

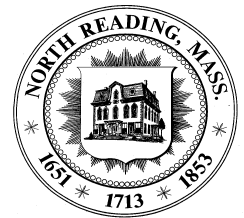
TOWN OF NORTH READING WASTEWATER PROJECT

Information Session

Wednesday, April 12th

North Reading Middle/High School

Distance Learning Lab

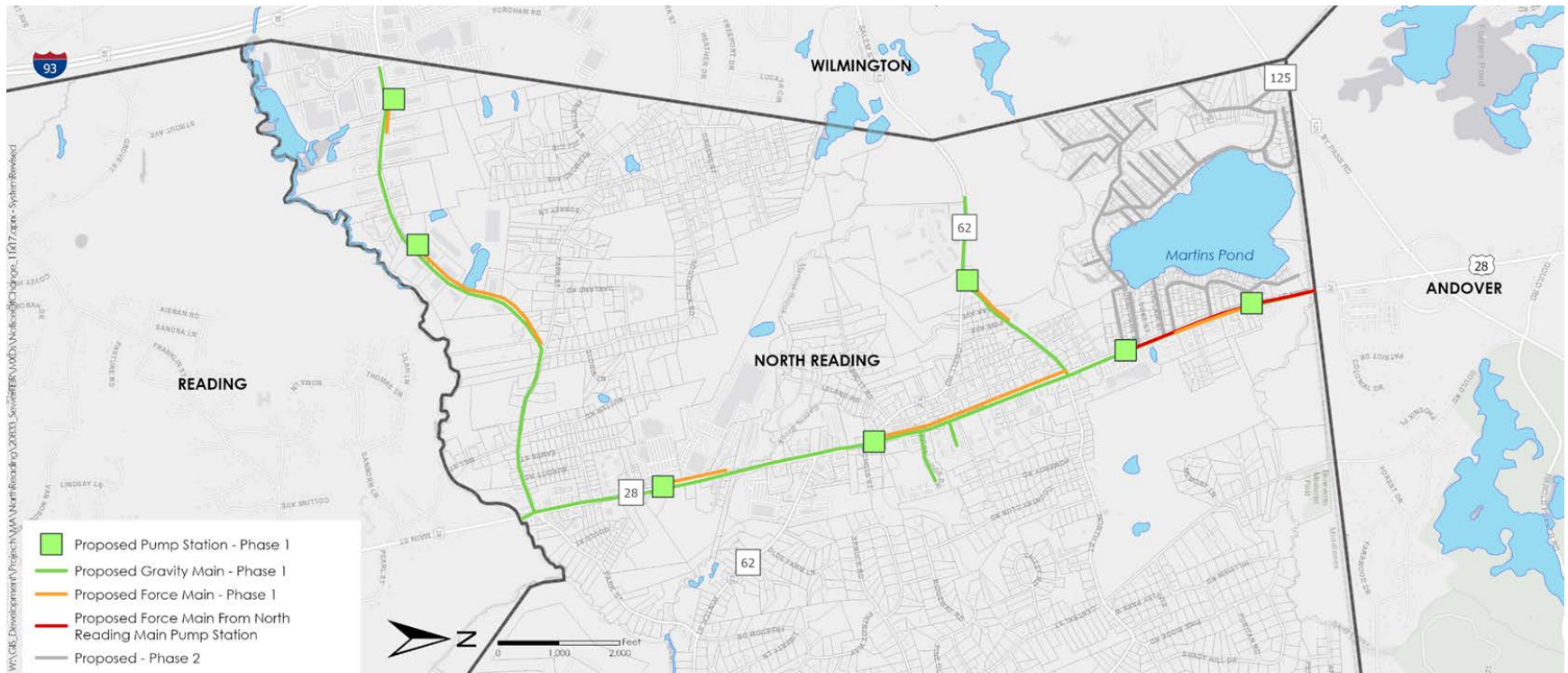


History

- Currently, any residential or commercial development in North Reading requires construction of an on-site disposal (septic) system. Other than a single parcel at the far end of Concord Street connected to the MWRA through the Town of Reading, there is no wastewater / public sewer utility available in North Reading.
- The concept of public sewer in North Reading has been reviewed over the course of multiple decades, with the Town at various points for various reasons electing not to proceed.
- Town Meeting Appropriated \$2,893,000 in Oct of 2021 to Facilitate the Preliminary Design of the Municipal Wastewater Project & Conduct a Municipal Wastewater Financial Study

