



**REPORT TO  
Utilities Rate Advisory Commission  
City of Sacramento**

**1395 35<sup>th</sup> Ave. Sacramento, CA 95822  
[www.cityofsacramento.org/utilities](http://www.cityofsacramento.org/utilities)**

**Discussion Calendar  
October 26, 2011**

**Honorable Chair and Members of  
Utilities Rate Advisory Commission**

**Title: Wastewater Workshop**

**Location/Council District: (Citywide)**

**Recommendation: Review and File**

**Contact: Dave Brent, Interim Director, 808-1420 Department of Utilities**

**Presenters: Dave Brent**

**Department: Department of Utilities**

**Division: Administration**

**Organization No: 14001011**

**Description/Analysis**

**Issue: This presentation will provide Commission members with an overview of the City's two wastewater systems and discuss key challenges and drivers that affect the operation, maintenance and rehabilitation of the City's wastewater infrastructure.**

**Rational for Recommendation: Staff believes this presentation will help provide Commission members with understanding of the City's wastewater services and the potential challenges presented by aging infrastructure and increasing regulations and mandates.**



CITY OF SACRAMENTO  
DEPARTMENT  
OF UTILITIES

**Financial Considerations: None**

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Respectfully Submitted by: \_\_\_\_\_ /s/ .Dave Brent

Dave Brent  
Interim Director

Attachments

1. Background
2. Power Point

## Attachment 1

### **Background**

This presentation was originally given to the City Council on October 11, 2011 and discusses:

- City's wastewater systems
- Challenges presented by age, roots, failure of pipes, litigation and regulations
- Regulations
- Infrastructure needs
- Value of the system
- Consequences of inaction

The presentation is designed to provide Commission members with a better understanding of the Department's wastewater infrastructure, its challenges, and the benefits of wholesaling water.



Wastewater Workshop  
Utilities Rate Advisory  
Commission

October 26, 2011

Presentation by:

