

Legend


- Existing Low Pressure Sewer
- Existing Force Main
- Existing Gravity Sewer
- PS Proposed Pump Station
- Proposed Low Pressure Sewer
- Proposed Force Main
- Proposed Gravity
- Phase 1 (PA 9)
- Phase 2 (PA 8)
- Phase 3 (PA 8)

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0 200 400 800 Feet

Town of Coventry
Planning Area 8 & 9
Gravity Sewer Phases
Coventry Sewer Facility Plan

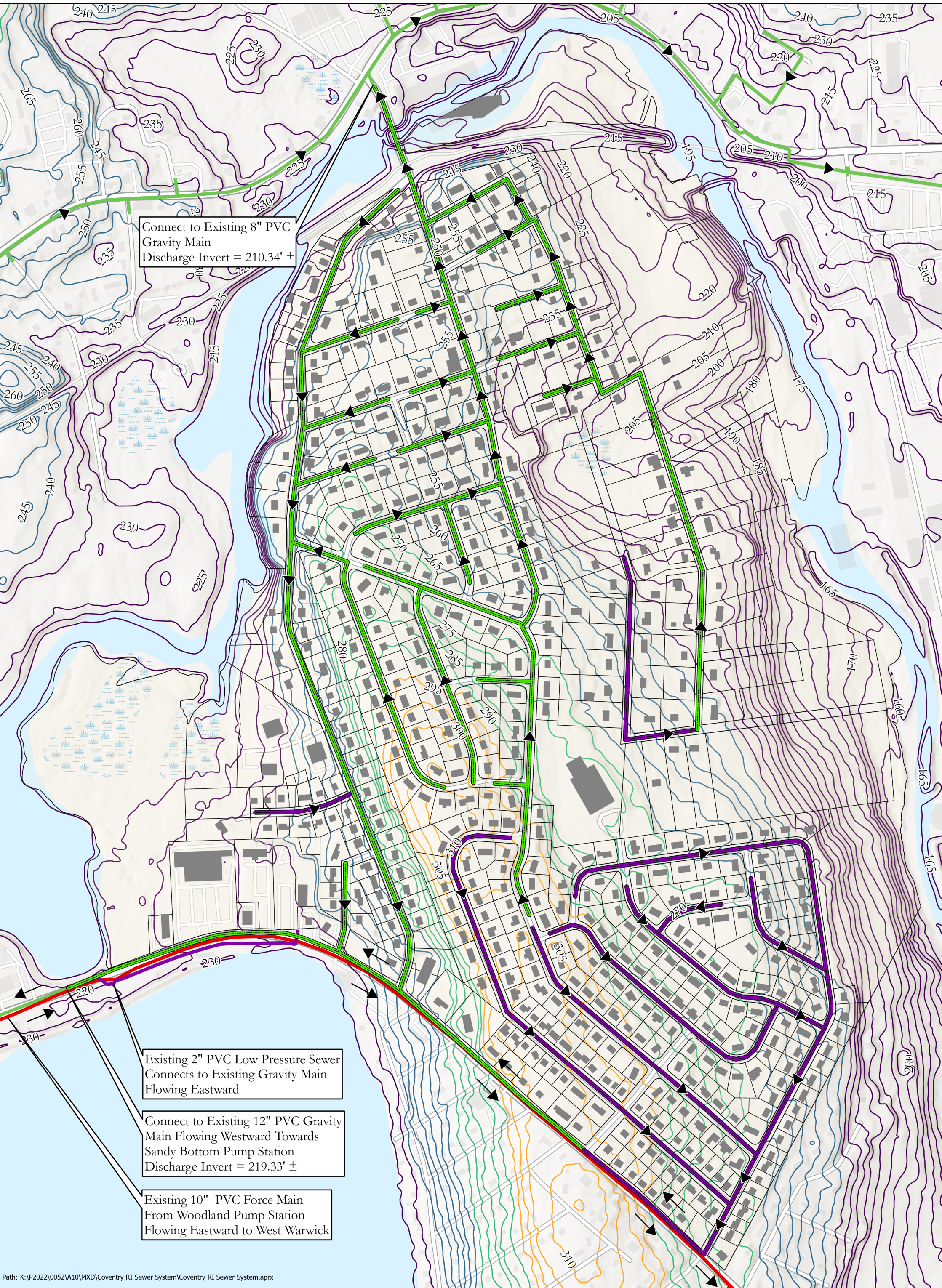
Coventry Rhode Island



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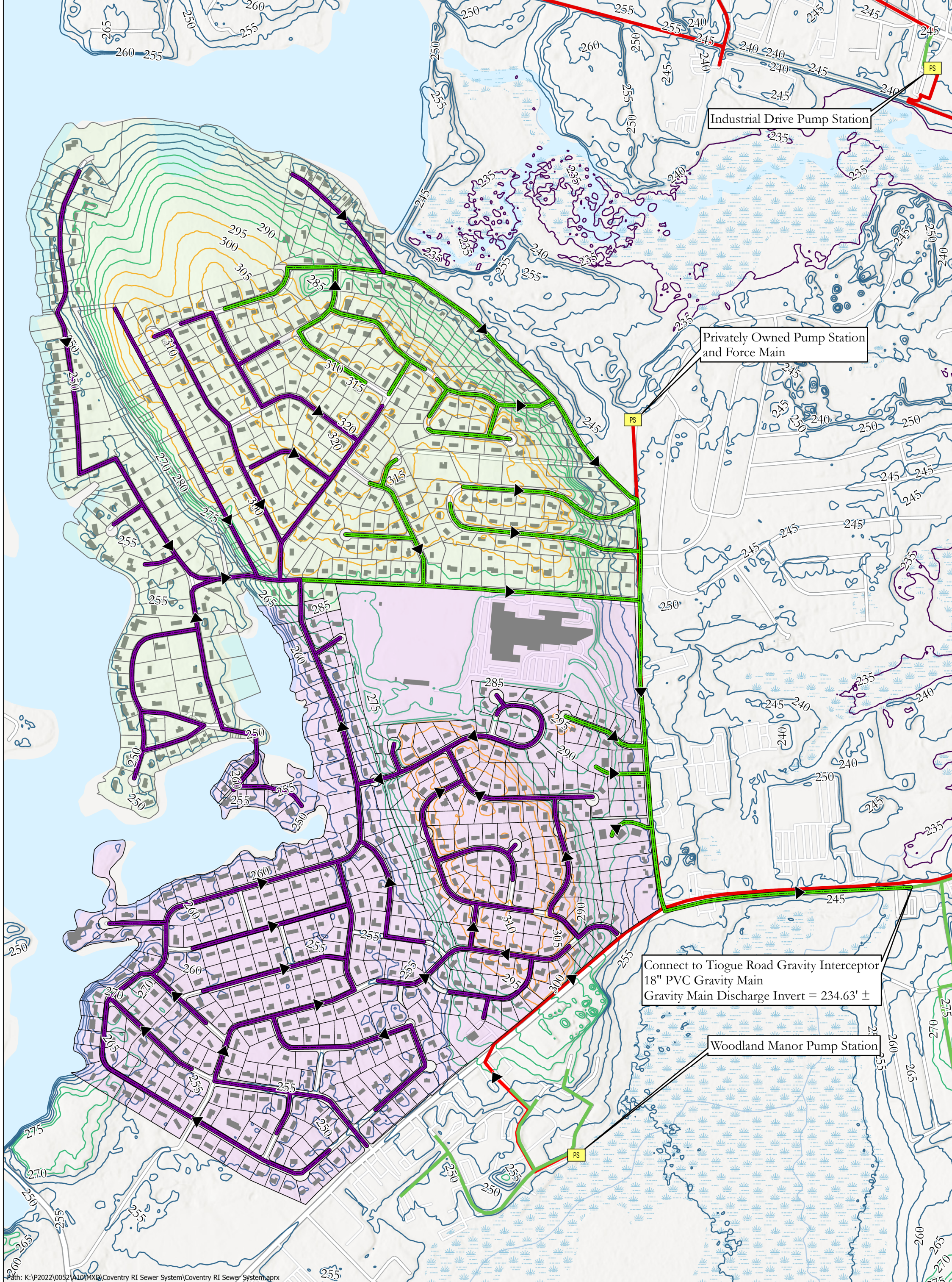
Figure
8.2.1.1.A

Path: K:\P2022\00325A10\MXD\Coventry RI Sewer System\Coventry RI Sewer System.aprx



