



PUBLIC SESSION 1 // MAY 20, 2015

Thank you for coming.

- Community involvement is important
- Thanks to Public Works for your hard work & educating public about fiscal challenges
- Thanks to OneWater Committee for ideas you will contribute

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QUICK RECAP (FROM ORIENTATION)

RECAP: YOUR TEAM MEMBERS



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Public Works Director



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City Engineer



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Stormwater Practice Lead,
MWH Global



GREG ASBURY
VP, AMEC Foster
Wheeler



- **Focus on comprehensive wet weather management for our City**
- **Make recommendations, shape (not set) City policy**
 - Locations of green infrastructure re. combined sewer overflow
 - Public Works program priorities for stormwater
 - Potential funding streams, such as a stormwater utility
 - Credits for property owners
- **Research issues, bring us your ideas, be educated advocates**

Group Guidelines, “Fist to Five” & Parking Lot are posted

Let's discuss ...

Who read / flipped through the packet?

What stood out to you?

What did you learn?

Materials available at
www.peoriagov.org/wetweather



RECAP: MEET YOUR INFRASTRUCTURE



Sanitary-only sewers

What they do:
Carry wastewater

Who owns/maintains:

- GPSD owns most, about 450 miles
- GPSD also maintains 64 miles of sanitary sewers still owned by City in older areas

Funded by: User charge



Storm-only sewers

What they do:
Carry rain and snow that comes off your property

Who owns/maintains:
City of Peoria

Funding:
No dedicated revenue stream for these sewers —or for Peoria's larger stormwater system (inlets, culverts, etc.)



Combined sewers

What they do:
Carry stormwater AND wastewater. Treated by GPSD in dry weather ... but overflows into Illinois River when overwhelmed

Who owns/maintains:
City owns 136 miles in older areas. Responsible for maintenance

Funding: Same user charge, which is forwarded to City Sewer Fund



**MORE ABOUT ...
COMBINED SEWER OVERFLOWS**



CSOs CAN OCCUR
THROUGHOUT THE YEAR



BETWEEN
20-30 CSOs/
YEAR AT 16
DIFFERENT
LOCATIONS



COMBINED SEWERS
WERE BUILT BEFORE 1930
TO SERVE OUR GROWING
CITY. THEY ARE A LEGACY
PROBLEM



PEORIA SPENT
\$10 MILLION IN
THE '80s - '90s
TO REDUCE
CSOs: FROM
840 MILLION
GALLONS / YEAR
TO 160 MILLION
GALLONS / YEAR



CSOs CAUSE ELEVATED BACTERIAL
LEVELS IN THE RIVER

CSOs CAN
OCCUR WITH
AS LITTLE AS
0.15 INCHES
OF RAIN

WHY MUST PEORIA DO MORE ... NOW?

- **Your city has a permit** that regulates combined sewer discharges into the Illinois River.
- **In 2006, the U.S. EPA tightened** permit requirements.
- **Peoria must develop a long-term** control plan to slash # of CSO events (close to zero).
- **From a single rainstorm,** we must be able to capture 37 million gallons of stormwater... like 60 Olympic-sized swimming pools.
- **We could be taken to court** if not resolved and face major punitive costs.



We are not alone. 700+ communities have combined sewers. Settlements range from millions to billions.
But Peoria is among the last in the U.S. (*the last large city in Illinois*) that still must develop control plans.
(Watch video at https://youtu.be/4_zjS87YObA)



renew EVANSVILLE
What is a CSO?

100% **GREEN** INFRASTRUCTURE

Other cities are using green infrastructure as part of their CSO plans.
PEORIA CAN DO EVEN MORE.