Department of Utilities

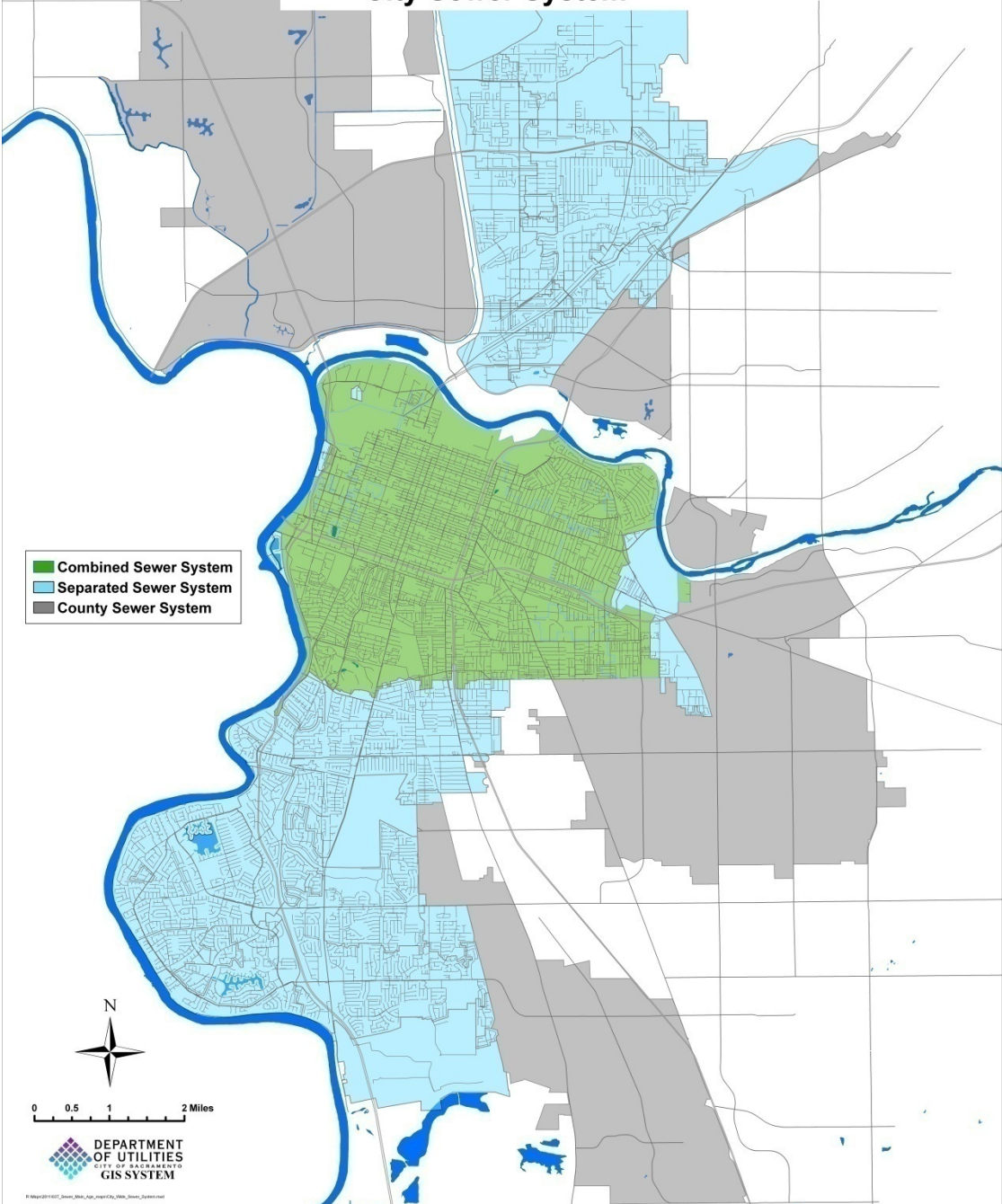


# Workshop Overview

- City's Wastewater Systems at a Glance
- System Function and Operation
- System Challenges
  - Age
  - Backyard Mains
  - Roots, Fats, Oils and Grease
  - Regulatory Mandates
  - Litigation
- What's at Stake?