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<h3>Legend</h3> <ul style="list-style-type: none"> — Existing Low Pressure Sewer — Existing Force Main — Existing Gravity Sewer — Proposed Low Pressure Sewer — Proposed Force Main — Proposed Gravity 		<p>Disclaimer: This map is not the product of a Professional Land Survey. It was created by Fuss & O'Neill, Inc. for general reference, informational, planning and guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. Fuss & O'Neill, Inc. makes no warranty, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.</p>	<p>Town of Coventry Planning Area 12 Coventry Sewer Facility Plan</p>
<p>0 250 500 1,000 Feet</p>		<p>Coventry Rhode Island</p>	<p>FUSS & O'NEILL 317 Iron Horse Way Providence, RI 02908 401.861.3070 www.fando.com</p>
			<p>Figure 8.2.3.A</p>



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Legend	
	Existing Low Pressure Sewer
	Existing Force Main
	Existing Gravity Sewer
	Pump Station
	Proposed Low Pressure Sewer
	Proposed Force Main Sewer
	Proposed Gravity Sewer
	Planning Area 1
	Planning Area 2

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0 375 750 1,500 Feet

Town of Coventry
Planning Area 1 & 2
Coventry Sewer Facility Plan

Coventry Rhode Island

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Figure 8.2.2.A

Projected Flow for Selected/Recommended Plan

Flow Contribution	Wastewater Flow (GPD)
Subtotal For Existing Wastewater Flow	278,900
Planning Area 1	99,300
Planning Area 2	107,500
Planning Area 8	34,300
Planning Area 9	29,600
Planning Area 12	79,800
Subtotal for Planned Developments	307,051
Total Projected Average Daily Flow	936,451
Total Projected Max Daily Flow	2,107,015

Note: West Warwick's approved 2012 Wastewater Facility Plan depicts an average daily flow reserve of 2.25 MGD and peak daily flow reserve of 4.275 MGD. Both numbers depicted in the table above are below these thresholds, as well as the 80% threshold for IMA amendment.

Intergovernmental Review Summary



Rhode Island Department of Environmental Management

- Emphasized extending sewer to Planning Area 5 and the recommendation outlined in Sections 1.2 & 7.3 of the facility plan.



Fish and Wildlife Service

- Indicated the presence of 3 threatened, endangered, or candidate species within the boundaries of the project area.
- No critical habitats are within the bounds of the Planning Areas.



National Oceanic and Atmospheric Administration

- No mapped Essential Fish Habitats.
- No EFH and FWCA coordination is necessary going forward.

RHODE ISLAND
STATEWIDE
PLANNING
PROGRAM



Rhode Island Statewide Planning Program

- The agency reviewed the FP and did not provide comment.



Coastal Resources Management Council

- CRMC's response indicates there will not be an adverse impact to coastal resources of the state.



Narragansett Tribal Historic Preservation Office

- High School Improvements ineligible for listing in the National or State Registers of Historic Places.
- PAs 8 & 9 includes two properties published in the Rhode Island Historical Preservation & Heritage Commission. Within PA 12 are historic properties.
- An architectural survey to further identify unknown historic properties may be required. Review capital projects may be required if they move forward.



Natural Resources Conservation District

- Federal agency providing the funding must adhere to the Farmland Protection Policy Act.

