

Louisville's Sewer Overflow Abatement Plan











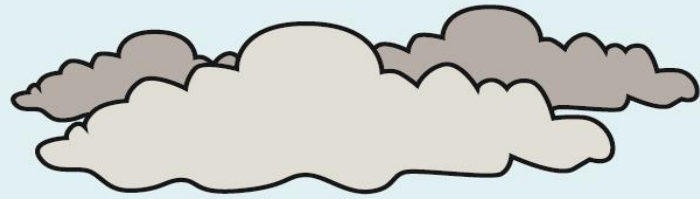






Presentation Objectives

- Why do sewers overflow?
- What is MSD doing to protect the public's health and safety from sewer overflows?
- How can you help maintain public health and safety?

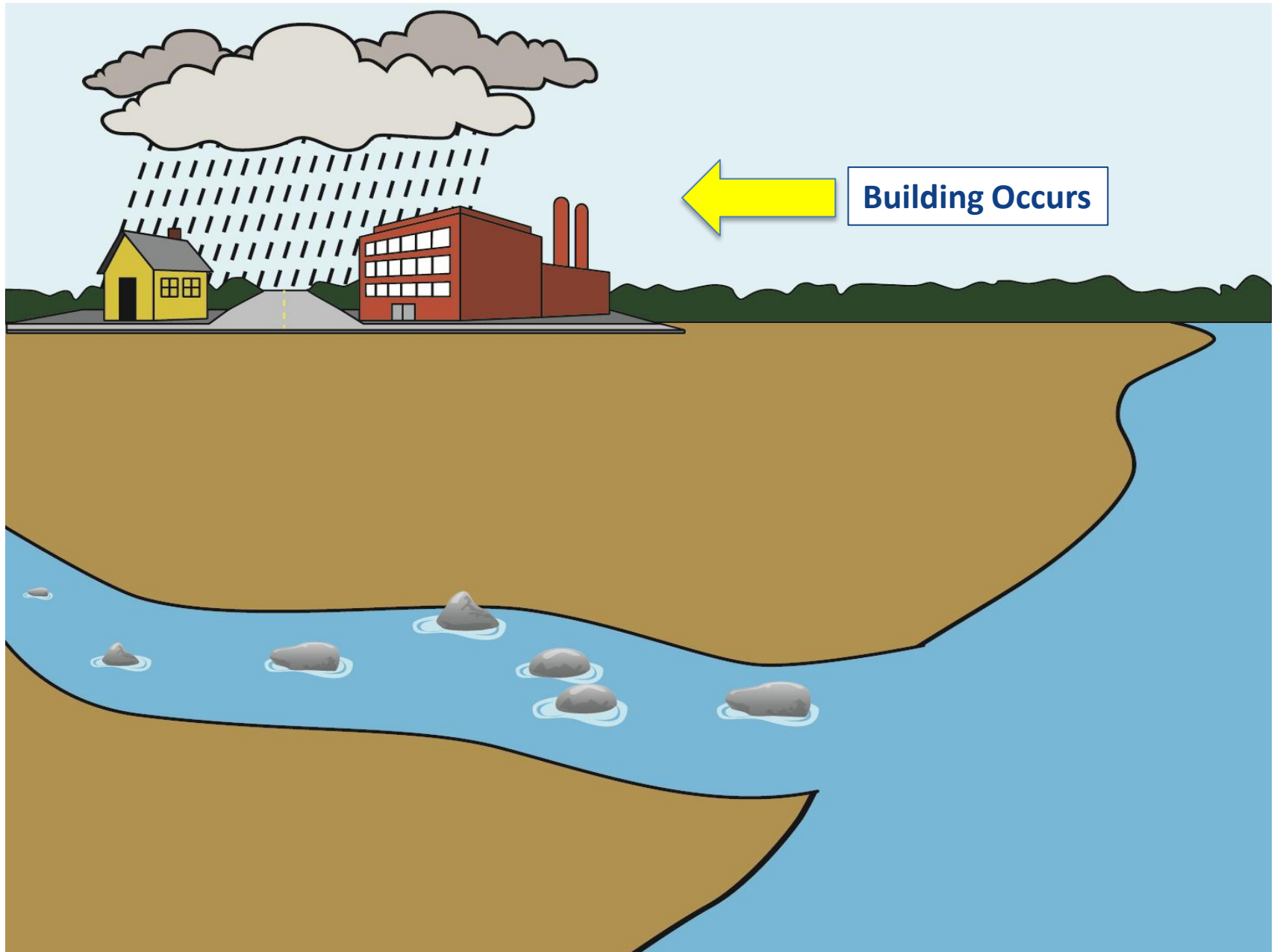


History of Sewers and Overflows