# CITY OF SACRAMENTO

## City Sewer System



- Combined Sewer System
- Separated Sewer System
- County Sewer System



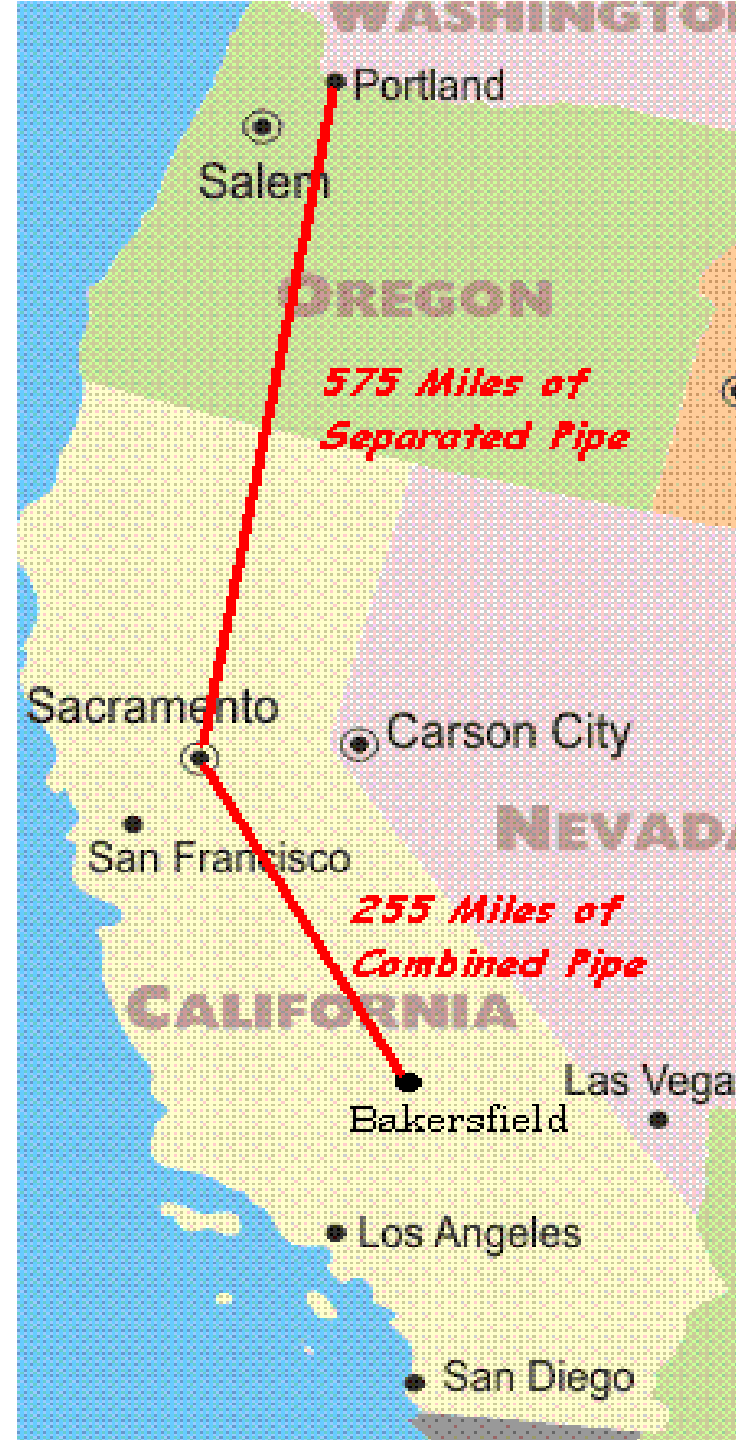
0 0.5 1 2 Miles

DEPARTMENT OF UTILITIES  
CITY OF SACRAMENTO  
GIS SYSTEM

© 1999-2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025

# System at a Glance

- Combined
  - 255 miles of Pipe
  - 2 Primary treatment/storage facilities
  - Sumps 1/1A and 2/2A
  - Underground storage facilities
  - Replacement Value \$1.4 Billion
- Separated
  - 572 miles of pipe
  - 40 sumps
  - Replacement Value \$1 Billion



# Core Functions

- Frontline of our Environmental Stewardship Efforts
