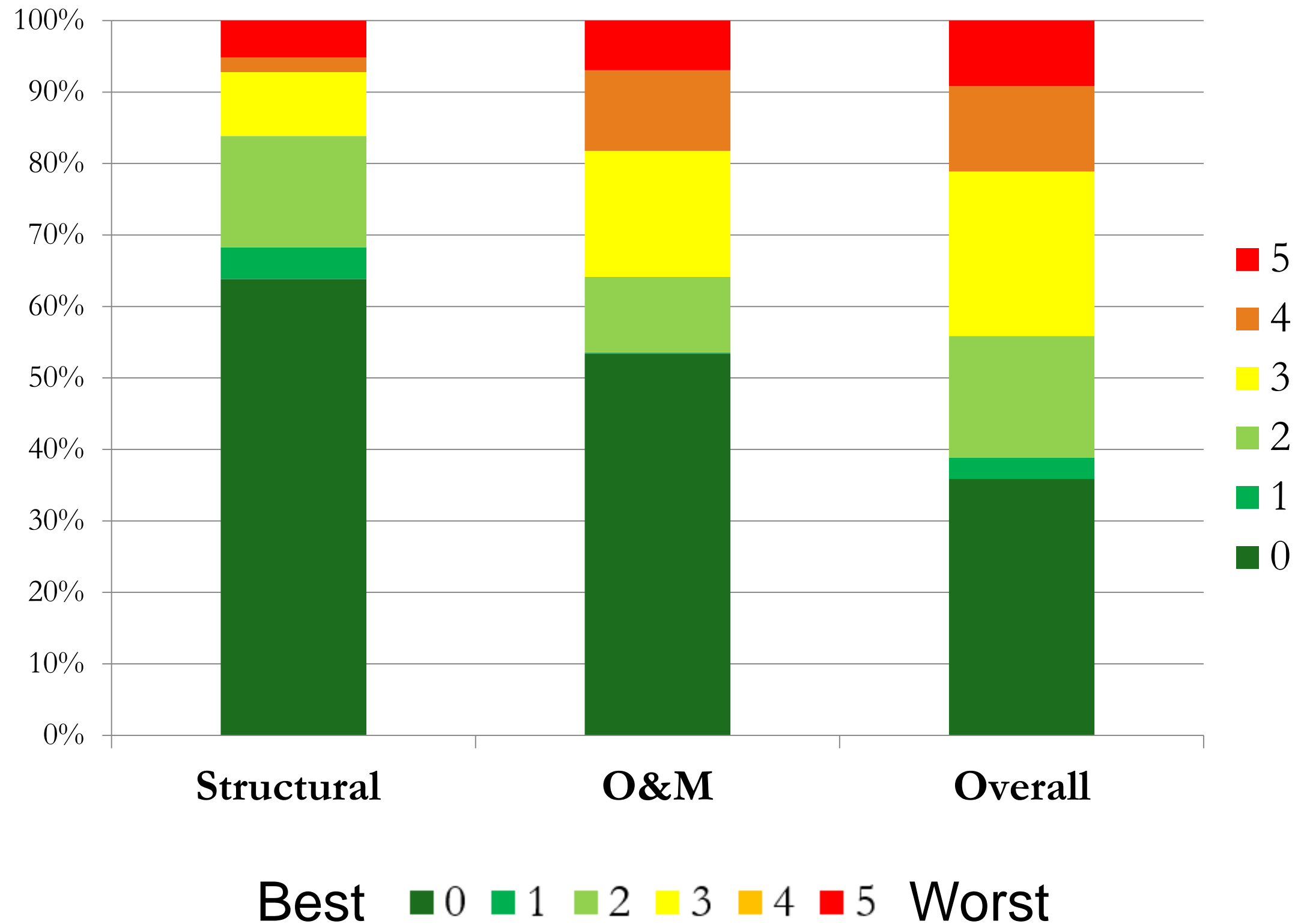




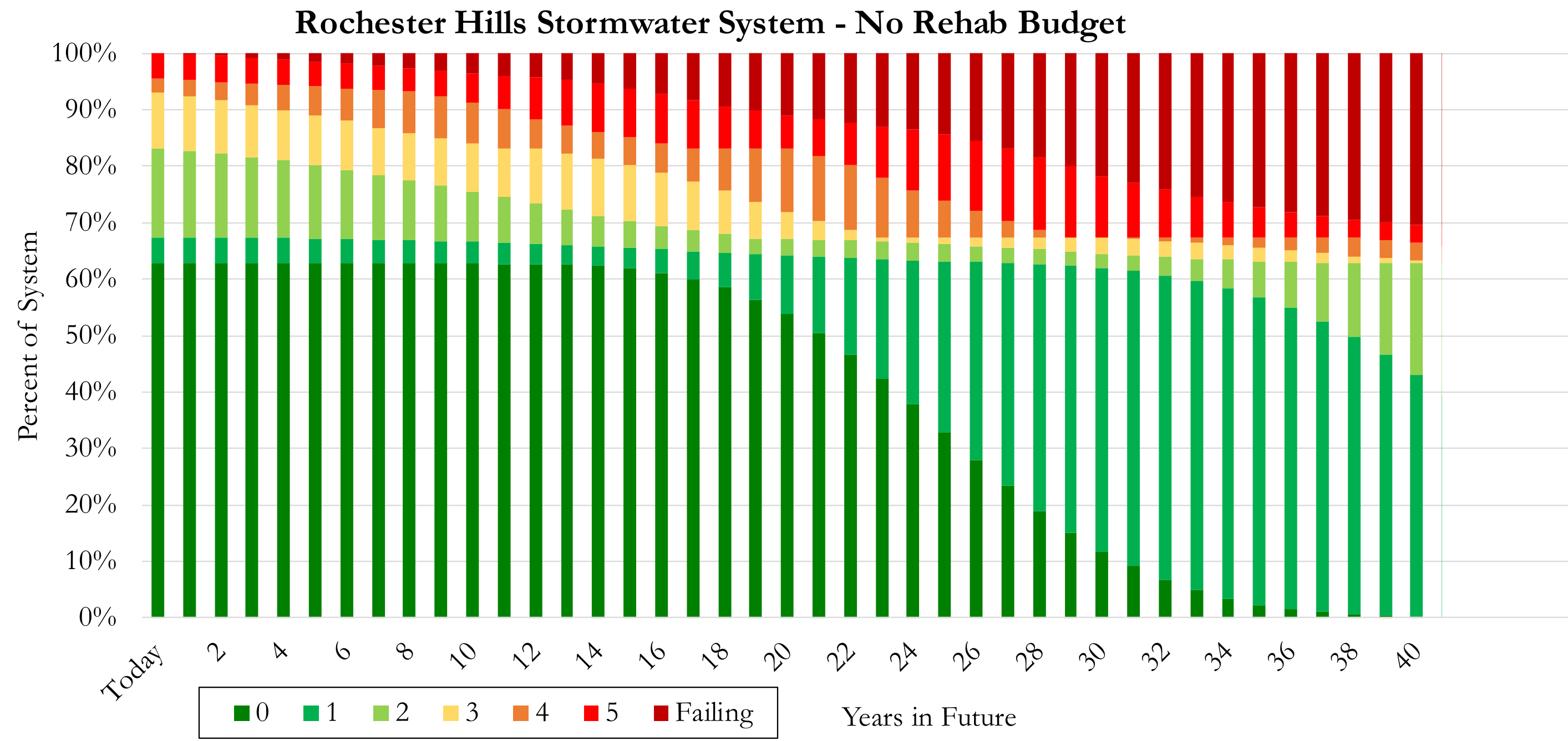


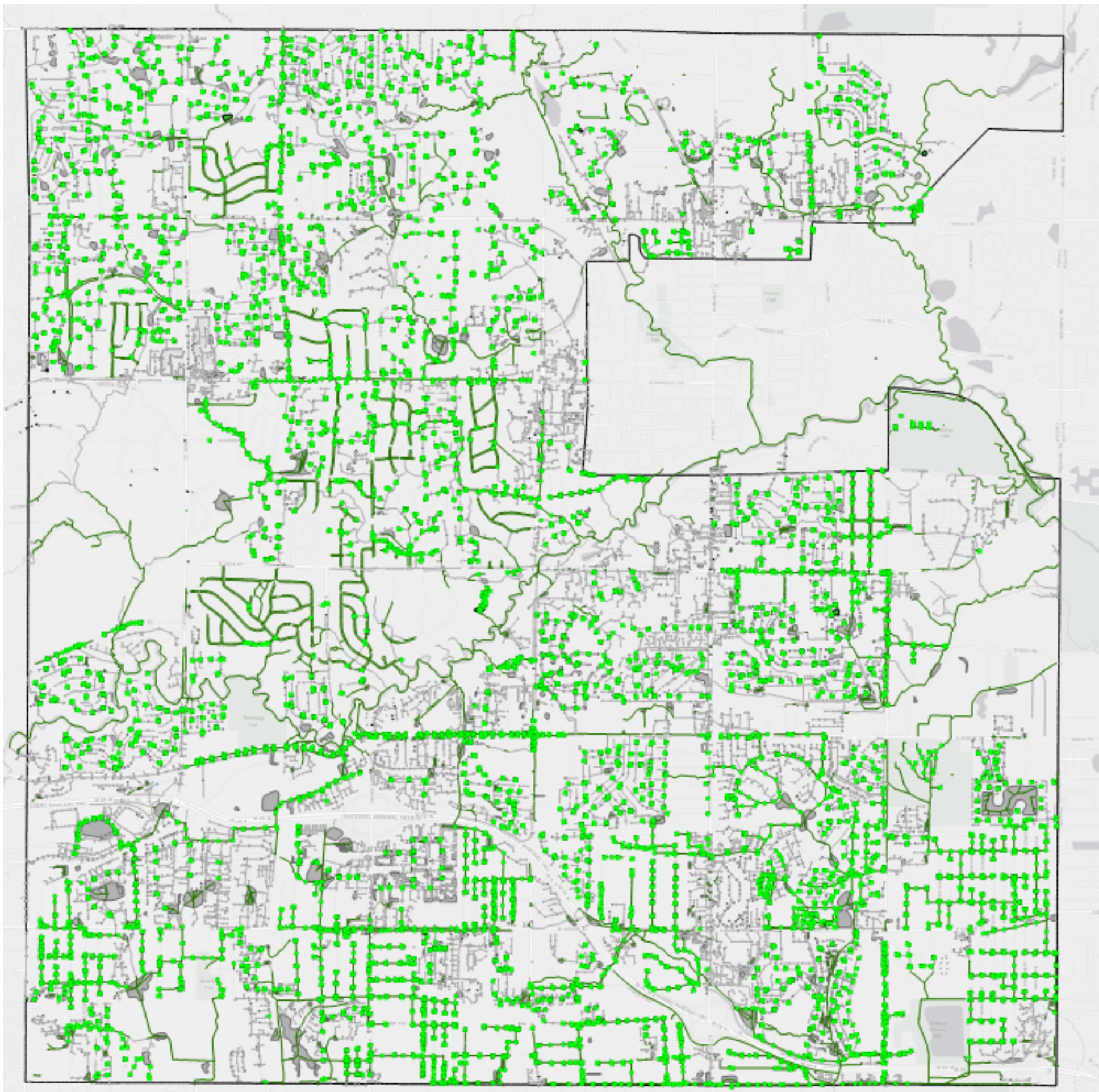


Storm Sewer Assessment



Storm Sewer Assessment