THE CONSTRUCTION PROJECT

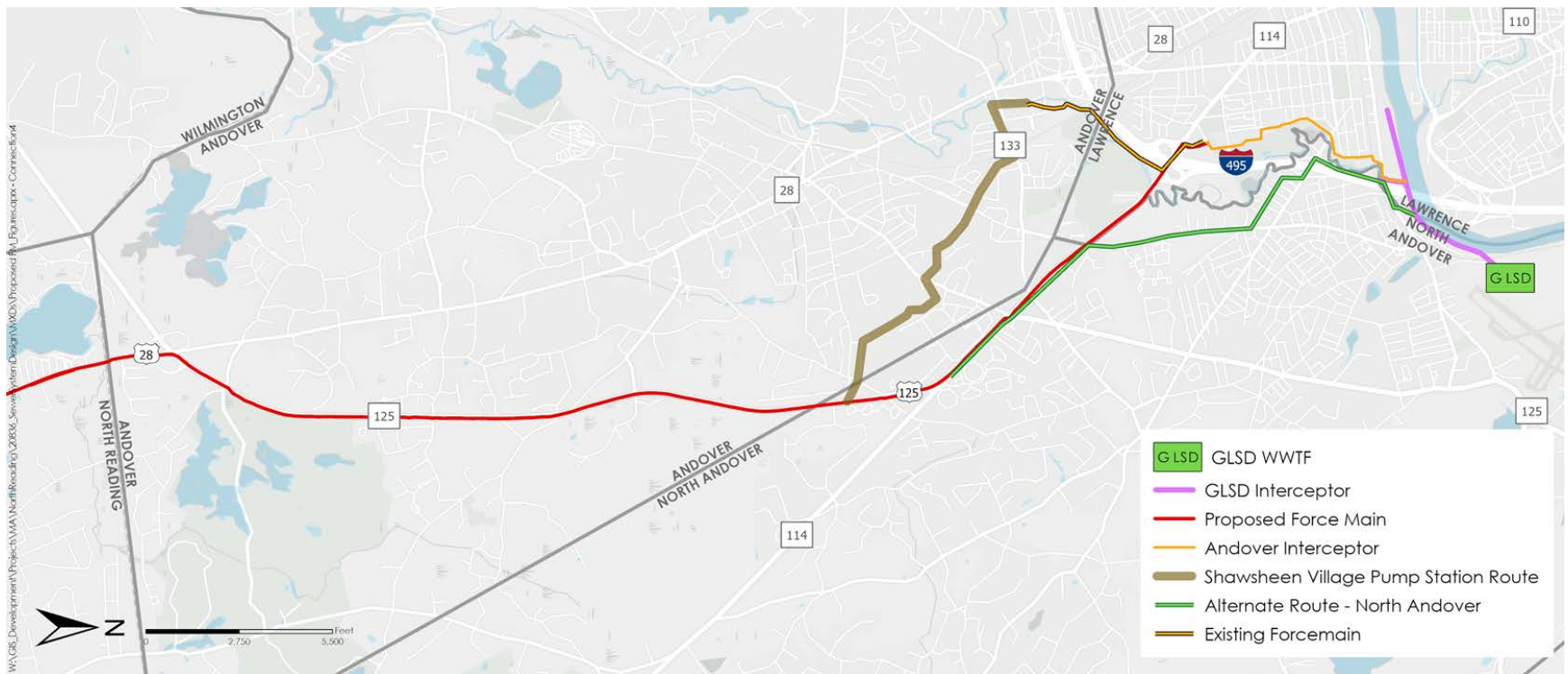
In-Town Wastewater Collection System



How will wastewater be disposed of?

