



MWEA WWADCon  
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# SAW Fun Facts

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# Today's Talk

1. What's SAW?
2. What's the AMP process?
3. Fun facts!
4. What will it cost?
5. What are communities doing?
6. Trends and the future of Michigan infrastructure funding

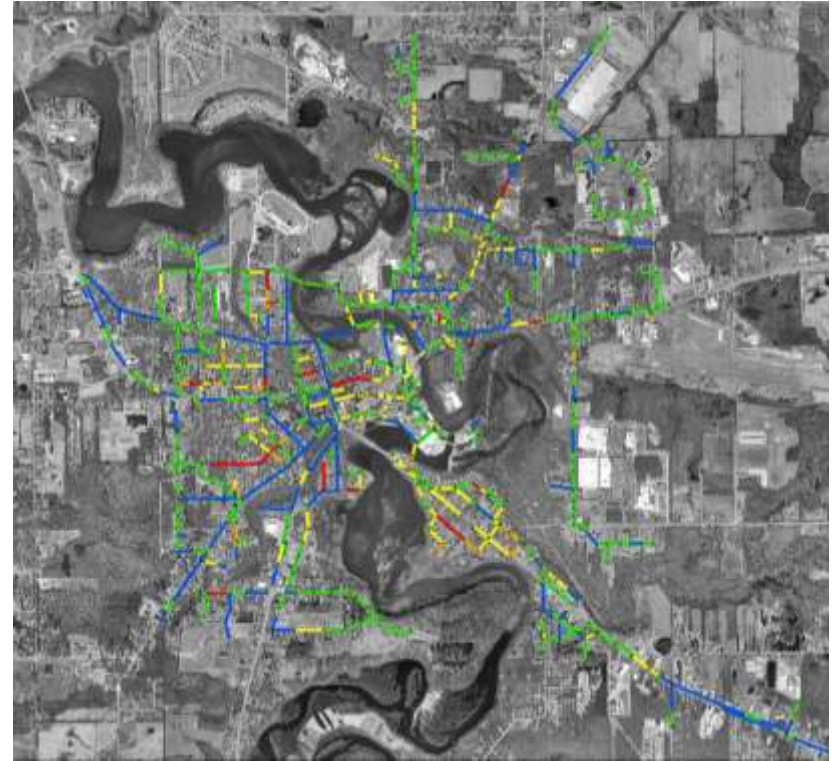


# What's SAW?

- WW and SW AMPs
- \$2 Million Cap Per Community
- 686 Applicants
- \$546 Million Requested
- Lottery Over 5 'Rounds': \$ 451,589,273 Awarded

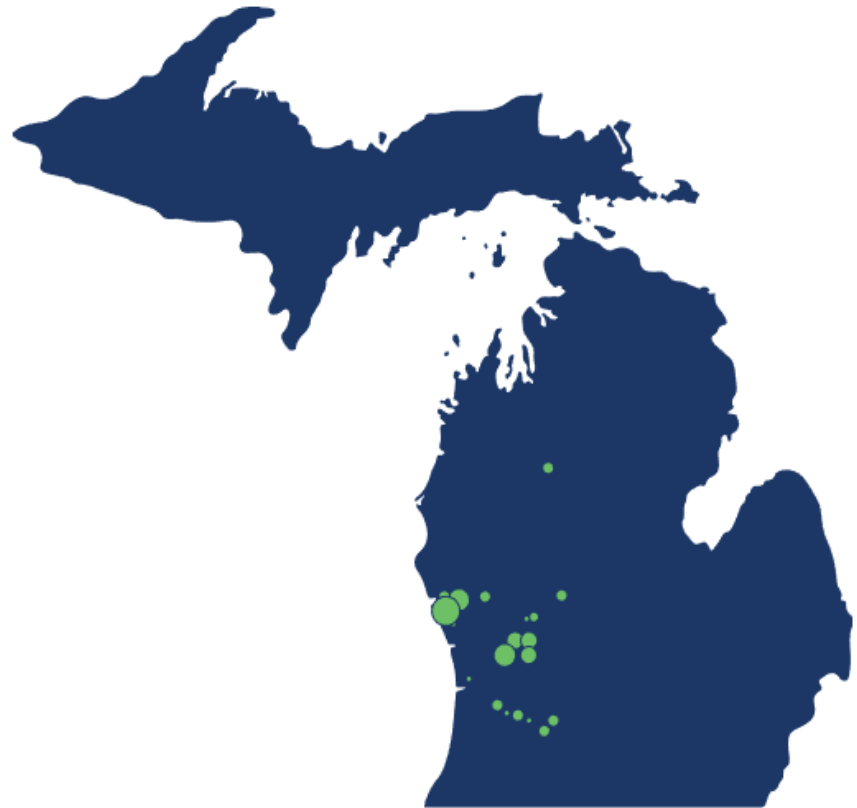
# What's the AMP Process?

- Inventory & Map
- Assess Condition & Failure Risk, Consequences
- Define Level of Service
- Develop AMP and CIP
- Fund it



# Data Universe

- Based on data from 22 communities
  - 14 Stormwater systems
  - 21 Wastewater systems
- Total population 250,000
- From 1,400 to 40,000 in size
- 402 miles of storm sewers
- 978 miles of sanitary sewers
- 2.3 million data points



