

Recommendations for Stormwater Infrastructure Levels of Service, Resources, and Dedicated Funding

Citizens' Stormwater
Task Force
Presentation of
Recommendations

City Council Regular Session
Thursday, October 14, 2004



September 23, 2025

City Council Regular Session

George Binger, PE, CFM

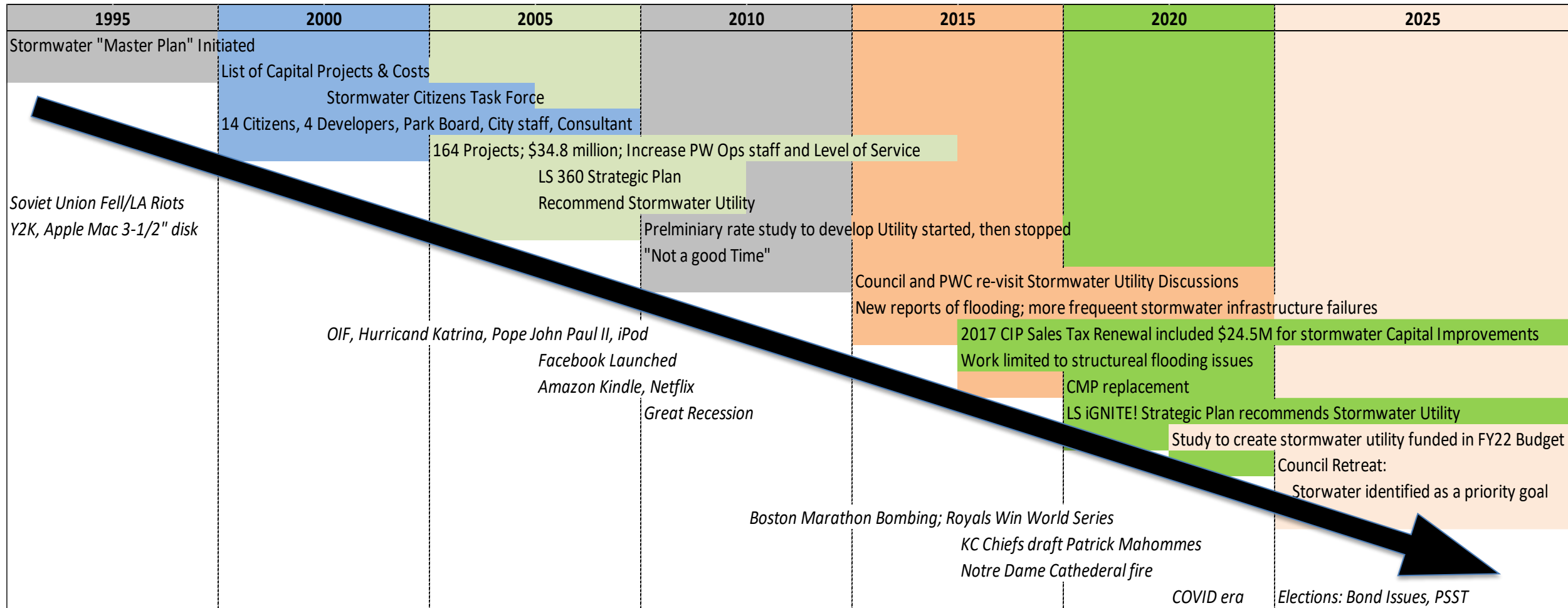
Deputy Director of Public Works / City Engineer