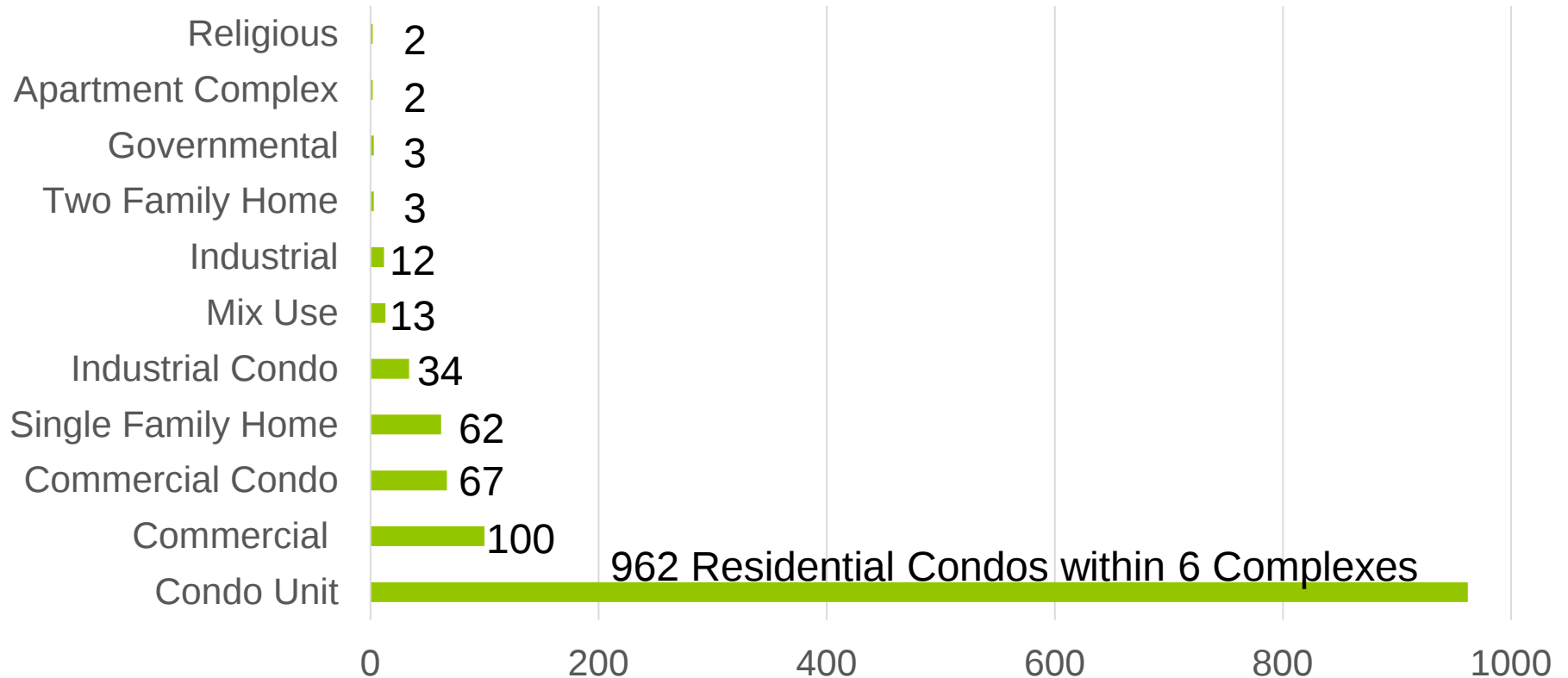
- Discussions with Andover and North Andover have been ongoing. The intended route to convey wastewater via a force main to the Greater Lawrence Sanitary District (GLSD) wastewater treatment plant located in North Andover is to follow Route 28 to Route 125 to Route 114.
- Andover and North Andover have encouraged the Town to look at other options for a route from slightly south of the Route 125 intersection with Route 114 to GLSD.
- Discussions continue with the two communities regarding the best route to connect to GLSD from this area, including potential use of existing gravity sewer line routes that could be upgraded.