# Risk of Failure 1 to 5

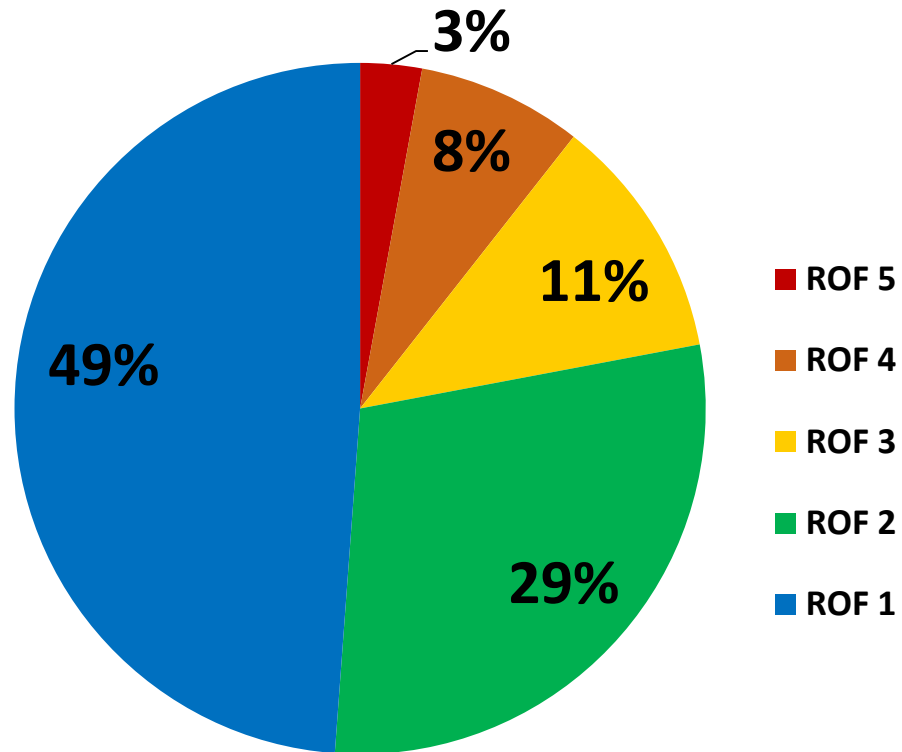




# Sanitary Sewers

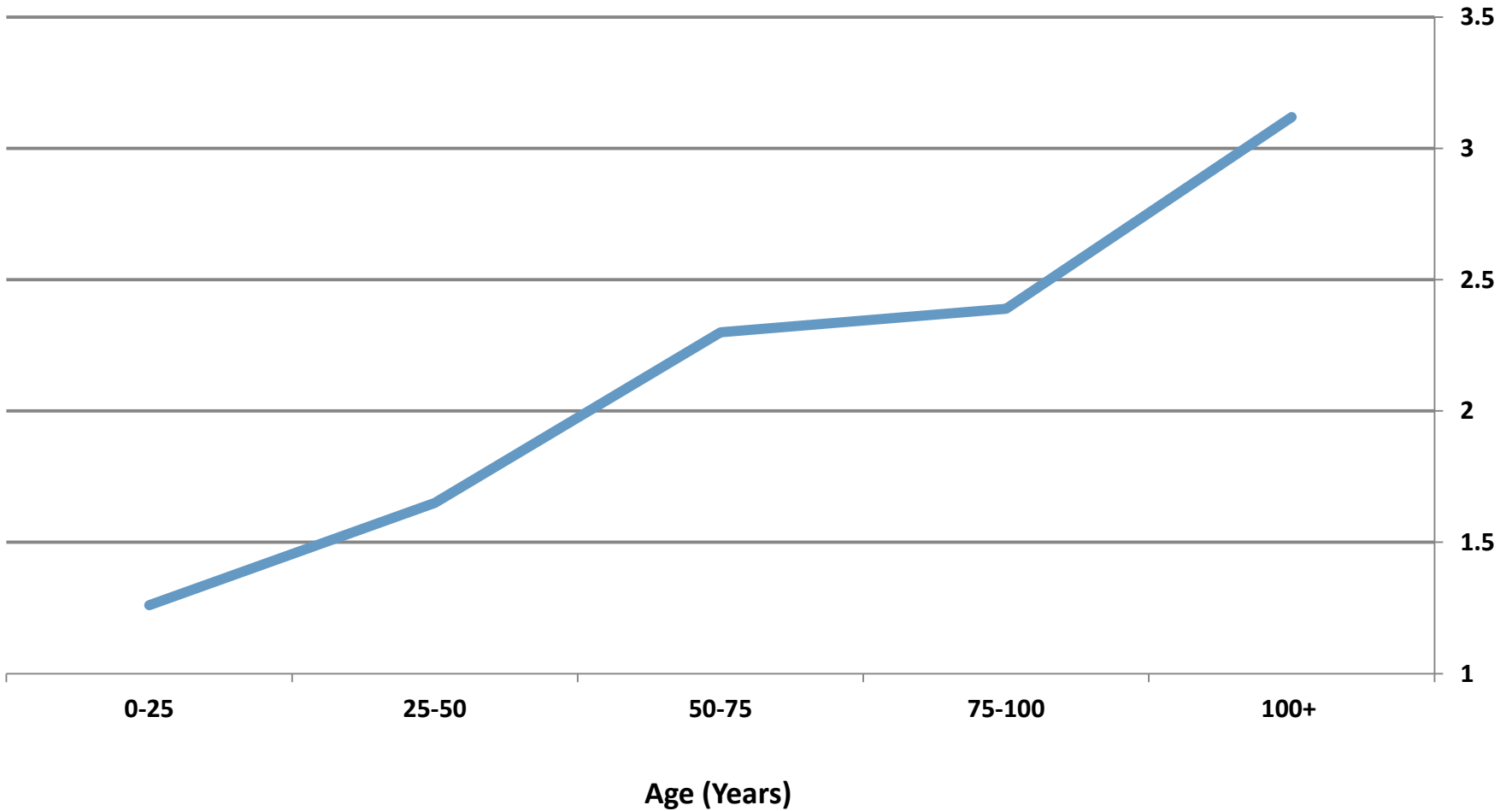
- 978 miles
- 4" to 54"
- Average size: 10.2"
- Average ROF: 1.76 (1 to 5 scale)
- Average Criticality: 5.3 (1 to 25 scale)
- Average age: 43.9 years
- Oldest installed in 1889!