Undeveloped Land & Streams





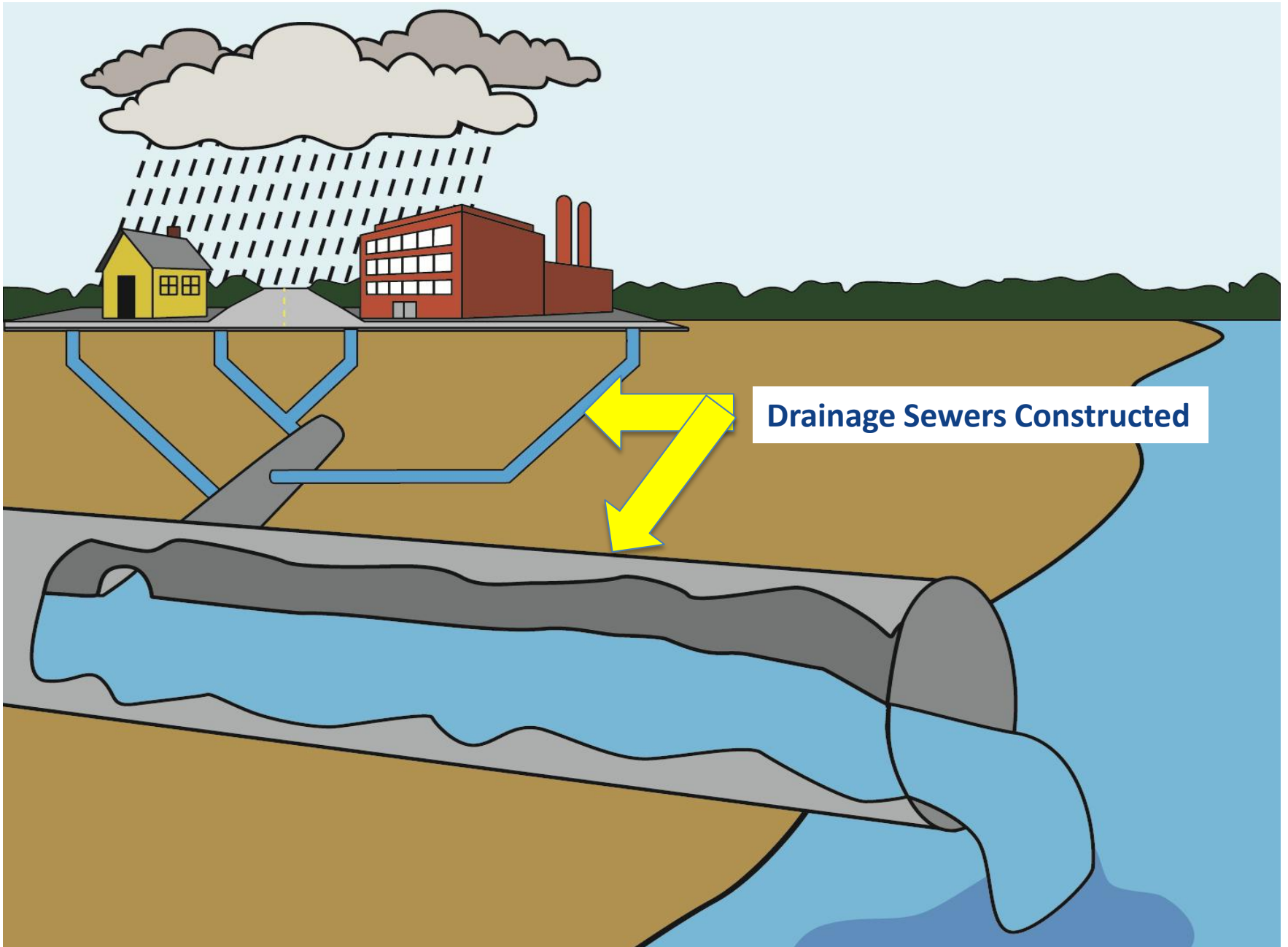


Building Occurs

SEWER WORK IN LOUISVILLE

Population in 1850: 43,000
Current Population: 740,000

JUNCTION CHAMBER, LOUISVILLE'S NEW SEWER SYSTEM

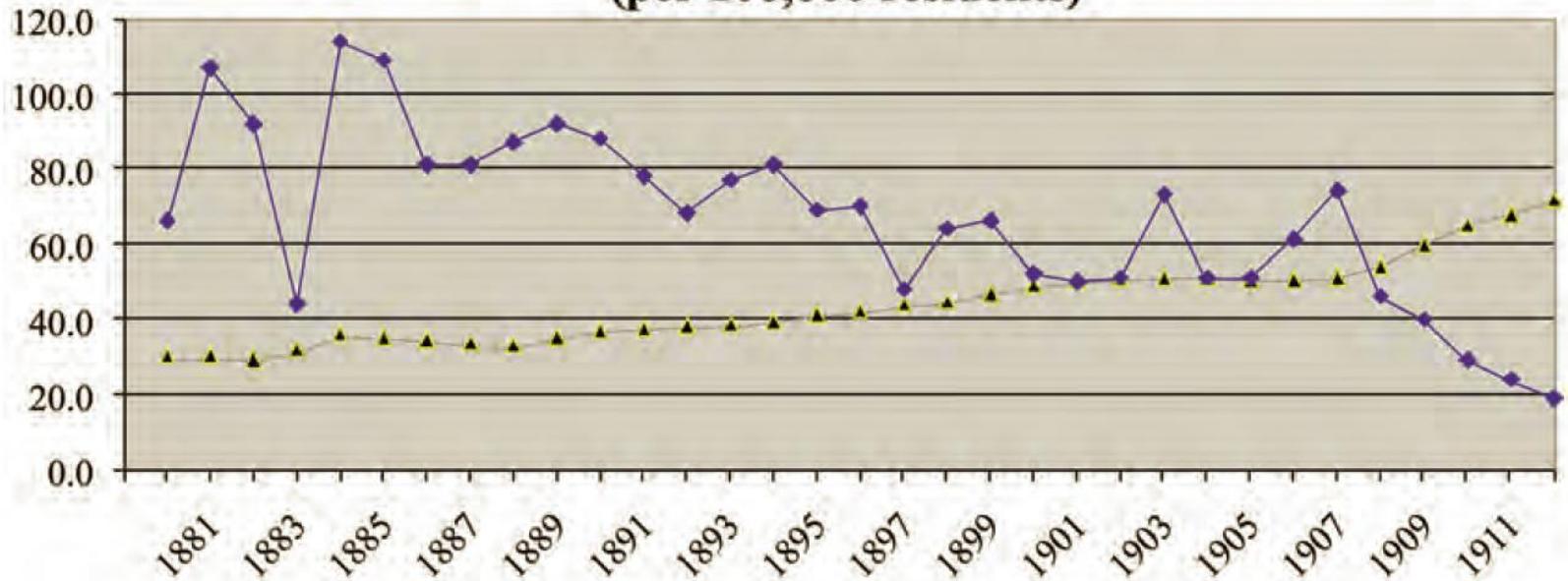




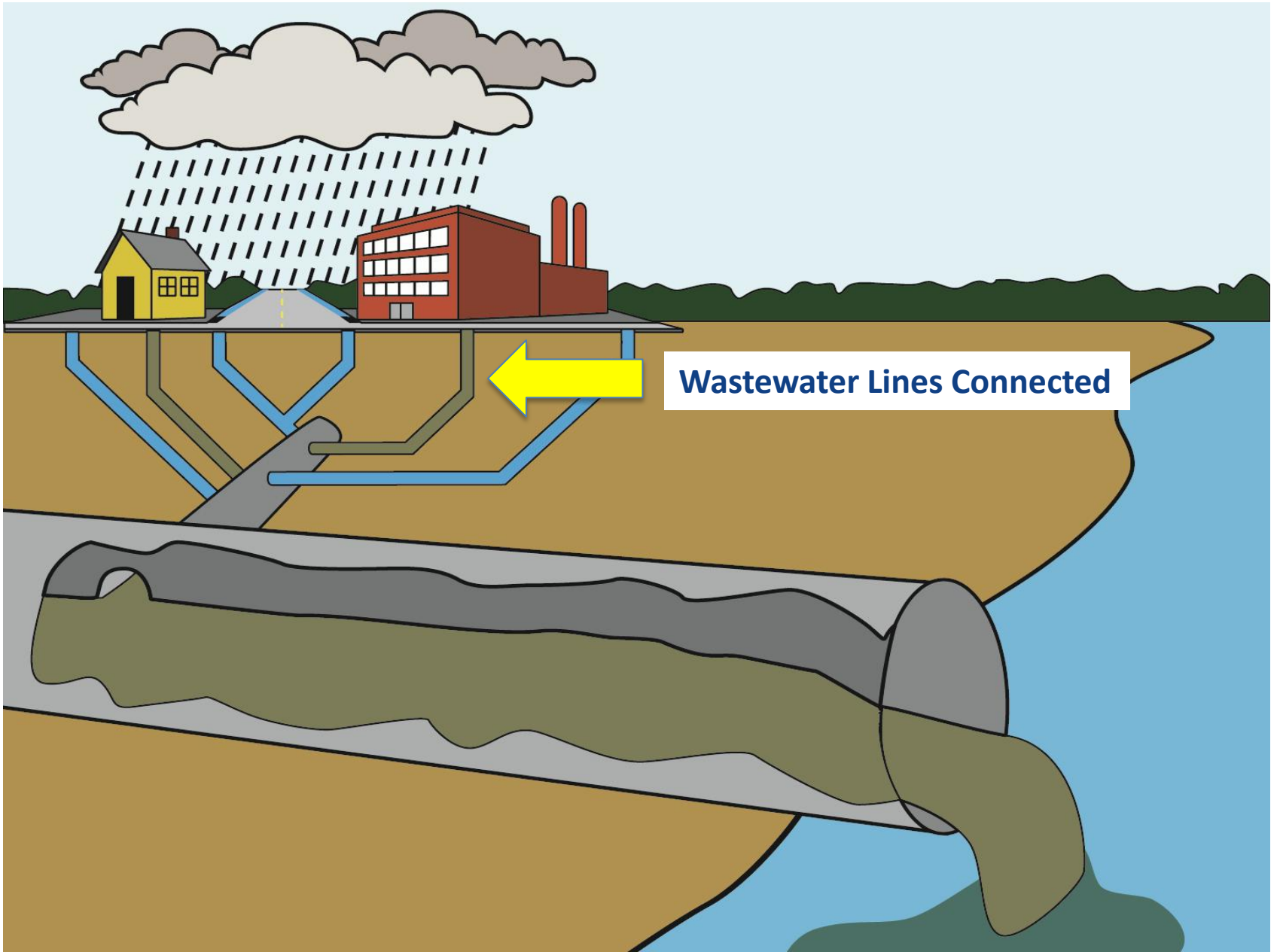
49.95
2-22-31

Sewer Construction Vs. Typhoid Death Rates

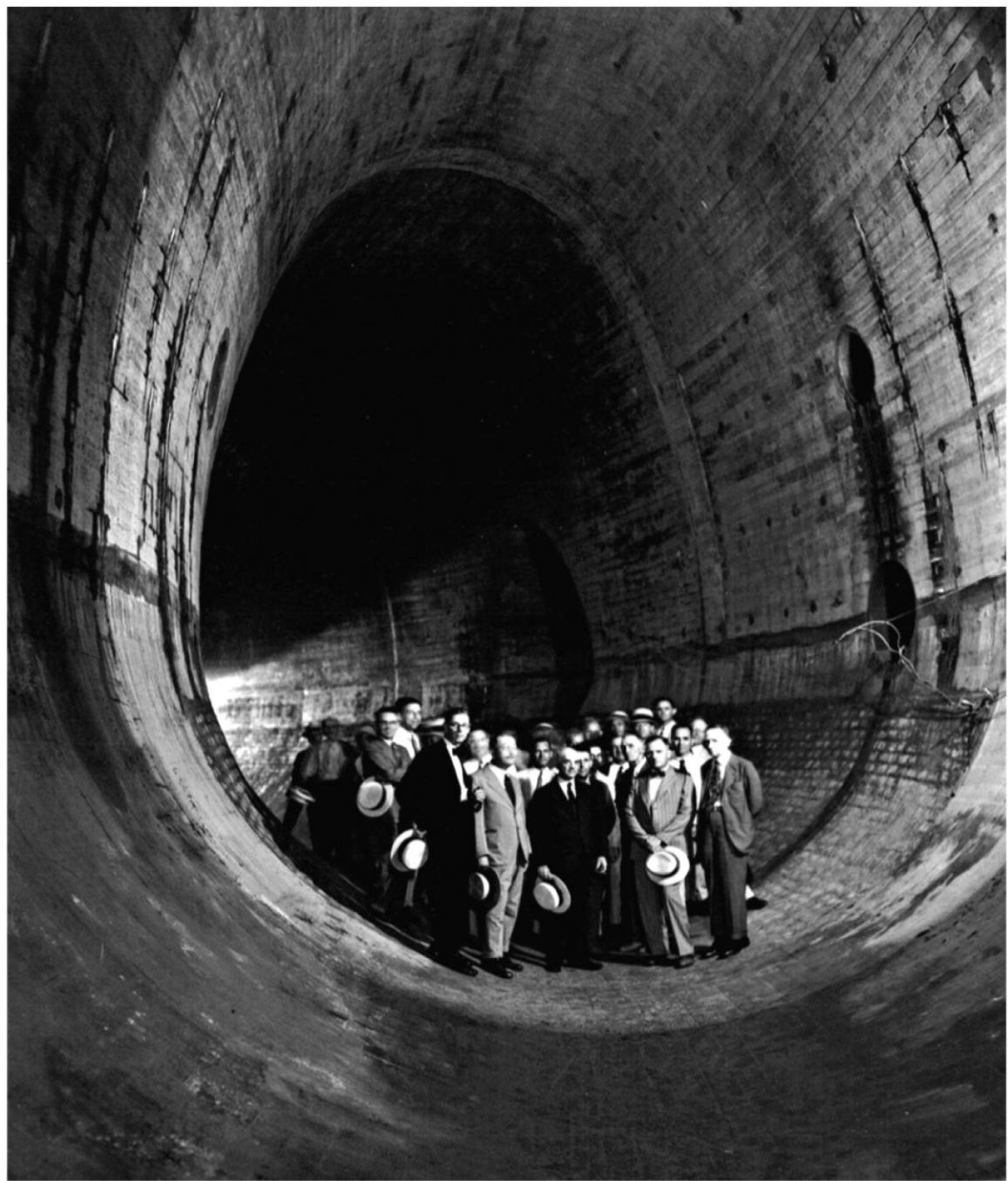