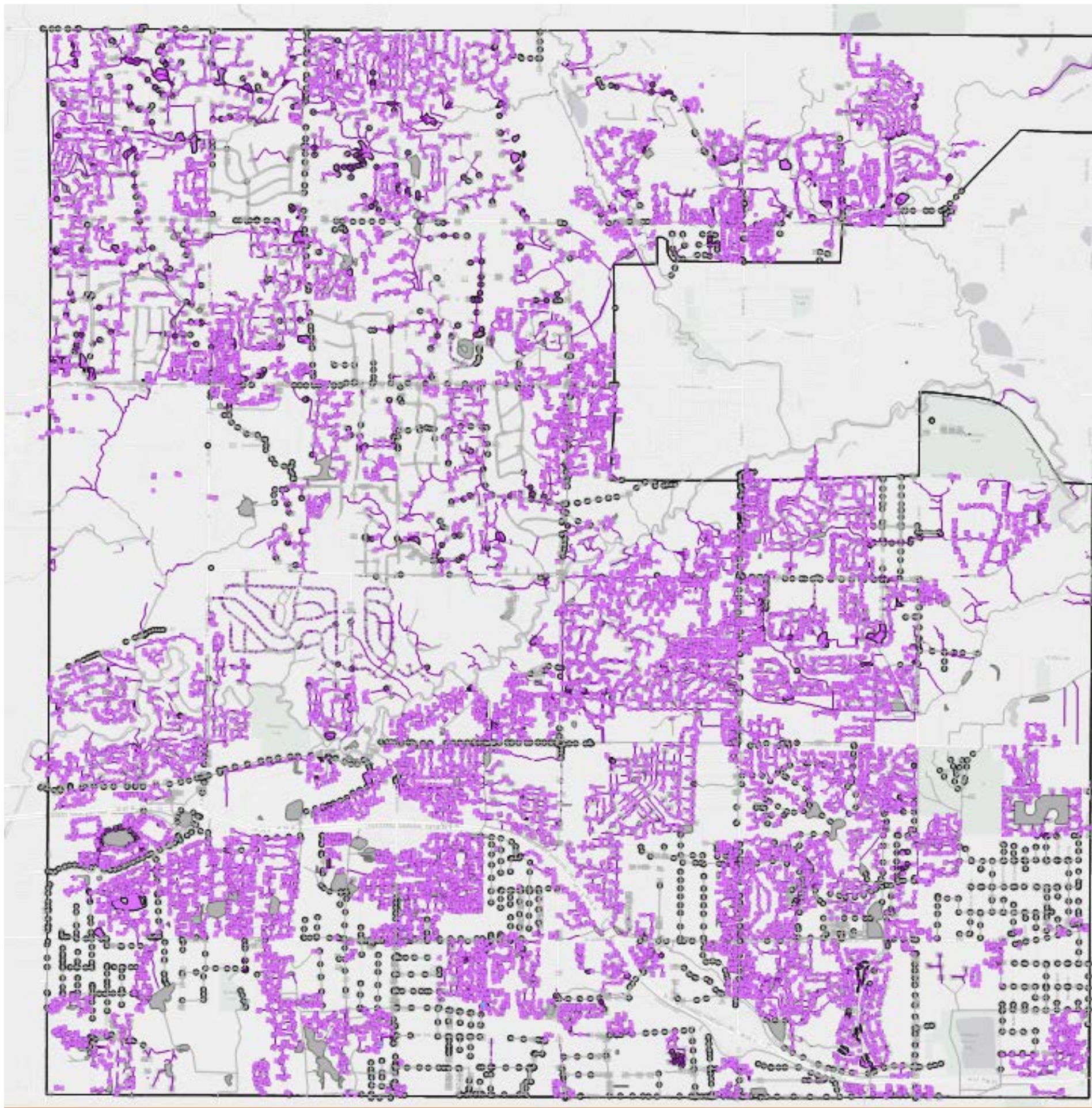


City Stormwater System

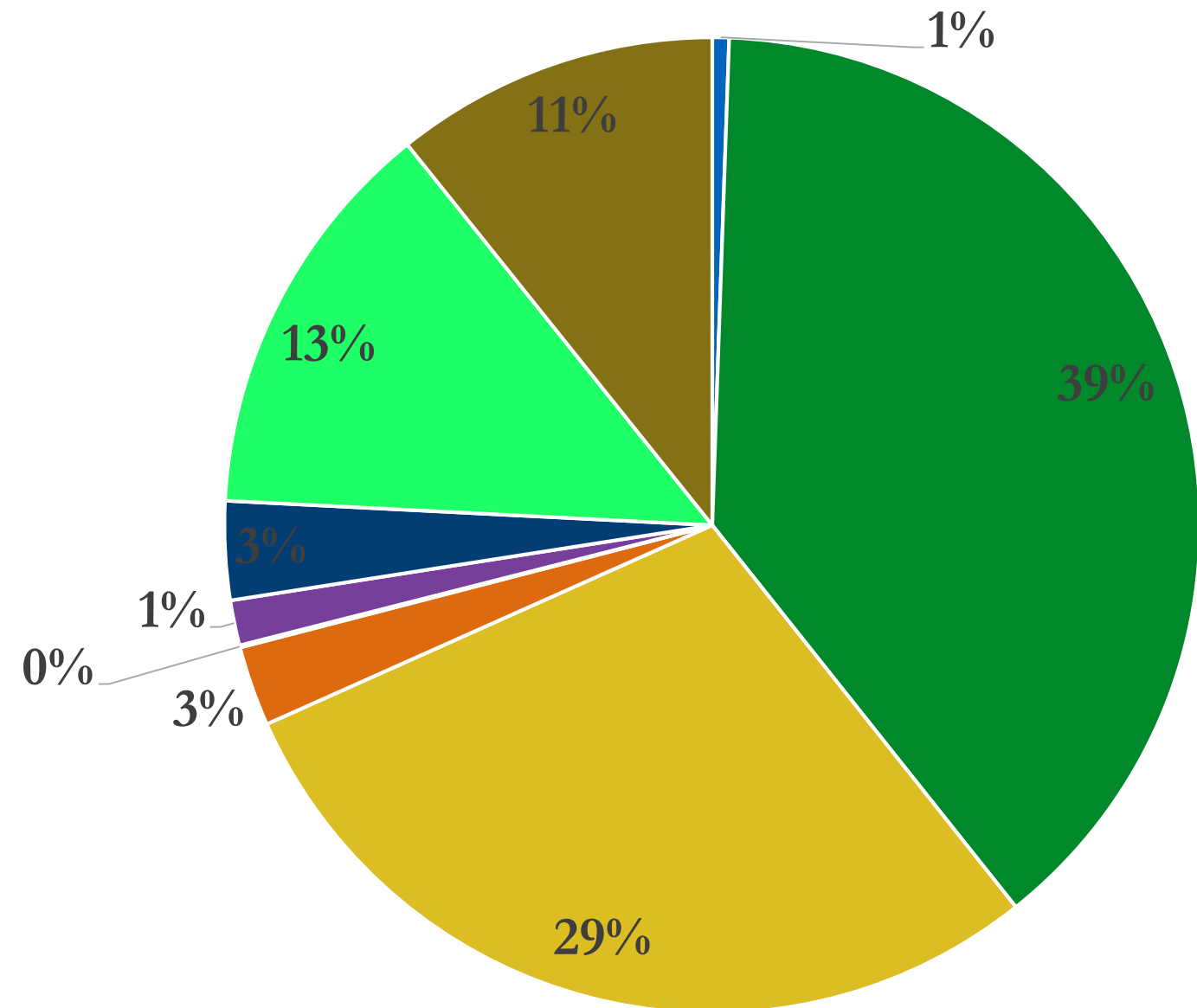
- 110 miles sewer
 - 120 miles open drains
 - 1,900 manholes
 - 6,500 catch basins
 - major culverts
-
- Annual Budget
\$575,000

Non-City Stormwater System

- 323 miles sewer
- 37 miles open drains
- 5,600 manholes
- 7,800 catch basins
- Annual Budget
Not known



