

Comprehensive Wastewater Management Plan

Sewer Commission Update – Phase 1

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Presentation Overview

Reasons for Comprehensive Wastewater Management Plan
Overall Approach
Phase 1 Scope
Next Steps
Questions & Discussion

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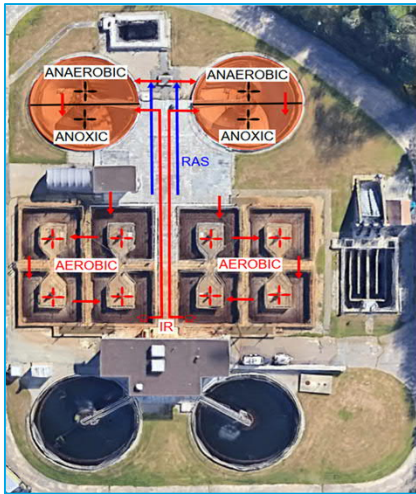
Reasons for a Comprehensive Wastewater Management Plan



Rockland WWTP

- Provide wastewater planning for next 20 years
- Remain in compliance with the Town's regulatory requirements
 - New Total Phosphorous (TP) Limit
- Evaluate long-term needs of non-sewered areas

Previous Planning/Studies



WWTP Assessment

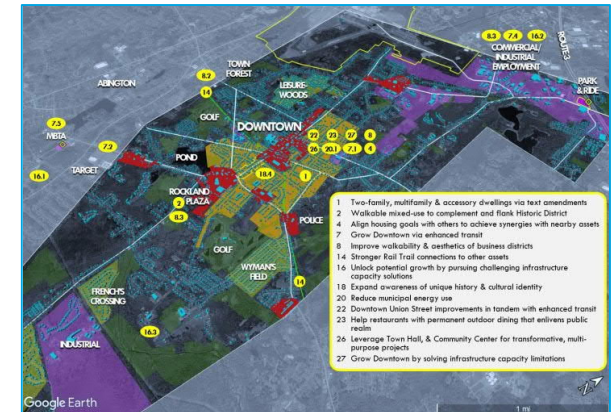
WP evaluated the WWTP and provided recommendations to improve the WWTP, including secondary and tertiary treatment options.

