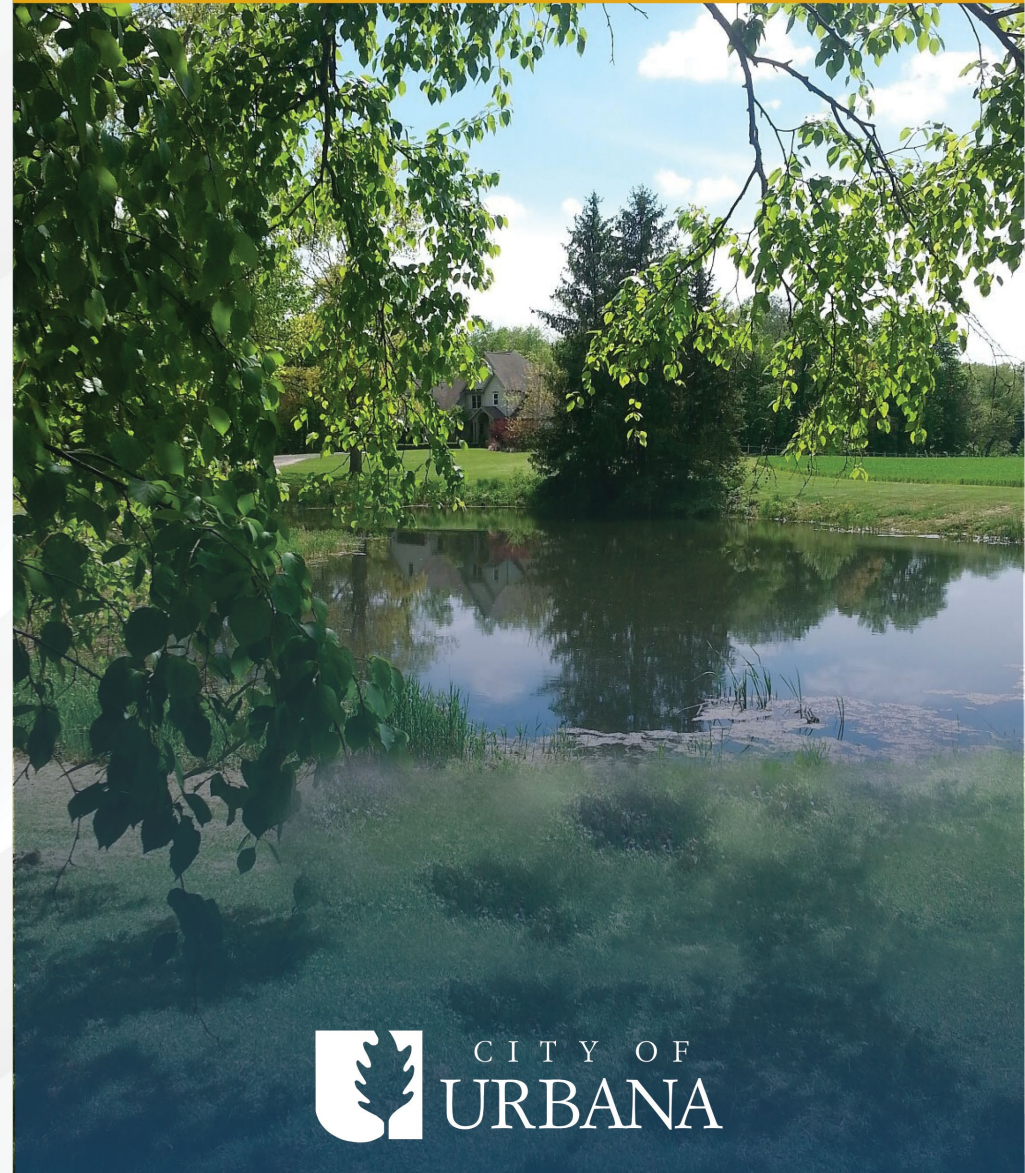


Presentation by Urbana Public Works

Committee of the Whole Meeting
August 21, 2023



Presentation Agenda

- ✓ Proposed Ordinance: Stormwater Utility Fee Adjustment
- ✓ Existing System and Needs
- ✓ Asset Management Programs
- ✓ Program Costs
- ✓ Community Feedback & Staff Recommendation

Proposed Ordinance

Section 14-7, Schedule of Fees:

(P) Stormwater Utility

Equivalent Residential Unit (ERU): ~~\$5.82 per month~~ \$8.00 per month beginning January 1, 2024 and continuing thereafter unless and until amended by action of the City Council.

Section 24-172(d)(2):

Single-family residential and duplex parcels shall be billed one (1.0) ERU each until the City of Urbana establishes the measured number of ERUs on each parcel based on impervious area. Once the City establishes the measurements of impervious areas on each single-family residential and duplex property, these parcels may be billed as all other parcels are billed as described in Section 24-172(d)(3).



Background & Needs

Stormwater Asset Management Plan



Document the storm drainage system needs



Provide a strategy to manage the system of pipes, structures, basins and streams



Quantify the future costs to manage the system



Current Stormwater Program Overview

Municipal Separate Storm Sewer System (MS4) Program

- **IEPA Permit Compliance**

- Annual Reporting
- Public Education & Outreach
- Erosion Control

- **Operation and Maintenance**

- Cleaning & Televising Sewers
- Emergency Repairs
- Street Sweeping

- **Capital Construction**

- Rehabilitation of Sewers (i.e., Lining Pipes)
- Projects (e.g., Boneyard Creek Bank Stabilization, Sewer Abandonment Studies)