Asset Ownership

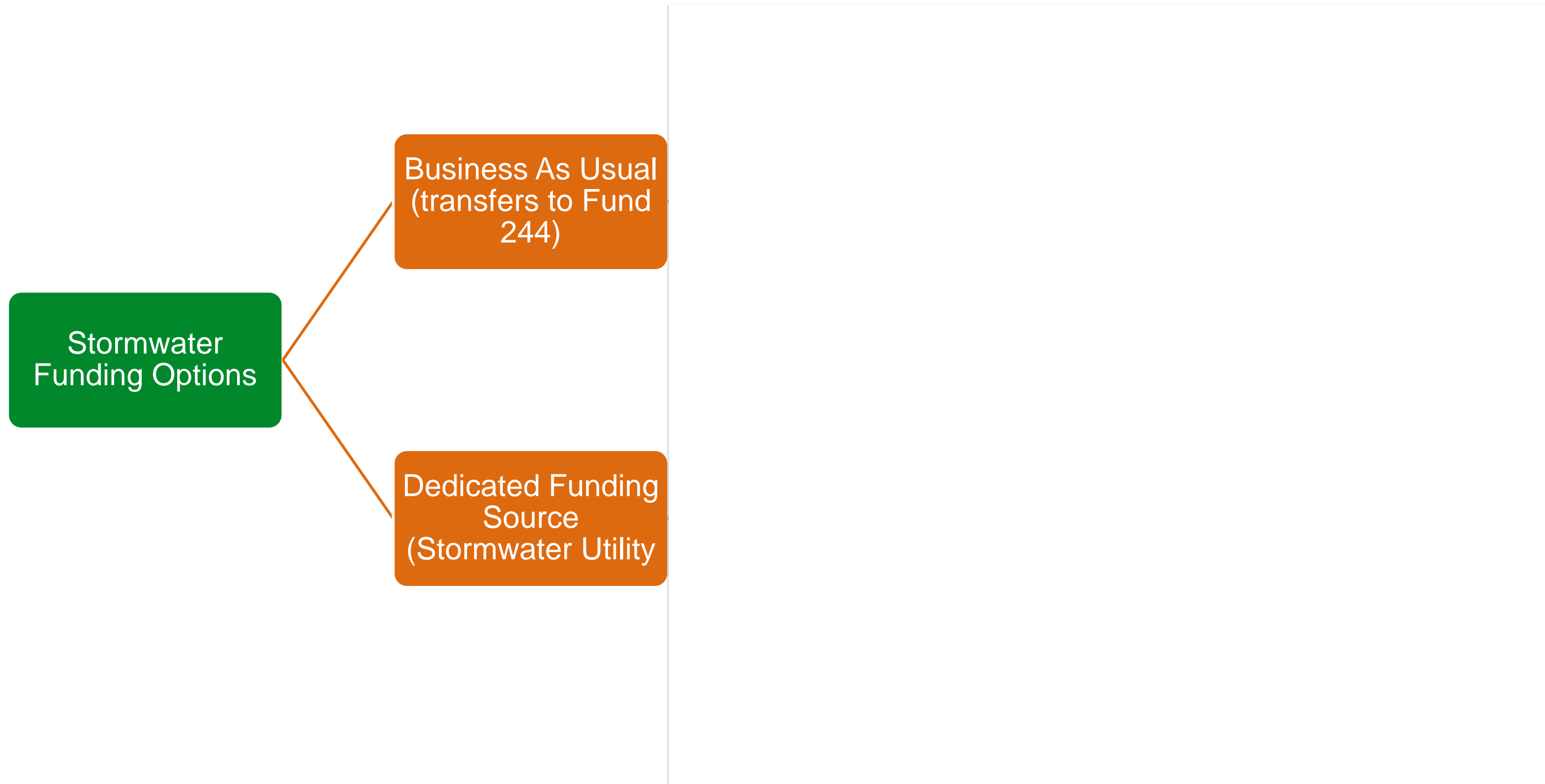


- | | | |
|---------------------------|-------------------------|-------------------|
| ■ Avondale Comm. Schools | ■ Homeowner Association | ■ Private |
| ■ Rochester Comm. Schools | ■ Rochester | ■ MDOT |
| ■ RCOC | ■ WRC | ■ Rochester Hills |

