



FUSS & O'NEILL



RAFTELIS

# Wastewater Facility Plan Public Hearing

Town of Coventry, RI

**January 9, 2024**



# Agenda

1. Purpose & Requirement for Planning
2. Coventry Wastewater Management
3. Planning Areas and Census Tract Mapping
4. Public Participation
5. Needs Assessment
6. HS OWTS Condition and Alternatives Assessment
7. Selected Recommended Plan
8. Intergovernmental Review Agency Summary
9. Typical Timeframe for Sewer Extension
10. Anticipated Implementation Schedule
11. Opinion of Cost
12. Potential Funding Sources
13. Sewer User Rate Impacts





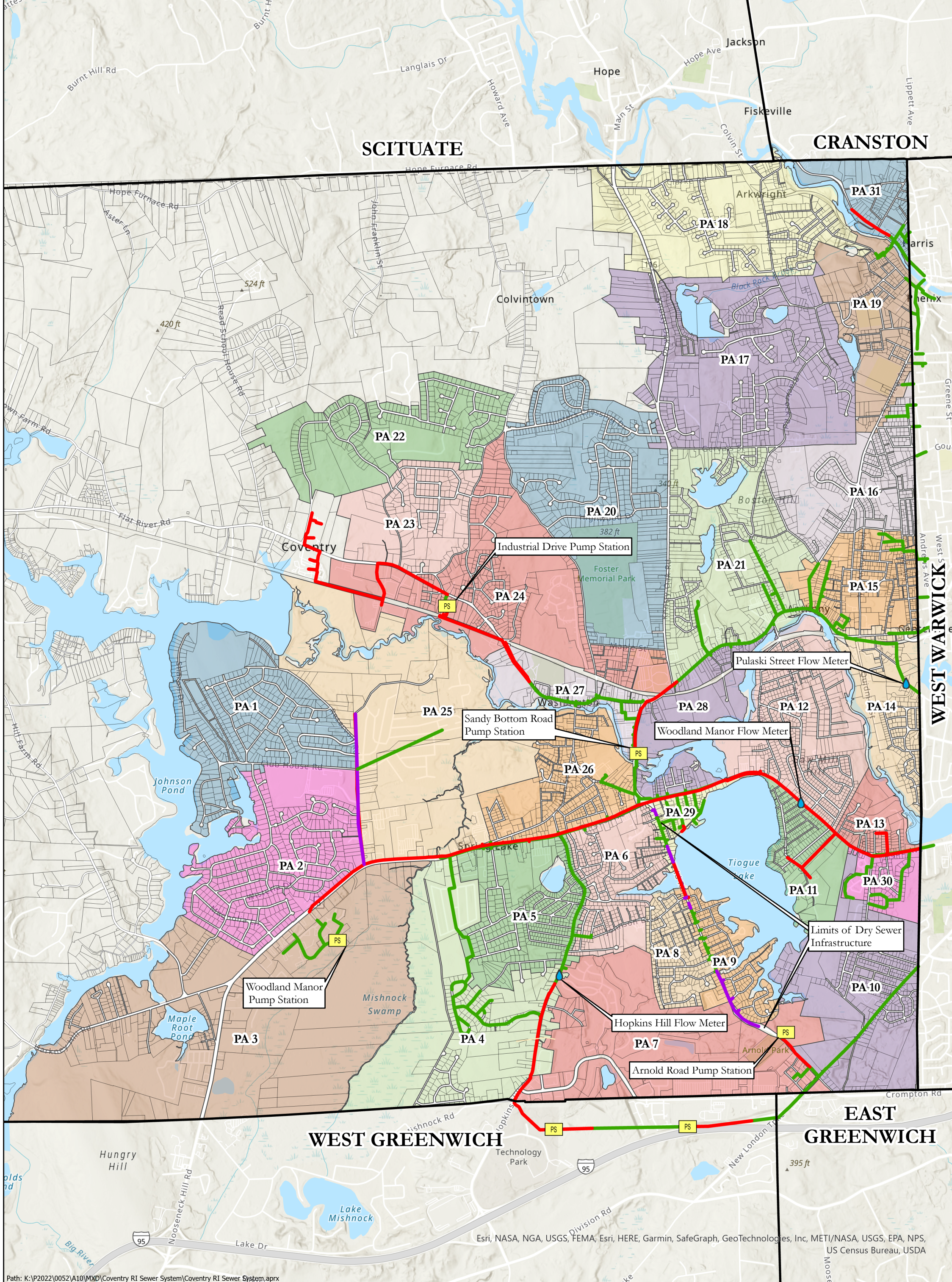
# Wastewater Facility Plan Purpose

## Facility Planning Required Every Five Years Per Rhode Island Department of Environmental Management (RIDEM) Regulations