Wastewater Conveyance System to GLSD



Property Types in Phase I Area

Property Description



Summary of Wastewater Flows

- Total Wastewater Design/Permitted Flow Capacity being sought is 503,000 gallons per day (gpd)
- Reduced by existing Phase I Wastewater Flow Allocation of 186,000 gpd
- Reduced by Phase II (Martin's Pond) Wastewater Flow Reserve of 32,000 gpd
- Reduce by Ground Water Infiltration allowance of 29,300 gpd
- Reduce by 10% Safety Factor for above Allocations & Reserves of 21,800 gpd
- This results in projected available wastewater flow for future New Growth of 233,900 gpd. The number could vary, particularly if some users in Phase I or II elect not to connect to the system.

WHY SEWER?

Why Sewer? Economic Development

- The Select Board believes that making available a wastewater collection utility (public sewer) in commercial areas will promote economic development by making more land area usable for development and by allowing for more dense development in our commercial/industrial areas
- Increased economic development will provide more local services and more local job opportunities for the region.
- A wastewater collection system will also make possible more multi-family housing construction along Main Street, creating population density to support new businesses.
- The Community Planning Commission has been working over the past five years to identify development possibilities for Main Street.

To the north: Andover



To the south: Reading



CPC Conceptual Plan for Main/Winter Streets

- The Community Planning Commission (CPC) has previously worked with Abacus Architects + Planners to develop a plan for key properties in the vicinity of the Main Street/Winter Street intersection (Routes 62 and 28). The study had two parts:
 - A feasibility study to see whether a shared wastewater treatment plant could be implemented in order to facilitate redevelopment (as an interim step before municipal sewer could be installed), or in the case that the Town decided not to pursue a municipal sewer; and
 - **Concept plans showing what could be built in this site, if a wastewater solution were introduced, accompanied by a possible development program. Renderings follow.**
- The study provides a starting point for discussion about what could be physically and financially possible, should the Town and private owners choose to pursue redevelopment.

CPC Main St. / Winter St. Conceptual Plan

Market/civic squares like in Fort Collins, CO invite a wide range of day and night-time activities and are another alternative for North Reading.



CPC Main St. / Winter St. Conceptual Plan

A Market Square could have apartments over shops and a community building surrounding a market hall. This large space invites public events while outdoor dining and other activities occur throughout.

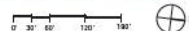


MAIN STREET/WINTER STREET STUDY, NORTH READING, MA

ABACUS [ARCHITECTS + PLANNERS]

MARKET SQUARE

MARCH 2020



CPC Main St. / Winter St. Conceptual Plan

A pedestrian street lined with apartments over shops can run down the center of the site. Here community buildings sit at each end, and parking is located behind buildings throughout. A residential street crosses the site near Martins Brook.



MAIN STREET/WINTER STREET STUDY, NORTH READING, MA

ABACUS [ARCHITECTS + PLANNERS]

PEDESTRIAN STREET A

MARCH 2020

0' 30' 60' 120' 180'



CPC Main St. / Winter St. Conceptual Plan

A Town Green for North Reading could be surrounded by homes with a community building anchoring the center connecting to park land. Commercial development (with apartments above) lines Main and Winter with parking behind.



CPC Main St. / Winter St. Conceptual Plan

Paved and green open spaces face the intersection and a community building backs up to Martin's Brook. Retail faces Main St., the intersection, and a new retail street. Parking lots are "hidden" behind buildings.