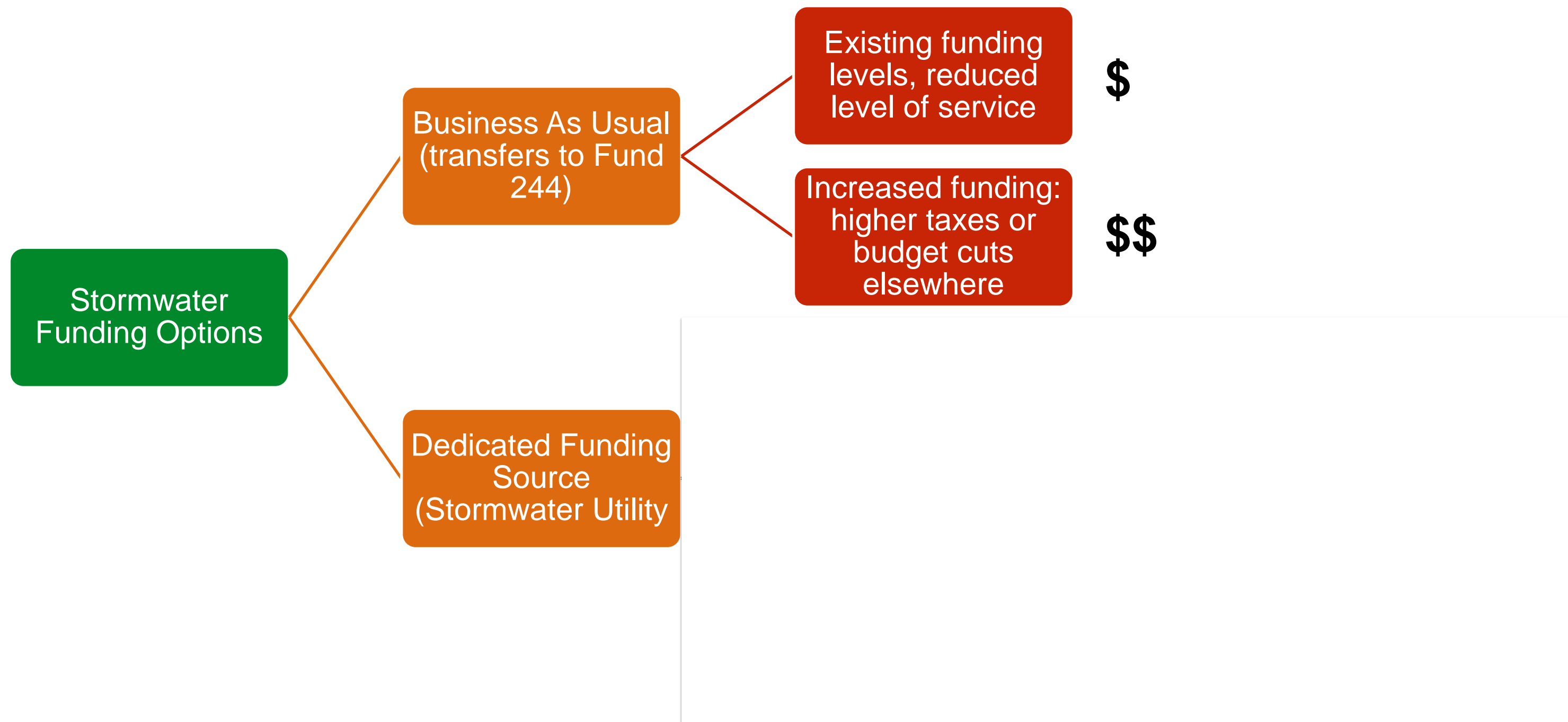
Future Stormwater Program

Stormwater
Funding Options

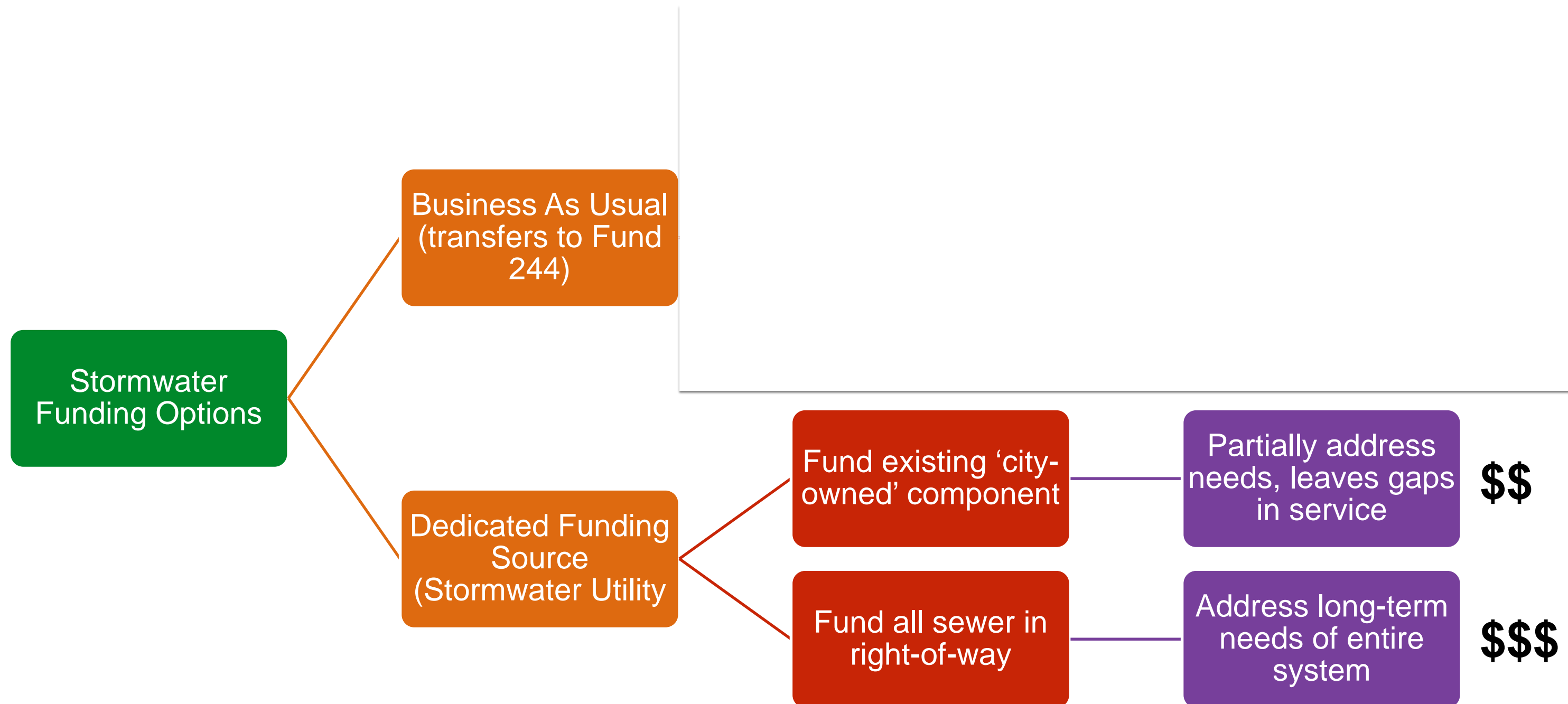
Future Stormwater Program



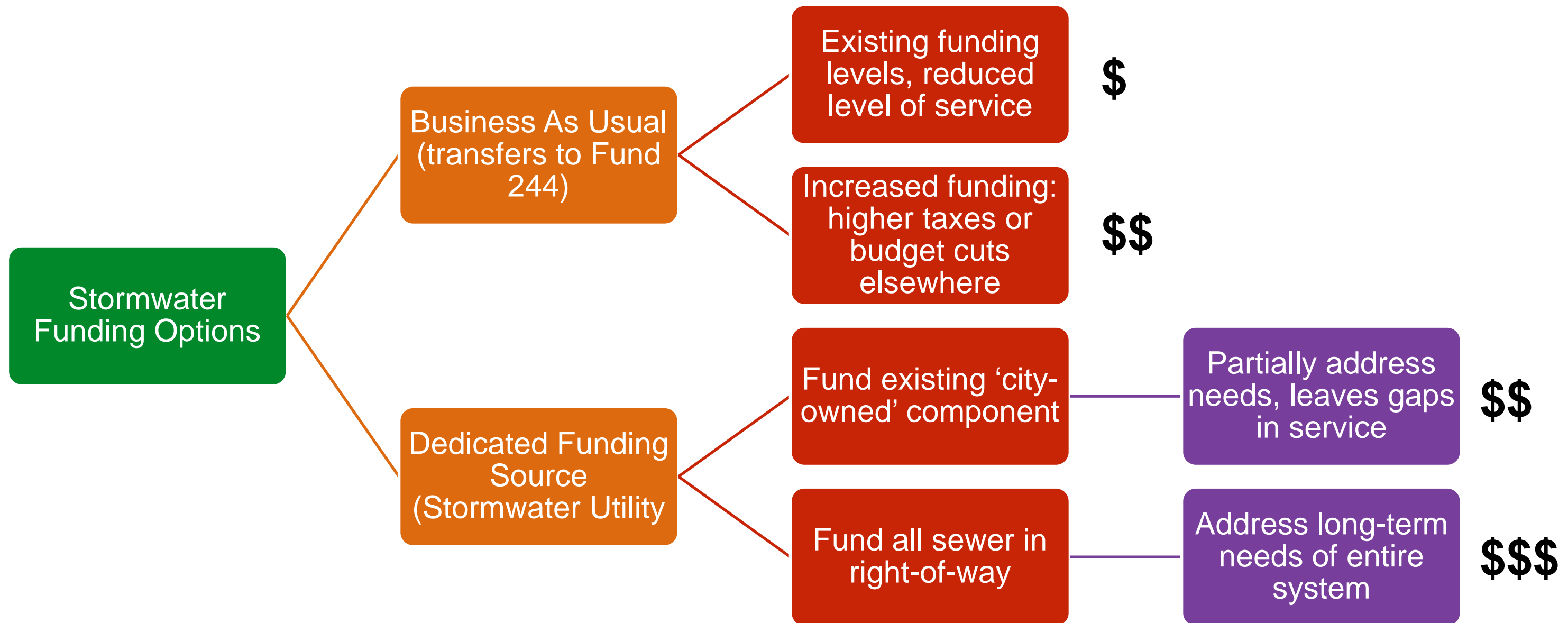
Future Stormwater Program



Future Stormwater Program



Future Stormwater Program



Future Stormwater Program

- **Proactive management:** fix problems before they become emergencies
- **Inspect and clean** sewer system on a regular basis
- **Address stormwater quality** through source control