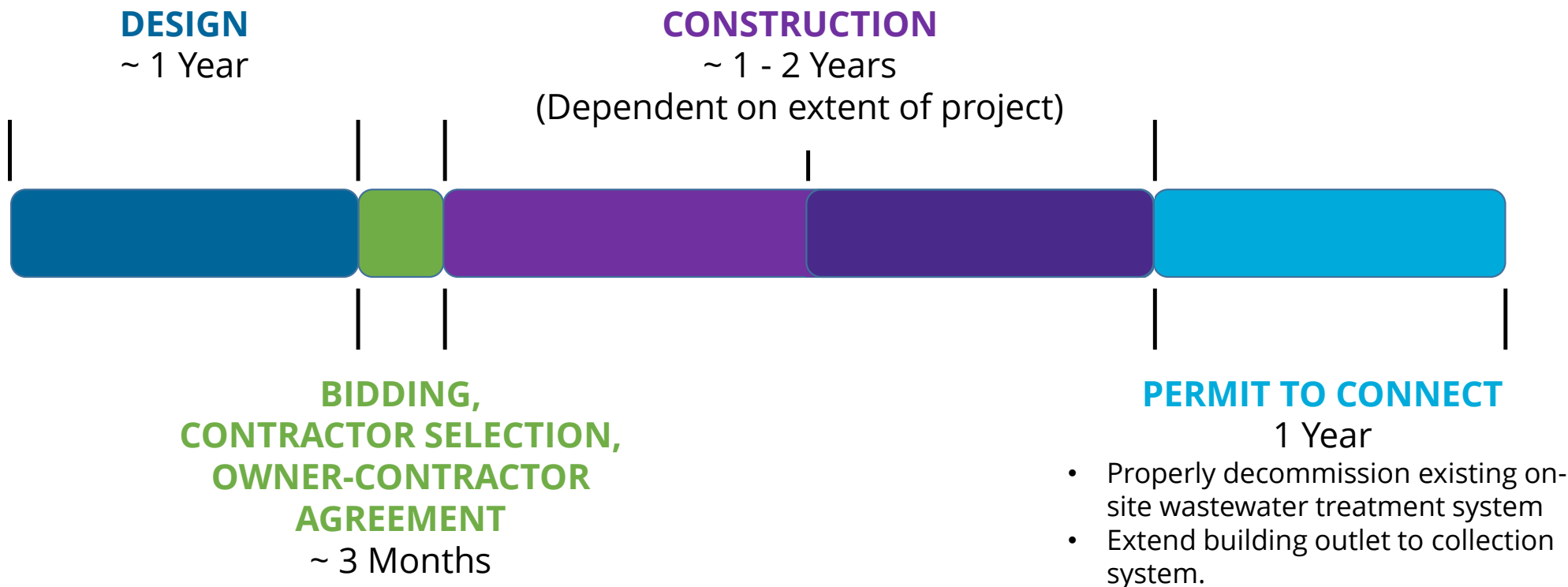


Rhode Island Department of Transportation (RIDOT)

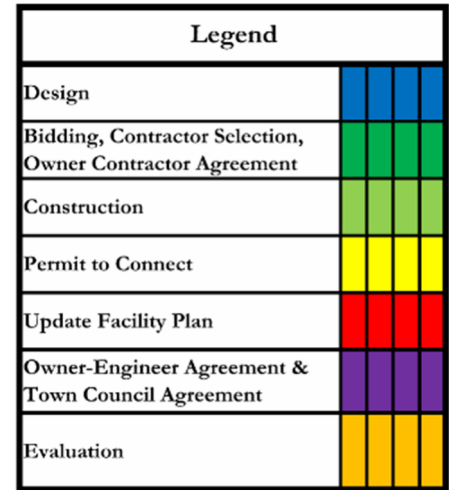
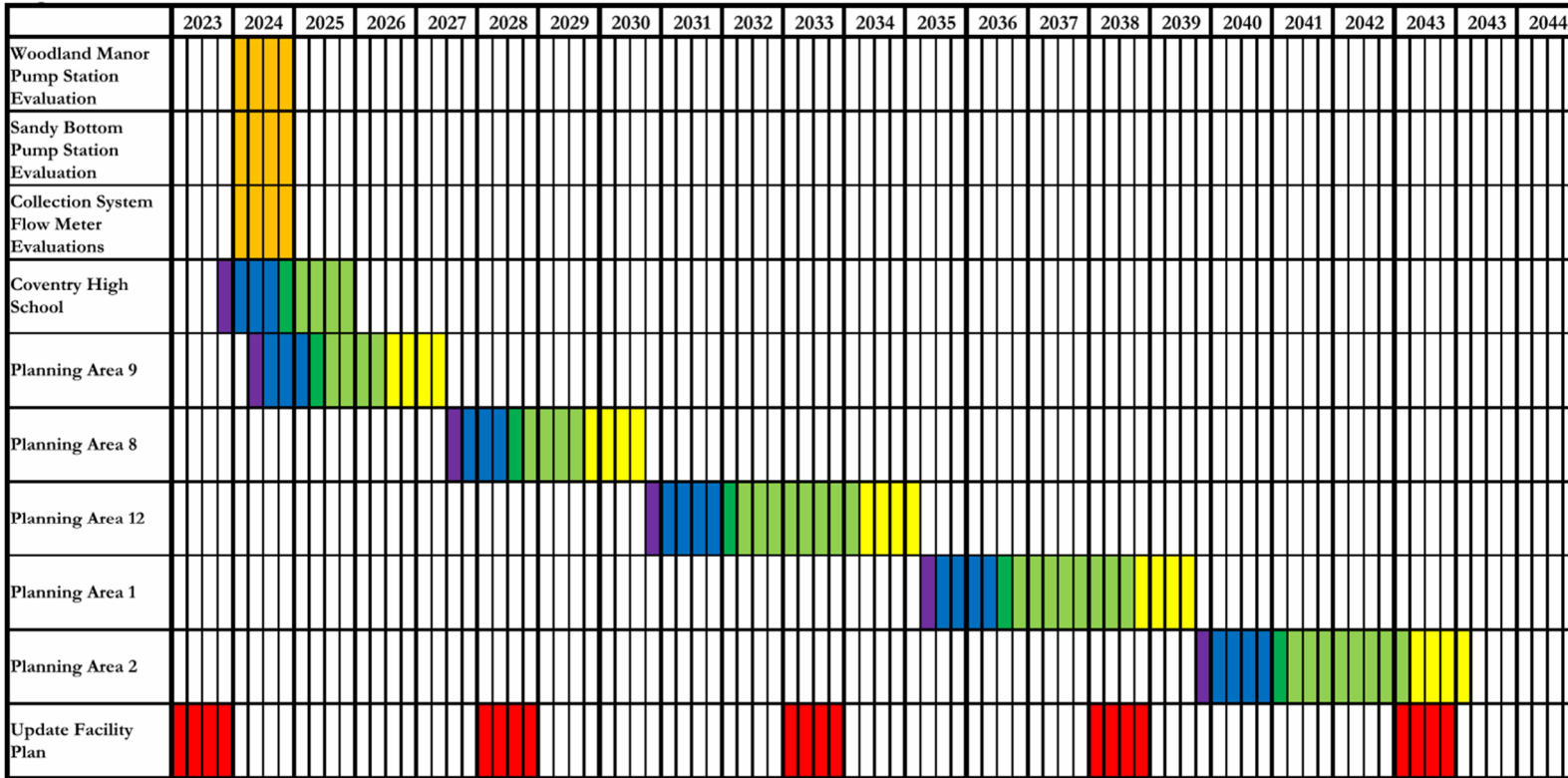
- RIDOT did not provide response.