Yours Truly

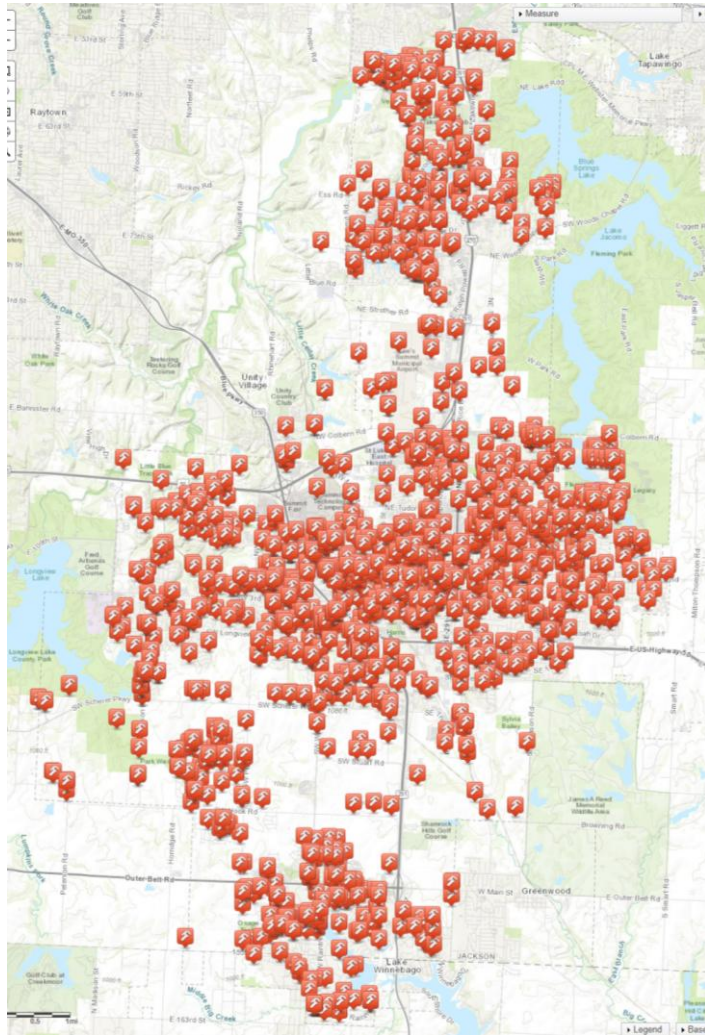
Agenda

- History leading to this moment
- Current issues with stormwater management services
- Recommended Level of Service
- Resources to be committed to stormwater management
- Sales Tax revenue recommendation
- Proposed motion for Council

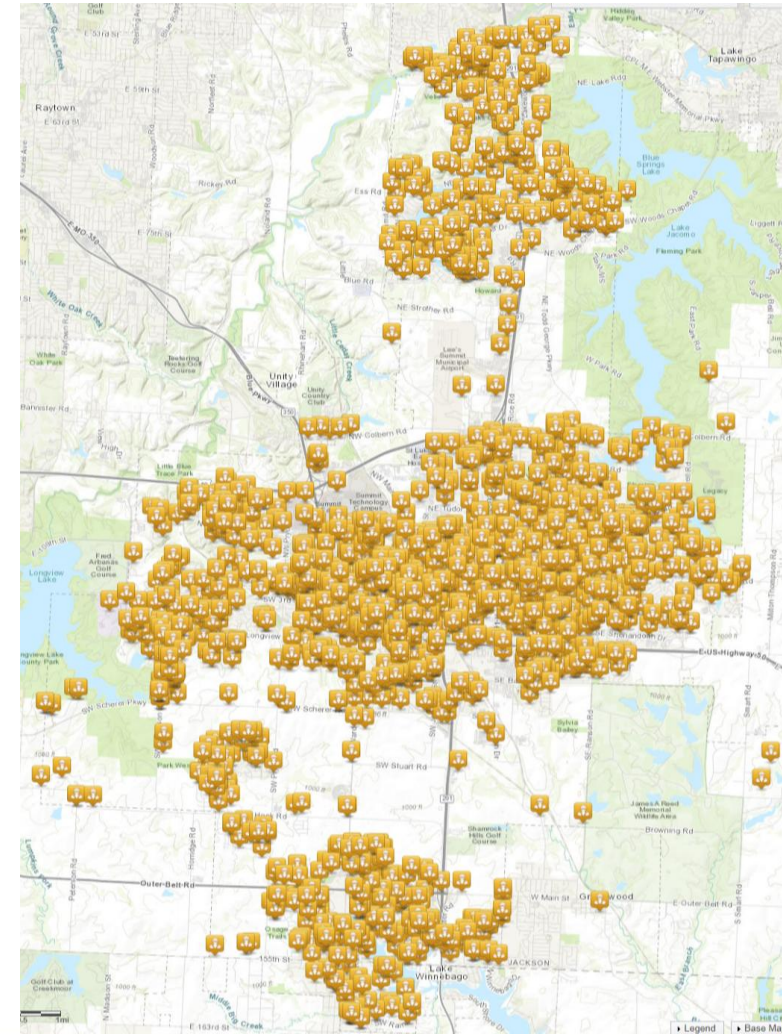
Stormwater Funding Timeline



1,856 Work Orders in 10 years



3,067 Service Requests in 10 years



Flooding

Current City Level of Service:

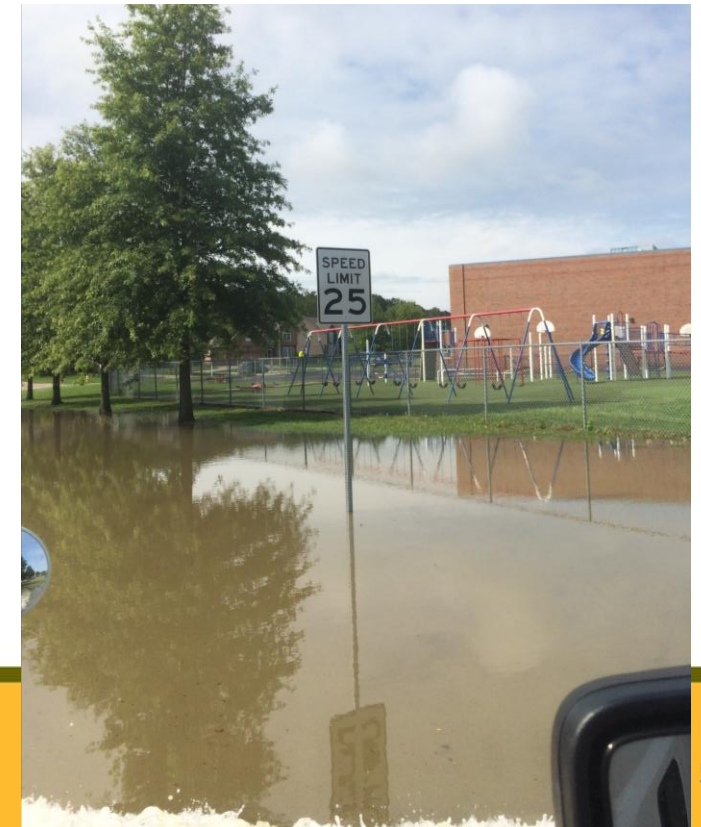
Enrolled in FEMA's National Flood Insurance Program (NFIP) - Enables property owners to purchase flood insurance

Close the road, and wait

Clean mud and debris within right of way

Inspect structures for Substantial Damage

Minimal Maintenance & Ensure Permit Compliance



Stormwater Erosion and Sinkholes

- 2019: \$635,675 Budget Amendment for unfunded Sinkhole Repairs
- Contracted work for repair 12 locations, ranging from \$9,000 to \$100,000 per location
- Average price of \$53,000 per location



Corrugated Metal Pipe

- Installed 2006 (17-year life)
- Continuous Galvanic oxidation
- Proactive maintenance: removing soil would have inhibited the oxidation process