Future Stormwater Program

- **Flood control:**
replace undersized
sewers
- **Erosion control:**
maintain and repair
creek banks
- Increase inspection
of **private systems**
(ponds)



Future Stormwater Program

Preliminary Cost Range

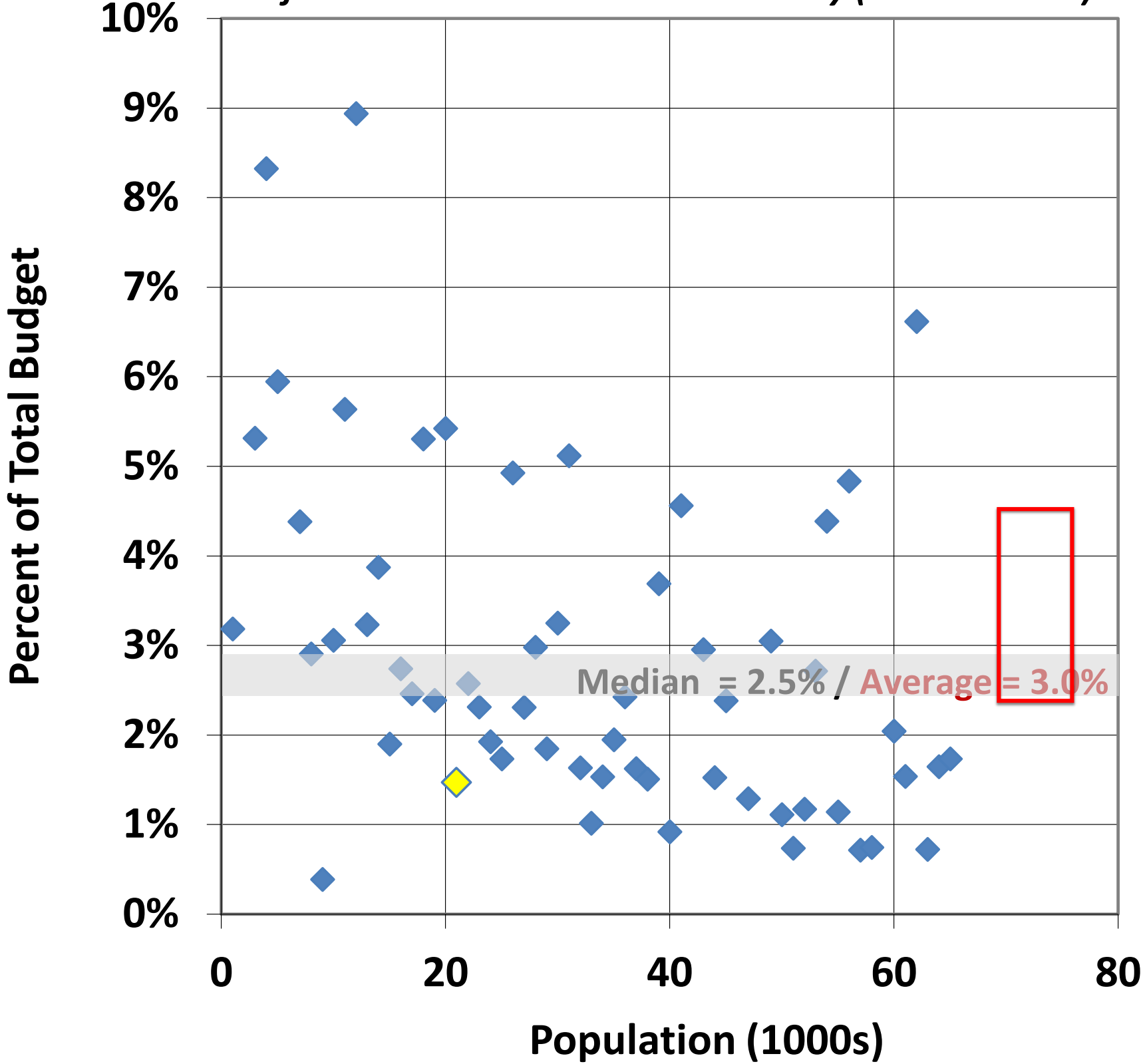
Item	Current City-Owned System	
Proactive Management		
Capital Improvement Plan (known problems from inspections)	\$ 200,000	
Annual Rehab/Repair Program (pipes and manholes)	\$ 150,000	
Continually Maintain GIS/Lucity Database	\$ 40,000	
Inspect and Clean		
Inspect system on a regular cycle (5-yr / 20-yr)	\$ 200,000	
Heavy cleaning: 5-year cycle	\$ 50,000	
Update PACP/MACP scores in Lucity/GIS	\$ 10,000	
Address Stormwater Quality		
MS4 Compliance Costs	\$ 30,000	
Future BMP Inspection Program	\$ 30,000	
Future BMP projects (assume 1-2 BMPs per year)	\$ 50,000	
Flood Control		
Replace undersized sewers	\$ 150,000	
Stormwater Component of Road Projects	\$ 750,000	
Detention Pond Inspection/Enforcement Program	\$ 50,000	
Erosion Control		
Streambank Repairs (current CIP)	\$ 100,000	
Private Property Creek Repair Cost Share Program	\$ 60,000	
Ongoing streambank maintenance, including debris removal	\$ 115,000	
Chapter 20 Drain Maintenance (WRC Debt Payments)	\$ 205,000	
Other / Admin		
Water Resources Coordinator (1.0 FTE)	\$ 150,000	
Construction Inspection Services	\$ 37,500	
Operating Supplies and Equipment	\$ 25,000	
Annual Updates to Billing Database, Resolving	\$ 15,000	
Stormwater Credit Application Reviews, Enforcement	\$ 15,000	
Other supporting personnel	\$ 200,000	
Interfund Transfers (admin, MIS, facilities, fleet, insurance, etc.)	\$ 150,000	
Stormwater Fee for City Properties (1.6% of total ERUs)	\$ 46,500	
TOTAL	\$ 2,900,000	