Sewered Location: Riverpark, North Reading



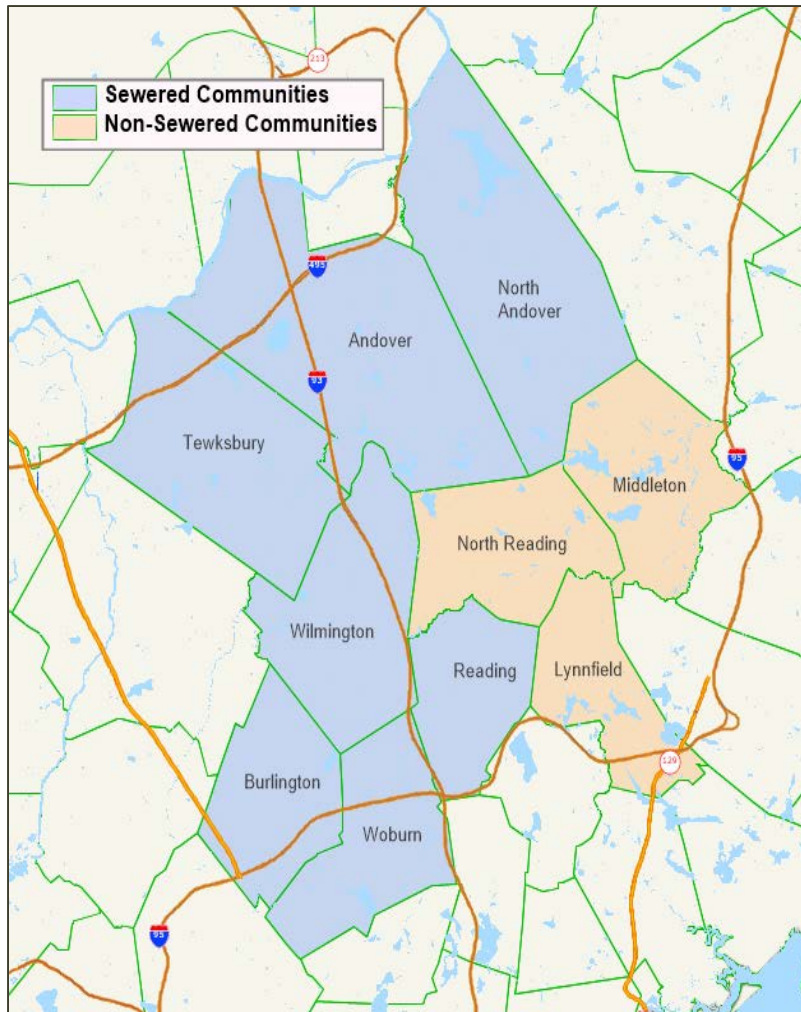
Sewered Location: Market Street



Why sewer? The environment

- A wastewater collection system will help promote public health and environmental protection by:
 - Improving surface and ground water quality (i.e., lakes, rivers, aquifer, wetlands)
 - Providing sustainable long-term solution for wastewater management

Why sewer? Revenue for Sevices



- FXM Projected Commercial / Industrial, and Multi-Family Residential Growth in the Sewer District is based on Projected Demand in Surrounding Sewered Towns
- Assumes constant tax rate of \$15 / \$1,000 valuation
- Not a feasibility study – for long term planning purposes only

Conclusion: There is sufficient demand within the market area to absorb the projected commercial SF potential and number of units projected

Why Sewer? Revenue for Services

Projections Define
100% Potential Residential Growth,
100% Potential Commercial Growth

Summary Findings Potential Financial Impacts of Proposed Wastewater Management System Commercial & Industrial Properties

	Retail	Industrial/Flex	Office	TOTAL
Potential Increases in Value of Existing Properties (\$2022)	\$ 126,325,000	\$ 41,618,000	\$ 22,118,000	\$ 190,055,000
Potential Net New Growth (2026-2056)				
Inventory (SF)	359,000	1,954,000	305,000	2,618,000
Property Values	\$ 127,841,000	\$ 624,790,000	\$ 149,845,000	\$ 902,476,000
Tax Revenues	\$ 1,918,000	\$ 9,372,000	\$ 2,248,000	\$ 13,537,000