**Relationship Between Sewerization and Typhoid Death Rates
(per 100,000 residents)**



Death Rate per 100,000 Residents in Blue
Sewer Miles per 100,000 Residents in Green

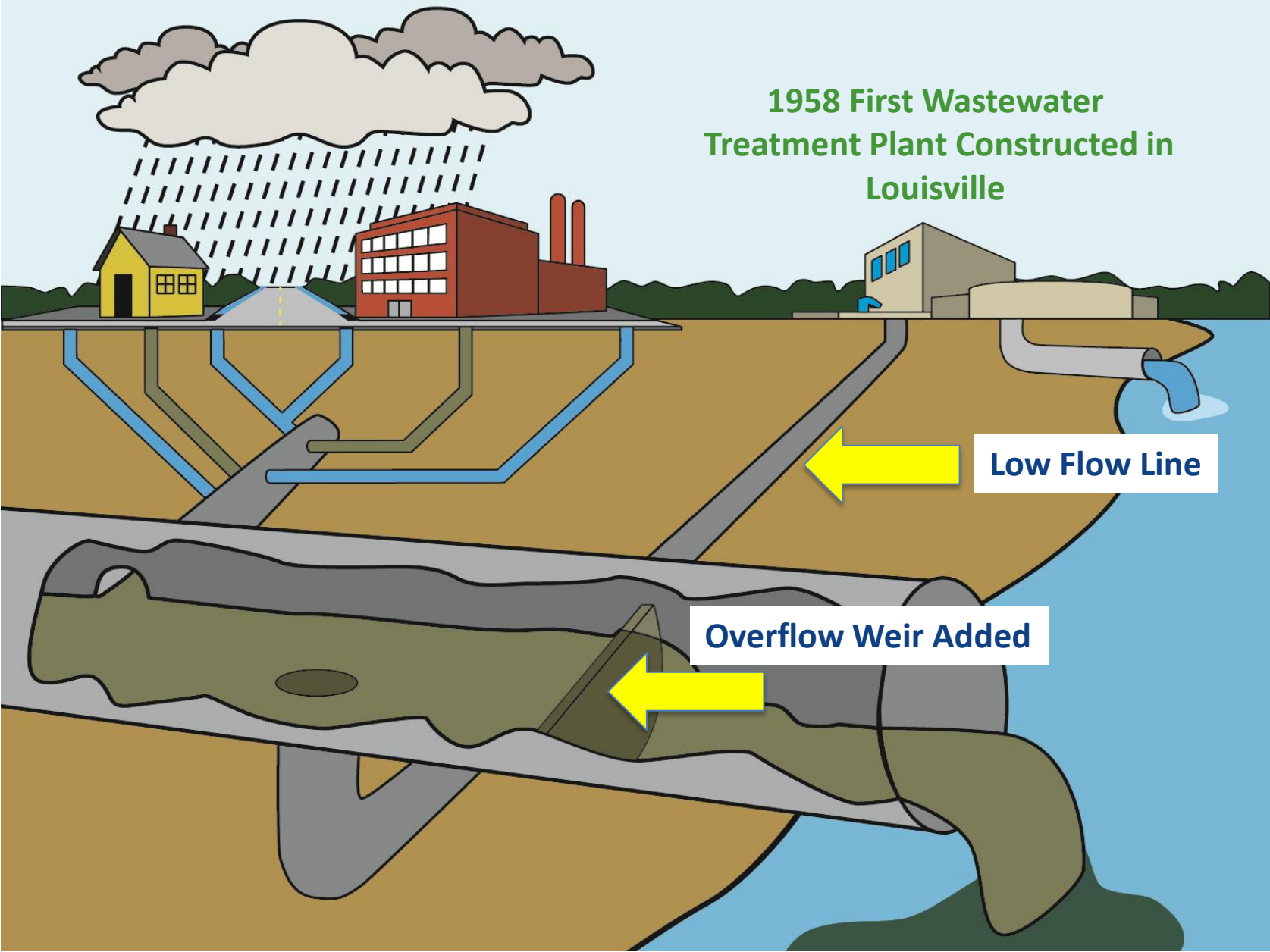


Wastewater Lines Connected



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1958 First Wastewater Treatment Plant Constructed in Louisville