Streams and Water Quality



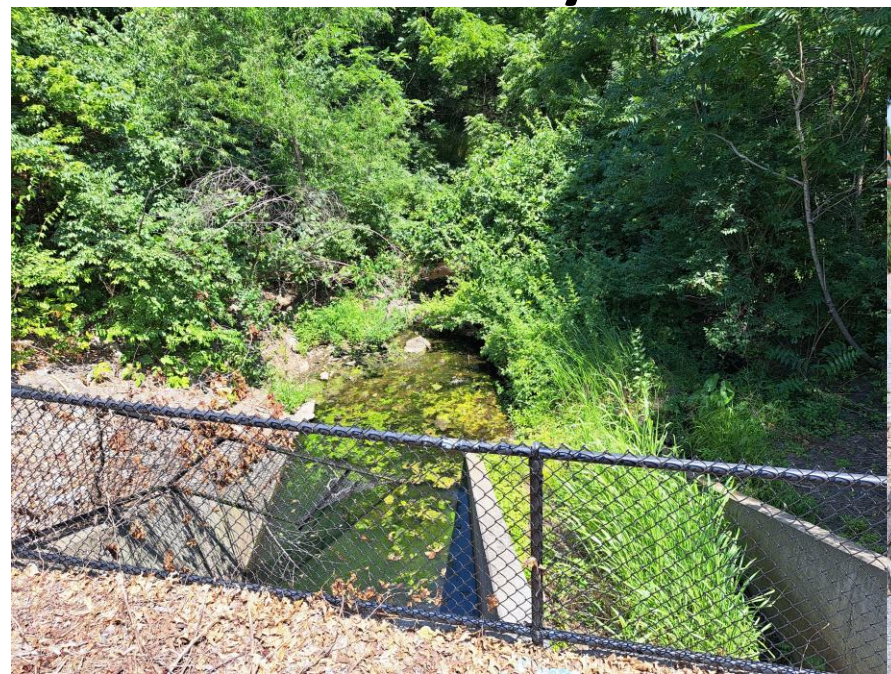
Exposed Sewer Main

*Toe (bottom) of slope erode by
stormwater flows along outside
bend of a stream*



*Mud-flow into stream;
Siltation of lakes
Fish kills
Trash & Debris*

A Day in the Life of the “Band Aid” Crew



A Day in the Life of the “Band Aid” Crew



Lee's Summit Infrastructure Programs

Type of Resource	Current Preventive Maintenance Programs	Impact if not done	Evaluation Program
Pavement	Pothole patching, street patching, Overlay program, Surface Seal, Crack Seal, Pavement Marking, Curb Program	- Street reconstruction at 10 times the cost of maintenance - Increased vehicle maintenance costs	Pavement Condition Index every 4 years (25% annually)
Water Mains	Water Main replacement program Cathodic Protection	- Emergency repairs - No water - Boil orders	SCADA monitoring Work Order tracking
Sanitary Sewer	CIPP re-lining Jetting and cleaning sewer mains	- Sewer backups - Infiltration and Inflow - Illegal connections	TV camera inspections, Video inspections, smoke testing
Stormwater	None	- Sinkholes; Flooding - Infrastructure Reconstruction - Damaged structures, property, infrastructure, natural streams	None

Activities that Create Levels of Service

Stormwater Program Cost Centers	Key Activities
System Maintenance	Routine preventative inspections, cleaning & repairs and reactive maintenance/repairs of stormwater conveyance inlets, catch basins, sewers, channels, ditches, detention basins, and other structures
Water Quality/Compliance	Public Outreach & Participation, Stormwater Plan Review, Construction inspections, Post-Construction BMP inspections, IDDE Program, Good Housekeeping, Compliance Reporting
Engineering & Planning	FPM Program, Operations, CIP and Development support
Stormwater Program Administration	Public Works management & administration, indirect costs

Desired Level of Service

REQUIRED

- NPDES Permit, 6 MCM's
- Flood plain management
- New construction
“do no harm”
- Public safety
- Make repairs to the system

DESIRED

Address Existing Issues & A Better Future

- Level of capital improvements
- Less time to make repairs
- Improved materials
- Reduced costs (programmatic and preventative)
- Increase public education
- Limited transfer of private streams
- Proactive emergency response
- Improve design criteria
- Beautification elements
- Amenities (trails/parks/practice fields)
- Inspections, asset management and planning

Proposed LOS: Flood Risk

- Stormwater Private Assistance
 - Staff consultations. Staff will perform site visits and offer suggestions upon service request.
 - Mail annual notice to HOAs for basin inspections
 - Staff Inspections/Reporting of private basins (e.g. HOA)
 - Flood Mapping & Improved Permitting Assistance
 - Flood Hazard & Flood Insurance Program Letters
 - Repetitive flooding buyout program
 - Structural elevation program
- Stormwater master planning
 - Regional, watershed-based detention
 - Planned water quality features
 - Rain to Rec projects (practice fields, trails, etc.)
 - Potentially Limited Private System Acquisitions/Work
 - Capital Improvements