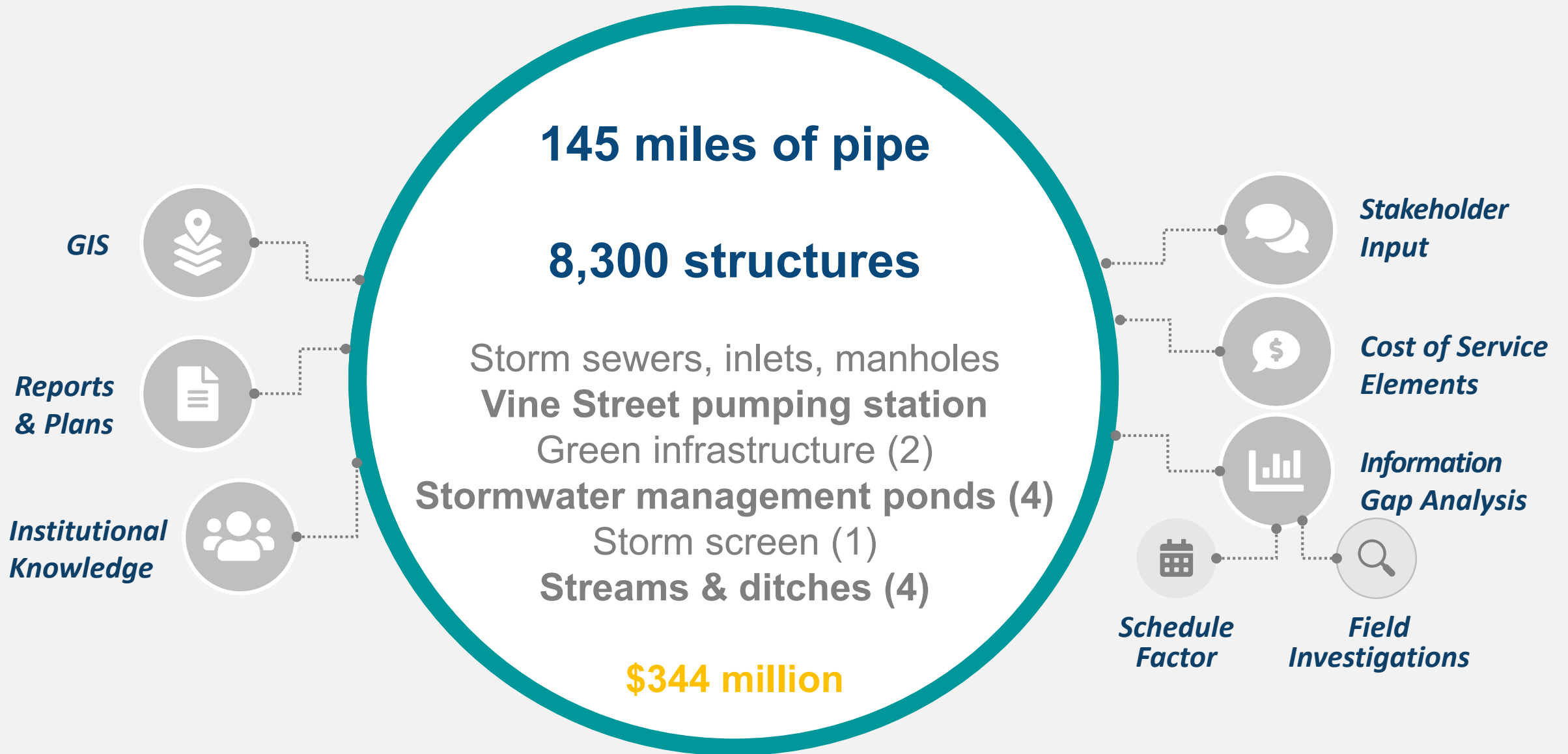




Data Gathering

- What do we have?
- What is it worth?
- What condition is it in?

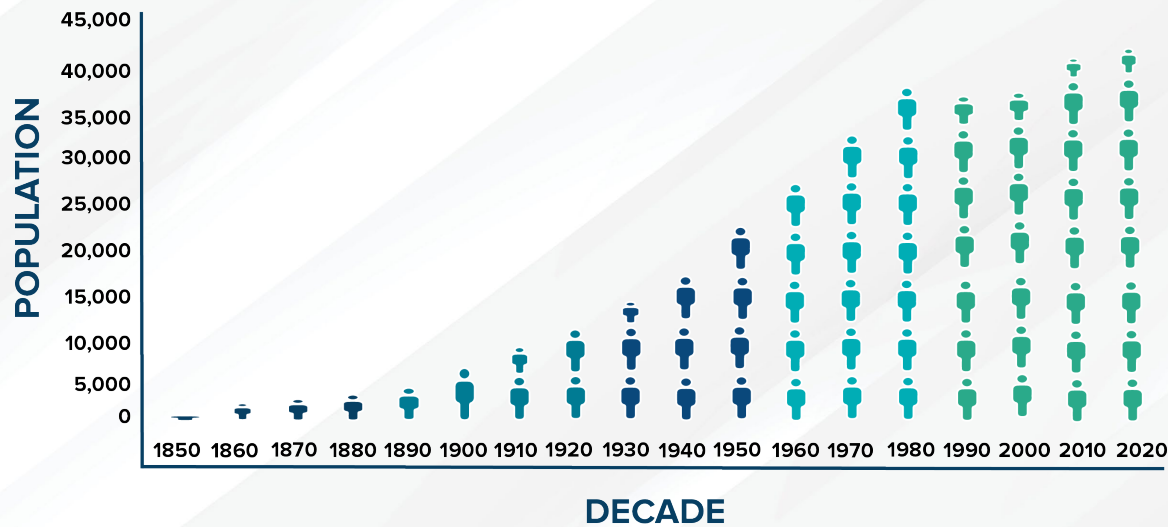
What do we have? What's it worth?



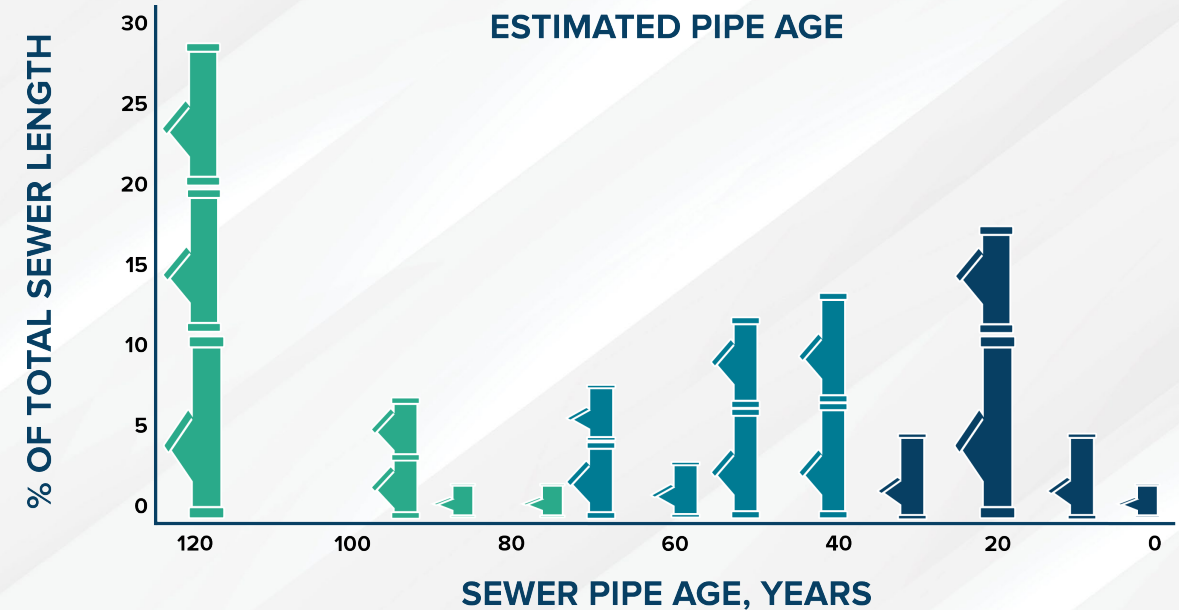
What condition are stormwater assets in?