Low Flow Line

Overflow Weir Added



Sewers Built Separately after 1955

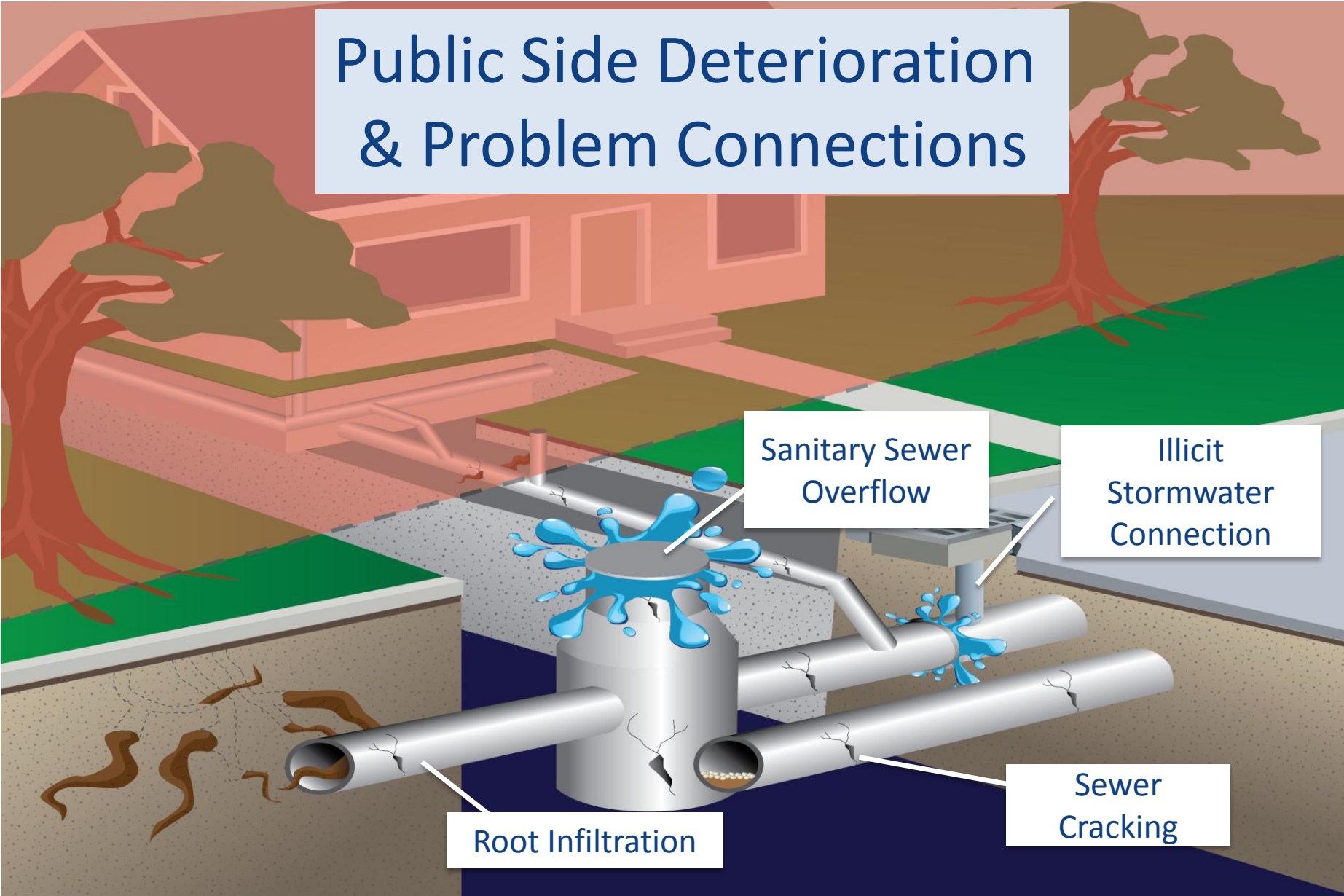
Public Side Deterioration & Problem Connections

Sanitary Sewer
Overflow

Illicit
Stormwater
Connection

Root Infiltration

Sewer
Cracking



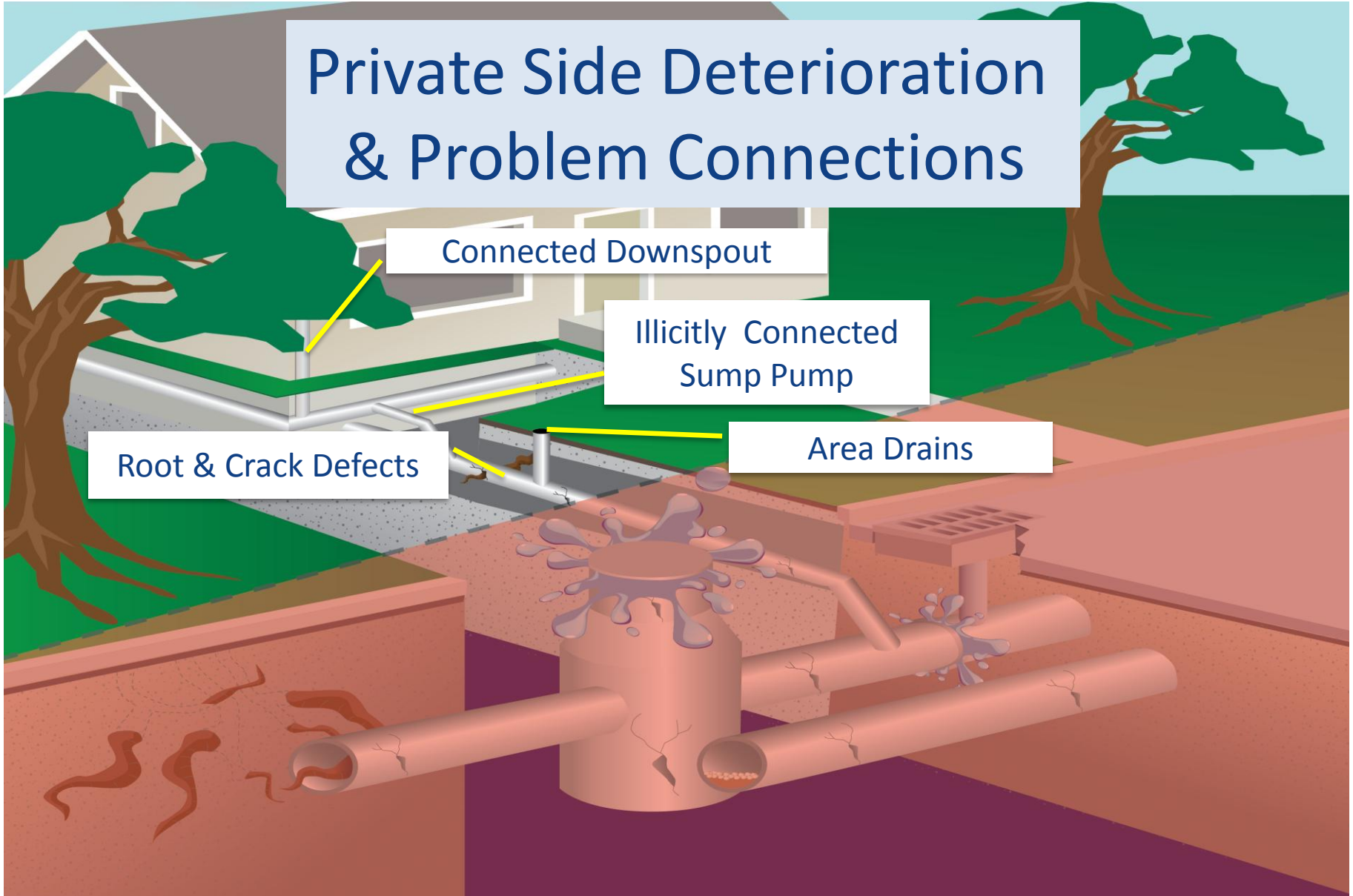
Private Side Deterioration & Problem Connections