- Frontline of City's Public Health and Sanitation



# City of Sacramento Combined Sewer System

## Legend

- SRCSD\_Interceptors
- City Sewer Mains**
  - 33" and larger
  - 12"-33"
- Separated Sewer System
- Combined Sewer System
- SASD Service Area

Sump 1, 1A  
Pioneer Reservoir

Sump 2

CWTP

Wet Weather  
<60 MGD



Sacramento Regional  
Wastewater Treatment Plant



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# Challenges

- Age
- Backyard Mains
- Roots, Fats, Oils and Grease
- Regulations
- Litigation

# Sump 2 Under Construction Circa 1927



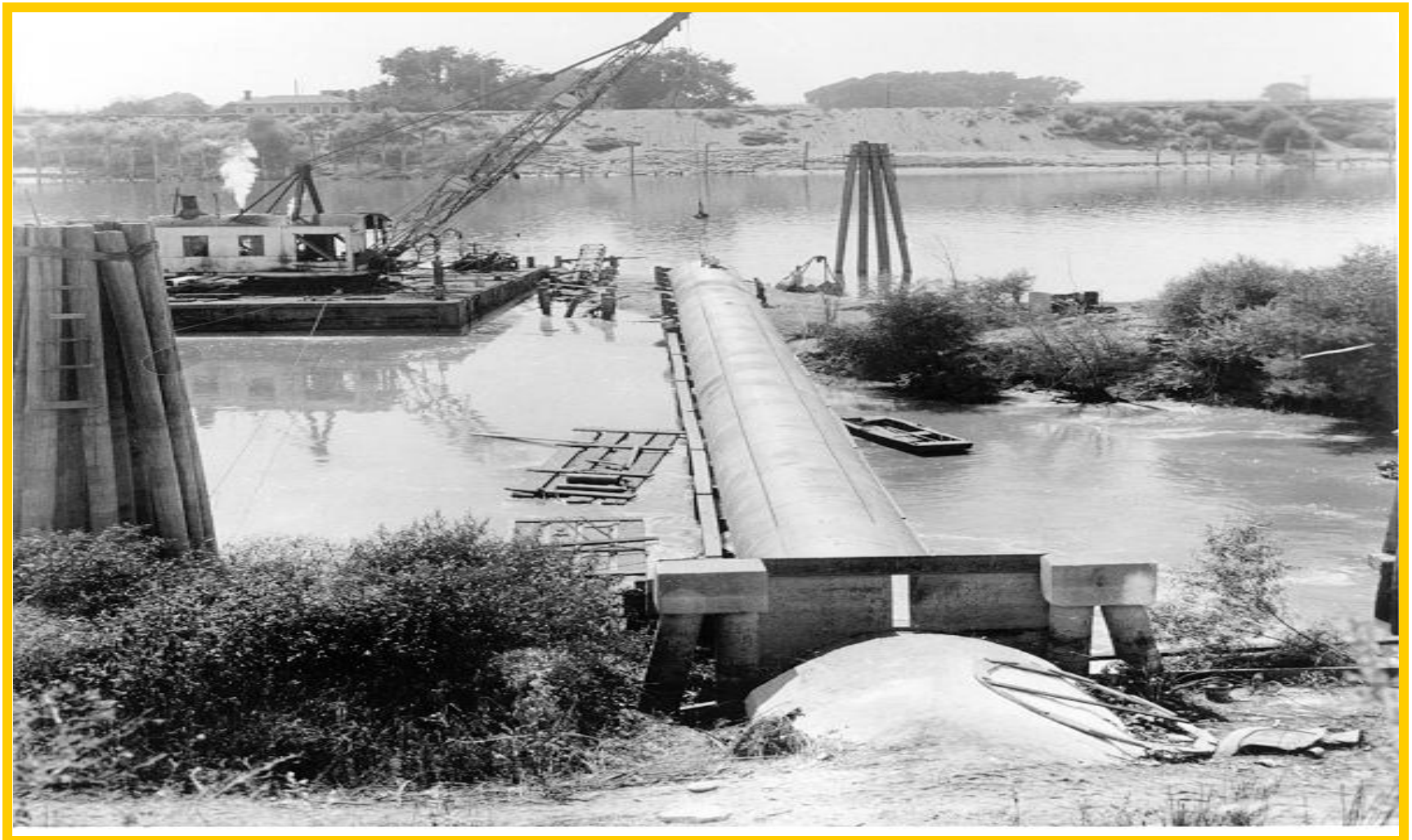
# Pipe Construction Equipment for 108 inch Sewer - Circa 1927