Proposed Resources

- Staff Engineers, ~~Environmental Specialist~~, Neighborhood Services Officers, etc. As Needed
- Environmental Specialist
- Stormwater Public Educator
- Potentially Limited Private System Acquisitions/Work

Proposed LOS: Maintenance

- Stormwater Maintenance
 - Debris Removal/Culvert Cleaning (Reactive)
 - Repaired Failed Pipes and Structures
 - Projects funded by General Fund to address immediate life-safety threats from failed infrastructure (e.g. pipe collapse, sink holes, etc.)
 - Significantly Improved Response Time
 - Address known and emerging needs
- Stormwater Preventative
 - Street Sweeping + Future Enhanced Frequency
 - Permit Compliance (5- Year Recertification)
 - Improved Erosion Controls (CIP, ROW, Development)
 - Proactive Inspections and Pipe Rehabilitation
 - Maintenance Program (e.g. similar to pavement)
 - Basins, BMPs (vacuum cleaning, landscaping, etc.), Litter

Proposed Resources

- PW Maintenance Operators, Contract Specialist shared with other Work Order needs. As Needed
- Dump Trucks, Mini Excavator Rental, Excavator, Skid Steer (with attachments) shared with other Work Order needs. As Needed
- Contracted On-Call Construction for Repairs/Replacements
- Preventative Stormwater CIP Program
- Additional (1) Dump Truck, Mini Excavator, Backhoe/Excavator, Trailer, Skid Steer, Jet Truck, CCTV Truck, and Various Equipment Attachments
- Three Crews:
 - 5 Existing Operators + 10 New Operators
 - Operations Supervisor
- Street Sweeper (1) + Future Street Sweeper

Proposed LOS: Regulatory & Water Quality

- Stormwater Education

- Signed Creek/River Crossings
- Required of MS4 Permit Compliance
 - City Webpage
 - Regional Stormwater Education (by MARC)
- Stream Team/Green Team & Enhanced Activities
- Pollution Management Programming
- HOA Consultations
- School Programming
- Private Stormwater System Consultations
- Flood Mapping Information
- Flood Insurance Program Communications
- General Stormwater and Erosion Control Information
 - Flood Hazard Letters (Reverse Declining Levels of Services)