RAIN GARDENS



BUMPOUTS



GREEN ALLEYS

ADVANTAGES OF GREEN VS. GRAY

GREEN

Natural, proven water capture & filtration techniques right for our soil

GRAY

Manmade, highly engineered infrastructure like pipes & tunnels

- **Demonstrably more cost effective for Peoria**
 - Green capital cost (estimated -\$200 M) approximately 2/3 of that gray
 - Extends useful life of existing infrastructure by reducing demand on system
- **Would enable us to involve local businesses**
 - Versus outsourcing gray construction to out-of-town firms
 - 30 full time equivalent jobs per year for construction
 - Operation and maintenance jobs will grow exponentially as green is installed
- **Will beautify about 1/3 of public rights-of-way in 8-sq-mile area**
 - Versus being out of sight
 - Can enhance property values, help mitigate crime
- **Complements private efforts to transform our city**
 - Powerful demonstration of Peoria's long-term commitment to sustainability

Let's discuss ...



Who has tried green infrastructure at your home, business, organization? What was your experience?

- Do you have rain barrels, bioswales, etc.?
- Seen landscaping at Peoria Museum, in Chicago or Indianapolis?



Have you heard about the city's new Innovation Team?
(You will now!)

- Peoria selected to participate in Bloomberg Philanthropies program
- Initial focus = CSOs: How to leverage this challenge to improve community
- Will help City Staff deliver measurable results



**MORE ABOUT ...
CITYWIDE STORMWATER PROBLEMS**

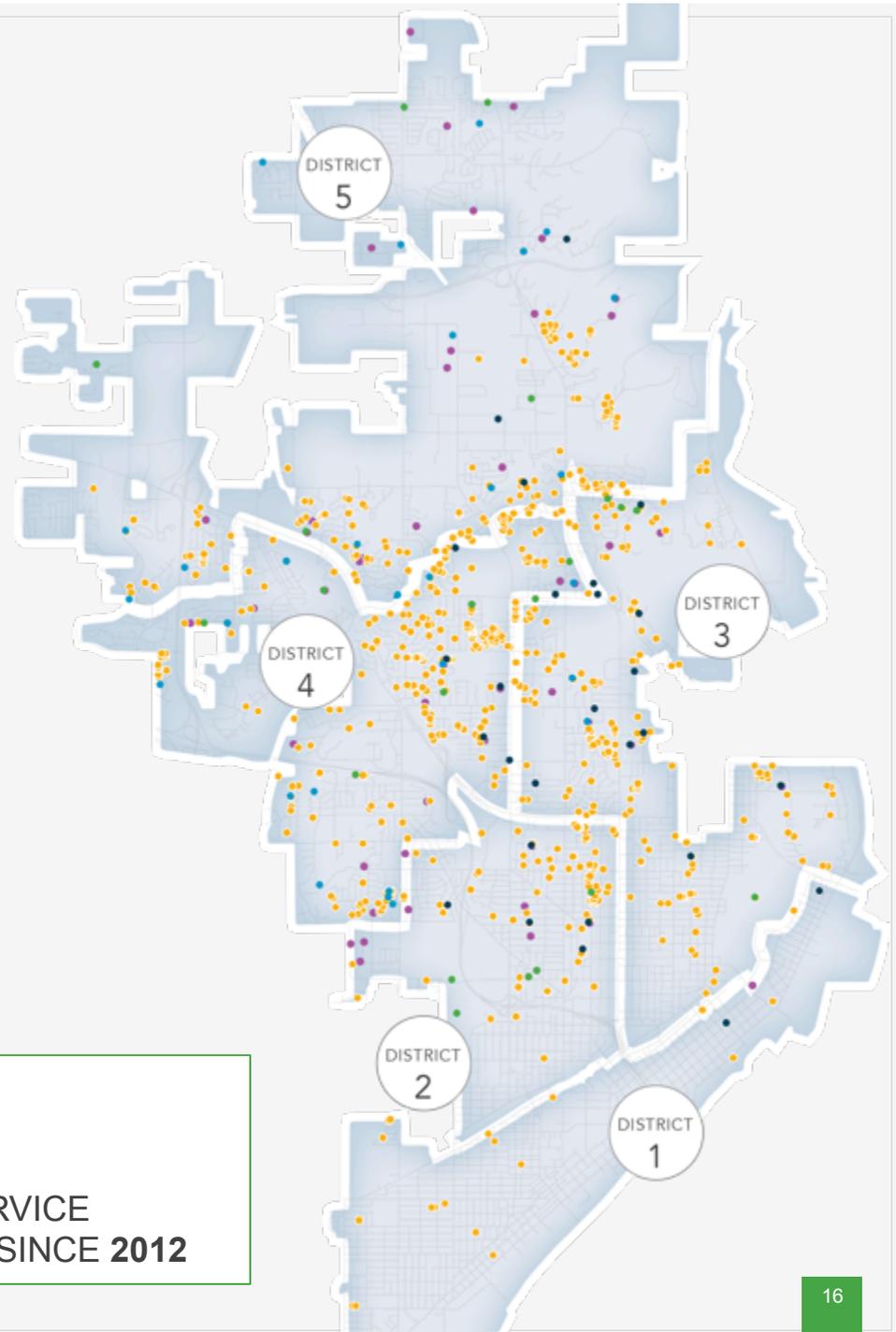
WHAT'S THE ISSUE?