Market Demand Potential Only
Actual Growth Impacted By Town Decision Making

Why Sewer? Revenue for Services

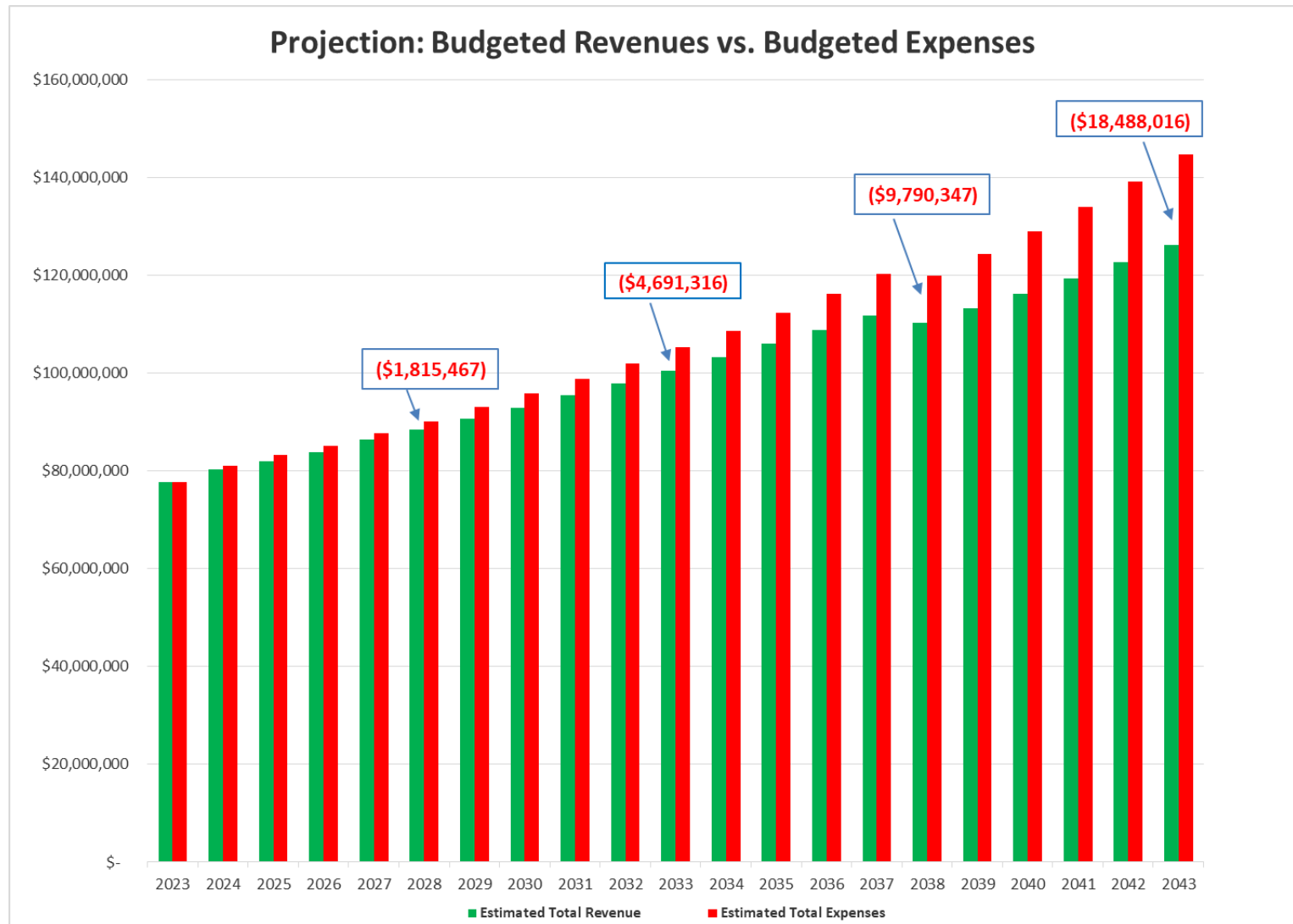
Projections Define
100% Potential Residential Growth,
100% Potential Commercial Growth

Summary Findings				
Potential Financial Impacts of Proposed Wastewater System				
Multifamily Residential Properties				
Potential Net New Growth (2026-2056)				
Inventory (number of units)			1,302	
Property Values		\$	698,587,000	
Tax Revenues		\$	10,479,000	

Market Demand Potential Only
Actual Growth Impacted By Town Decision Making

Town's Financial Projections

(based on 20 year history, current service levels, without sewer)



Projected New Growth (Revenue)