# Sanitary Sewer ROFs

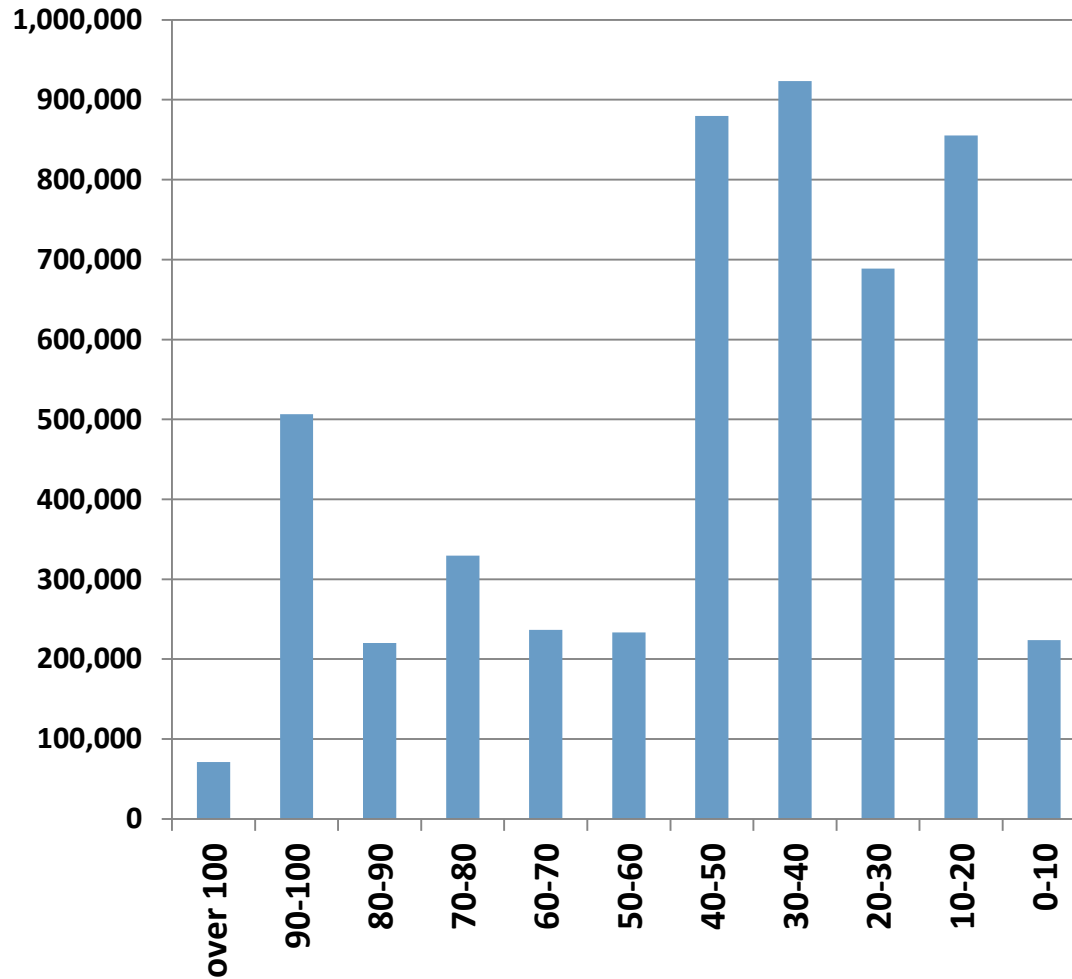




# Average Sanitary Sewer ROF: Pipe Age

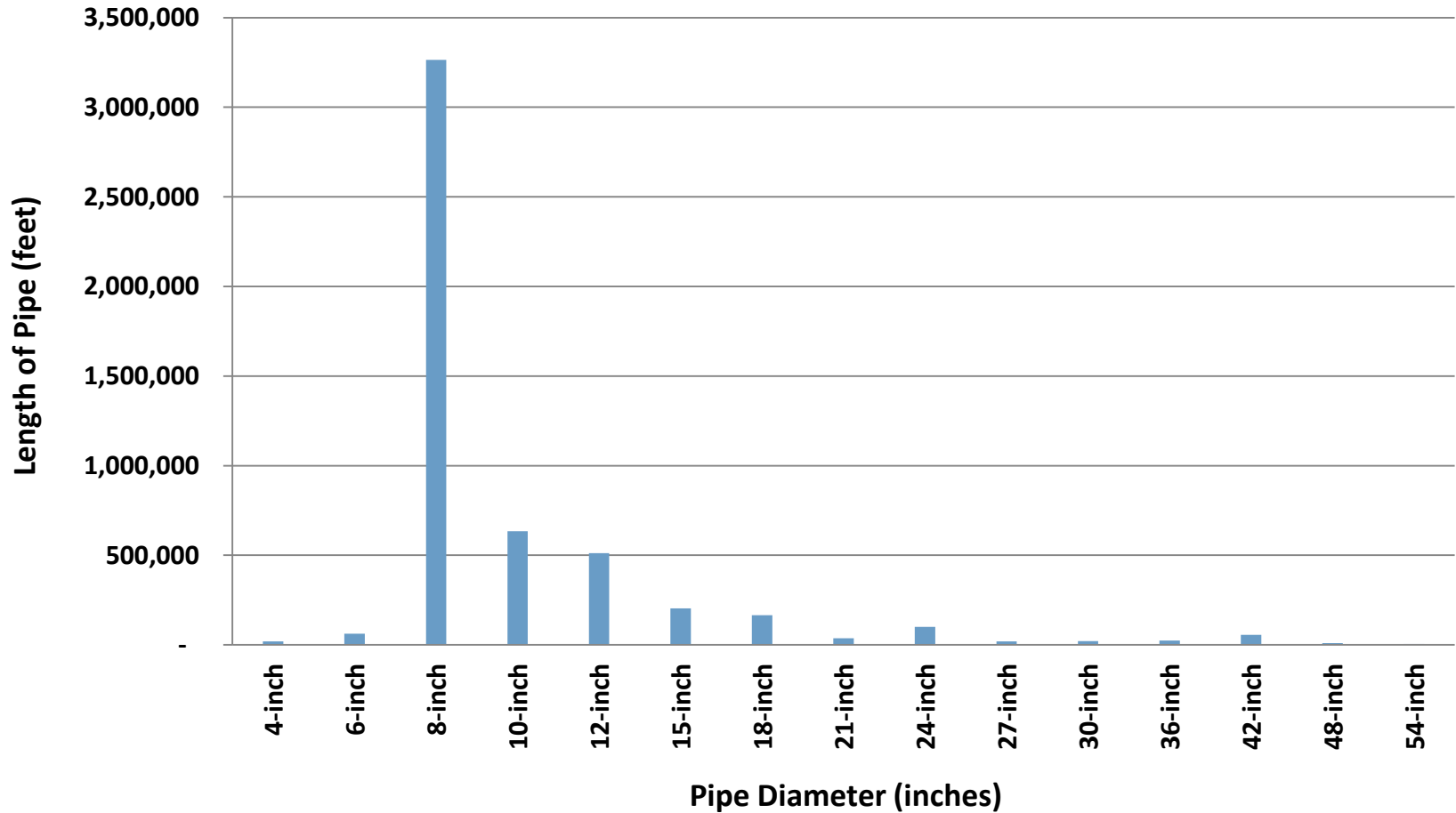


# Length (feet) of Sanitary Sewer by Age

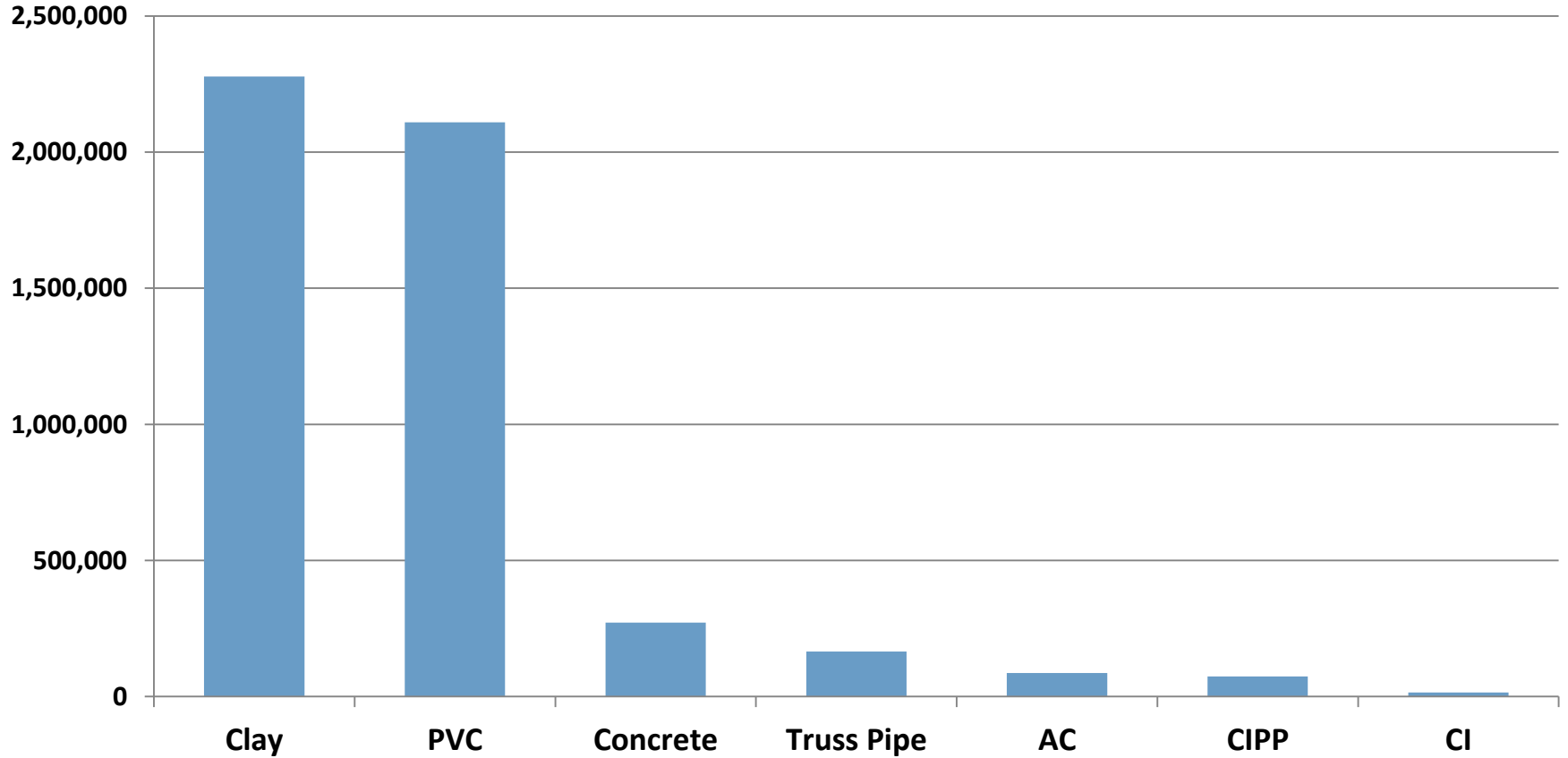


Age	Ft	Miles
over 100	71,181.4	13.5
90-100	506,541.1	95.9
80-90	220,285.5	41.7
70-80	329,596.5	62.4
60-70	236,678.4	44.8
50-60	233,311.6	44.2
40-50	879,627.6	166.6
30-40	923,227.2	174.9
20-30	688,733.0	130.4
10-20	855,437.7	162.0
0-10	223,696.8	42.4