<30% of sewers inspected in last 10 years

POPULATION GROWTH PER DECADE



ESTIMATED PIPE AGE



Urbana population growth from U.S. Census Bureau per decade



Urbana Storm Sewer System Age

Stormwater Management System: *What is needed?*

NEED

> 400,000 LF or 75 miles (≈ 45%) of sewer system yet to be inspected and condition rated

WHY

Prioritization of the system investment depends on condition assessment

NEED

Complete sewer system elevation data; only the trunk sewer system modeled

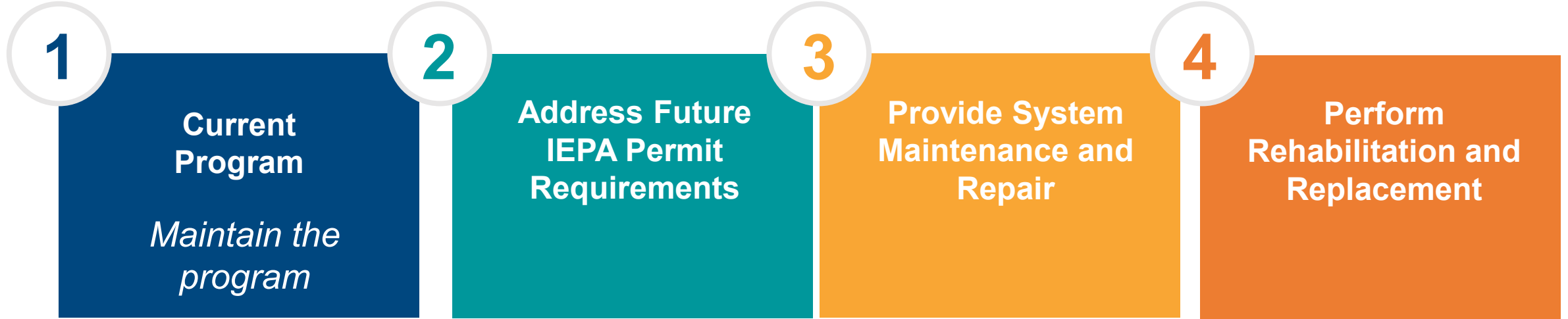
WHY

Pipe sizes and elevations required for capacity assessment and system resiliency

Program Changes

How can we address the
system needs?

Programs



- **IEPA Permit Compliance**
 - Annual Reporting
 - Public Education & Outreach
 - Erosion Control
- **Operation and Maintenance**
 - Cleaning & Televising Sewers (>15 year cycle for entire system)
 - Emergency Repairs
 - Street Sweeping
- **Capital Construction**
 - Rehabilitation of Sewers (i.e., Lining Pipes)
 - Projects (e.g., Boneyard Creek Bank Stabilization, Sewer Abandonment Studies)

Programs

1

Current Program

2

Address Future IEPA Permit Requirements

Address forthcoming regulations

3

Provide System Maintenance and Repair

4

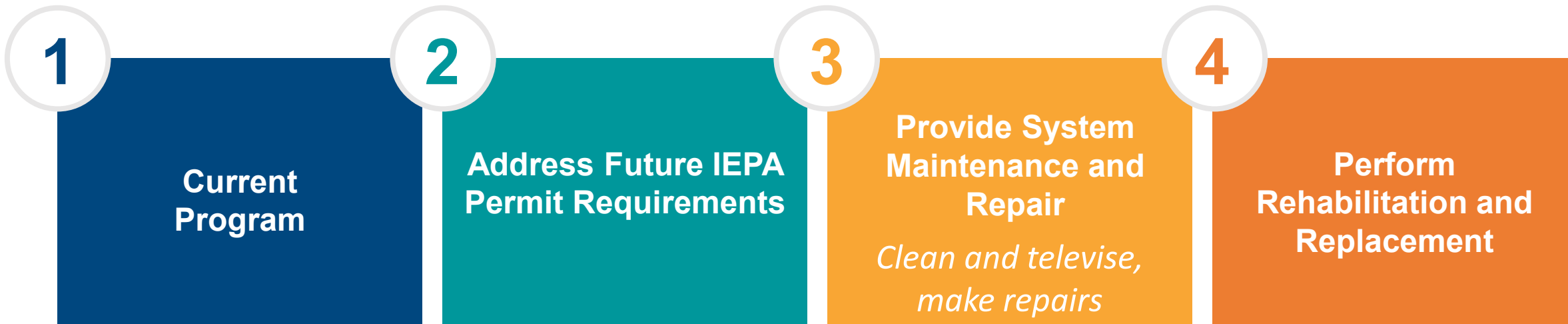
Perform Rehabilitation and Replacement



- **Post Construction Runoff Control**
 - Annual Evaluation of Post Construction BMPs
- **Pollution Prevention & Good Housekeeping**
 - Develop Pollution Prevention Plan for City Facilities
 - Increase inspections at construction sites & City facilities
 - Increased reporting of stormwater activities and programs
- **Construction Site Runoff Controls**
 - Improve tracking of construction monitoring and use of BMPs
- **Public Education/Involvement**
 - Improve public education & outreach and assess changes

Urbana NPDES Reports can be found here:
<https://urbanaininois.us/stormwater>

Programs



- **Increased Frequency of Cleaning & Televising Pipes**
 - Clean and inspect remainder of pipe system (75 miles over 5 years)
 - 10 year cycle for entire system
- **Repairs to Sewer Pipes**
 - Continue reactive repairs to prevent catastrophic failures
- **Data Collection**
 - Get conditions & characteristics of infrastructure
 - To prioritize future investments
 - To model system for capacity issues



Main Inspections and Scoring										
Mainline ID: 2647		City: Urbana		Street: Cedar St and W High St		Project name: Prep				
Upstream MH No: 68196B		Downstream MH No: 68193		Start date/time: 6/2/2023 12:58 PM		End date/time: 6/2/2023 1:27 PM				
Shape: C		Material: VCP		Height: 8 in.		Width:				
Total length: 380.800 ft.		Length surveyed: 145.600 ft.		Purpose:		Work order no.:				
Surveyed by: Marlon C		Weather: 1		Status: Completed						
Additional info: US: 8" Clay DS: 7.75" TrussPipe										
Scores Calculated at: 6/2/2023 1:27:23 PM										
Grade	Segment Grade	Structural:			O&M:			Overall:		
		Pipe Rating	Quick Rating	Pipe Rating Index	Pipe Rating	Quick Rating	Pipe Rating Index	Pipe Rating	Pipe Rating Index	
1	0				0					
2	0				0					
3	0	9	5141	4.5	0	0000	0.0	9	4.5	
4	4				0					
5	5				0					
Observations										
Distance	Dir.	From/To	Code	Modifier						Rating
0.0 ft.	D	/	AMH							
0.0 ft.	D	/	MWL							
70.2 ft.	D	2 / 3	H							4
145.6 ft.	D	2 / 7	HVV							5
145.6 ft.	D	/	MSA							

Programs

1

Current Program

2

Address Future IEPA Permit Requirements

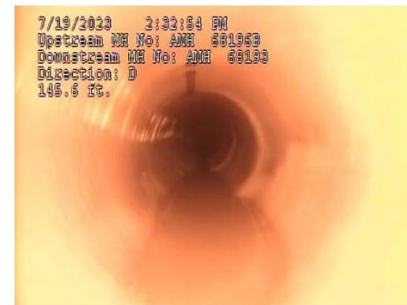
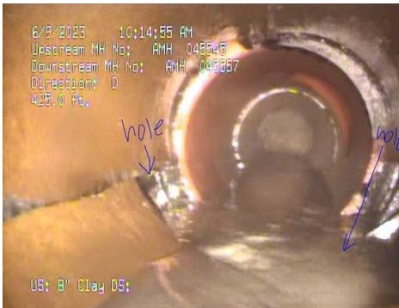
3