- Facility Plan process required so the Town and its sewer projects are eligible for State Revolving Fund Loans or Municipal Grants.
- Any Sewer Projects must be added to RIDEM's Project Priority List.
- Public Participation is a Key Requirement.
- Sewer Facility Plan must dovetail with Town's Comprehensive Community Plan, Onsite Wastewater Management Plan and Sewer Ordinance.







Path: K:\P2022\0052\A10\MXD\Coventry RI Sewer System\Coventry RI Sewer System.aprx

**Legend**

- Town Line
- Sanitary Sewer Gravity Main
- Sanitary Sewer Force Main
- Sanitary Sewer Low Pressure Sewer
- PS Pump Station

0      1,500      3,000      6,000 Feet

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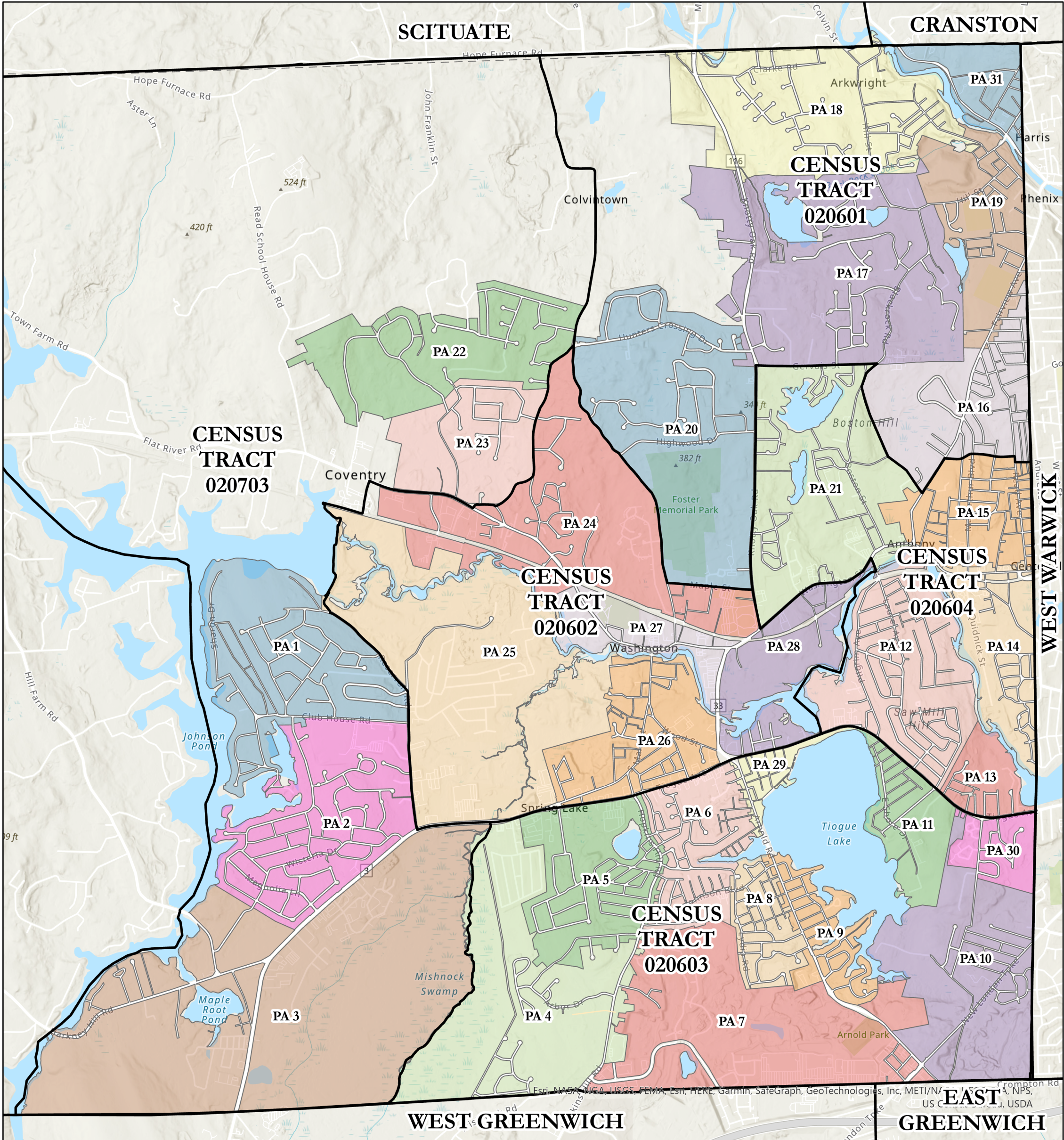
**Town of Coventry**  
Wastewater Infrastructure  
Coventry Sewer Facility Plan