Connected Downspout

Illicitly Connected Sump Pump

Root & Crack Defects

Area Drains



Your Role in Maintaining Public Health and Safety



MSD Sanitary
Sewer Line
Replacement
Program
587-0603





Your Role in Maintaining Public Health and Safety

Delay using
dishwashers and
washing machines
until after rain
events have passed

Sewers are FULL!





Your Role in Maintaining Public Health and Safety



TRASH it – don't FLUSH it!

dental floss, hair, diaper wipes, wet wipes, "flushable" wipes



accumulates at pumps and causes sewer overflows and basement backups



Your Role in Maintaining Public Health and Safety

Put fats, oils & greases in the trash
NOT down the drain!!!!



Grease accumulates in pipes



Put hot grease in metal
container, let cool,
TRASH!



Your Role in Maintaining Public Health and Safety

Disconnect sump pumps from the sewer system

- Single biggest source of private-side unauthorized connections
- Should outlet to the ground or stormwater system

**Plumbing Modification
Program 587-0603**

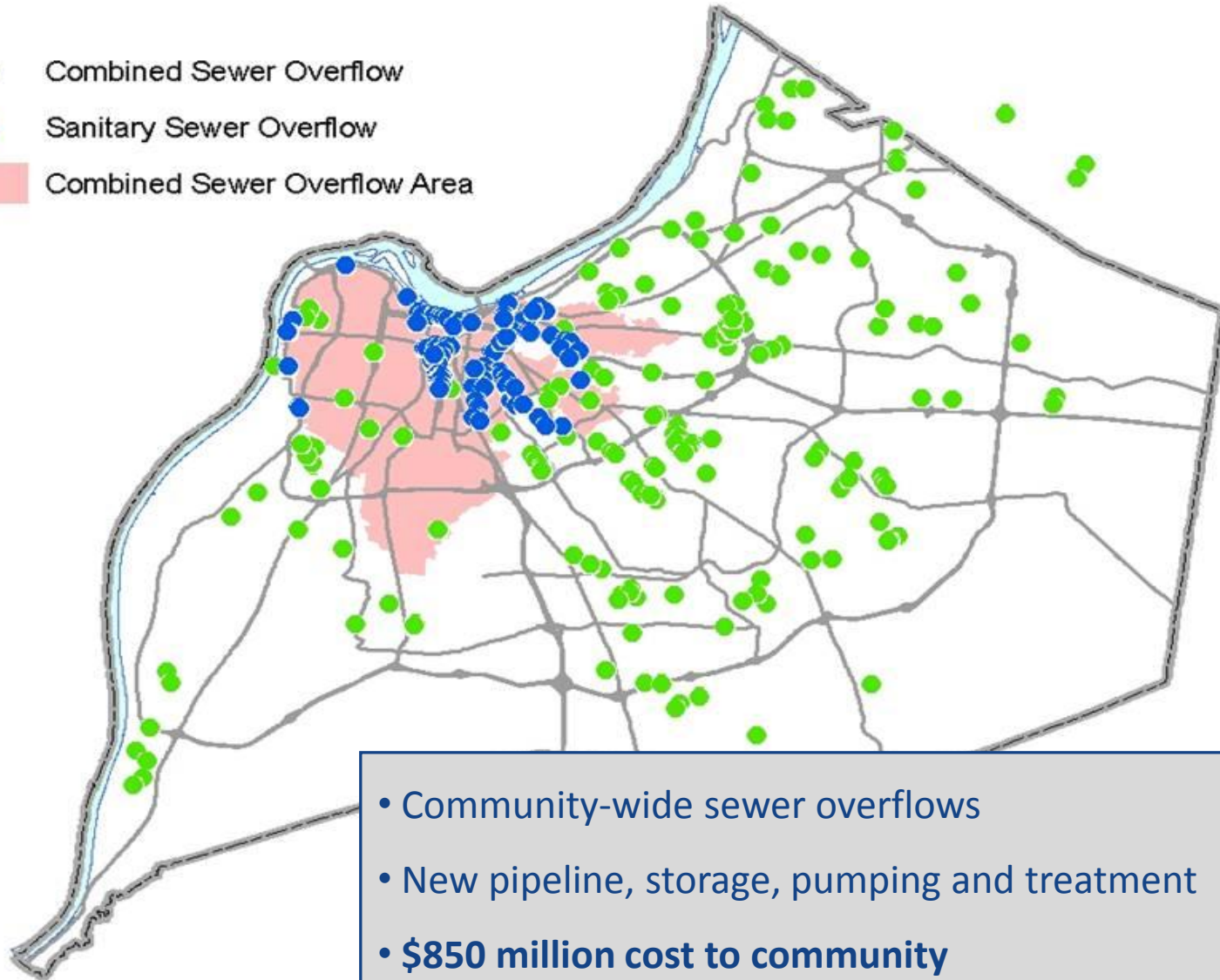


Your Role in Maintaining Public Health and Safety

- Turn downspouts onto the ground
- Capture rain from down spouts to use for watering your gardens and landscaping
 - Rain barrels
 - Rain gardens



- Combined Sewer Overflow
- Sanitary Sewer Overflow
- Combined Sewer Overflow Area



- Community-wide sewer overflows
- New pipeline, storage, pumping and treatment
- **\$850 million cost to community**

Public Health and Safety Mandate

- **1985-2005** – MSD eliminated 300+ failing package treatment plants and 40,000 failing septic tanks
- **2005** – Mandate from Federal EPA and Kentucky to abate overflows
- **2008** – MSD submitted \$850 million plan to satisfy the mandate
- **2009** - Federal EPA and Kentucky approve the plan
 - Combined Sewer Overflow program complete by 2020
 - Separate Sewer Overflow program complete by 2024



Overflow Abatement Projects

Approved 2009

- Pipeline projects
- Storage basins
- Pump station expansions
- Wastewater treatment plant expansions
- Green infrastructure
- Downspout disconnections
- Sump pump disconnections
- Sewer rehabilitation



Smoke testing on public sewer indicates improper downspout connection to the sanitary sewer

Implementation Progress - 2007 thru 2013

Gray Infrastructure Projects (78)