TABLE 4. LATERAL SERVICE CONNECTIONS - SUMMARY TABLE OF INFILTRATION SOURCES AND REHABILITATION COSTS

General Location			Main Pipeline Information			Lateral Service Connection Information						
From MH	To MH	Service Connection Address or Street Name	Length (feet)	Diameter (inches)	Location (E)	Orientation (D)	Approt. Chimney Height (feet)	Chimney Service Connections (S)	Estimated Infiltration (gpd)	Estimated Rehabilitation Cost (\$ (K))	Unit Cost (\$/gpd)	
C3	C2	41 Concord St	334	VC	8	113	R		1,400	6,500 ⁽¹⁾	4.64	
		47 Concord St.				187	R		1,400	6,500 ⁽¹⁾	4.64	
C86	C1	142 Abbot St. & 80 Concord St.	348	RC	30	299	T	2.7	2	1,400	17,700 ⁽¹⁾	12.64
C85	C5	71 & 72 Abbot St.	410	RC	30	327	T	4.9	2	2,000 ⁽¹⁾	17,700 ⁽¹⁾	6.10
C7	C75	333/323 Market St.	431	RC	30	156	L	4.0	1	1,400	10,100 ⁽¹⁾	7.21
D2	D1	177 & 180 North Ave	252	VC	10	171	T	3.2	2	5,000	17,700 ⁽¹⁾	3.54
		160/173 North Ave.				289	T	6.7	1	5,000	10,100 ⁽¹⁾	2.02
D3	D2	203 North Ave.	160	VC	10	37	F	4.3	1	2,300	10,100 ⁽¹⁾	4.39
D9	D8	303 North Ave.	180	VC	8	100	V ⁽¹⁾			2,300	6,500 ⁽¹⁾	2.85
D67	D66	466 Union St.	257	VC	8	12	L			1,400	6,500 ⁽¹⁾	4.64
		482 Union St.				134	L			1,400	6,500 ⁽¹⁾	4.64
E4	E3	Connection from Memorial Park School	326	RC	18	85	L ⁽¹⁾			6,600	(1)	-
E5	E4	210 & Lot W. St. & 13 Reed St.	301	RC	18	72	T	4.9	2	4,300	17,700 ⁽¹⁾	4.12
E13	E12	134 Belmont St.	170	VC	8	134	L			1,400	6,500 ⁽¹⁾	4.64
E14	E13	103 Belmont St.	292	VC	8	89	L			2,200	6,500 ⁽¹⁾	2.95
E20	E19	73 Pacific St.	299	VC	8	58	R			1,400 ⁽¹⁾	6,500 ⁽¹⁾	4.64
E26	E25	71 Reed St.	300	VC	8	134	R			1,400	6,500 ⁽¹⁾	4.64
H4	H3	186 Howard St.	239	VC	10	50	R			3,600	6,500 ⁽¹⁾	1.81
H13	H12	28 Wall St.	214	VC	8	187	R			2,200 ⁽¹⁾	6,500 ⁽¹⁾	2.95
		27 Wall St.				199	L			2,200 ⁽¹⁾	6,500 ⁽¹⁾	2.95
H13	H31	Access from 104 Exchange St. across from 114 Exchange St.	280	VC	8	87	R			3,900 ⁽¹⁾	6,500 ⁽¹⁾	2.34
		138 Exchange St.				171	R			1,400 ⁽¹⁾	6,500 ⁽¹⁾	4.64
H31	H32	127 Exchange St.	348	VC	8	92	R			1,400 ⁽¹⁾	6,500 ⁽¹⁾	4.64
		139 Exchange St.				104	L			1,400	6,500 ⁽¹⁾	4.64
		143 Exchange St.				200	R			2,000 ⁽¹⁾	6,500 ⁽¹⁾	2.24
		151 Exchange St.				218	R			2,900 ⁽¹⁾	6,500 ⁽¹⁾	2.24
		153 Exchange St.				348	R			1,400 ⁽¹⁾	6,500 ⁽¹⁾	4.64

SSes Report

AECOM performed a sewer system evaluation survey in 2021 that included recommendations to remove sources of I/I.



Master Plan of 2030

The Town of Rockland's roadmap for planning between 2020 to 2030 to achieve the Town's long-term goals and objectives for the community.

Rockland's Overall CWMP Approach

1

Phase 1 – Assessment of Existing Conditions

2

Phase 2 – Alternatives Identification and Screening

3

Phase 3 – Evaluation of Short-Listed Alternatives in Phase 2 and Develop a recommended Wastewater Management Plan

Phase 1 CWMP



- Existing Conditions
 - Planning Area
 - Wastewater Collection & Treatment
 - Water Treatment & Distribution
- Perform wastewater needs assessment

Existing Wastewater System



Wastewater Collection System / Pump Stations

- Approx. 57 miles of gravity sewer and 4 miles of force main/low pressure sewer
- 13 pump stations