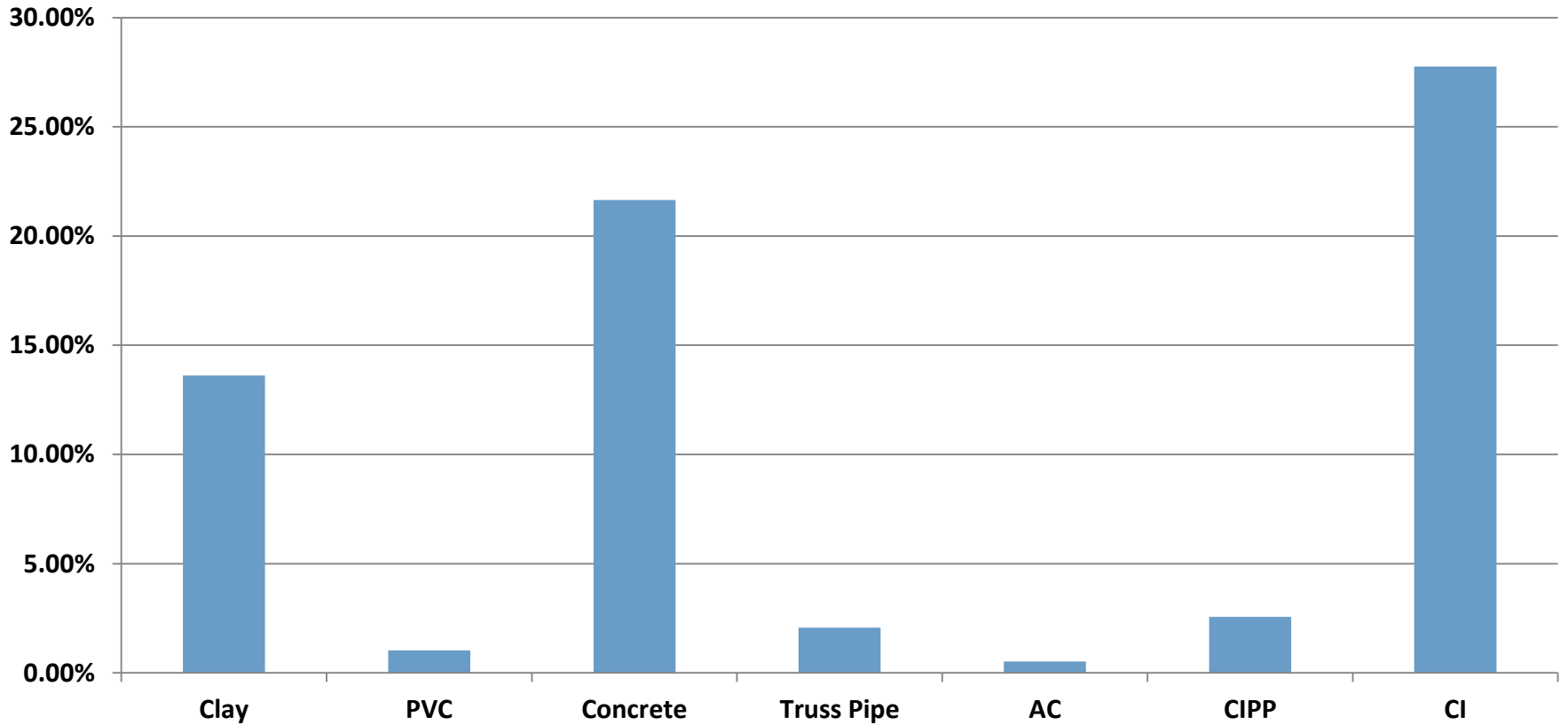
# Total Sanitary Sewer by Diameter



# Total Sanitary Sewer by Pipe Type



# Poor and Failing Sewer ROF 4&5 by Pipe Type

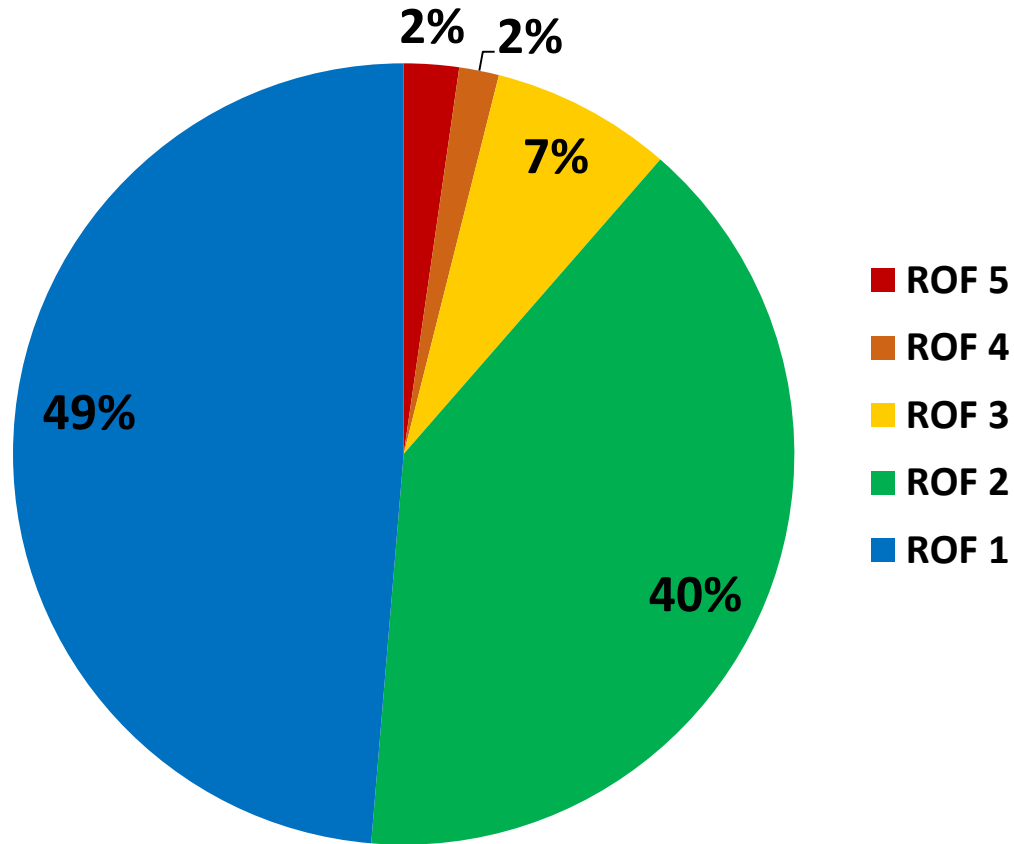




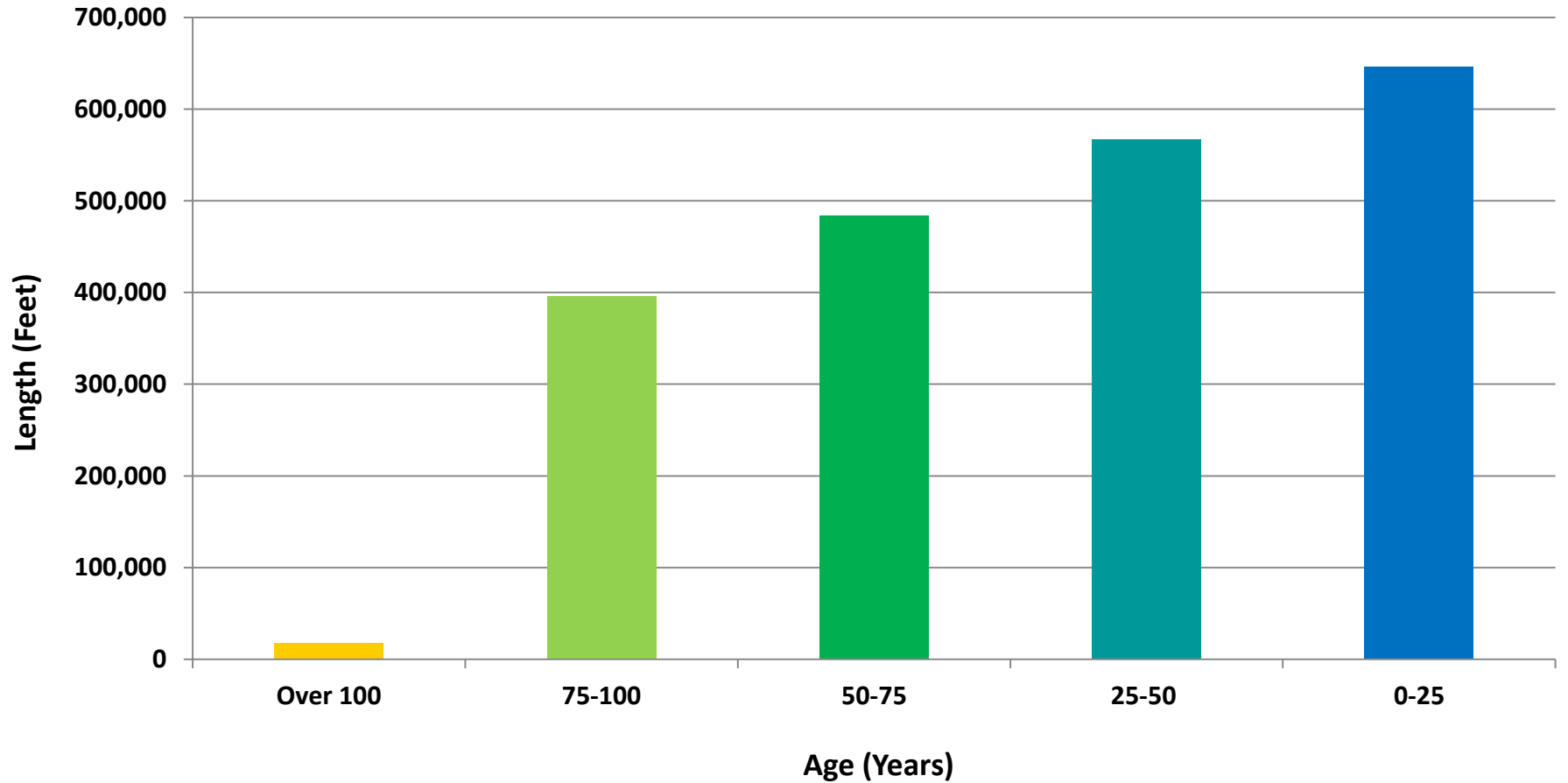
# Storm Sewers

- 402 miles
- 4" – 60" in diameter
- Average Size: 16.9" in diameter
- Average ROF: 1.59 (1 to 5 scale)
- Average Criticality: 4.8 (1 to 25 scale)
- Average Age: 43 years
- Oldest installed in 1902