Provide System Maintenance and Repair

4

Perform Rehabilitation and Replacement

Assumes lifecycle intervals of 50/125 yrs

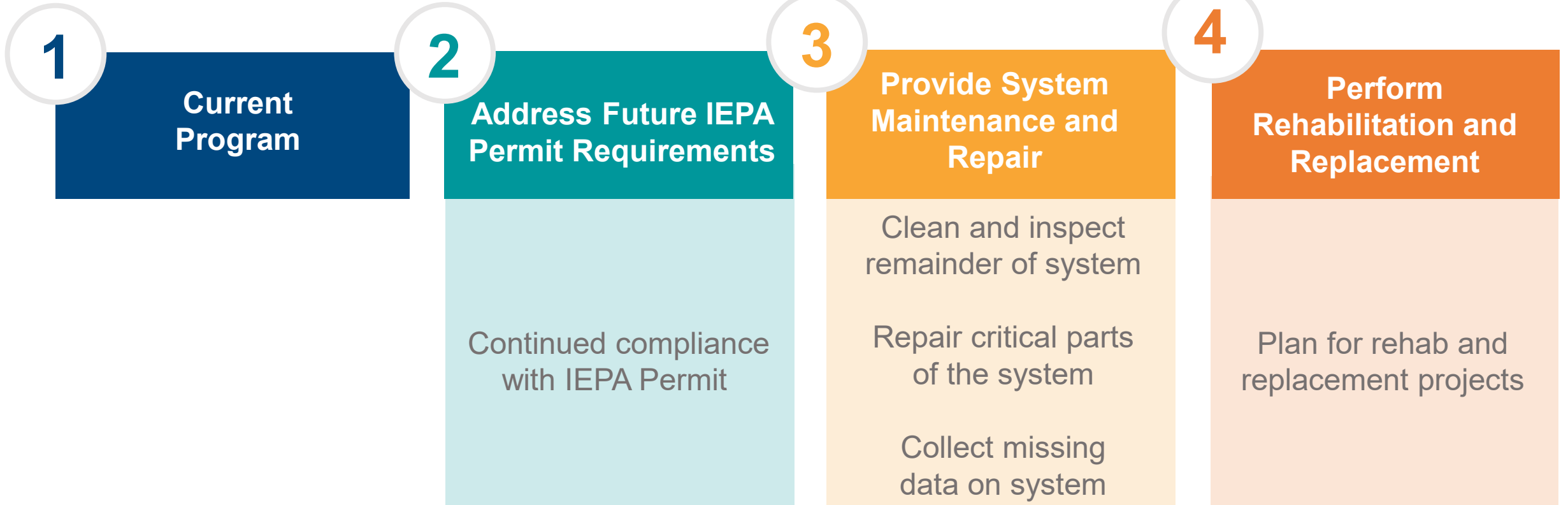


• Increased Capital Construction Projects



- Rehabilitation (i.e., pipe lining) on 50 year cycle
- Replacement (i.e., open cut construction) of pipes and structures based on 125 year cycle

Recommended Program for Next 5 Years: Fully Fund 1, 2, & 3





Program Costs

How much will it cost to make the recommended changes?



Current Funding

Stormwater Utility Fee

Started in 2013*: \$4.94 / ERU /month

Current Rate: \$5.82 / ERU /month

- 1 ERU per single family home parcel
- ERUs for non-residential parcels determined by area of impervious surfaces (1 ERU = 3,100 ft² impervious area)

*Utility formed to fund compliance efforts with IEPA permit

**Current Revenue:
\$1.7 million**

**Current Program
Costs: \$1.9 million**

Why Increase Urbana's SWU Fee?

2011 Feasibility study recommended a moderately aggressive plan:

Transition system cleaning from every 15 to 7-8 years

Budgeting \$250,000 / year for 10 years for cleaning and televising

Budgeting ≈\$300,000 / year for capital improvements (financed)

System has doubled since last study (1980):
73 miles to
129 miles (2011) →
145 miles (2019)

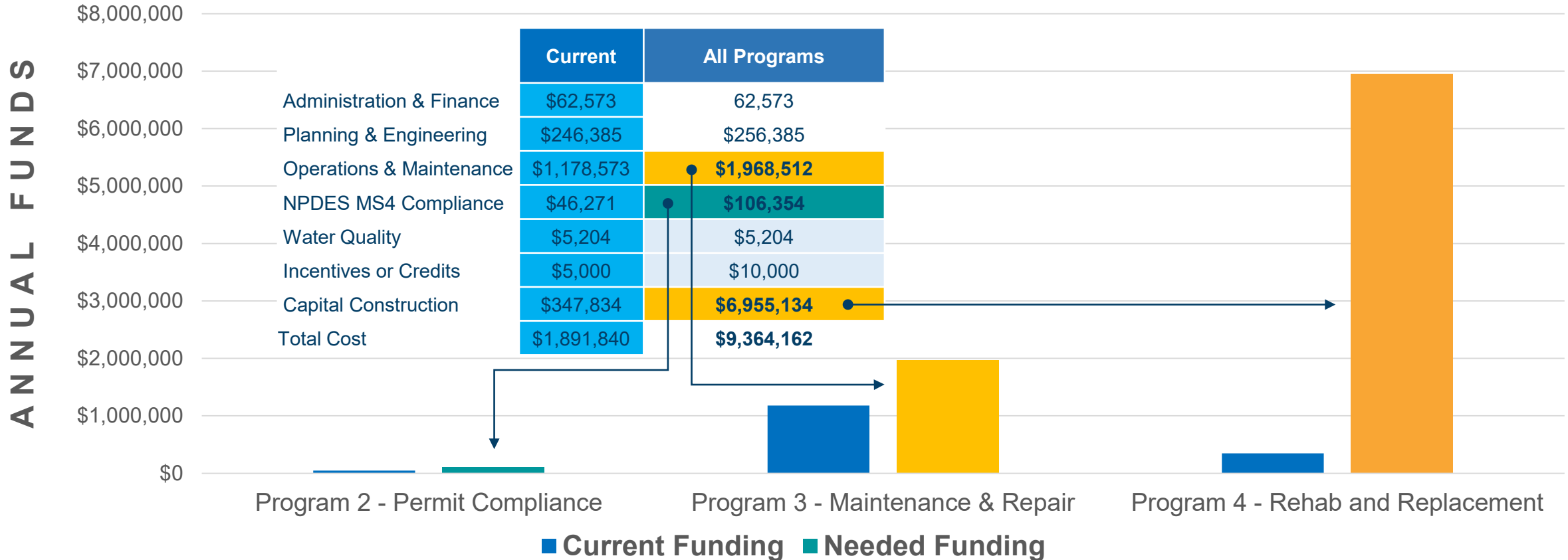
SWU fee study initially estimated 33,800 ERUs, but current ERU total is <25,000

Past fee increases have not kept up with inflation
(and were put on hold during COVID)