TYP. Timeframe for a Sewer Extension Project

Approximately 3 to 4 years



Anticipated Implementation Schedule



Project Cost Breakdown

Project Cost Estimates						
Planning Area	Wastewater Infrastructure Cost	Mill and Overlay Cost	Construction Subtotal	Admin/Legal/Engineering	Contingency	Total Project Costs
8 (Gravity & LPS)	6,370,000	1,966,000	8,336,000	1,830,000	2,540,000	12,700,000
9 (Gravity & LPS)	8,571,000	1,504,000	10,075,000	2,220,000	3,080,000	15,380,000
12	15,450,000	4,418,000	19,870,000	4,380,000	6,070,000	30,320,000
1	13,220,000	3,546,000	16,766,000	3,690,000	5,120,000	25,580,000
2	17,470,000	4,680,000	22,150,000	4,880,000	6,760,000	33,790,000
High School Sewer Extension	1,564,000	1,440,000	3,004,000	366,000	850,000	4,220,000

Potential Funding Sources



ARPA
Approx.\$3M

Sandy Bottom PS
Woodland Manor PS
PA 9



**Congressionally
Directed Spending**
Approx.\$3.25M

Tiogue Ave Reservoir
Rd Ext.
(PA 2, partial) to HS



**Clean Water
SRF Loan**
*Potential Loan
Forgiveness

PA 1
PA 2
PA 8
PA 9
PA 12*



**RIIB MRP Action
Grant**

Sandy Bottom PS
(climate resilience,
\$350,000)



**RIIB Municipal
Infrastructure
Grant (MIGP)**

Woodland Manor PS
(potential
development,
\$366,000)

PA 12

Note:
*Grants typically
require 25% to 50%*



**Town Bonds/Sewer
Dept Revenues**

PA 1
PA2
PA8
PA9

Administrative Recommendations

Update Onsite Wastewater Management Plan (OWMP)

- Update the OWMP to consider the OWTS's that will remain over the long-term and OWTS's that will remain in service until such time as sewers are extended to certain planning areas, which are identified in this report.

Move Sewer Operations Internal

- Consider creating a Sewer Department that will manage operation and maintenance of the Town's pump stations, gravity and low-pressure wastewater collection systems. The department and staff may be integrated into the Town's Department of Public Works and/or Engineering.