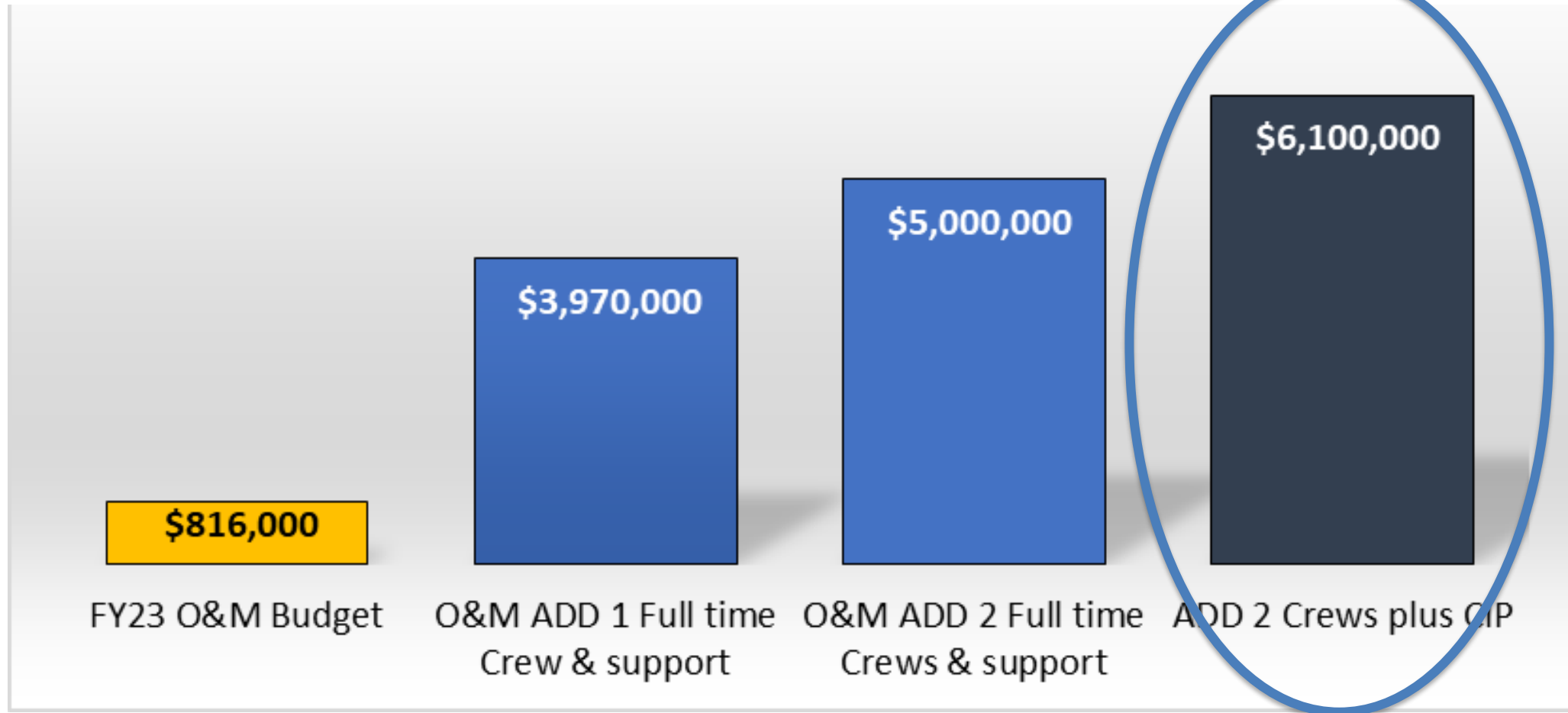
Proposed Resources

- MARC (Subscription Service)
- Environmental Specialist (~~10% of FTE time~~)
Part-Time Public Education Support
Full-Time Regulatory Compliance, Permitting,
Insurance
- Stormwater Public Educator
Full-Time Public Education
- Customer Service Staff
- School Partnerships
- Public Education Materials

New Resources Added to Stormwater Efforts

- Add two operations crews, equipment, public education, engineer, manager, and support staff
- Adds funding for small capital improvements and maintenance
 - Contracted work for extensive system repairs/replacements
 - Facilitate stormwater programs
 - Master planning
- \$6.1 million per year in 2025