- 25 completed
- 26 in design/construction

Green Infrastructure Projects

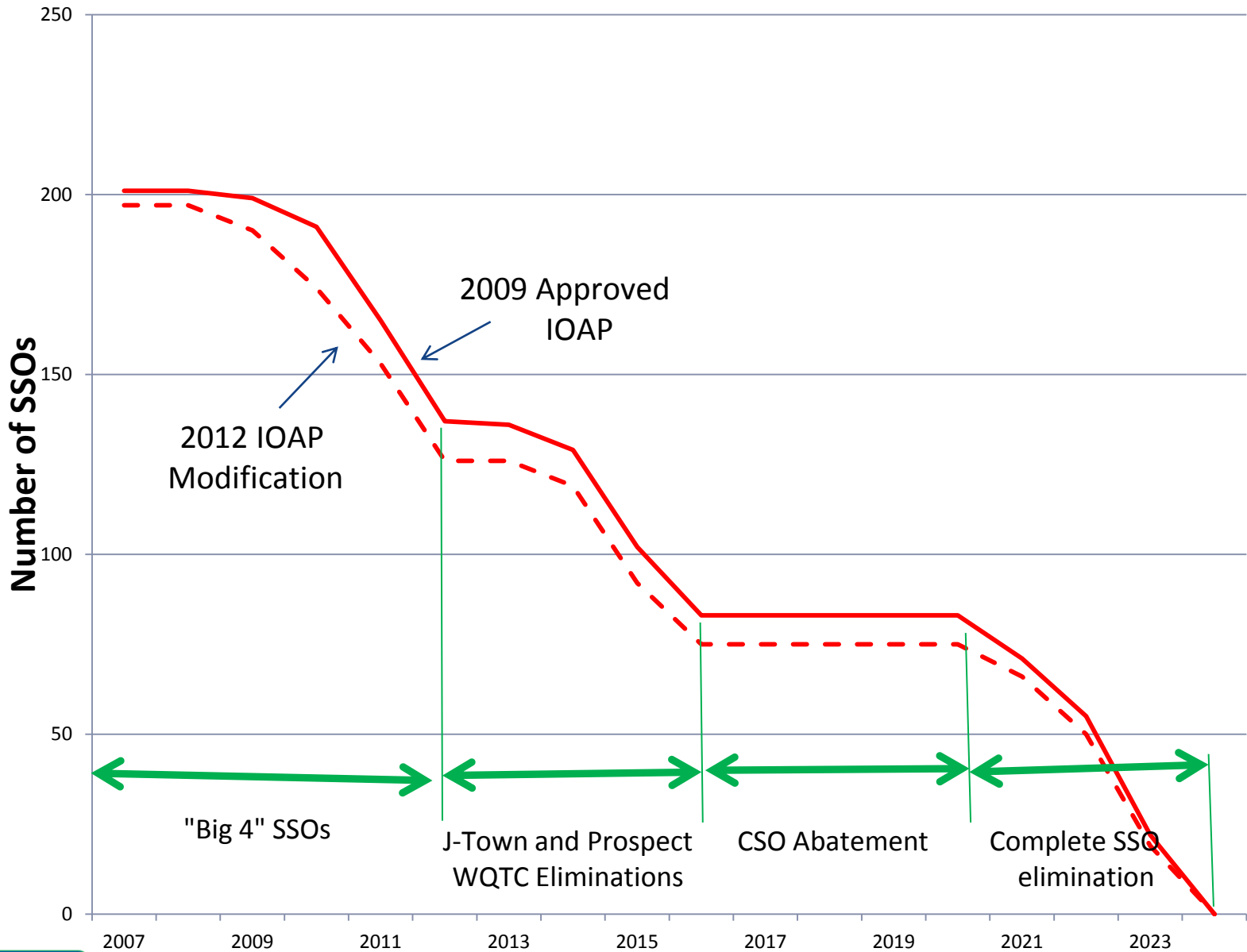
- 48 completed
- 49 in design/construction