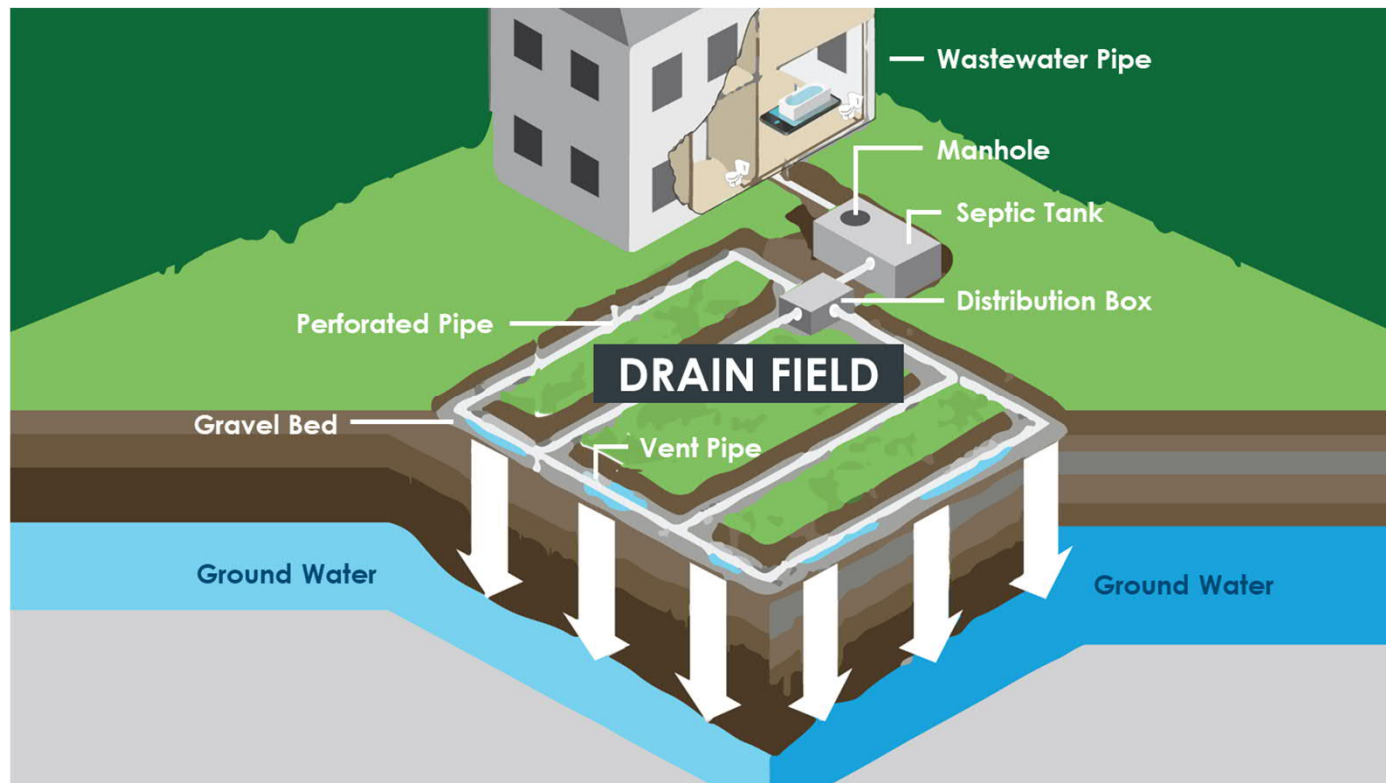
Wastewater Treatment Plant

- Serves approx. 18,000 customers from Rockland and parts of Abington
- NPDES Permit limit of 2.5 MGD with new seasonal TP Limit

WW Collection System Map

WWTP Recommendations

Onsite Subsurface Wastewater Disposal Systems



- Few residents serviced by onsite systems
- Septic Systems Include
 - Septic tank
 - Distribution box
 - Leach/drain field
- Cost-effective solution
 - Ideal soils
 - Adequate depth to groundwater/bedrock
 - Spatial parcel sizes

Wastewater Needs Assessment

Evaluate whether conventional, **on-site septic systems** provide adequate treatment for:



Sanitation



Environmental
Protection

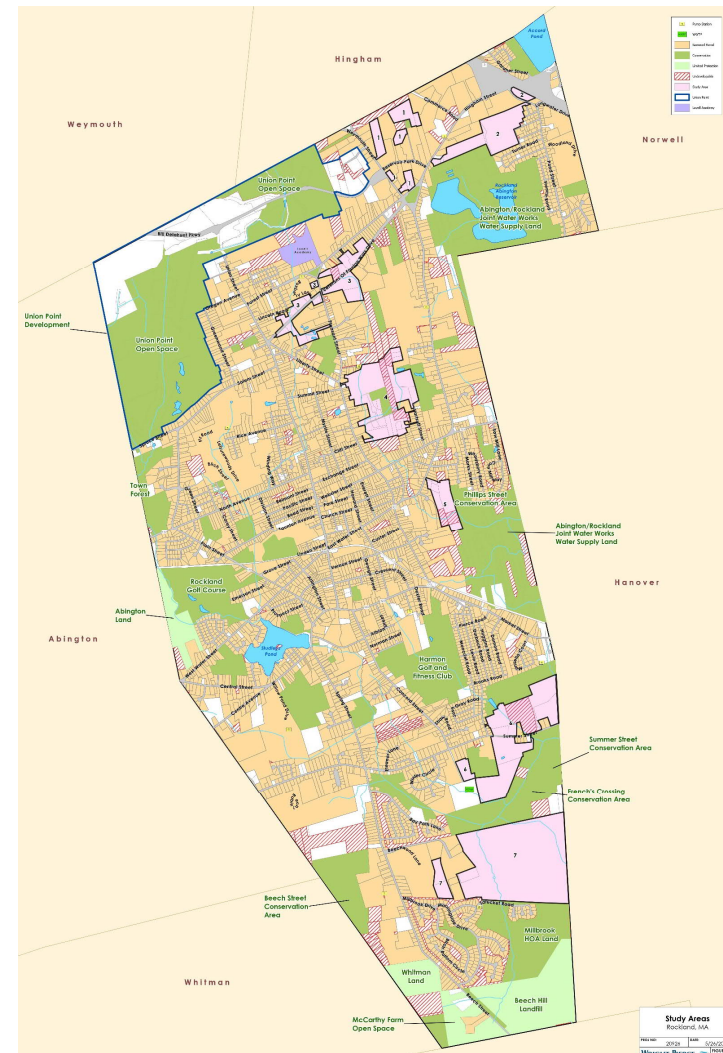


Growth Management

Determination of Study Areas for Non-Sewered Areas

7 Study Areas

- Areas determined by
 - Environmental criteria
 - Topography
 - Major roads
- Parcels Removed
 - Protected open space
 - Non-developable area
 - Town-owned land



Study Areas

No.	Name
1	Weymouth Street
2	Pond Street
3	VFW
4	Liberty Street
5	East Water Street
6	Summer Street
7	Industrial Way

Study Area Scoring System

- Tier 1 Analysis
 - Primary Criteria (more weight)
 - Secondary Criteria (less weight)
- Tier 2 Analysis

Tier 1 Analysis: Primary Criteria

Primary Criteria	Ranking System (0-10)
Soil Type/Drainage Class	Well-Drained to Very Poorly Drained
Depth to High Water Table	Greater than 5 ft to less than 5 ft
Depth to Bedrock	Greater than 6.5 ft to less than 6.5 ft
Parcel Size	Greater than 1 acre to less than 0.5 acre
Private Well	No Private Wells to Private Well on less than 0.5 acre

Tier 1 Analysis: Secondary Criteria

Secondary Criteria	Ranking System (0-5)
Drinking Water Protections	Not Within to Within
Areas with Regulated Setbacks	Not Within to Within
Floodplain	Not Within to Within 100-Year Floodplain
Priority/Estimated Habitat Areas	Not Within to Within
Historic Districts	Not Within to Within