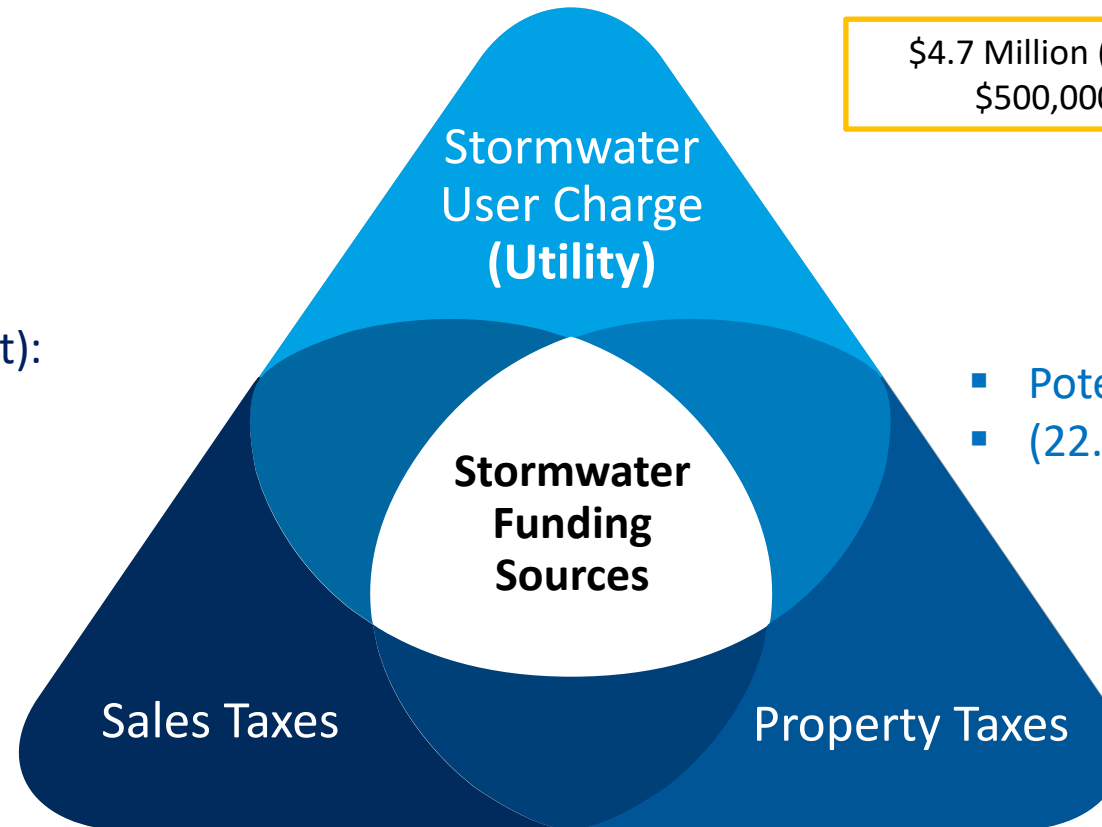
Annual Stormwater Funding Gap



O&M = Operations and Maintenance

Recap: Potential Stormwater Funding Sources

- Potential new dedicated Sales Taxes:
 - General Sales Tax (1/4 cent):
\$6.2 Million



- Potential new dedicated stormwater user-charge

\$4.7 Million (2025) to \$6.8 Million (2029)
\$500,000 per year overhead cost

- Potential new dedicated stormwater tax
- (22.0 cents per \$100 of assessed value)