Source Control Projects

- 16 projects completed
- 13 projects in design/construction

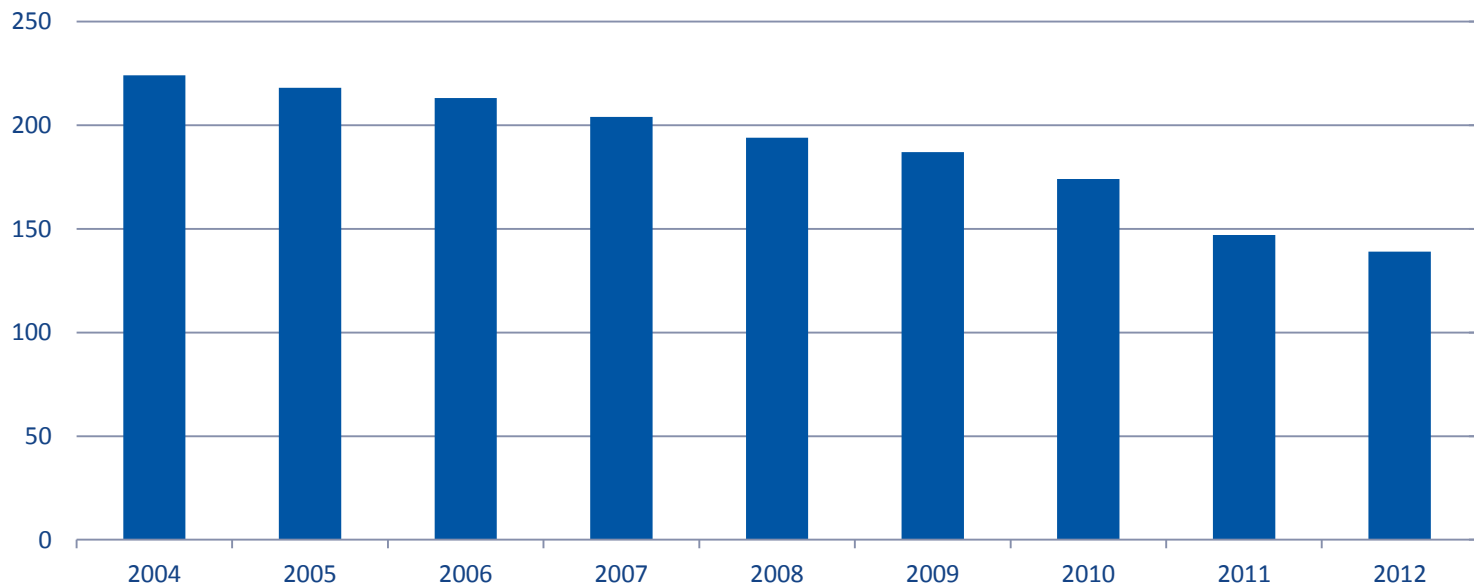
Overall Program Completion

- 48% complete
- 2% under budget, compared to original estimates



Overflow Eliminations

Remaining SSO Locations

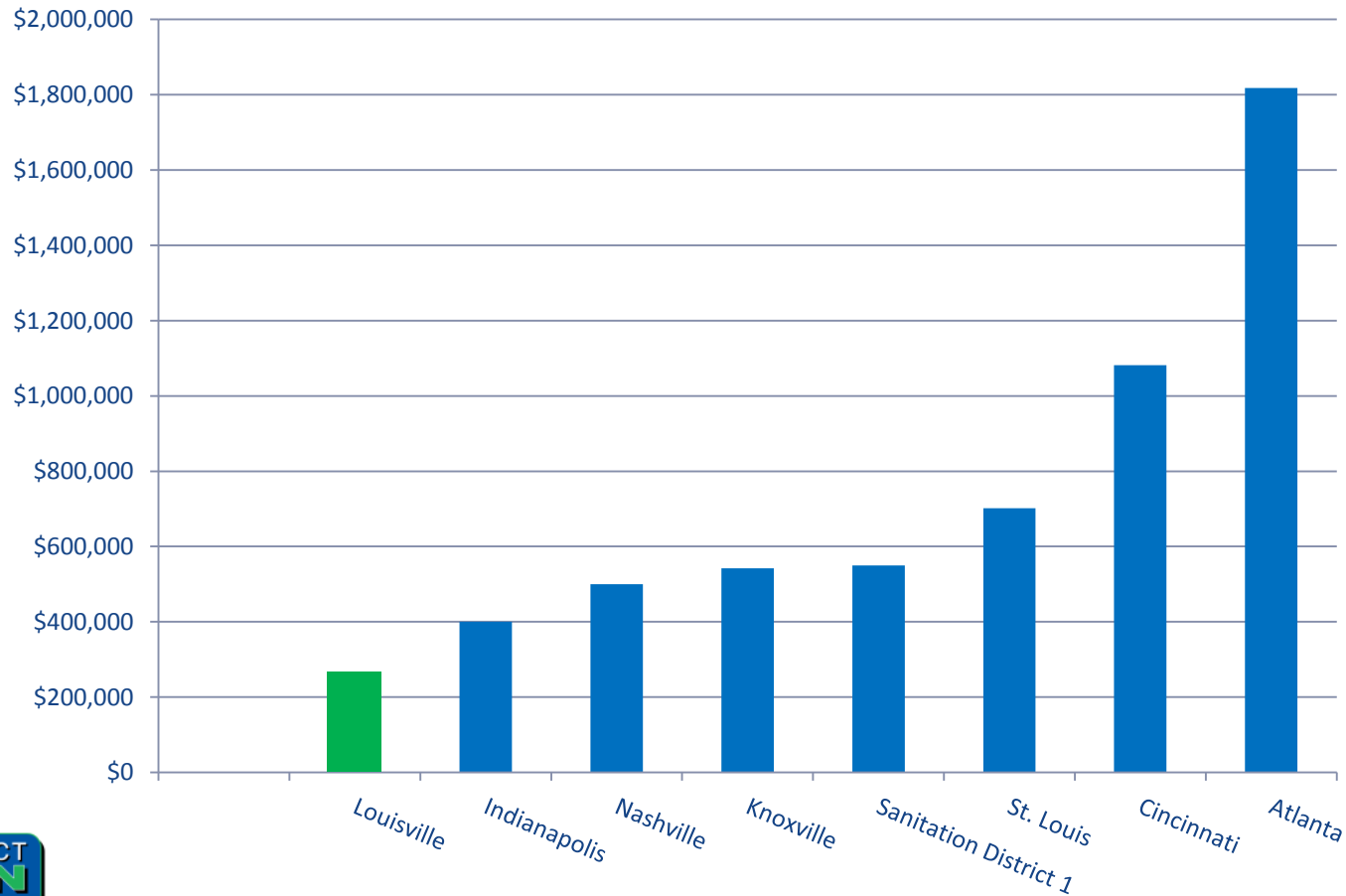




Sewer Rates

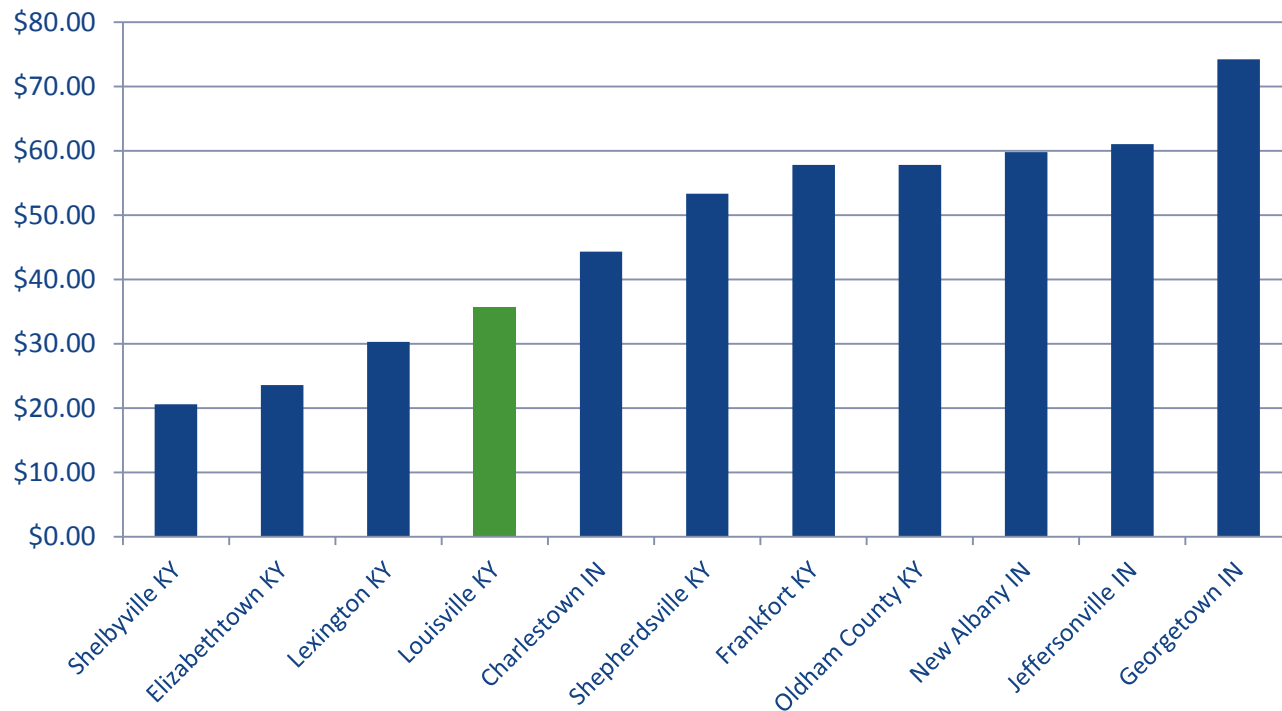
Cost of Regulatory Compliance

Consent Decree Cost Comparison per Sewer Mile



MSD's Rates Compared to Surrounding Communities

Average Monthly Residential Wastewater Bill



MSD's Rates Senior Citizen Discount Application

Applicability

- 65 years of age or older
- household gross income of \$35,000 or less per year
- must be on MSD sewers

Customer Relations 587-0603

MSD
Louisville and Jefferson County Metropolitan Sewer District

SENIOR CITIZEN DISCOUNT APPLICATION
(Applicant must be 65 years of age or older with household gross income of \$35,000 or less per year and must be on MSD sewers)

Date: ____/____/____

LWC Bill Account Number: _____ (Attach copy of LWC bill)

Name of Applicant: _____ Single Married Widowed
(Please print)

Service Address: _____
(Street) (City) (State) (Zip)

Resident telephone number: (____) _____ - _____ Date of Birth: ____/____/____

Please submit a document for each of the categories below and check the appropriate box:

Proof of Income	Proof of Residency	Proof of Age
<input type="checkbox"/> IRS Tax Return & Schedules*	<input type="checkbox"/> Deed/Title	<input type="checkbox"/> Drivers License
<input type="checkbox"/> Social Security Form SSA	<input type="checkbox"/> Lease/Rental Agreement	<input type="checkbox"/> Birth Certificate
<input type="checkbox"/> Other _____	<input type="checkbox"/> Property Tax Bill/PVA	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Other _____	

*Tax Return and Schedules filed within the last 12 months. Household gross income must be \$35,000 or less.