# Casting Concrete Pipe Onsite

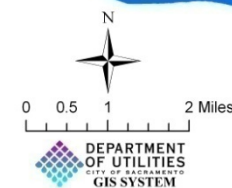
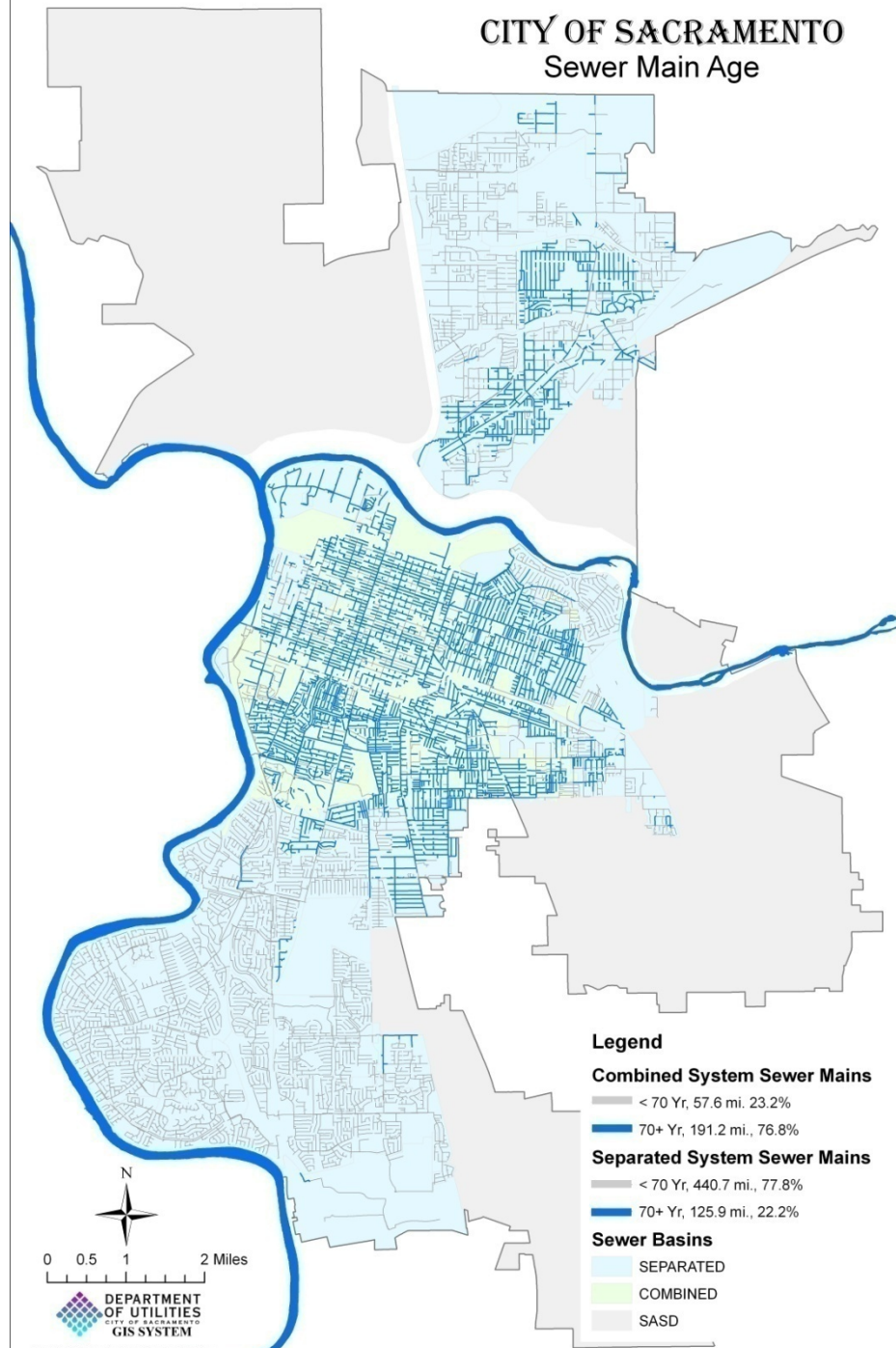


