

# ASSET MANAGEMENT STORMWATER +



# SUSTAINABLY MANAGING STORMWATER IN GRAND RAPIDS

## Recommendations

- Improve management of stormwater assets
- Establish a Stormwater System Asset Management Plan.
- Continue or increase Community Stormwater Education
- Stormwater Stakeholder group participants support a funding mechanism that funds stormwater service as well as interest in creating an incentive system.
- City Commission should establish and appoint a Stormwater Exploratory Group to make recommendations on outstanding decisions.

# 2013 STORMWATER MASTER PLAN

Stormwater Asset  
Management and  
Capital Improvement  
Plan

Technical Reference  
Manual  
(On hold due to MS4  
Permit status)



# LEVELS OF SERVICE

## Funding

A – Complete replacement at end of effective life

\$22,868,000

B – Extend effective life by 50% through preventative maintenance

\$14,726,000

C - Extend effective life by 100% through preventative maintenance

\$10,377,000

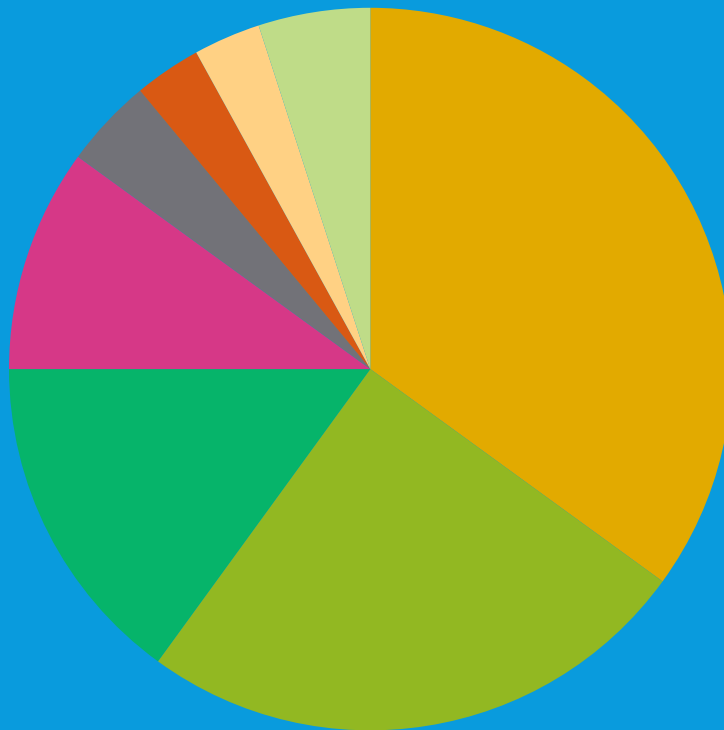
# 2013 LEVEL OF SERVICE

\$3,597,000



# SPENDING BREAKDOWN

Dollars



Repairs

Catchbasin

Cleaning

Main Cleaning

Lift Stations

Detention Basins

Creek Gates

# TYPES OF INVESTMENT

Item	Current	Level C
Inspection	\$40,000	\$905,800
Preventative Maintenance	\$0	\$796,200
Corrective Maintenance	\$830,000	\$414,000
System Renewal	\$1,537,000	\$6,580,800
<b>Total</b>	<b>\$4,119,795</b>	<b>\$8,696,800</b>