Update Sewer Ordinance - LPS infrastructure to be Project cost

- Update the sewer ordinance such that the cost of the low-pressure sewer infrastructure and grinder pumps is borne by the project. Infrastructure maintenance by the Town, customary municipal approach to low pressure sewer system O/M.

Increase Revenues for Capital Improvements

- Increase sewer use rates to cover Operations and Maintenance costs and extend the public sewer collection system.

Align Coventry with West Warwick [Minimum Use Charges]

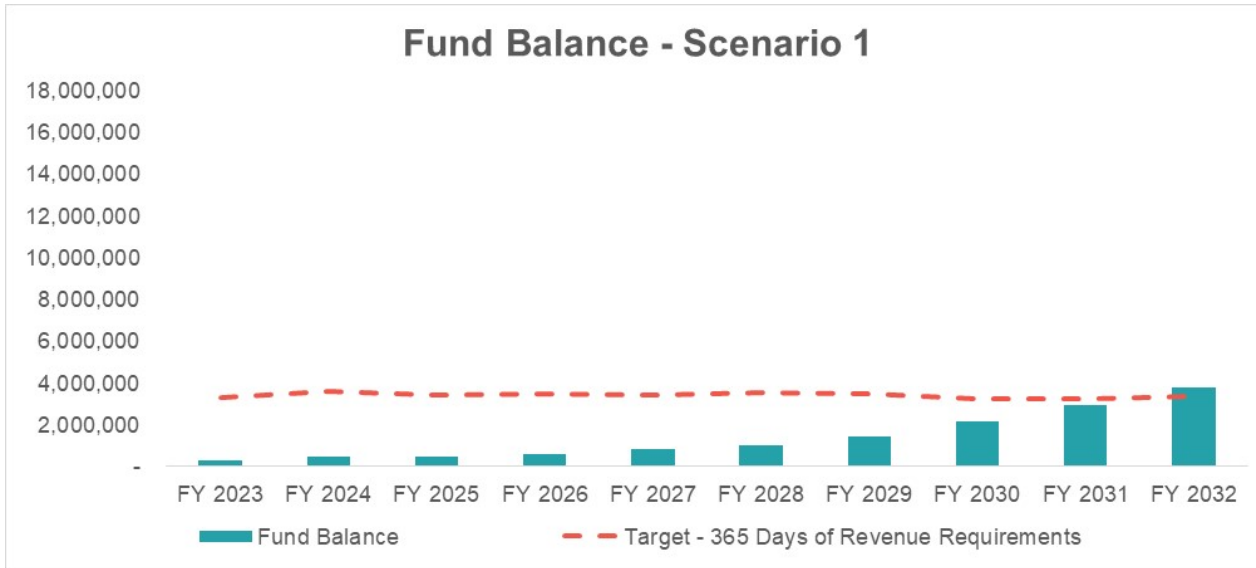
- West Warwick charges Coventry a 4,000 cu.ft. minimum use fee per residential parcel.

Sewer Fund Financial Background

- Sewer Fund is in a structural deficit, subsidized by Town's General Fund
 - 2019 Office of the Auditor General recommended solutions for fiscal sustainability, including rate increases
 - A rate study was performed in 2019 with recommended rate increases
- Approximately 700 parcels are currently served by sewers.
- The sewer enterprise fund currently has no reserves.
- Sewer fund health is paramount to Clean Water SRF eligibility!

Cost Modeling – Scenario No. 1

- Assumes the following:
 - Beginning Balance: \$280,000
 - No further expansion of wastewater service (No Facilities Plan Implementation)