\$6.5 Million

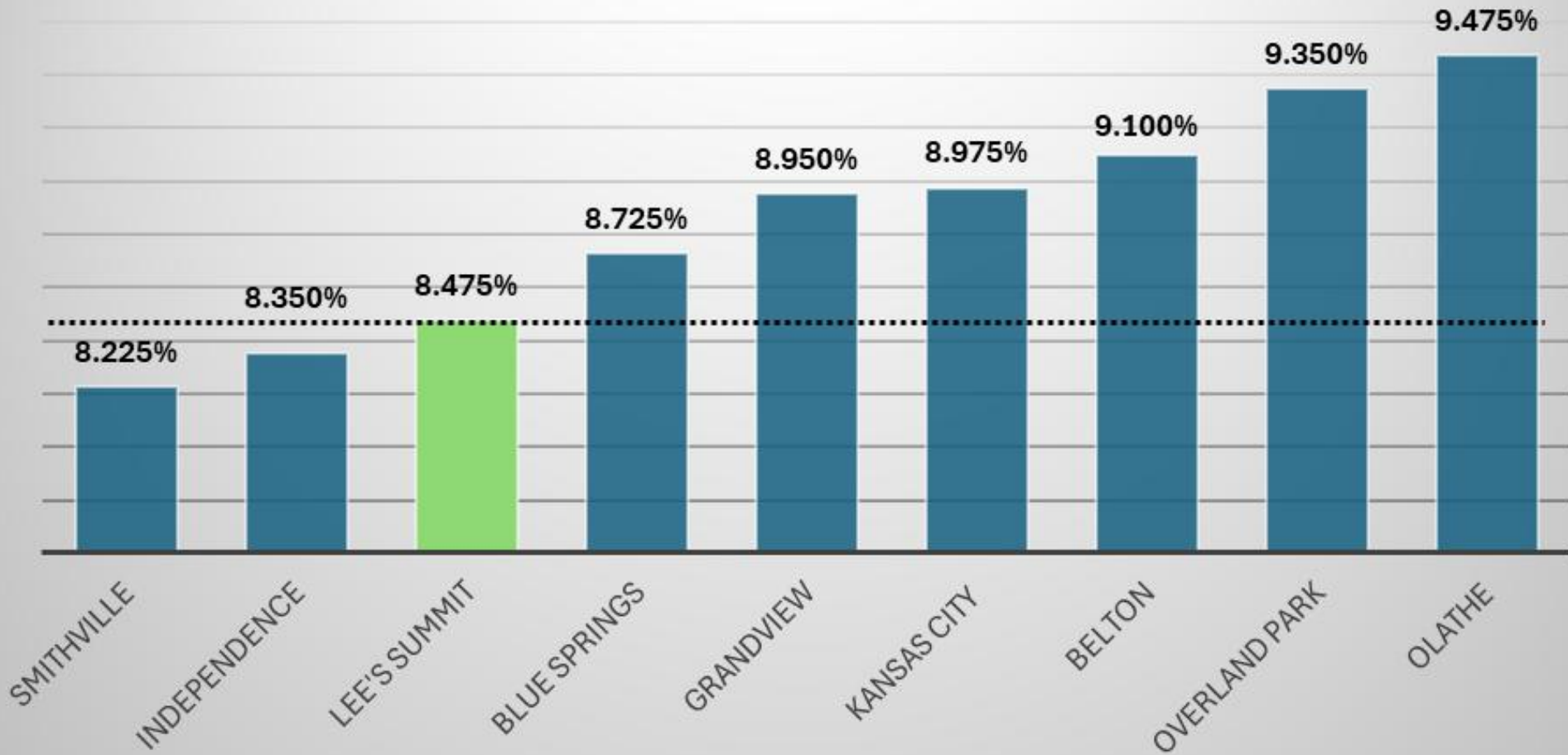
Sales Tax Funding Features

- Simplified Revenue Collections
 - No Billing System
 - No Collections System
 - Minimal Administrative Cost
- No Special Oversight Board
- Fewer Policies, no exemptions, and easy to understand
- Earlier Implementation; revenues collection starts about 3 months after voter approval
- Cost about \$105 to \$125 per year per household (based on Median household income)
- 15% to 40% of total revenues collected from business purchases or non-residents
- 1/4-cent sales tax will generate enough annual revenue to support proposed services

At Least 15 Missouri Cities Approved a Stormwater Sales Tax

City	Sales tax rate	Purpose
Aurora	0.500%	Parks & Stormwater
Creve Coeur	0.500%	Parks & Stormwater
Duquesne	0.125%	Parks & Stormwater
Ellisville	0.500%	Parks & Stormwater
Independence	0.500%	Parks & Stormwater
Louisiana	0.500%	Parks & Stormwater
Manchester	0.500%	Parks & Stormwater
O'Fallon	0.500%	Stormwater
Ozark	0.500%	Parks & Stormwater
Smithville	0.500%	Parks & Stormwater
Rolla	0.500%	Parks & Stormwater
Frontenac	0.500%	Parks & Stormwater
Joplin	0.500%	Parks & Stormwater
Webster Groves	0.500%	Parks & Stormwater
Raymore	0.500%	Parks & Stormwater

TOTAL Sales Tax*



Committee Conclusions: Level of Service

- The Public Works Committee recognizes a need to improve the City's stormwater management services to address flood risk mitigation, stormwater quality, regulatory permit compliance, and proactively maintaining the City's stormwater infrastructure.
- Increased levels of service are needed to improve efficiencies, reduce long-term costs, reduce response times to make repairs, proactively maintain existing infrastructure, enhance public safety through flood risk master planning, preserve the water quality of local lakes and streams, provide public stormwater education, and increase support to neighborhoods and local residents.

Committee Conclusions: Resources

- Expanding the City's current stormwater resources by adding two maintenance crews, equipment, funding for small capital projects and programs, technical staff, management staff, and other support staff will support the desired levels of service.
- The estimated annual revenue of \$6.1 million per year needed to support the proposed levels of service can be generated by a permanent 1/4-cent sales tax.
- A stormwater sales tax is a common method used in Missouri, and a 1/4-cent increase still keeps the City of Lee's Summit total sales tax rate below most communities in the KC metro region.

Public Works Committee Recommendations

- Conduct a public vote for a 1/4-cent stormwater sales tax
- Recommend election in 2026, in April, August, or November
- Direct City staff to prepare a ballot measure ordinance

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