Scoring of Study Areas

Study Area		Primary Criteria (Ranking 0 to 10)						Secondary Criteria (Ranking 0 to 5)						Total Score	Study Area Ranking
No.	Name	Soils Drainage Class	Depth to Water Table	Depth to Bedrock	Parcel Sizes	Private Wells	Primary Total	Drinking Water Protection District	Areas Within Regulated Setbacks	Flood Plains	Priority/Established Habitat Areas	Historic District	Secondary Subtotal		
1	Weymouth Street	6	8	3	1	0	18	3	2	4	0	0	9	27	High
2	Pond Street	8	9	0	1	0	18	5	3	3	0	0	11	29	High
3	VFW	4	3	0	3	0	10	3	3	0	0	0	6	16	Low
4	Liberty Street	5	5	0	1	2	13	0	2	2	0	0	4	17	Low
5	East Water Street	8	7	0	1	0	16	0	2	2	0	0	4	20	Average
6	Summer Street	8	6	0	0	0	14	0	2	3	0	0	5	19	Low
7	Industrial Way	7	6	0	0	0	13	3	2	4	0	0	9	27	Low

Needs Areas

Needs Areas	Location	Score
1	Weymouth Street	27
2	Pond Street	29

*Area ranked as high needs area scored 25+ points

Next Steps



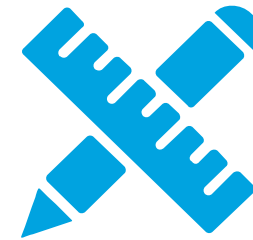
Public Input

Evaluate public input for Phase 2 analysis. Draft and Final Phase Reports will be available on the Town Website and at the Town Hall.



Phase 2

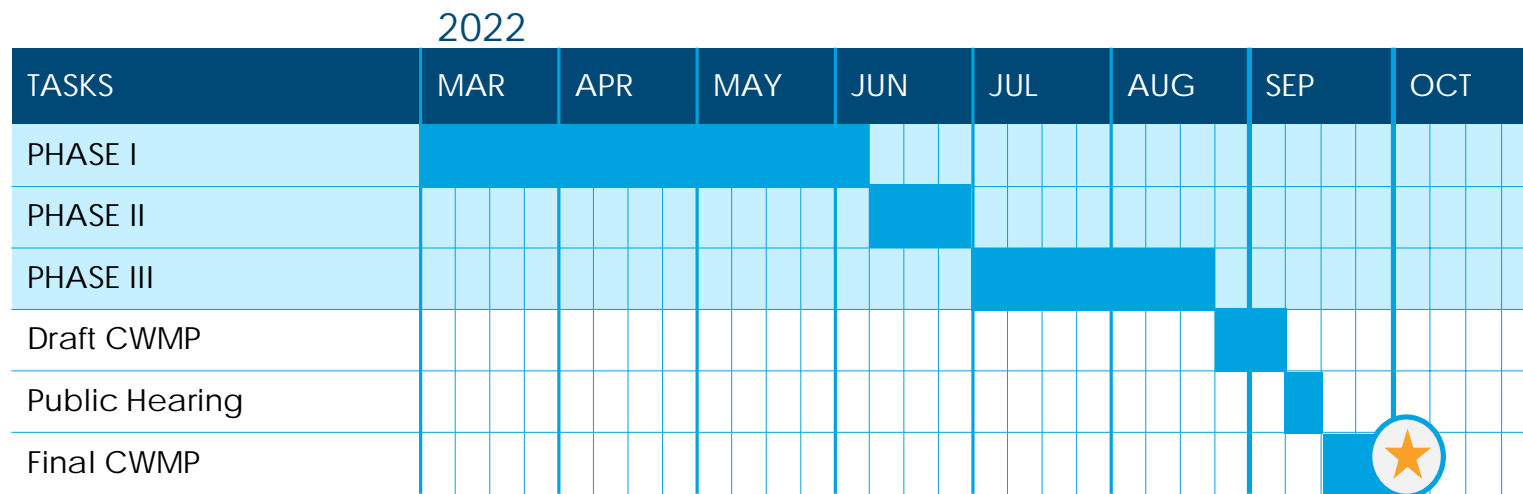
Identify Short-listed Treatment Alternatives for needs areas, analysis includes social, environmental, technical, and economic factors.



Phase 3

Evaluate Short-Listed Alternatives and develop Final CWMP. A public hearing will occur at the end of Phase 3 to gather public input on full report.

Schedule



THANK YOU