Programmatic changes needed

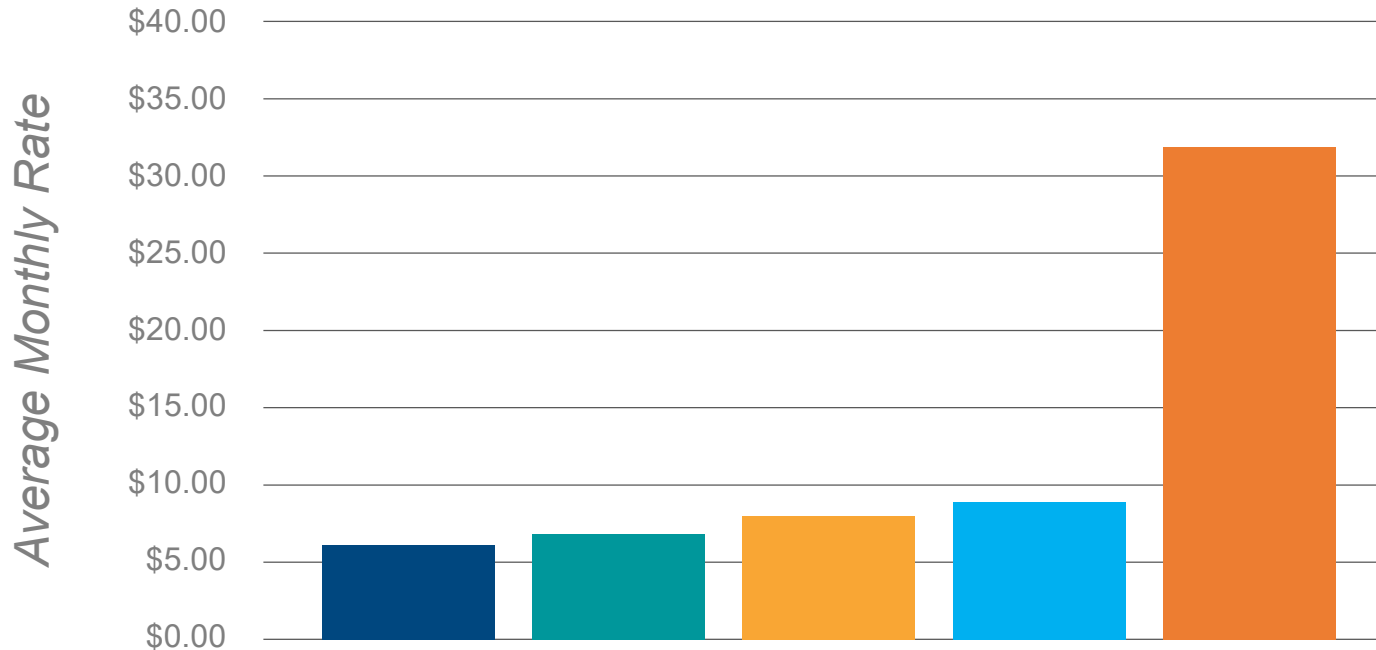
FUNDING Current vs. Needed

FUNDING FOR STORMWATER ASSET MANAGEMENT



Stormwater Utility Fee Analysis (Monthly Rate)

Urbana SWAMP Rate Analysis by Raftelis



5-Year Average Rate

Current Program	\$6.33
Future Permit Requirements	\$6.57
System Maintenance & Repair	\$8.76
Proposed Program*	\$9.29
Rehabilitation & Replacement	\$32.45

*Proposed Program by City Staff

Proposed Fee

One rate /ERU for all property types

WHY

Elevated non-residential rate (6%) gives only a 4% decrease (\$0.39) from flat rate

Non-residential properties are already required to have stormwater management on their properties

Charge based on impervious area per parcel for everyone (residential, commercial, industrial, institutional, etc.)

WHY

More equitable (than flat fee for all residential properties)
Most accurate way to pay for how much stormwater is produced
Built in incentive to reduce impervious area

Increase rate gradually:

YEAR 1 (38%) → \$8.00

YEAR 2 (10%) → \$8.80

YEAR 3 (7%) → \$9.41

YEAR 4 (5%) → \$9.89

YEAR 5 (5%) → \$10.36

Re-evaluate at YEAR 5

Proposed Rate / ERU / Month

	Year 1	Year 2	Year 3	Year 4	Year 5
System Maintenance & Repair	\$8.00	\$8.80	\$9.41	\$9.89	\$10.36

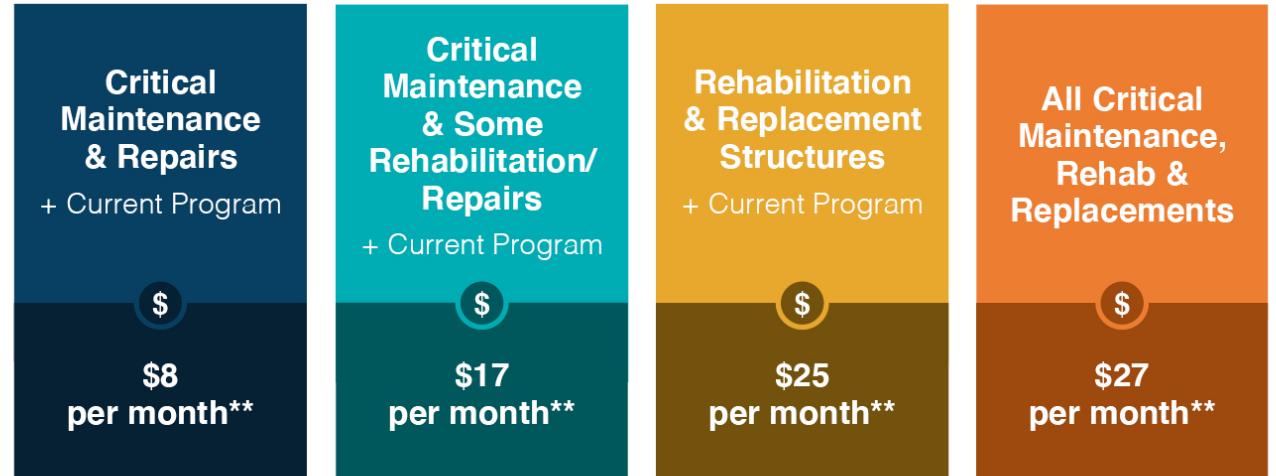
As posted on Urbana website & on the postcards delivered to fee payers:

\$8.00 - \$10.36 rate

Will fully fund Program 3
(System Maintenance & Repair)

- with minor contingency for Capital Construction projects identified

Stormwater Programs & Preliminary Costs Under Consideration



Current Program | \$5.82 per month*

* per ERU for Property Owners

What work would be completed with increased revenue?