OUR CSOs ARE A **STORMWATER** PROBLEM AT HEART.

- **Too much rain and snow** are getting into an antiquated system, which has built to serve this growing community.
- **But older parts of Peoria are not the only locations** where stormwater is creating urgent issues...

400

CITIZEN SERVICE
REQUESTS SINCE 2012



WE ARE NOT KEEPING UP WITH NEEDS

CAPITAL NEEDS INCLUDE...

86

PROJECT BACKLOG,
INCL. 15 HIGH-SEVERITY

\$6.6 million

FUNDING NEEDED TO TACKLE BACKLOG

\$1.2 million

CURRENT AVG. YEARLY FUNDING LEVEL



EVEN MORE REPAIRS TO BE
IDENTIFIED THROUGH TV



DAMAGED PIPE: \$26,000



SINKHOLE: \$16,400

**THE LONGER WE WAIT,
THE WORSE PROBLEMS
LIKE THESE GET...
AND MORE COSTLY TO FIX.**

POPLETT HOLLOW ROAD CULVERT: \$360,000



ALLEN & ALTA RD. CULVERT: \$1.2 MILLION



THIS SINKHOLE CAUSED BY
FLOODING WAS 20 FEET DEEP

Let's discuss ...



The last time it rained, did you notice how water flows off your yard, driveway or parking lot?

What struck you most?



Did you talk to someone with wet weather issues?

(Basement backups, property erosion near a creek, etc.)

What has their experience been like?

WE ARE NOT KEEPING UP WITH NEEDS

OPERATIONS & MAINTENANCE INCLUDES...

428

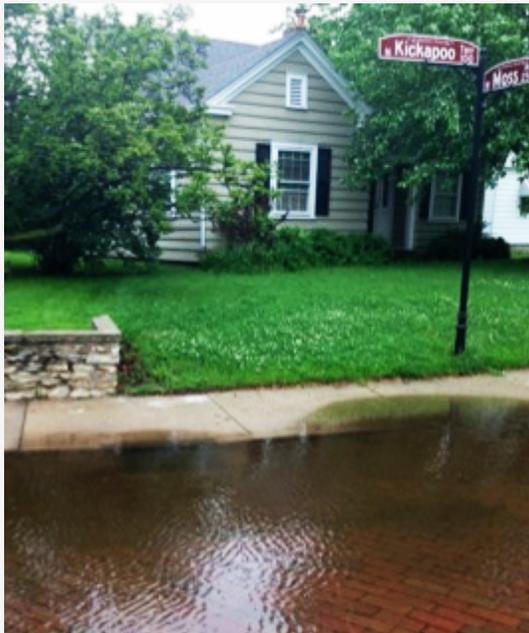
O&M PROJECT BACKLOG: ABOUT ½
ARE MEDIUM TO HIGH PRIORITY

8,100 INLETS

840 OUTFALLS

87

MILES OF STORM SEWERS
MAPPED SO FAR—ABOUT ½



FLOODING DUE TO BLOCKED INLET



LACK OF MAINTENANCE CLEANING REDUCES CAPACITY

THE IMPORTANCE OF TELEVISIONING



BROYHILL COURT. BROKEN CORRUGATE METAL PIPE

WE ARE NOT KEEPING UP WITH NEEDS

We noted earlier that Peoria has a permit for our **combined sewers**.
The City also has a permit that regulates our **storm sewers**.