# Sump 2 Discharge To River



# CITY OF SACRAMENTO

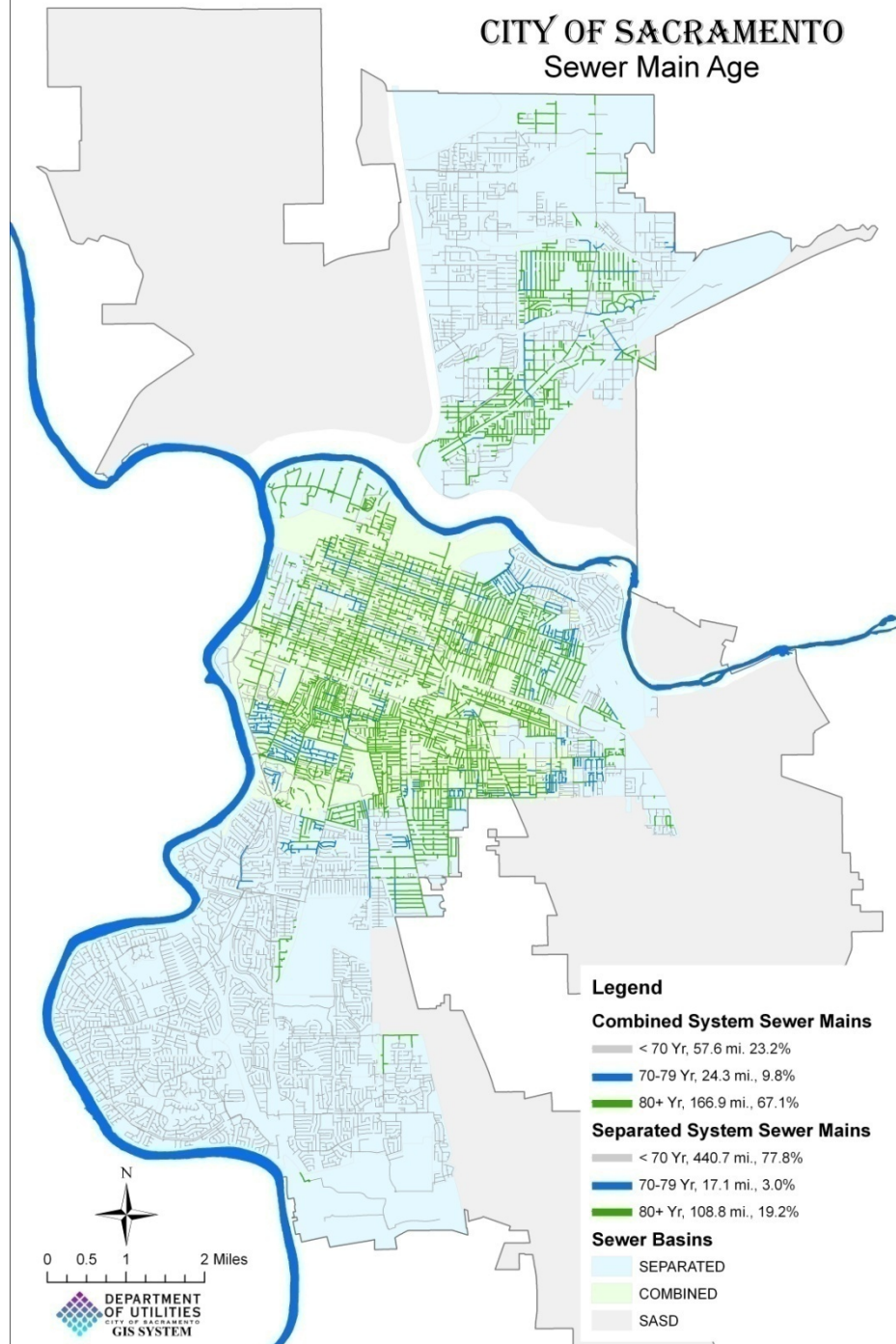
## Sewer Main Age





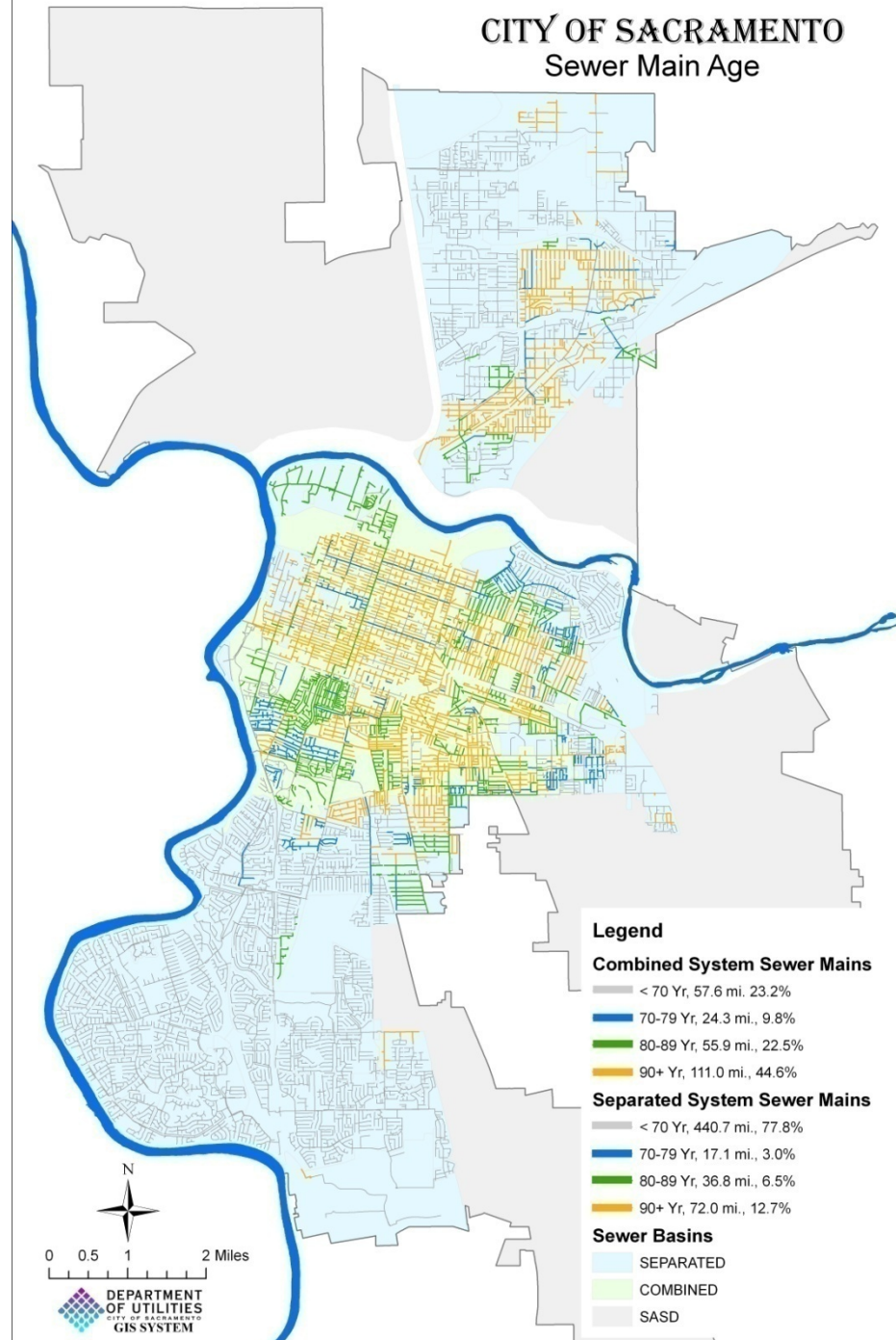
# CITY OF SACRAMENTO

## Sewer Main Age



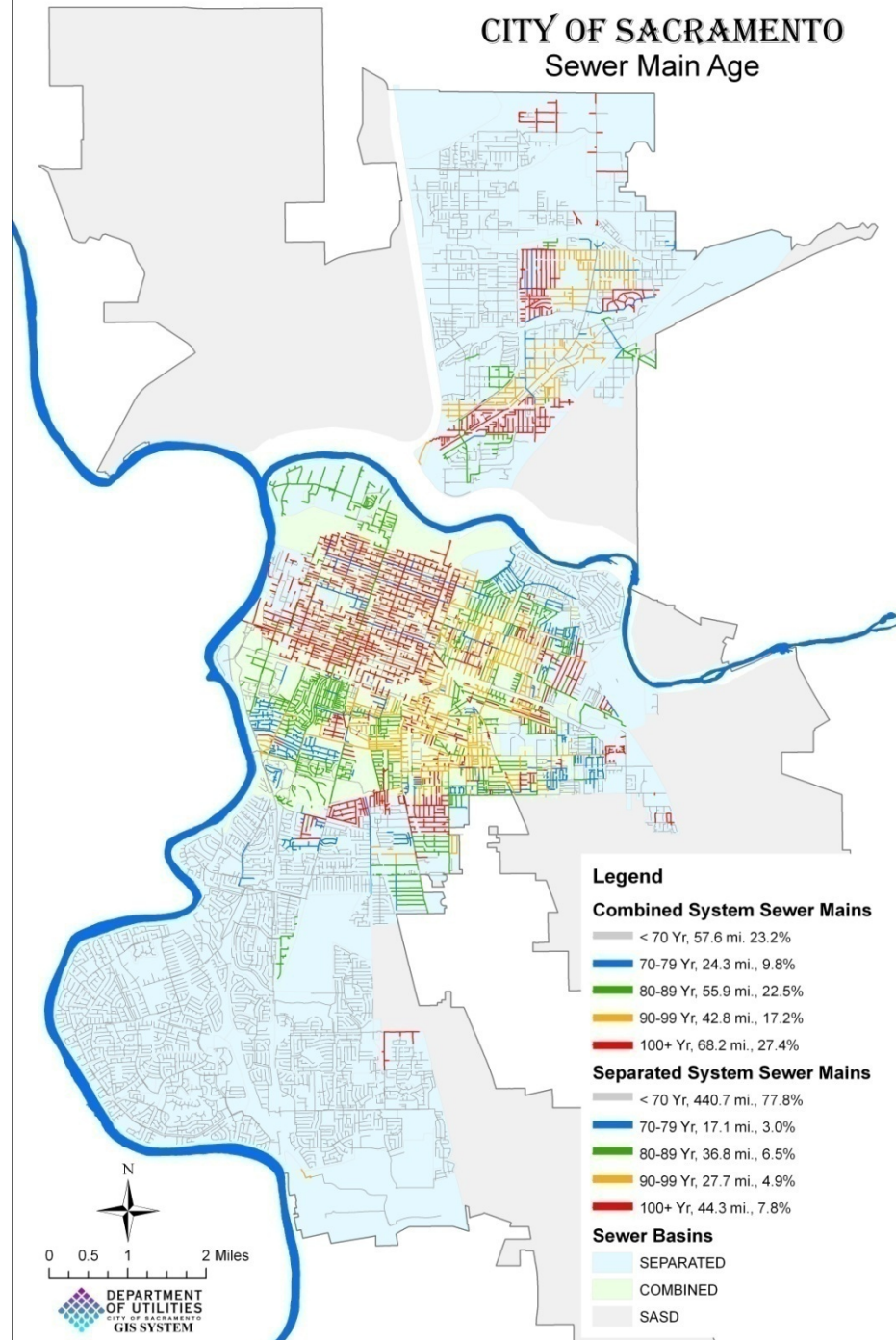
# CITY OF SACRAMENTO

## Sewer Main Age



# CITY OF SACRAMENTO

## Sewer Main Age





# Backyard Mains



# City of Sacramento Wastewater System

## USEPA and ASCE Report Card

Components	Years of design life
<b>Collections</b>	<b>80-100</b>
Treatment Plants – Concrete Structures	50
Treatment Plants – Mechanical and Electrical	15-25
<b>Force Mains</b>	<b>25</b>
<b>Pumping Stations – Concrete Structures</b>	<b>50</b>
<b>Pumping Stations – Mechanical and Electrical</b>	<b>15</b>
Interceptors	90-100

4653 SUNSET



0132.5'

23RD ST

0104.9'