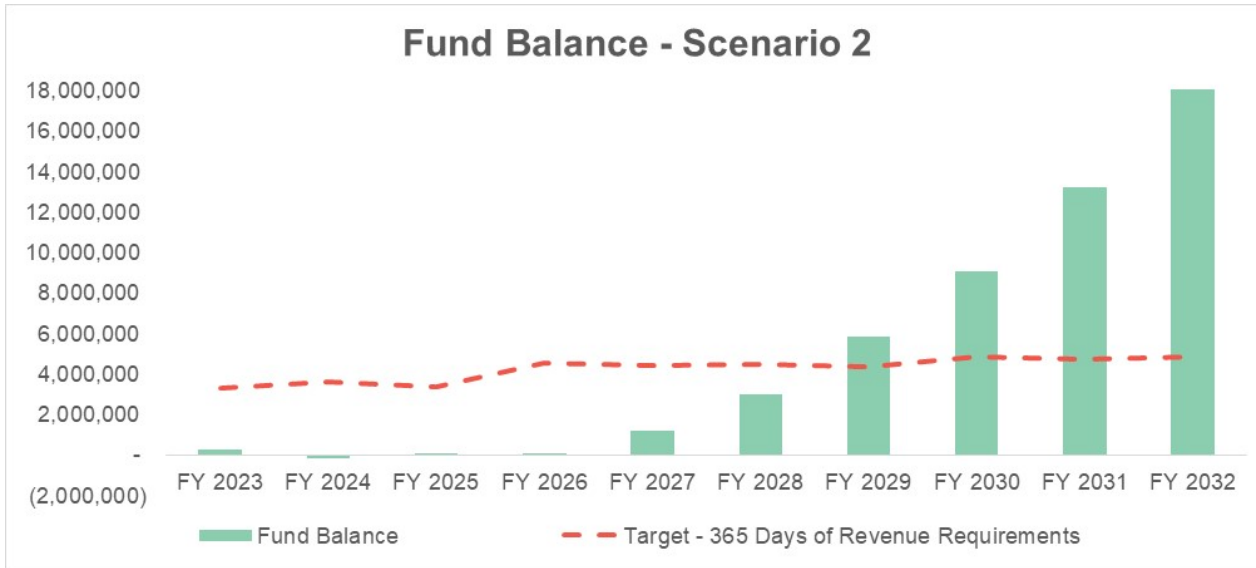


Scenario 1: No Facilities Plan Implementation

BILLING YEAR	COV FEE Per HCF	WW REGIONAL FEE Per HCF		
		Pass-thru	Cov add-on	Total
2023	\$ 5.10	\$ 4.65	\$ 1.43	\$ 6.08
2024	\$ 5.61	\$ 4.79	\$ 1.57	\$ 6.36
2025	\$ 6.17	\$ 4.93	\$ 1.73	\$ 6.66
2026	\$ 6.79	\$ 5.08	\$ 1.90	\$ 6.98
2027	\$ 7.13	\$ 5.23	\$ 2.00	\$ 7.23
2028	\$ 7.48	\$ 5.39	\$ 2.10	\$ 7.49
2029	\$ 7.86	\$ 5.55	\$ 2.20	\$ 7.76
2030	\$ 8.25	\$ 5.72	\$ 2.31	\$ 8.03
2031	\$ 8.66	\$ 5.89	\$ 2.43	\$ 8.32
2032	\$ 9.10	\$ 6.07	\$ 2.55	\$ 8.62

Cost Modeling – Scenario No. 2

- Assumes the following:
 - Beginning Balance: \$280,000
 - Phased approach to expansion of service per the Facility Plan Recommendations



Scenario 2: Implement Facilities Plan

BILLING YEAR	COV FEE Per HCF	WW REGIONAL FEE Per HCF		
		Pass-thru	Cov add-on	Total
2023	\$ 5.10	\$ 4.65	\$ 1.43	\$ 6.08
2024	\$ 6.63	\$ 4.79	\$ 1.86	\$ 6.65
2025	\$ 8.62	\$ 4.93	\$ 2.04	\$ 6.98
2026	\$ 11.20	\$ 5.08	\$ 2.25	\$ 7.33
2027	\$ 11.76	\$ 5.23	\$ 2.36	\$ 7.60
2028	\$ 12.35	\$ 5.39	\$ 2.48	\$ 7.87
2029	\$ 12.97	\$ 5.55	\$ 2.60	\$ 8.16
2030	\$ 13.62	\$ 5.72	\$ 2.73	\$ 8.45
2031	\$ 14.30	\$ 5.89	\$ 2.87	\$ 8.76
2032	\$ 15.02	\$ 6.07	\$ 3.01	\$ 9.08

Impacts on Average Residential Customer

Comparison of Customer Impacts / Annual Sewer Bill		
Billing Year	Average Annual Bill Scenario 1	Average Annual Bill Scenario 2
2023	\$805	\$805
2024	\$862	\$956
2025	\$924	\$1,123
2026	\$992	\$1,335

- Impacts associated with residential sewer user rate increases on the average customer compared for Scenarios 1 and 2 in the short term only, i.e. over the next three (3) billing years.

Questions?





Thank You!

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Douglas Brisee, PE

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