Coventry      Rhode Island

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317 Iron Horse Way  
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**Figure**  
**2.2.A**





Path: K:\P2022\0052\A10\MXD\Coventry RI Sewer System\Coventry RI Sewer System.aprx

	State of Rhode Island	Census Tract 020601	Census Tract 020602	Census Tract 020603	Census Tract 020604	Census Tract 020703
Median income (dollars)	\$70,305	\$91,994	\$61,250	\$75,591	\$58,769	\$123,397
Mean income (dollars)	\$92,427	\$106,562	\$76,290	\$94,874	\$71,887	\$135,731
Number of households						
Income Range	414,730	2,354	1,548	2,928	2,497	2,423
Less than \$10,000	5.6%	2.1%	9.5%	2.2%	3.4%	1.2%
\$10,000 to \$14,999	4.9%	1.5%	4.4%	7.5%	3.4%	3.4%
\$15,000 to \$24,999	8.1%	3.6%	7.2%	15.5%	16.6%	3.9%
\$25,000 to \$34,999	7.8%	7.0%	7.0%	3.6%	6.5%	4.1%
\$35,000 to \$49,999	10.8%	7.0%	9.3%	11.0%	13.9%	4.8%
\$50,000 to \$74,999	15.8%	11.9%	19.0%	9.4%	19.0%	10.4%
\$75,000 to \$99,999	13.3%	19.9%	12.6%	18.8%	11.0%	12.3%
\$100,000 to \$149,999	18.3%	32.1%	23.2%	17.0%	15.4%	21.7%
\$150,000 to \$199,999	7.8%	8.8%	3.0%	4.1%	9.1%	20.6%
\$200,000 or more	7.7%	6.1%	4.8%	10.9%	1.8%	17.6%

**Legend**

□ Census Tract

Town of Coventry  
Planning Areas With 2020 ACS  
5-Year Estimates of Income Data  
Coventry Sewer Facility Plan

Coventry Rhode Island

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Source: 2020: ACS 5-Year Estimates of Income, <https://data.census.gov/>

**Figure 2.2.B**



# Public Participation

- Developed Facility Plan Flyer
  - Posted to Town's Website
- Developed Questionnaire
  - Mailing to Parcel Owners in Eastern Portion of Town per DRAFT Planning Areas
- Presentation to Tiogue Lake Association on August 31, 2022
- Facility Plan General Public Open House on November 17, 2022
- 90% Facility Plan Presentation at TC Meeting on April 11, 2023



## WASTEWATER PLANNING FOR Town of Coventry, RI



### WHY?

#### Sewer Facility Plan Update Required by RIDEM

Facility Planning by Town of Coventry's Consultant  
Fuss and O'Neill Inc.

(Summer 2022 – Winter 2023)

Public Awareness

#### PARCELS WITH ON-SITE SYSTEMS

Systems compliant with standards may remain.  
Repair or replace with advanced system.

**RESOURCES AVAILABLE TO YOU:**  
Community Septic System Loan Program (CSSLP)

<https://www.Rihousing.com/community-septic-system-loan-program-csslp/>

Licensed Inspectors, Designers  
<https://dem.RI.Gov/environmental-protection-bureau/water-resources/permitting/septic-on-site-wastewater-treatment-3>

Not every parcel needs sewer access.

#### SEWER FACILITY PLANNING

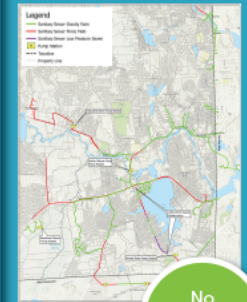
Planning areas based on sensitive areas, constricted lot sizes with failed ISDS.