Regulatory compliance requires Peoria to meet 6 minimum controls:



Public Education & Outreach
on Stormwater Effects



Public Involvement
& Participation



Illicit Discharge Detection
& Elimination



Construction Site Stormwater
Runoff Control



Post-Construction Stormwater
Management in New Development
& Redevelopment

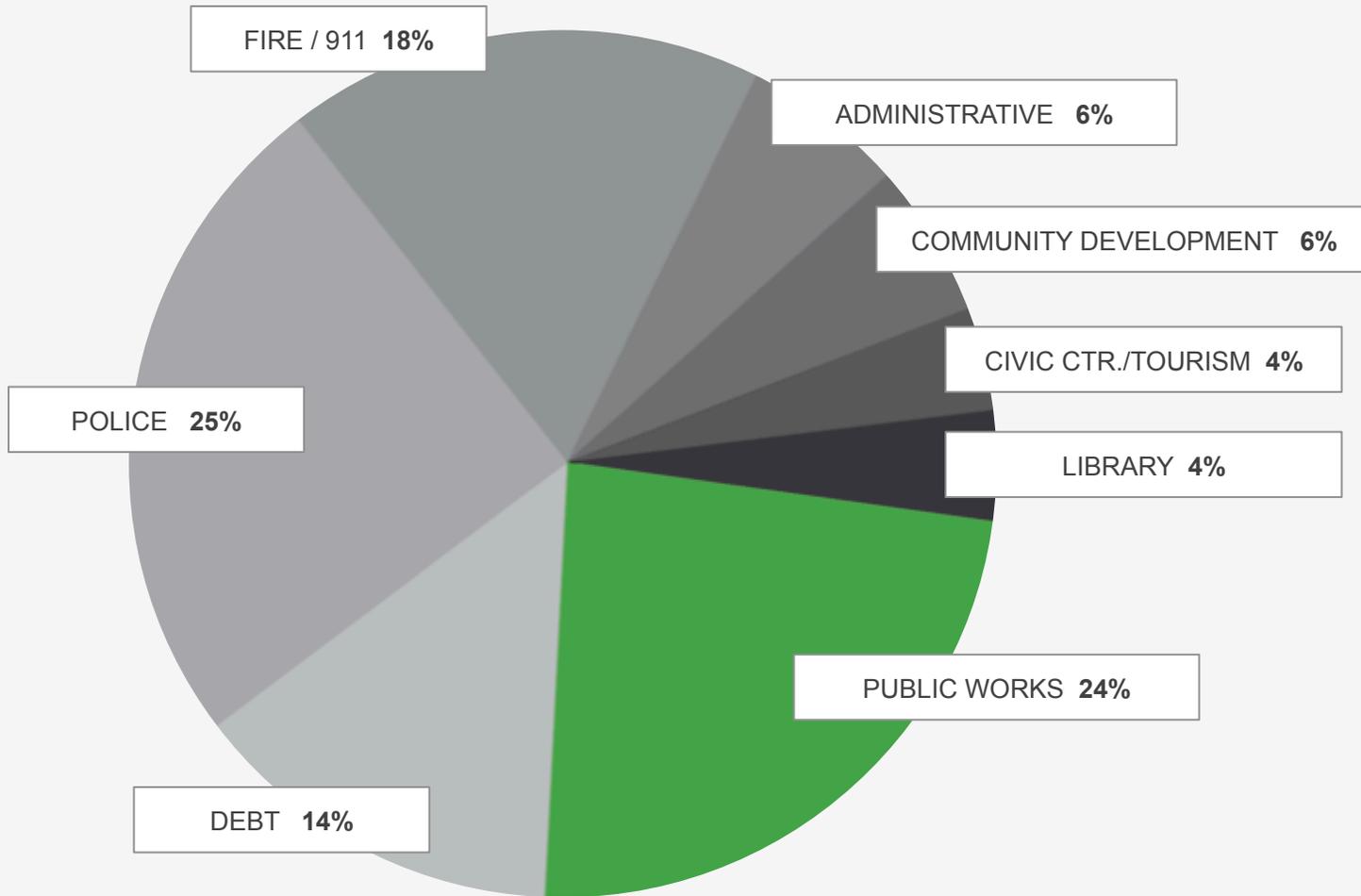


Pollution Prevention /
Good Housekeeping for
Municipal Operations

HOW PUBLIC WORKS FITS IN

CITY OF PEORIA TOTAL BUDGETED
EXPENDITURES, FY 2015

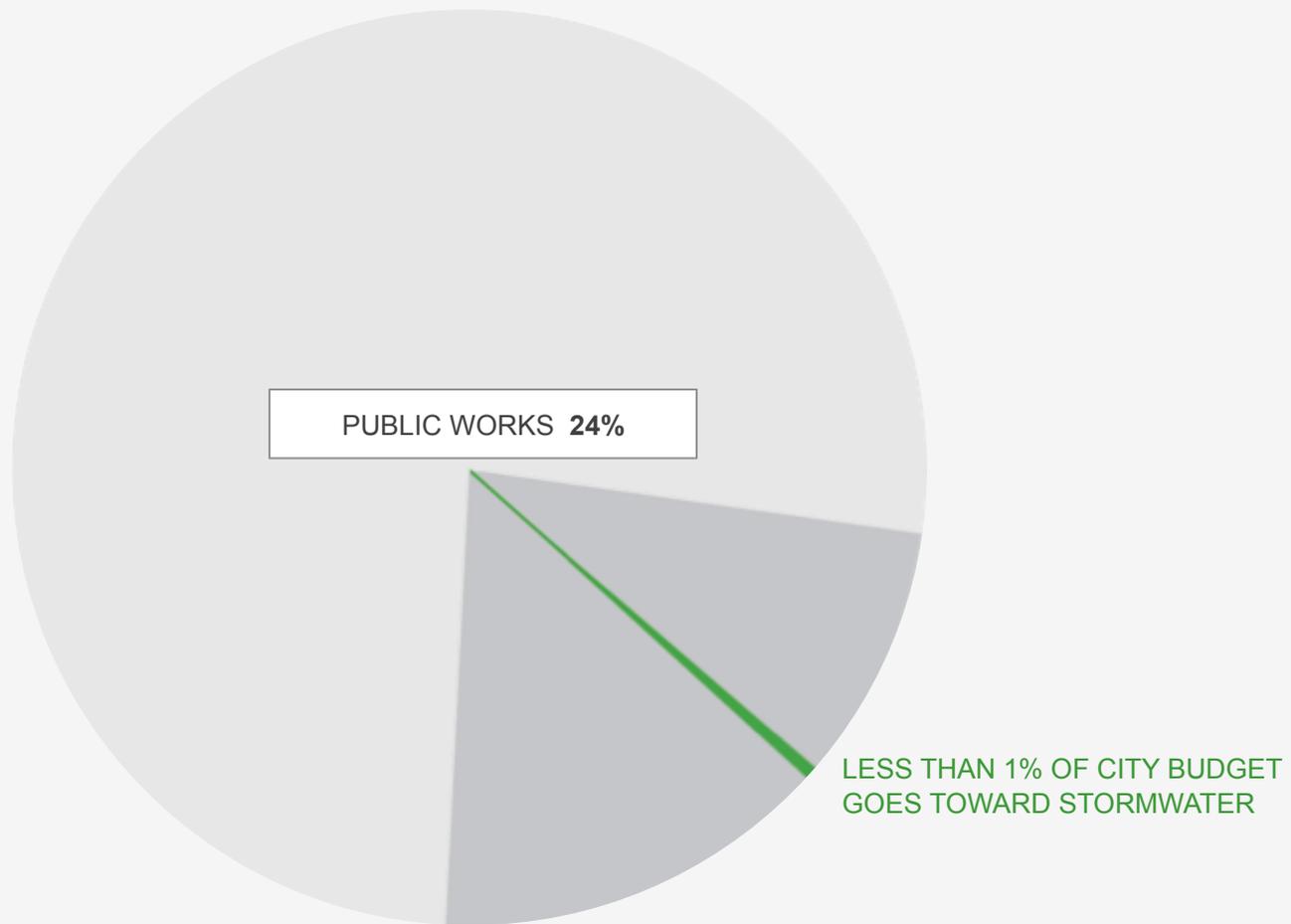
~\$181.5 MILLION



HOW PUBLIC WORKS FITS IN (CONT.)

CITY OF PEORIA TOTAL BUDGETED
EXPENDITURES, FY 2015

~\$181.5 MILLION



Let's discuss ...



Did you take the City's 2015 Budget Challenge?

What did you prioritize?



How “tuned in” are you to Peoria’s budget issues?

Let's get a sense of the room.

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**BESIDES FUNDING SHORTFALLS,
WE MUST CONSIDER ROOT CAUSES**

It is no one's “fault” ... we're all part of the problem