Future Stormwater Program

Item	Preliminary Cost Range	
	Current City-Owned System	Expanded Ownership (full right-of-way)
Proactive Management		
Capital Improvement Plan (known problems from inspections)	\$ 200,000	\$ 800,000
Annual Rehab/Repair Program (pipes and manholes)	\$ 150,000	\$ 800,000
Continually Maintain GIS/Lucity Database	\$ 40,000	\$ 60,000
Inspect and Clean		
Inspect system on a regular cycle (5-yr / 20-yr)	\$ 200,000	\$ 800,000
Heavy cleaning: 5-year cycle	\$ 50,000	\$ 200,000
Update PACP/MACP scores in Lucity/GIS	\$ 10,000	\$ 25,000
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Construction Inspection Services	\$ 37,500	\$ 37,500
Operating Supplies and Equipment	\$ 25,000	\$ 75,000
Annual Updates to Billing Database, Resolving	\$ 15,000	\$ 30,000
Stormwater Credit Application Reviews, Enforcement	\$ 15,000	\$ 40,000
Other supporting personnel	\$ 200,000	\$ 600,000
Interfund Transfers (admin, MIS, facilities, fleet, insurance, etc.)	\$ 150,000	\$ 320,000
Stormwater Fee for City Properties (1.6% of total ERUs)	\$ 46,500	\$ 100,000
TOTAL	\$ 2,900,000	\$ 6,100,000



Stormwater Expenditures as Percent of City Budget
for Cities with a Stormwater Utility (Midwest U.S.)