Recommendations may include shared treatment and groundwater discharge, or sewer extension with goal to minimize assessments, especially for areas with limited income.

Need will determine priority for phased sewer extension or community-based shared systems.

#### PARCELS ALREADY SEWERED

Tiogue Avenue, and areas in Eastern Districts will continue to have sewer service and receive usage invoices.



No Planned Changes

#### PUBLIC PARTICIPATION

A questionnaire will be mailed directly to neighborhoods in Eastern Districts.

**If you receive the questionnaire, please respond!**

Before the facility plan is finalized, the public will be invited to participate in:

**OPEN HOUSE**  
FALL 2022

**PUBLIC HEARING**  
WINTER 2022

Dates will be posted on the Town's website.

<https://www.coventryri.org/sewer-authority>

Your participation is important!

# Needs Assessment/Matrix Evaluation

Evaluation Criteria			
Environmental Impact	Affordability	OWTS Issues Reported in Survey in Planning Areas	Site Suitability for Continued Use of OWTS
Factors Considered			
<ul style="list-style-type: none"> <li>✓ Proximity to impacted waterbody</li> <li>✓ Proximity to wetlands</li> </ul>	<ul style="list-style-type: none"> <li>✓ Census tract median household income</li> <li>✓ Approximate cost to construct sewer</li> <li>✓ Necessity for wastewater pump station</li> <li>✓ Depth to bedrock</li> <li>✓ Potential for ARPA Funding</li> </ul>	<ul style="list-style-type: none"> <li>✓ Percentage of reported cesspools</li> <li>✓ Reported age of existing OWTS</li> <li>✓ Percentage of repairs reported</li> <li>✓ Percentage of problems reported</li> <li>✓ Percentage concerned about onsite wastewater treatment</li> </ul>	<ul style="list-style-type: none"> <li>✓ Median Lot Size</li> <li>✓ Parcel Density</li> <li>✓ Soil suitability for continued onsite wastewater treatment systems</li> </ul>



# Matrix Evaluation Results

Planning Area	Priority Ranking
9	61
2	60
12	58
21	55
17	53
1	52
5	51
11	51
26	50
6	49
15	49
8	46
3	46
18	46
20	46
24	46

## Planning Areas 9 & 8 Matrix Ranks 1 & 12

- Potential ARPA Funding
- Adjacent to Tiogue Lake which has experienced elevated levels of fecal indicator bacteria
- Presence of cesspools reported in area
- Existing dry sewer infrastructure to convey wastewater to Tiogue Avenue sewer interceptor

## Planning Areas 2 & 1 Matrix Ranks 2 & 6

- Facilitates extension of wastewater infrastructure to future developments
- Presence of cesspools reported in area
- Adjacent to Johnson Pond