# Storm Sewer ROFs

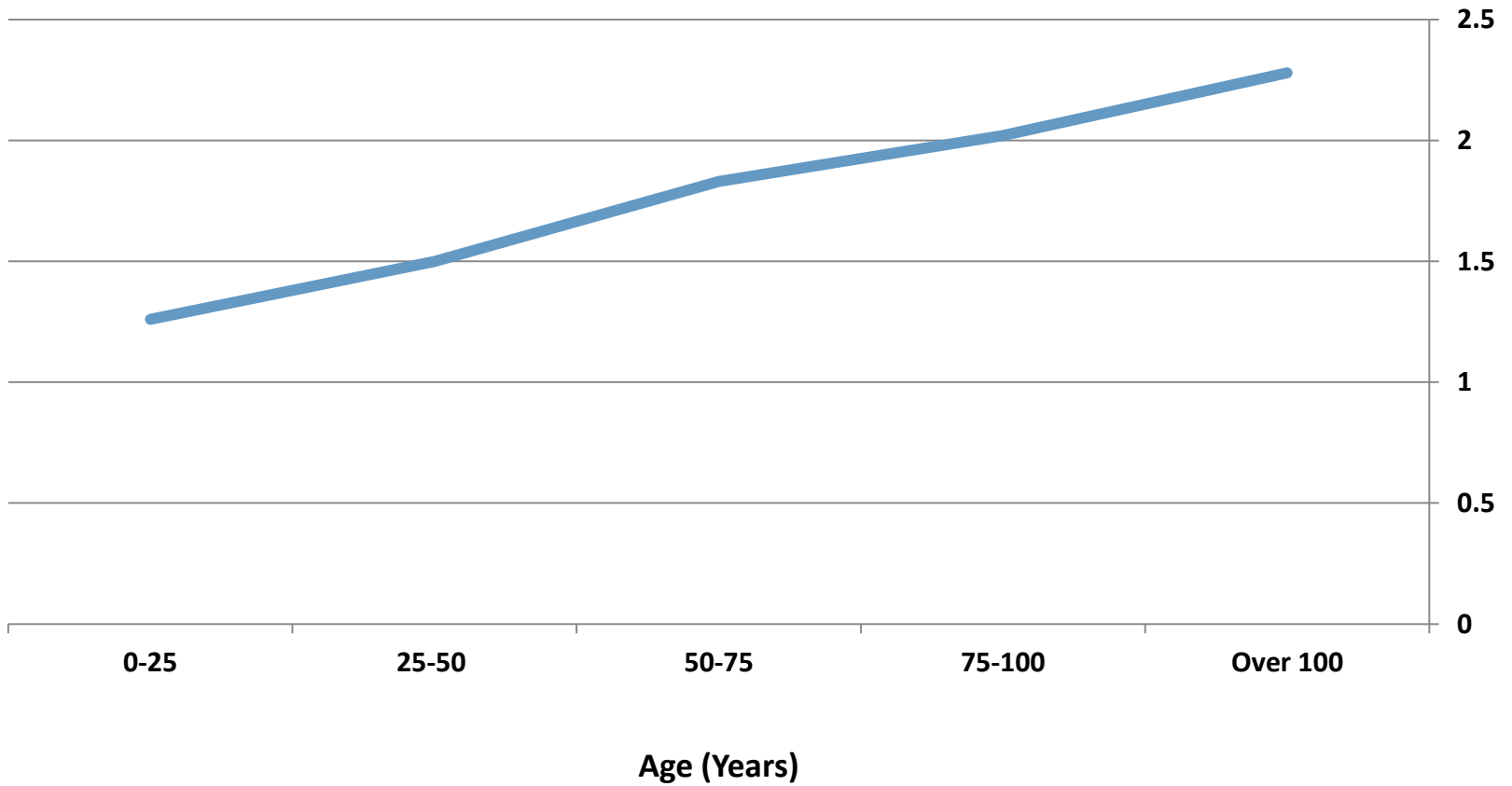


# Storm Sewer Lengths by Age

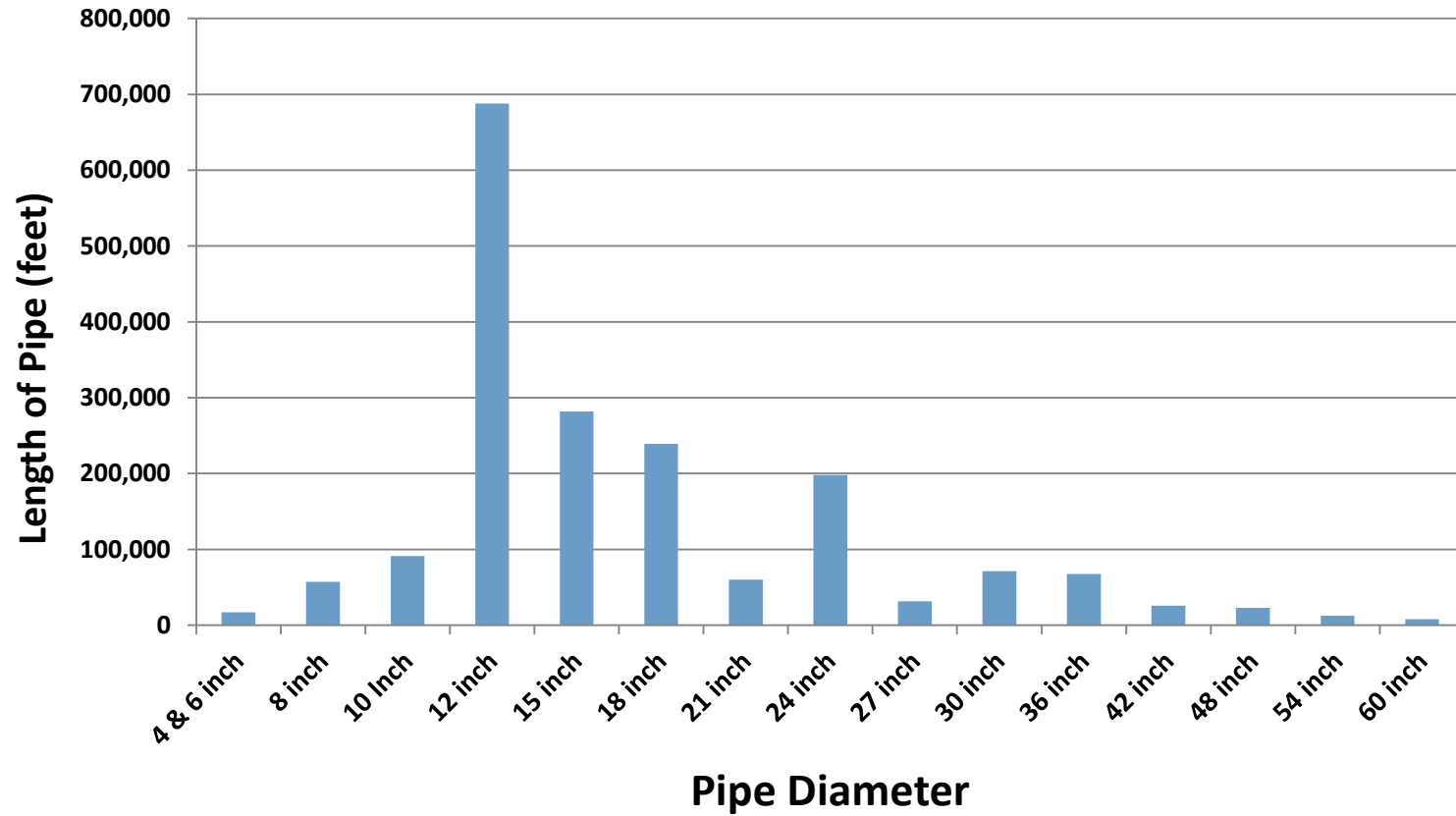




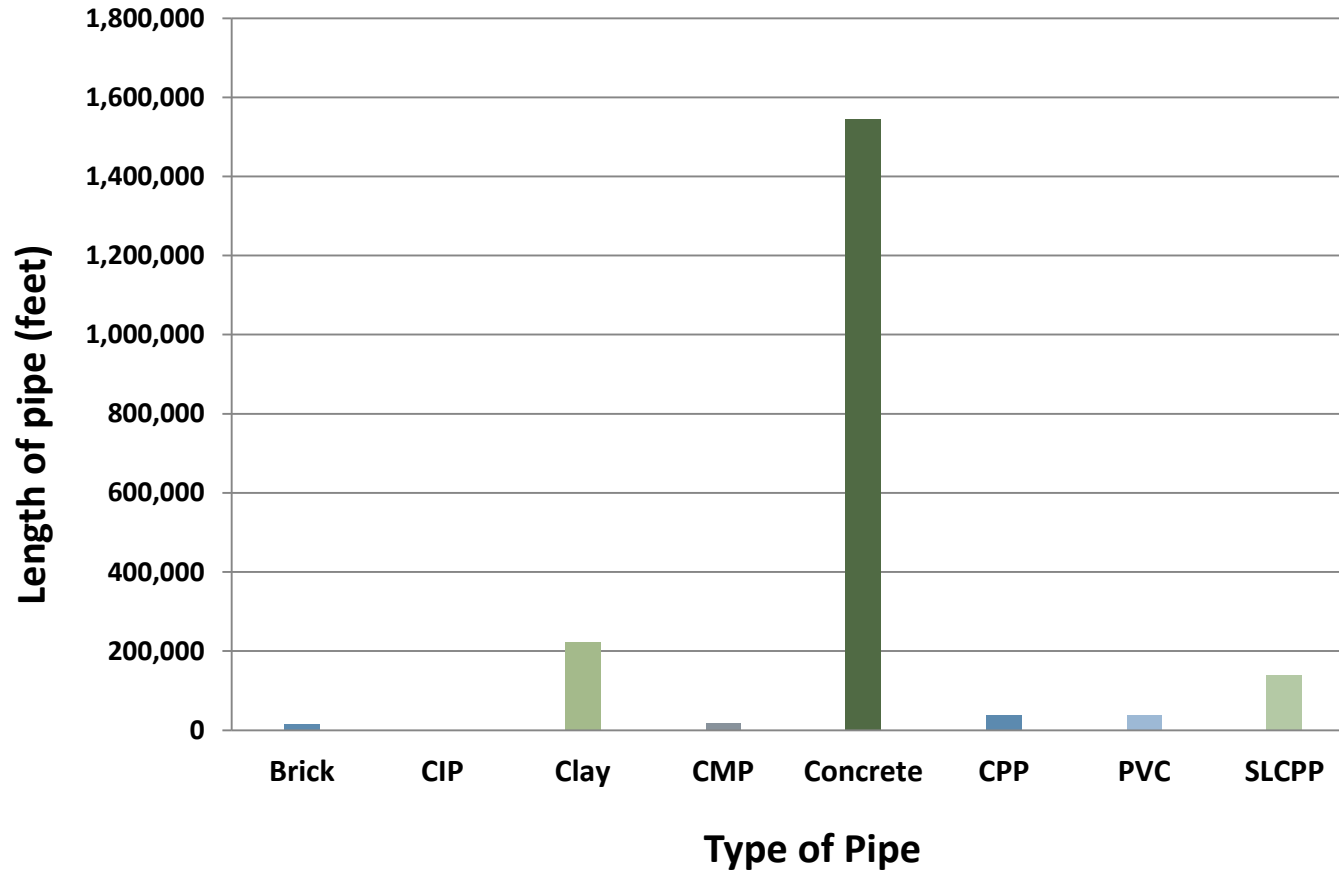
# Storm Sewer ROFs by Pipe Age



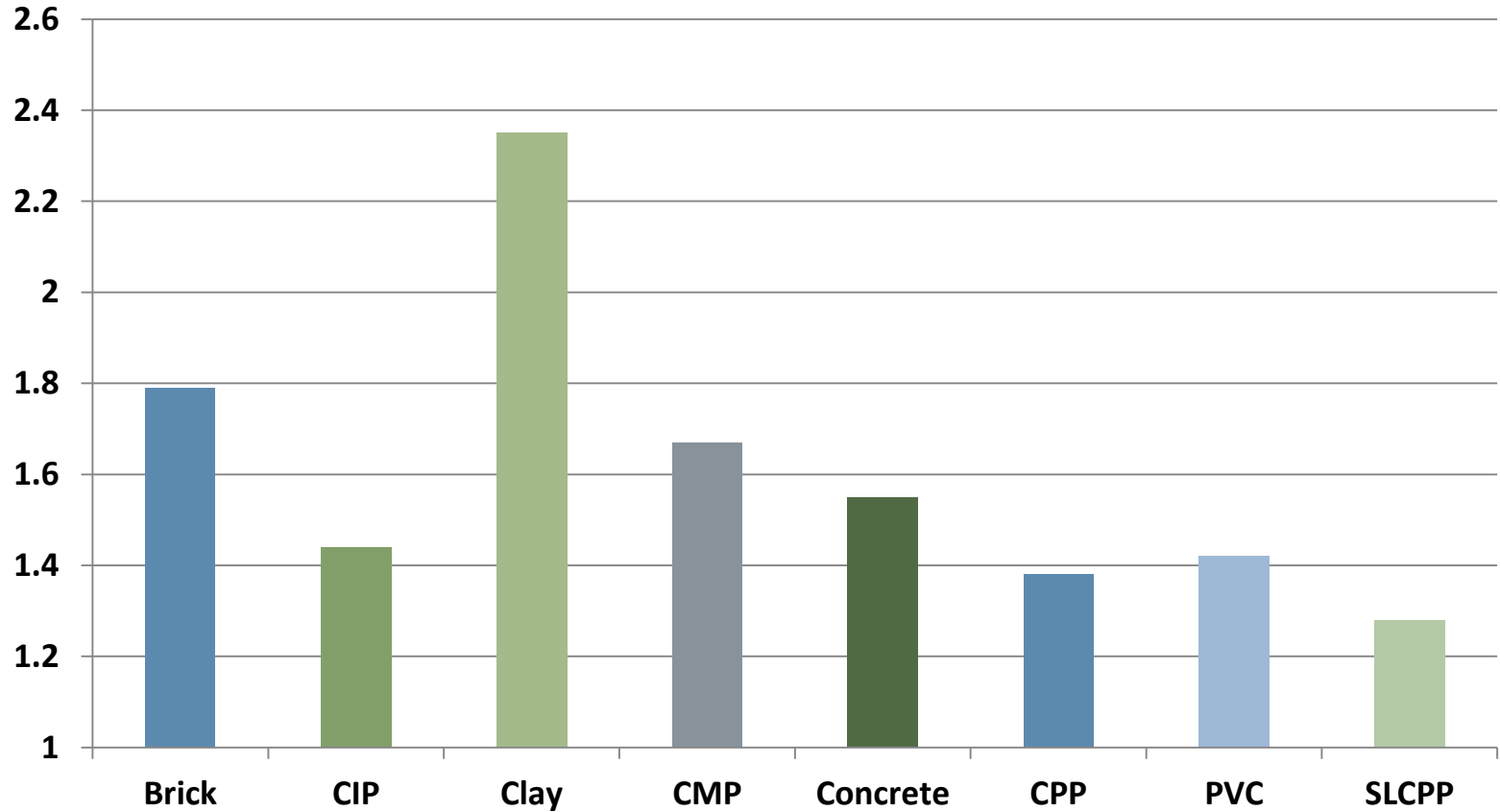
# Storm Sewers by Pipe Size



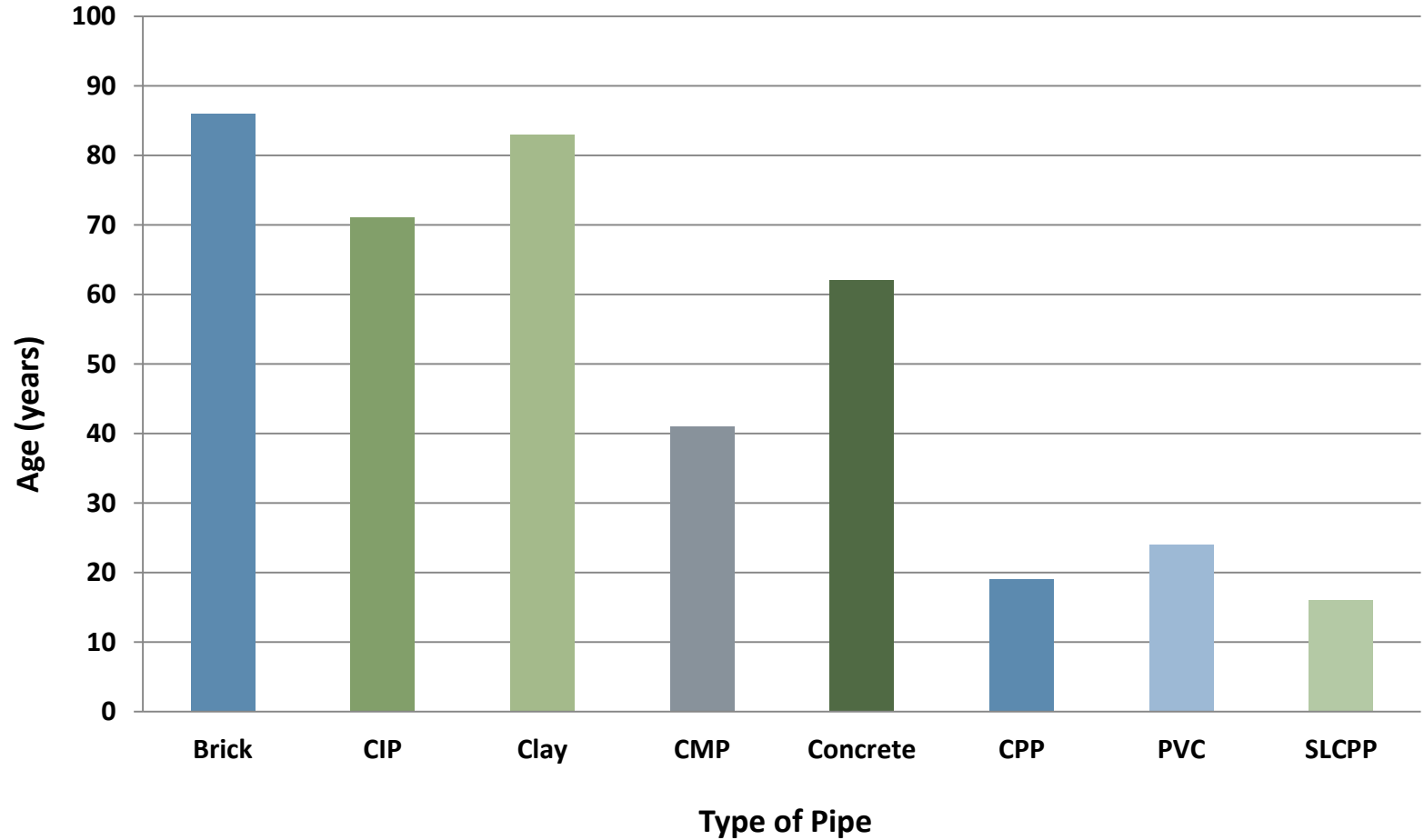
# Storm Sewers by Pipe Type



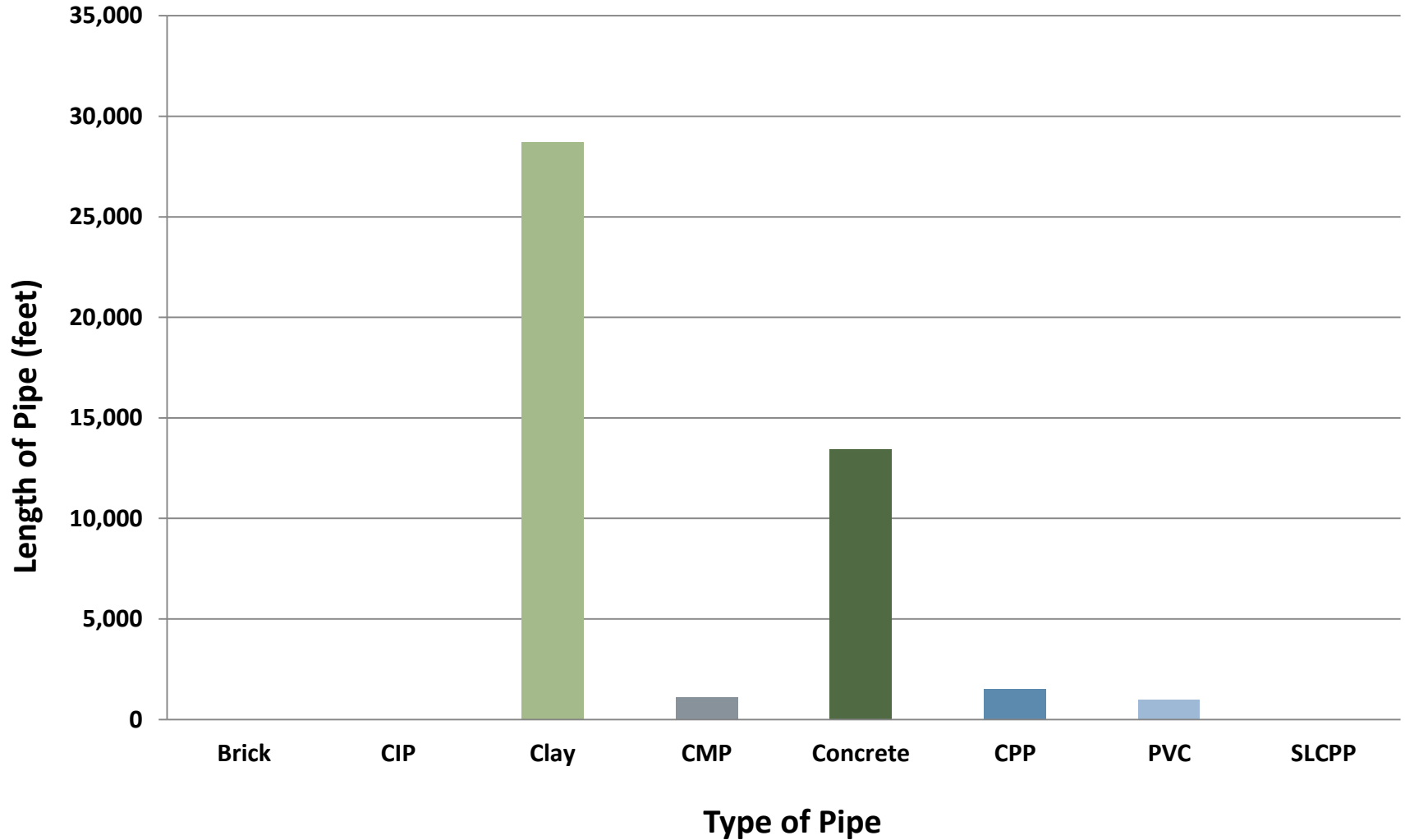
# Storm Sewer Avg ROF by Pipe Type



# Storm Sewer Pipe Types by Avg Age



# Storm Sewer Pipe Types w/ROFs 4 &5



# Pipe Footprint



Our pipe footprint:

For every person in our study area, there is **8.4** feet of storm sewer pipe and **20.6** feet of sanitary sewer pipe.



8.4 Feet Storm Sewer

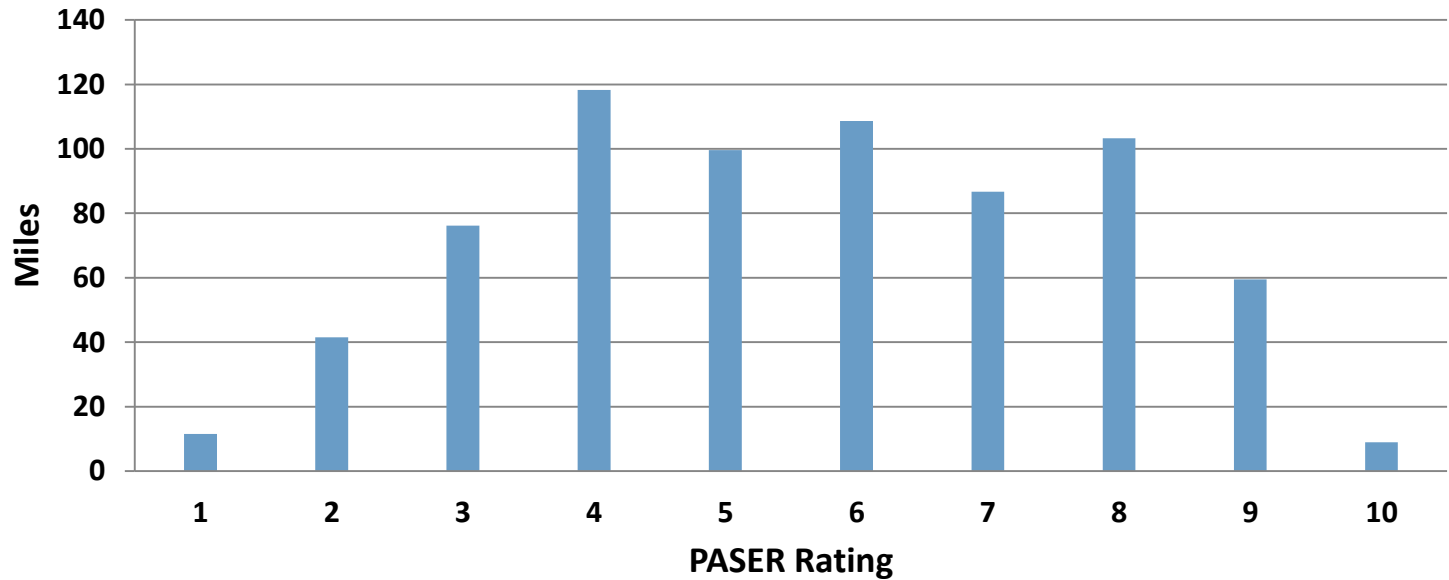


20.6 Feet Sanitary Sewer

# Road PASERs

10 (new) to 1 (awful)

Avg. PASER: 5.10







# PASER Ratings

- **18.7%** of total pavement has **8-10** PASER Ratings.
- **24.0%** of total pavement has **1-3** PASER Ratings.
- **1.3%** of all **8, 9, & 10** pavement has pipe underneath with ROF of **4 & 5** (poor and failing).



## What Will It Cost?

At a minimum, communities should be expecting

- \$500/year per household for sanitary sewer
- \$300/year per household for storm sewer
- \$500/year per household for water
- \$500/year per household for roads



# What are Communities Doing?

- Some are changing their rates based on sound and thorough Asset Management Plans (approximately 90%)
- Some are sticking their heads in the sand and holding the political status quo of no rate changes (8%)
- Some are splitting the difference (2%)



# Who's **In**, Who's **Out** (11/2017)

Southgate Wyandotte Relief Drainage District

Clinton Oakland Sewage Disposal System

Charter Township of Grand Blanc

City of Highland Park

City of Big Rapids

Township of Onekama

Village of Mattawan

City of Ludington

**CUT LINE**

**Village of Kent City**

# SAW, Part Deux. Can we do more?

- 32 SAW Applicants unfunded after Round 5; As of 11/2017
- 132 communities with WW did not apply!
- 21 CIR, SAW II, WAMPs
- Legislative support





# QUESTIONS?

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