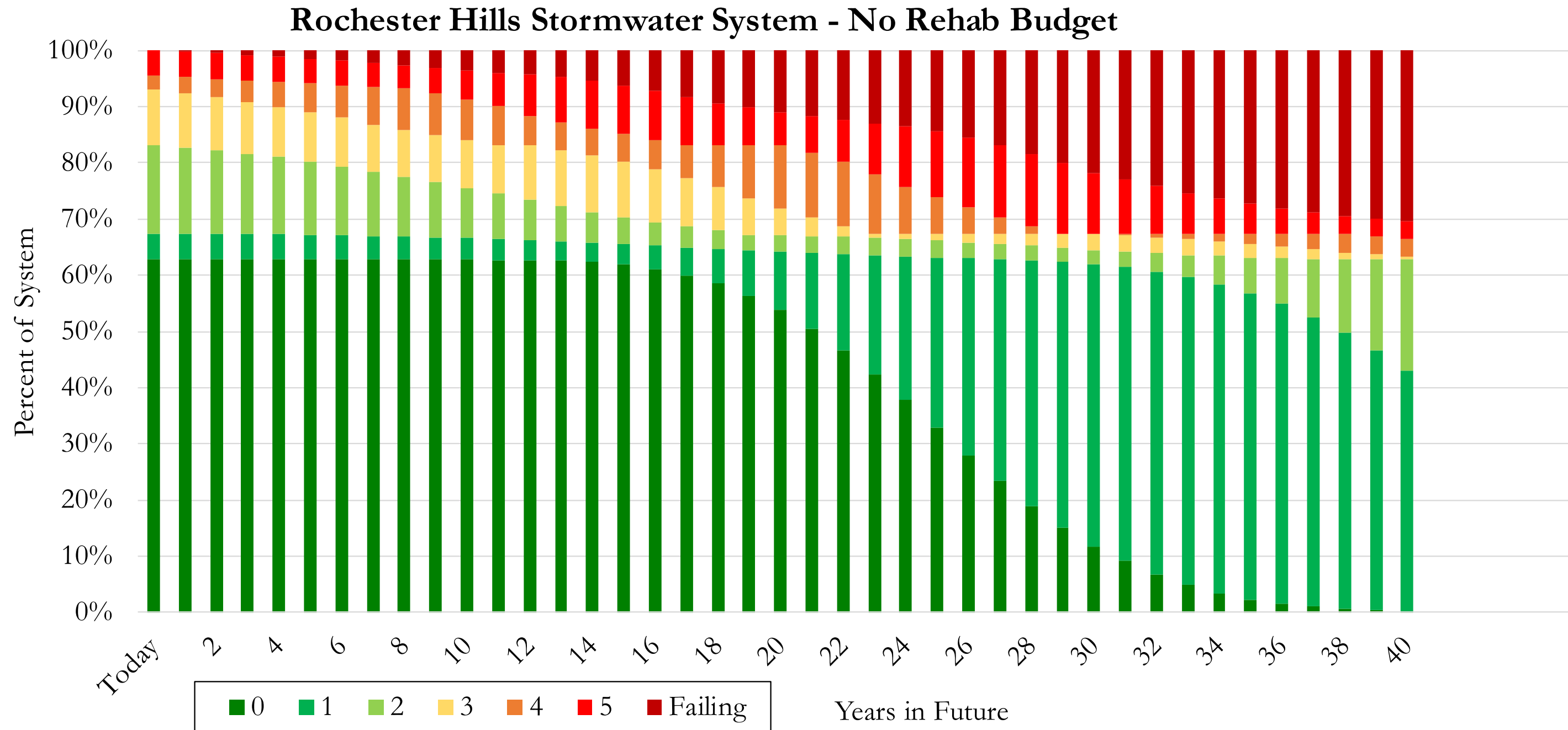


**Recommended
Program:
\$3 - \$6 million**

**2.3% - 4.6% of
current City
budget of \$130
million**

System Will Degrade if We Don't Invest

Current funding level – System Deterioration



System Will Degrade if We Don't Invest

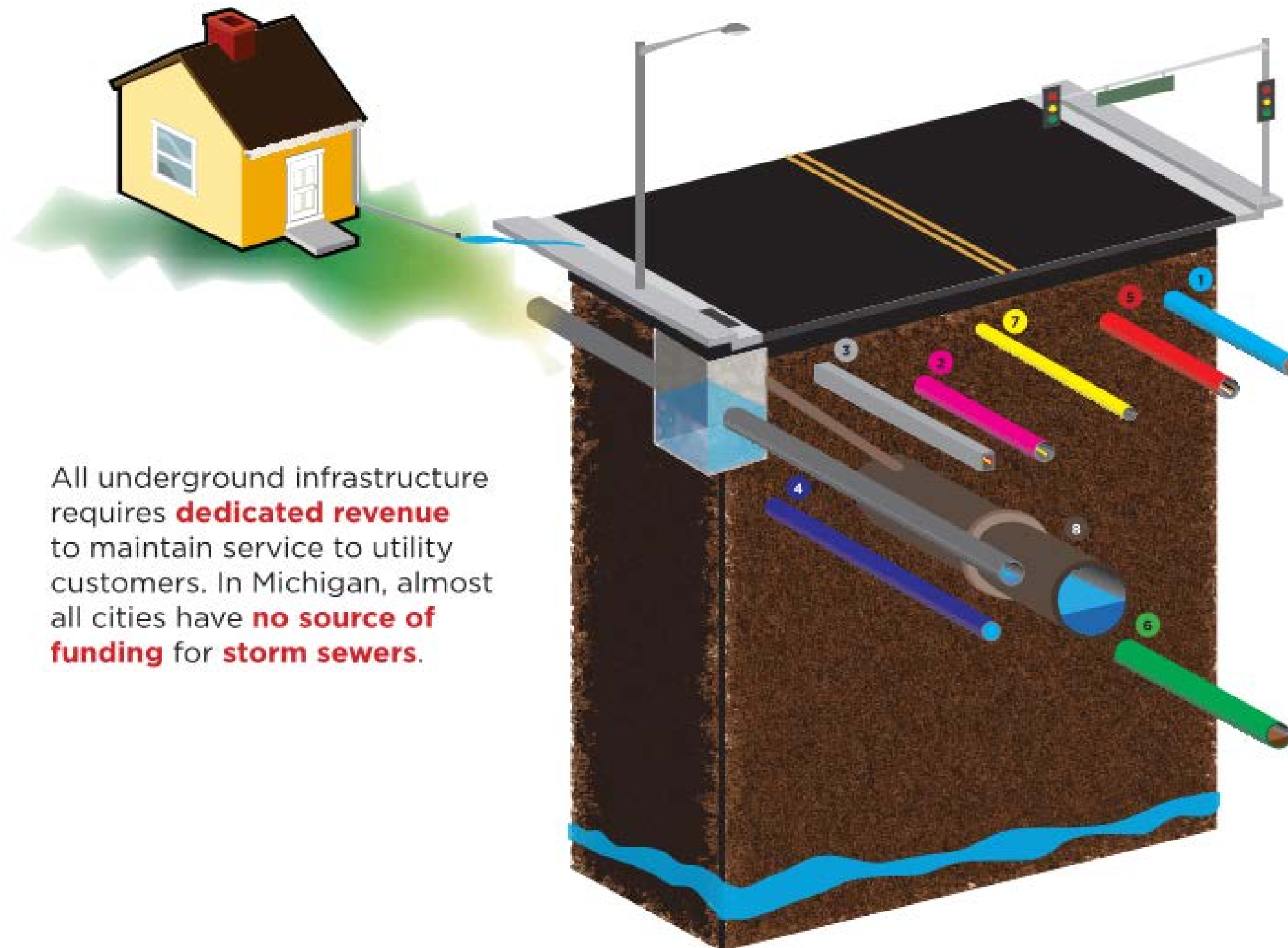
Recommended funding level: targeted repair/rehab



Investing in the City's
best interest:
what will it look like?



FUNDING STORMWATER INFRASTRUCTURE



All underground infrastructure requires **dedicated revenue** to maintain service to utility customers. In Michigan, almost all cities have **no source of funding** for **storm sewers**.

Principles for Funding Utilities

1

When estimating the amount of revenue needed and the amount to be charged, the math will ALWAYS include the cost of four things: capital, operation, maintenance, and replacement. These represent the true short and long term costs of infrastructure service. Any weak link in this chain seriously compromises reliability.

Principles for Funding Utilities

2

We will not rely on federal or state government to subsidize local utility services. That approach is a recipe for failure. The subsidies are never adequate, not everyone gets them, and even those who do get them won't receive them in perpetuity.

Principles for Funding Utilities

3

We will earn and maintain the public trust by choosing a funding strategy that is transparent and fair regarding:

How costs are calculated

How charges are allocated to customers



Fee vs. Tax

Total Revenue = \$2,900,000

Typical Monthly Fee	Stormwater Utility	Property Tax (Millage ~1.0 Mils)
Single Family Residential (median taxable value of \$105K)	\$3 - \$4	\$8 - \$9
Newly-purchased median home (market value \$290K, taxable value \$145K)	\$3 - \$4	\$12 - \$13



Fee vs. Tax

Total Revenue = \$6,100,000

Typical Monthly Fee	Stormwater Utility	Property Tax (Millage ~2.0 Mils)
Single Family Residential (median taxable value of \$105K)	\$7	\$17 - \$18
Newly-purchased median home (market value \$290K, taxable value \$145K)	\$7	\$24 - \$25

Pending Legislation

HOUSE BILL No. 4100

January 26, 2017, Introduced by Reps. McCready, Webber, Lucido and Iden and referred to the Committee on Local Government.

A bill to regulate the creation of stormwater management utilities by local units of government; to regulate the adoption and content of stormwater utility ordinances; to provide for the allocation of the costs of planning, constructing, operating, maintaining, financing, and administering a stormwater system to real property served by the system; to provide for the establishment and collection of stormwater utility fees; to provide for the reduction or elimination of fees; to provide for appeals; and to prescribe the powers and duties of certain local governmental officers and entities.

Stormwater Utility Act:

1. Establishes a transparent method to develop a dedicated funding source for stormwater
2. Step-by-step approach to create a compliant user fee
3. Requires a Stormwater Management Plan
4. Fee must be proportional to cost of service
5. Level of Service and asset condition goals must be defined

Next Steps:

- PS&I Committee to consider:
 - Recommendation to City Council on the following:
 - Future stormwater funding method
 - Ownership strategy (take on the rest of the right-of-way?)
- OHM/HRC team to provide an Executive Summary for review



Funding Option Summaries

(not part of presentation, but provided for background information)

Funding Options

Strategy/Decision	Positive Implications	Negative Implications
Maintain Existing Program	No new fees or taxes.	Legacy costs will accrue, project costs will be higher than necessary, service will decline, flooding may occur, and rivers will be subject to more pollution.
Expand Program using Tax Revenues	The City will satisfy its stormwater infrastructure needs through adequate funding. Tax millage might provide long-term revenue, although...(see Negative Implications to the right) .	Unfair to both residents and businesses. Will be another draw on the General Fund limited by Headlee, Proposal A, and state cuts in revenue sharing. Other services may suffer. Future priorities may shift and tax revenues could be diverted away from stormwater.
Expand Program through an Enterprise Fund (Stormwater Utility)	The City will satisfy its stormwater infrastructure needs. Investments benefiting individual businesses and residents will be much fairer and likely sustained over the long run. Flooding will be less likely and water quality will improve.	Could result in protest from sectors currently receiving benefits at no cost, i.e. tax-exempt properties. Some risk of utility fee being challenged as in violation of the Constitution.

Funding Options

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