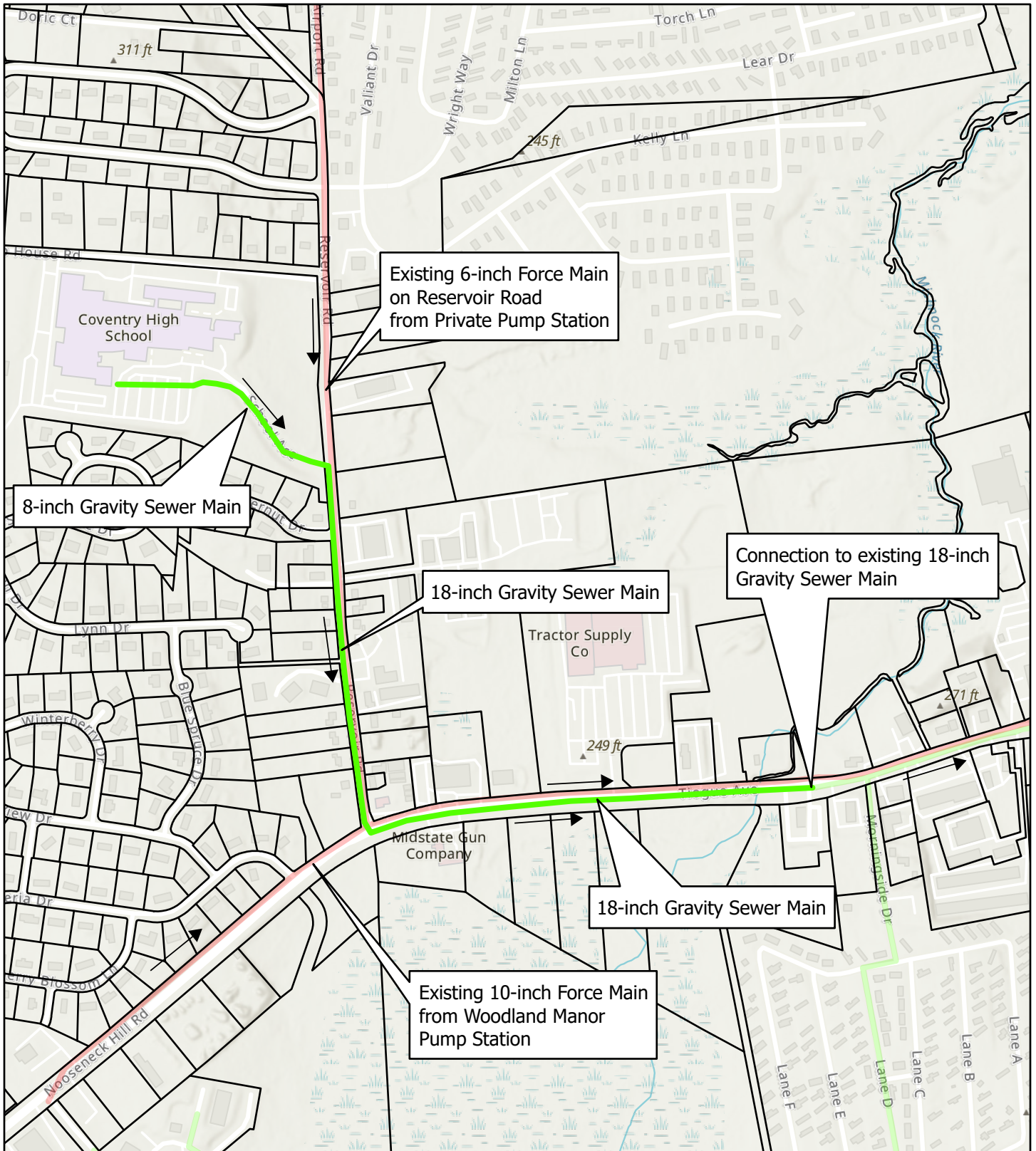
## Planning Area 12 Matrix Rank 3

- Adjacent to existing Tiogue Avenue sewer interceptor and Washington Street sewer interceptor
- Adjacent to South Pawtuxet River
- Generally made up of high density, low area properties
- Presence of cesspools reported in area

# Coventry High School OWTS

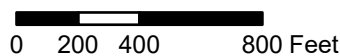
Alternatives	Description	Budgetary Opinion of Cost	Comment
No. 1	Extend Gravity Sewer from Tiogue Avenue to the High School Site	<b>\$4,220,000</b> (Range -30%/+50%: \$2,360,000 to \$5,060,000)	<b>Recommended:</b> Aligns with the Town's Wastewater FP. Investment in the Town's long-term sewer infrastructure and enables future sewer service to Planning Areas 1 and 2.
No. 2	Construct EQ Tank and Pump Station at the High School, Tie into Existing Force Main on Reservoir Road.	<b>\$2,540,000</b> (Range -30%/+50%: \$1,430,000 to \$3,050,000)	
No. 3	On-Site Passive Treatment System with Groundwater Discharge	<b>\$5,950,000</b> (Range -30%/+50%: \$3,340,000 to \$7,140,000)	<b>Not Recommended:</b> These only serve the High School parcel. Pursuit of these alternatives will result in sunk costs when considering the long-term sewer extension to Planning Areas 1 and 2 recommended in the FP.
No. 4	On-Site Active Treatment System with Groundwater Discharge	<b>\$4,950,000</b> (Range -30%/+50%: \$2,780,000 to \$5,940,000)	





### Legend

- Proposed Gravity Sewer Main
- Parcel Line
- Existing Froce Main
- Existing Gravity Sewer Main



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### Alternative No. 1

Extend Gravity Sewer in Tiogue Avenue

Coventry

Rhode Island



**Figure #1**

# PLANNING AREAS RECOMMENDED PLAN

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