Maintaining IEPA permit compliance



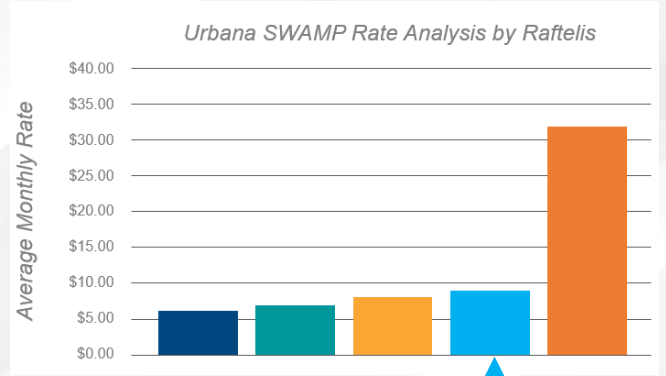
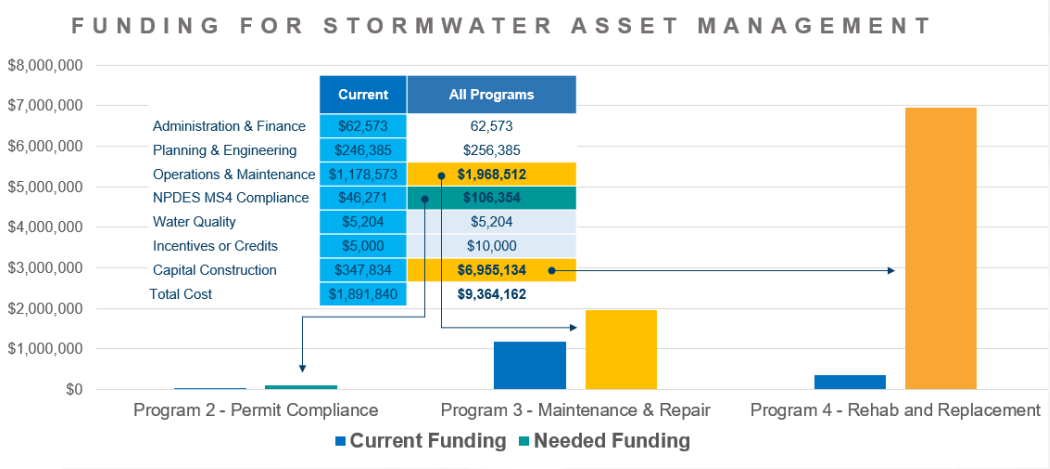
Perform necessary repairs



Data collection on the existing system:
 Structure locations
 Structure elevations and pipe sizes
 ≈ 75 miles of pipe and structures still to be cleaned and inspected



Data necessary to better define capital funding gap & prioritize future investment



\$8.00 - \$10.36 rate

Other Funding Sources



American Rescue Plan Act (ARPA):

\$12.97M allocated to City of Urbana

\$1M Green Infrastructure project proposed, but not selected for funding



COVID Relief Funds:

O&M Costs were not eligible



Infrastructure & Investment and Jobs Act (IIJA):

≈\$48B for Water (drinking water and clean water (CW))

≈\$11.7B for CW-SRF (wastewater and stormwater)

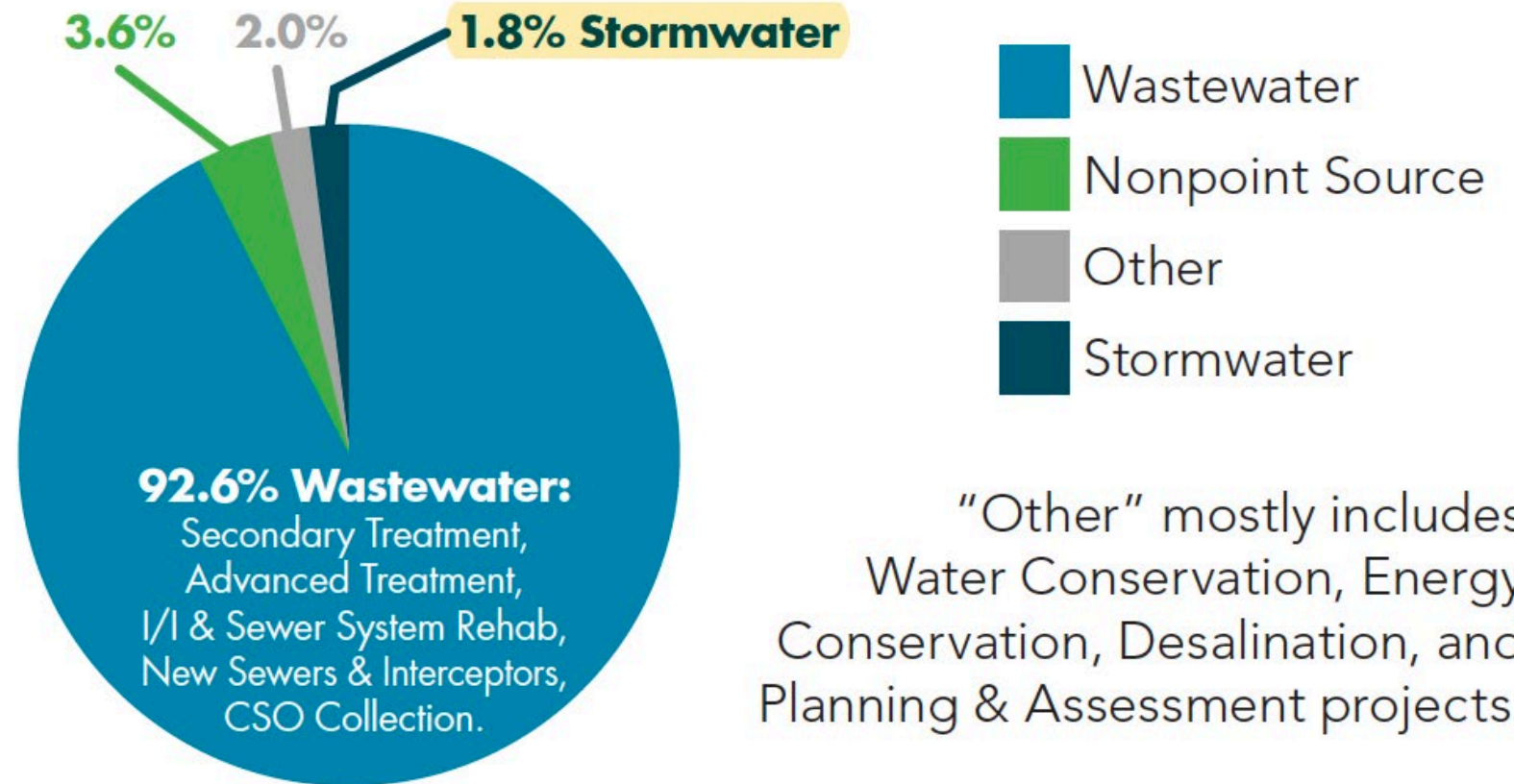
≈\$128M for IEPA-CW-SRF/year (very little spent on stormwater)

Funding Options

Can we apply for grants or loans?