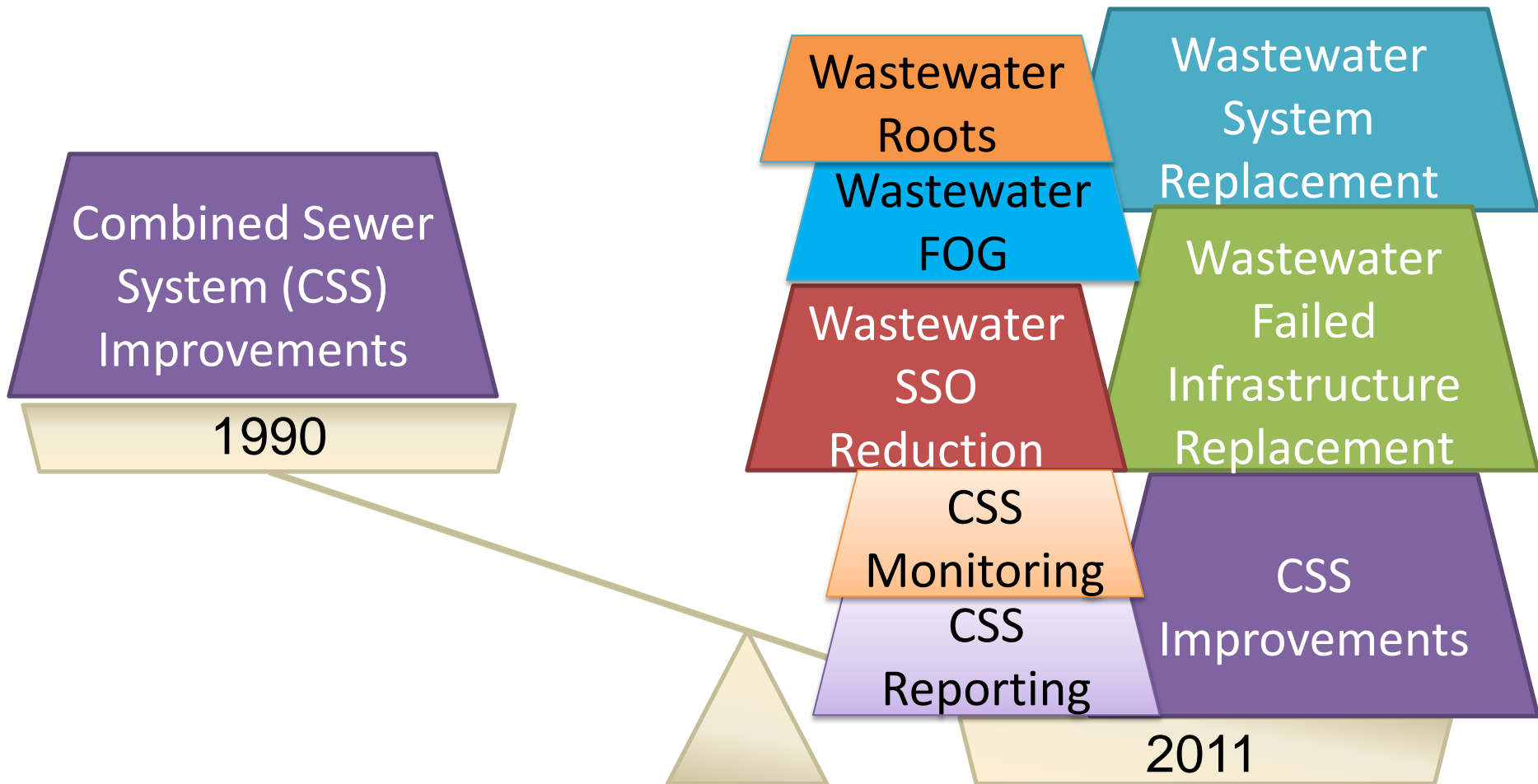




# Permits/Agencies Regulating The City's Wastewater System

- National Pollutant Discharge Elimination System (NPDES) Permit - US Environmental Protection Agency (EPA) and California Regional Water Quality Control Board
- Sanitary Sewer System General Waste Discharge Requirements - State Water Resources Control Board

# The Regulatory Environment Increasing Number and Scope





# Why Do We Need To Fix The System?

- Environmental Stewardship
- Public Health and Safety
- Economic Vitality
- Job Creation
- Maintaining Local Control of system

# Environmental Stewardship



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# Public Health and Safety



# Economic Development



# Local Control

- “EPA: Fix Sewage System or Else” – The State, April 27<sup>th</sup>, 2011
  - Columbia, South Carolina faced with **\$500 million** bill to improve system
- “Sewer District Settles Suit, Agrees to Upgrades” – St. Louis Post-Dispatch, August 5<sup>th</sup>, 2011
  - Rebuild system over 2 decades – at a cost of **\$4.7 billion**
- “Atlanta water, sewer rates among nation’s highest” - The Atlanta Journal-Constitution, October 5<sup>th</sup>, 2009
  - Atlanta court order requires **\$4.1 billion** in improvements



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