# REPERCUSSIONS OF INSPECTIONS





# INSPECTIONS

**Inspect all  
entities  
greater  
than 75  
years old**

Gravity Mains

Manholes

Catch Basins

# PREVENTATIVE MAINTENANCE

**Perform  
rehabilitation  
on 10% of  
inspected  
assets**

**Clean 20% of  
inspected  
assets  
annually**

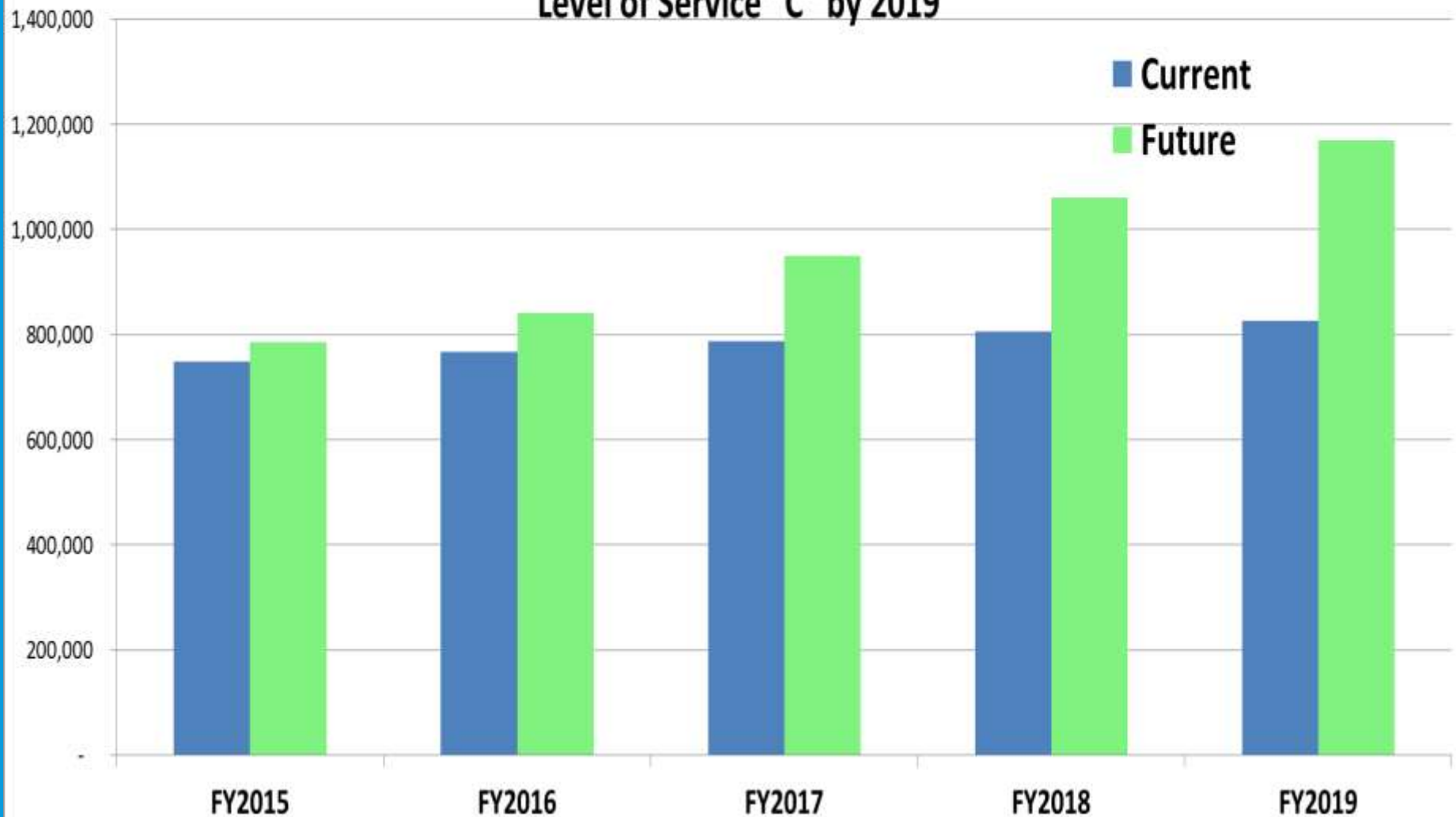


# CORRECTIVE MAINTENANCE

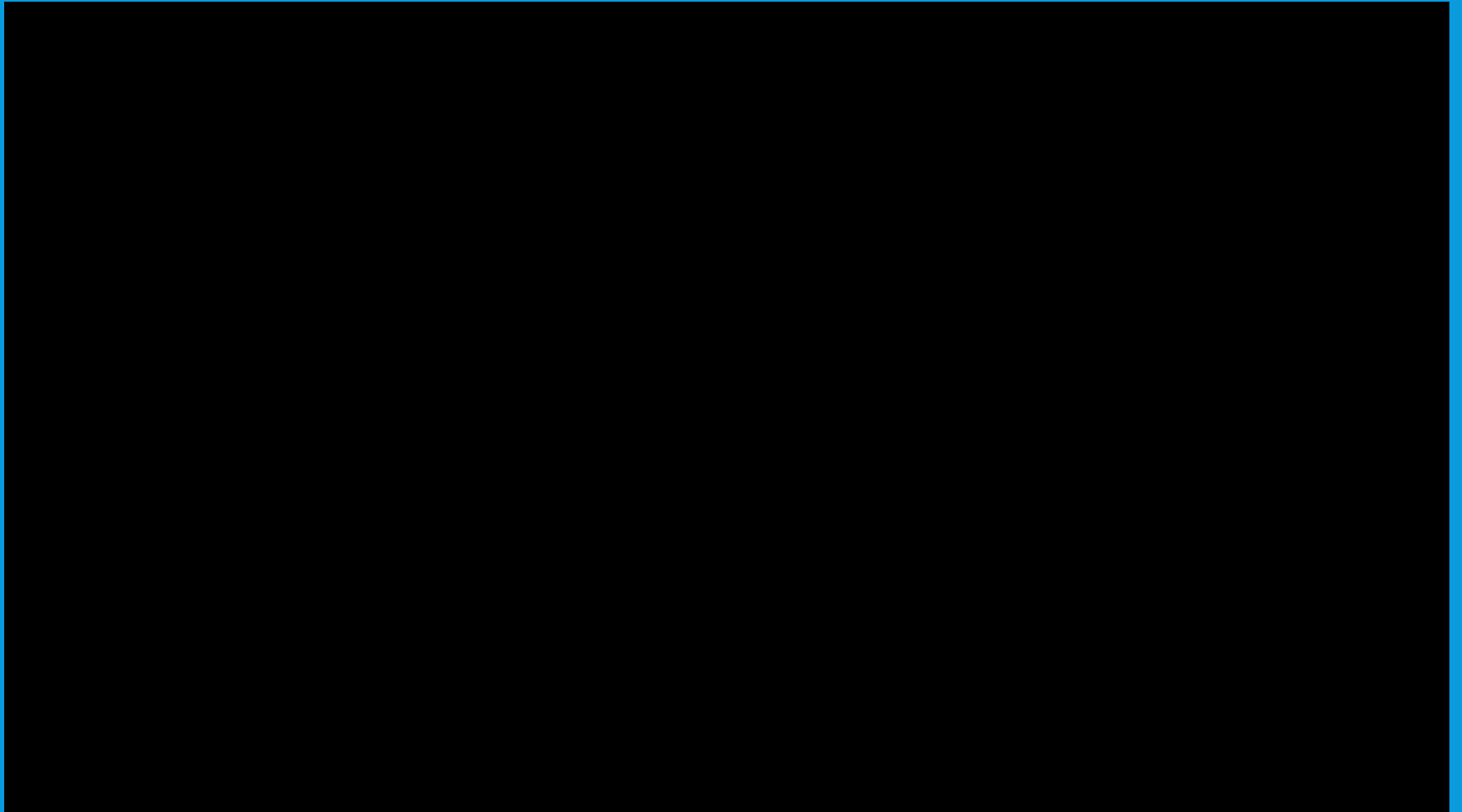
Replace 15% of assets that have reached the end of Estimated Effective Life over 10 years



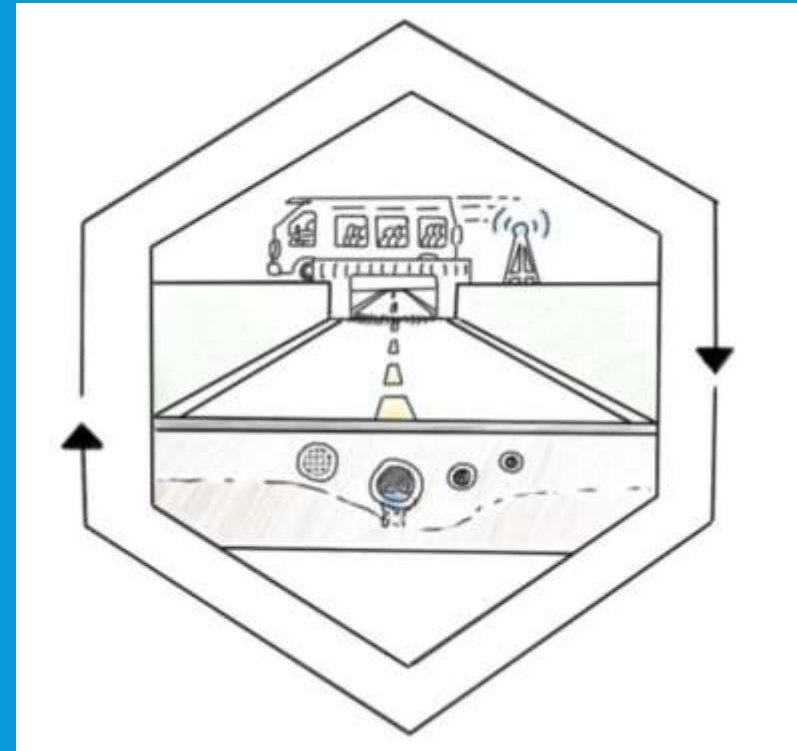
## Local and Major Streets - Stormwater Operations and Maintenance Investment Level of Service "C" by 2019



# 21<sup>ST</sup> CENTURY INFRASTRUCTURE ASSET MANAGEMENT PILOT PROJECT



# FINAL REPORT



# PIPES

- Asset Length
- Material
- Size
- Shape
- Depth
- Surface Type
- Approximate Date of Construction
- Approximate Date of Last Major Rehabilitation



# OTHER STORMWATER ENTITIES

- Manholes
- Catch Basins
- Chambers
- Open Channels
- Outfalls
- Pump Stations
- Dam/Dykes/Levees
- Ponds
- Green Infrastructure
- Location
- Material/Type
- Approximate Date of Construction
- Date of Last Major Upgrade
- Height/Depth
- Diameter/Size
- Capacity
- Population Served





# QUESTIONS?

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