Very limited options for grants and loans, especially for stormwater O&M

CWSRF Funding 1988-2020 – Project Types



Source: *Recommendations to Improve the Stormwater Program in the United States* by WEF Stormwater Institute and National Municipal Stormwater Alliance

Stakeholder Engagement Activities – May - August

Public meeting held virtually on May 11

Online survey launched on May 11 to seek public feedback

Council meeting update on June 12

Postcard sent to residents/businesses starting on July 8

Factsheet developed and posted on website

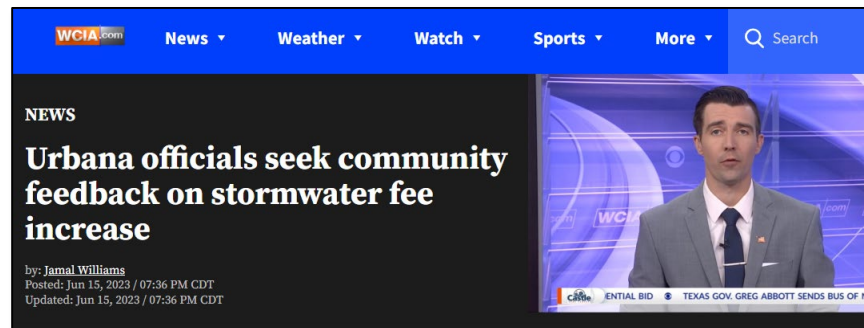
Information booth at local farmer's market in June

Media interviews in mid-June (WCIA, News Gazette, Fox)

Business outreach in June via Champaign County Chamber of Commerce

Social media outreach May - August

Technical Advisory Committee (TAC) meetings on March 16 and August 3



Public Feedback Summary

7,000+ postcards received by fee payers

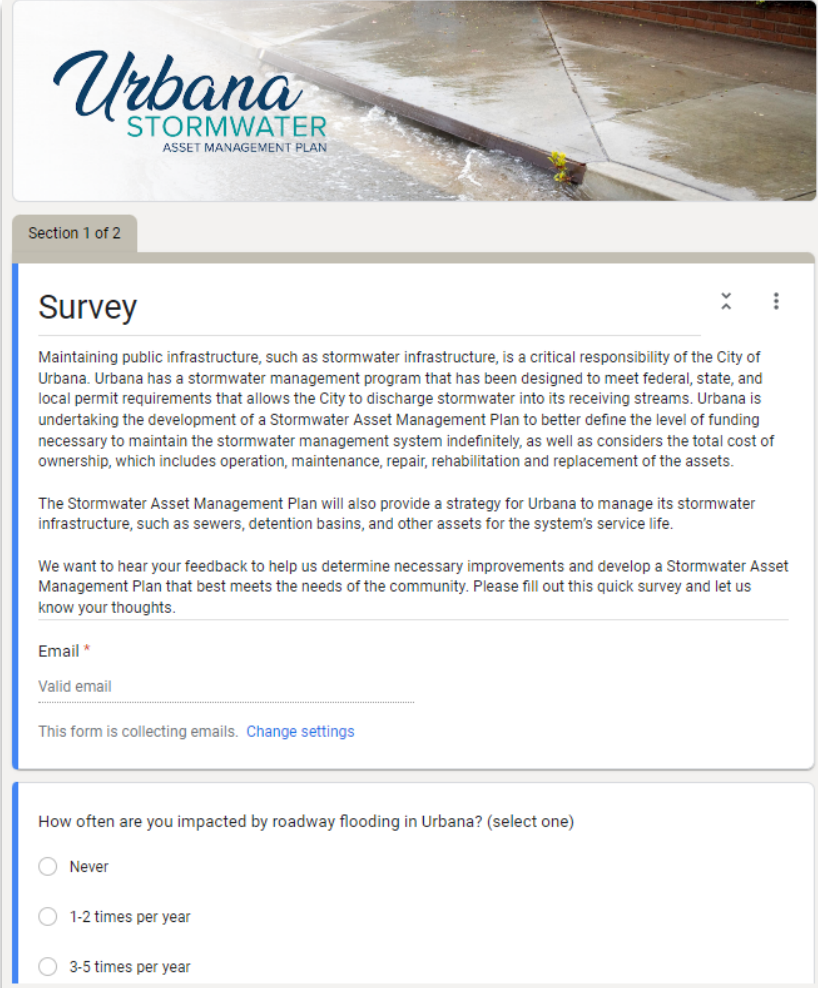
513 survey responses *(7% response rate)*

40 direct communications *(calls, emails, etc.)*

78 oppose fee increase *(stated in comment)*

84 tolerant or supportive of fee increase *(stated in comment)*

Remainder: either did not provide a comment, provided suggestions, or only general feedback provided



The screenshot shows a survey form for the City of Urbana's Stormwater Asset Management Plan. The header features the Urbana logo and the text 'Urbana STORMWATER ASSET MANAGEMENT PLAN' over a background image of a stormwater drainage system. The survey is titled 'Survey' and is identified as 'Section 1 of 2'. The main text explains that maintaining public infrastructure is a critical responsibility and that the City is developing a Stormwater Asset Management Plan to define funding levels and ownership responsibilities. It asks for feedback to help determine necessary improvements. There is an email input field with a validation message 'Valid email' and a note 'This form is collecting emails. Change settings'. The final question is 'How often are you impacted by roadway flooding in Urbana? (select one)' with three radio button options: 'Never', '1-2 times per year', and '3-5 times per year'.

Public Feedback Summary

Prioritization from the survey was as follows:

1. **Regular inspections** to prevent failures, sewer surcharging, and flooding.
2. **Repairs as needed** to fix stormwater pipe failures.
3. **Ensuring stormwater pipes are large enough** to handle larger, more extreme storm events to minimize sewer surcharging and flooding.
4. **Compliance** with Illinois EPA permit and regulations.
5. **Revising the Credit & Incentive Manual** and/or City code to incentivize and/or require more green infrastructure implementation.
6. Projects that **naturalize Boneyard Creek** to improve habitat and water quality and reconnect people to the stream.

2

Address Future IEPA
Permit Requirements

3

Provide System
Maintenance and
Repair

4

Perform
Rehabilitation and
Replacement

Public Feedback Themes

Taxes in Urbana are already too high
Why don't our **property taxes** already cover this?
Why do this now when **inflation is so high?**

Need **relief for low- and fixed income residents & seniors**



People should **pay based on their impervious surface area**

Invest heavily in **green infrastructure** for the co-benefits and sustainability

Do a **graduated increase** in fees over several years



Prevention of problems by **being proactive** is important

Why weren't **federal infrastructure or COVID funds** used?

City should seek grants

Do only the essential tasks, **not green infrastructure** or Boneyard Creek connectivity work

What are the risks if the Recommended Program is NOT implemented?

- Inadequate investment in stormwater infrastructure
- Reactionary mode
- Missing data on the storm sewer system



Recommended Action and Rate

Programs 1 - 3:

- Current Program +
- Continued IEPA Compliance +
- System Maintenance and Repair

Rate: \$8.00 - \$10.36 per month

- Gradual increase over 5-year period

Outcome: Improve maintenance and collect critical data to prioritize system investment for next 5 years



Thank you!