- Private development and growth (unintentional impacts)
- A lack of public ordinances to limit the harms
- An old-school way of designing infrastructure

1

More pavement, more problems.

Our city has grown, creating increased runoff from urbanization.

- Subdivisions with roofs, patios and driveways
- Shopping centers with parking lots
- Businesses with roofs, lots and other surfaces

PEORIA HAS 235M SQ. FT
OF IMPERVIOUS AREA—

**LIKE 4,100
FOOTBALL FIELDS**



A PARKING LOT SHEDS
16X THE WATER
AS A MEADOW



A PEORA HOME WITH A
1,500 FT ROOF CAN FILL

1,400 BATHTUBS

WORTH OF RUNOFF
A YEAR



2

Drainage channel modifications.

Well-meaning property owners trying to expand their yards or even protect it from erosion.

PAVEMENT, RETAINING WALLS, ETC.
ALTER NATURAL DRAINAGE CHANNELS
& WATER HAS LESS ROOM.

**LIKE SQUEEZING
A GARDEN HOSE**



THIS ACTUALLY INCREASES
VELOCITY, FLOODING
& **EROSION**



3

Lack of construction controls.

(i.e., ordinances) to prevent development around drainage channels.
We are now playing catch-up.

2005

PEORIA CREATES
STREAM BUFFER ORDINANCE

2006

PEORIA MODIFIES STORMWATER
DETENTION ORDINANCE

WHAT ARE ROOT CAUSES?



At first, people refuse to believe a strange new thing can be done. Then they begin to hope it can be done. Then it is done, all the world wonders why it was not done centuries ago.

- FRANCES HODGSON BURNETT



NOW.

IT'S TIME TO CHANGE THE WAY
WE ARE **DESIGNING, PRIORITIZING
& FUNDING THINGS.**

OUR APPROACH IS CHANGING



**UNIVERSITY:
INFILTRATION TRENCHES**



**FORREST HILL:
CURB CUTS**

UPCOMING SESSIONS

Wet Weather Program Priorities	→ June 17 // 12:00 – 1:30 p.m.
Exploring Solutions	→ July 15 // 12:00 – 1:30 p.m.
Exploring Solutions Continued	→ Aug. 19 // 12:00 – 1:30 p.m.
Session 5	→ Sept. 16 // 12:00 – 1:30 p.m.
Session 6	→ Oct. 21 // 12:00 – 1:30 p.m.
Session 7	→ Nov. 18 // 12:00 – 1:30 p.m.

-These upcoming meetings will be more like workshops—very interactive.

-We will be sending you materials ahead of time for the June 17 meeting.

-Cannot attend? Please email Andrea at aklopfenstein@peoriagov.org