I hereby apply for a 30% Senior Citizen Discount of the amount billed for sanitary sewer service and the EPA Consent Decree Surcharge for the service address listed above. I certify that I am the legal title/leaseholder/renter of the above property, that I am 65 years of age or older, that my household gross income is \$35,000 or less per year and that I have provided all relevant documents relating to my income, age and residency. I also understand that at MSD's discretion, I may be required to renew this application each year.

Executed this _____ day of _____, 20__

Signature of Applicant: _____

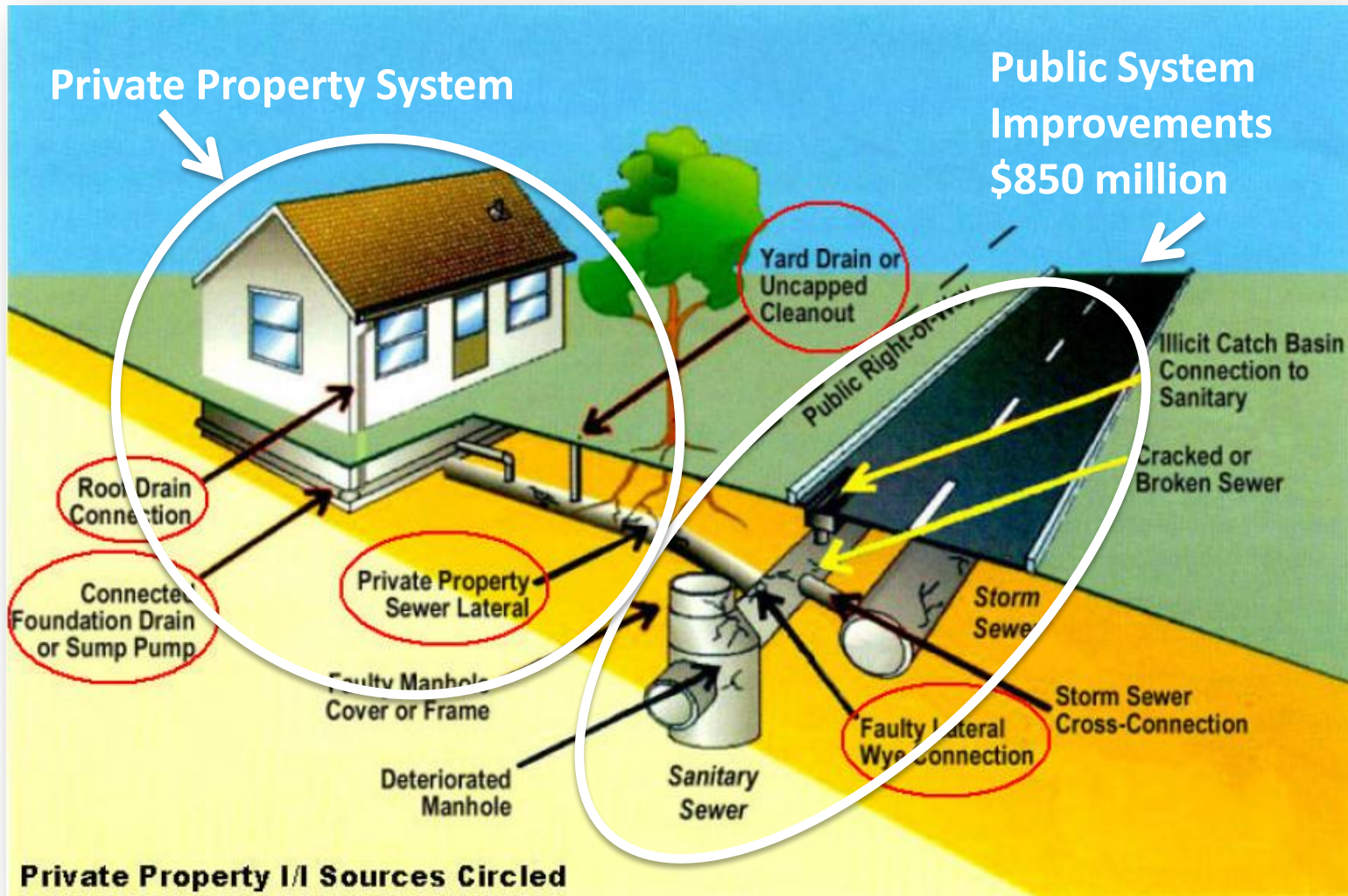
Please mail application and supporting documents to the following address:

MSD
Attn: Senior Citizen Discount Program
700 W. Liberty Street
Louisville, KY 40203

Rev. Form Date: 7/13/10



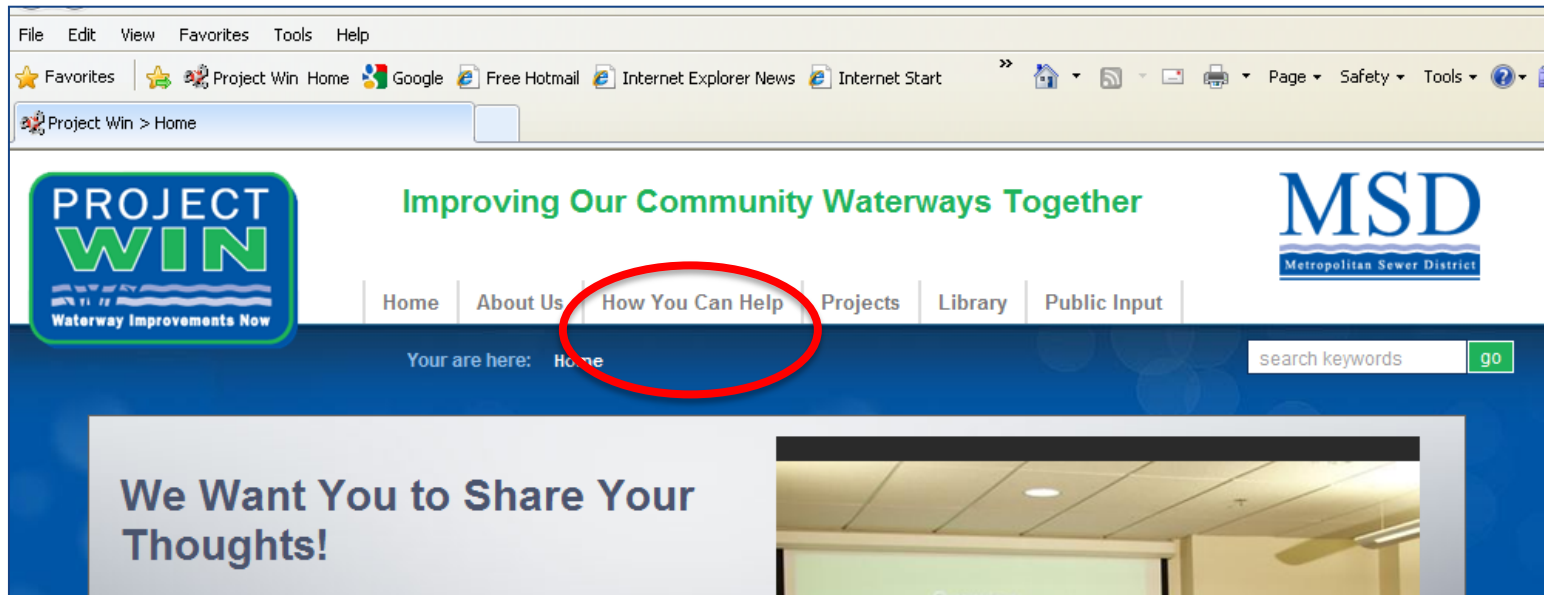






**Working Together
to protect public health**

What You Can Do



Learn More at the Website Created for YOU!



msdprojectwin.org