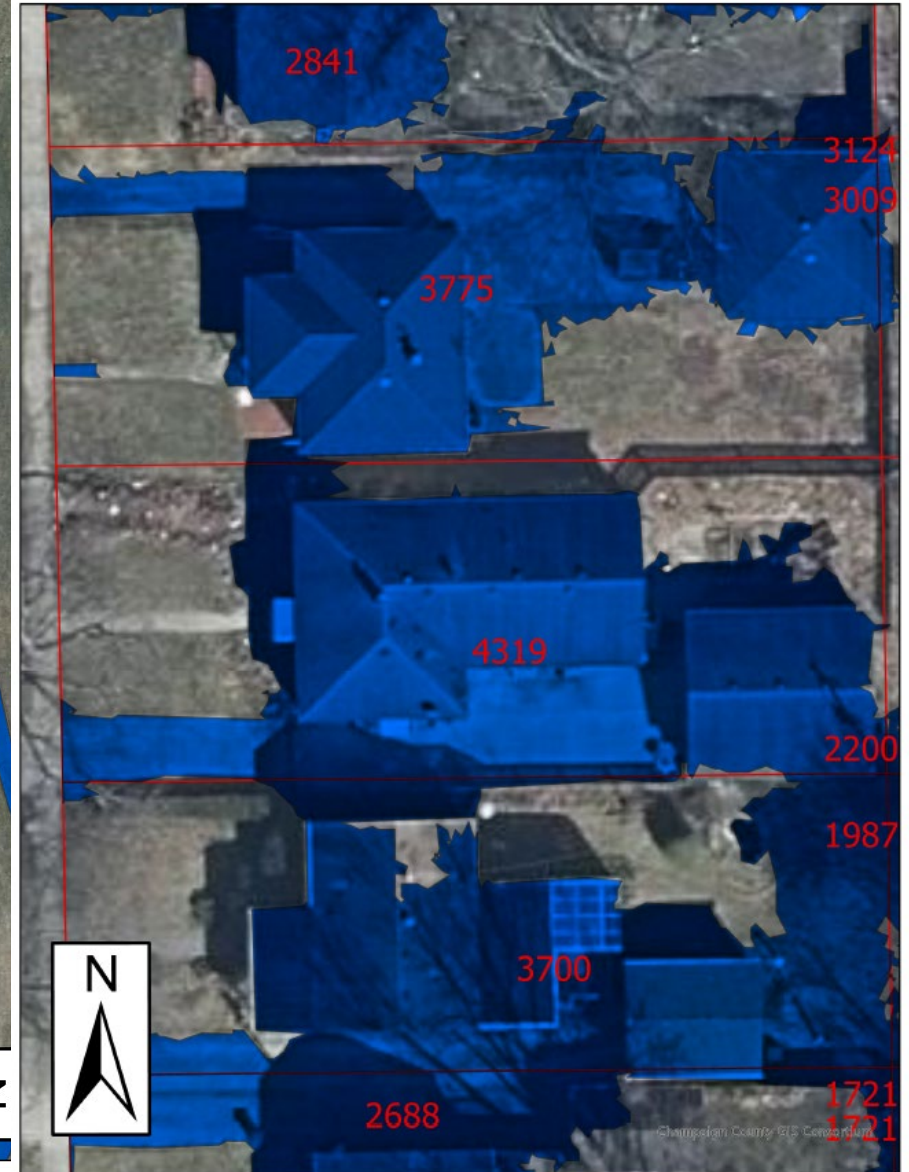
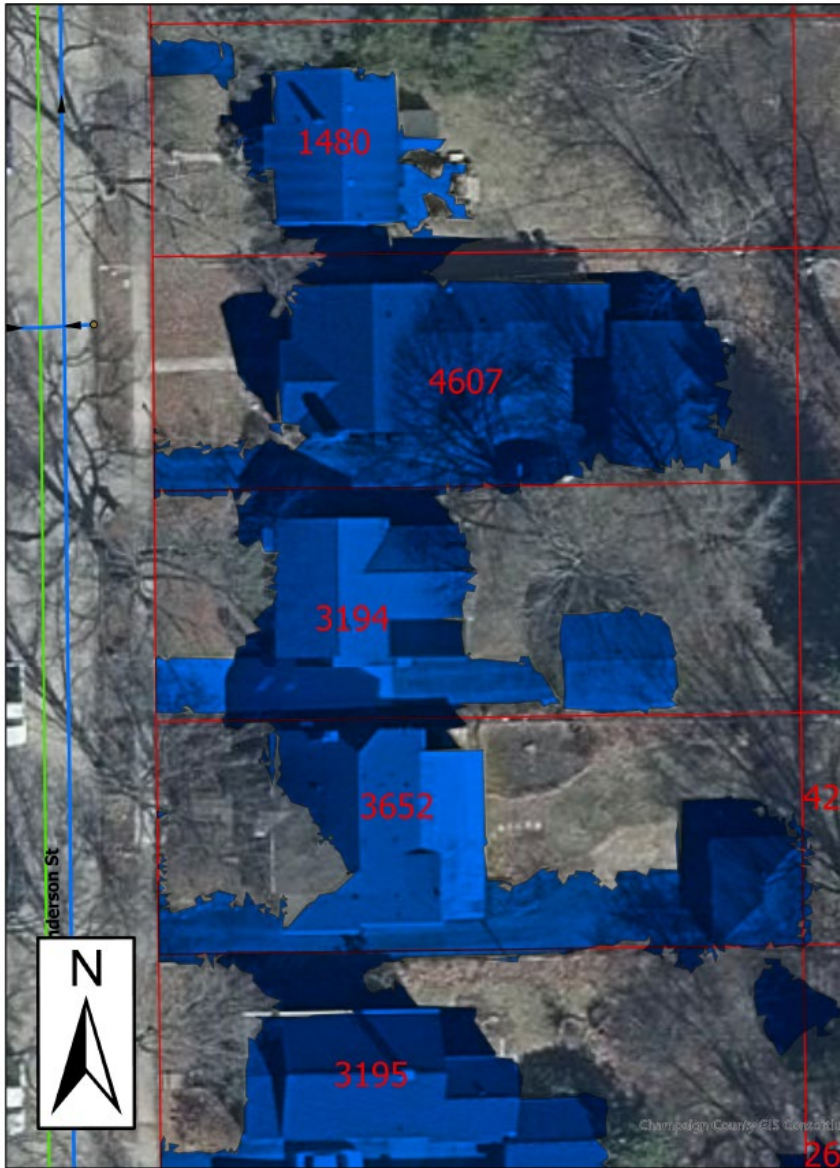
Why Increase Urbana's SWU Fee?

- SWU fee study initially estimated 33,800 ERUs, but current ERU total is <25,000

• WHY THE DISCREPANCY?

- To get to the estimated 33,800 ERUs, only some parcels in each land use category were studied. The impervious areas for all non-residential categories were over-estimated.
 - “anomalies were identified in some of the parcel boundaries that would need to be accounted for in the development of a utility billing file” and “this process of estimating the rate base is *approximate*”
 - Study did not account for credits that UIUC gets for areas that do not discharge into Urbana storm sewers
- Study estimated that the # of ERUs would increase each year
- Study estimated that there would be Other Revenues funding the program (\$115-\$248k/yr)

How will we measure impervious areas?



Why weren't these impervious area measurements done in 2012?

- “It has been determined that it is impractical to readily create these tiers [for family residential property classifications] due to the format of the township assessor data required for the analysis.”