FXM Market Growth at 100% Potential

		CIP Class	Residential Class	Avg New Growth Tax Rate Factor Over 30 Years							
Potential Market New Growth Adj.		100%	100%	\$13.99 FY23							
Year	Fiscal Year	Commercial New Growth Property Values	Residential New Growth Property Values	Total New Growth Property Values	Commercial New Growth Tax Levy @ \$13.99 Avg. Tax Rate	Residential New Growth Tax Levy @ \$13.99 Avg. Tax Rate	Total New Growth Tax Levy @ \$13.99 Avg. Tax Rate	Prior Year Tax Levy Sewer System Contribution	Prop 2 1/2 2.5% Increase to Prior Year Tax Levy Sewer System Contribution	FY New Growth Added to Tax Levy Sewer System Contribution	FY Total Tax Levy Sewer System Contribution
0	2022	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2023	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2024	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	2025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1	2026	\$18,664,213	\$18,442,642	\$37,106,855	\$261,112	\$258,013	\$519,125	\$0	\$0	\$519,125	\$519,125
2	2027	\$19,186,811	\$18,682,396	\$37,869,207	\$268,423	\$261,367	\$529,790	\$519,125	\$12,978	\$529,790	\$1,061,893
3	2028	\$19,724,042	\$18,925,267	\$38,649,309	\$275,939	\$264,764	\$540,704	\$1,061,893	\$26,547	\$540,704	\$1,629,144
4	2029	\$20,276,315	\$19,171,295	\$39,447,610	\$283,666	\$268,206	\$551,872	\$1,629,144	\$40,729	\$551,872	\$2,221,745
5	2030	\$20,844,052	\$19,420,522	\$40,264,574	\$291,608	\$271,693	\$563,301	\$2,221,745	\$55,544	\$563,301	\$2,840,590
6	2031	\$21,427,685	\$19,672,989	\$41,100,674	\$299,773	\$275,225	\$574,998	\$2,840,590	\$71,015	\$574,998	\$3,486,603
7	2032	\$22,027,660	\$19,928,738	\$41,956,398	\$308,167	\$278,803	\$586,970	\$3,486,603	\$87,165	\$586,970	\$4,160,738
8	2033	\$22,644,435	\$20,187,812	\$42,832,247	\$316,796	\$282,427	\$599,223	\$4,160,738	\$104,018	\$599,223	\$4,863,980
9	2034	\$23,278,479	\$20,450,253	\$43,728,732	\$325,666	\$286,099	\$611,765	\$4,863,980	\$121,599	\$611,765	\$5,597,344
10	2035	\$23,930,276	\$20,716,106	\$44,646,382	\$334,785	\$289,818	\$624,603	\$5,597,344	\$139,934	\$624,603	\$6,361,881
11	2036	\$24,600,324	\$20,985,416	\$45,585,740	\$344,159	\$293,586	\$637,744	\$6,361,881	\$159,047	\$637,744	\$7,158,672
12	2037	\$25,289,133	\$21,258,226	\$46,547,359	\$353,795	\$297,403	\$651,198	\$7,158,672	\$178,967	\$651,198	\$7,988,837
13	2038	\$25,997,229	\$21,534,583	\$47,531,812	\$363,701	\$301,269	\$664,970	\$7,988,837	\$199,721	\$664,970	\$8,853,528
14	2039	\$26,725,151	\$21,814,533	\$48,539,684	\$373,885	\$305,185	\$679,070	\$8,853,528	\$221,338	\$679,070	\$9,753,936
15	2040	\$27,473,456	\$22,098,122	\$49,571,578	\$384,354	\$309,153	\$693,506	\$9,753,936	\$243,848	\$693,506	\$10,691,291
16	2041	\$28,242,712	\$22,385,397	\$50,628,109	\$395,116	\$313,172	\$708,287	\$10,691,291	\$267,282	\$708,287	\$11,666,860
17	2042	\$29,033,508	\$22,676,407	\$51,709,915	\$406,179	\$317,243	\$723,422	\$11,666,860	\$291,672	\$723,422	\$12,681,954
18	2043	\$29,846,446	\$22,971,201	\$52,817,647	\$417,552	\$321,367	\$738,919	\$12,681,954	\$317,049	\$738,919	\$13,737,921
19	2044	\$30,682,147	\$23,269,826	\$53,951,973	\$429,243	\$325,545	\$754,788	\$13,737,921	\$343,448	\$754,788	\$14,836,158
20	2045	\$31,541,247	\$23,572,334	\$55,113,581	\$441,262	\$329,777	\$771,039	\$14,836,158	\$370,904	\$771,039	\$15,978,100
21	2046	\$32,424,402	\$23,878,774	\$56,303,176	\$453,617	\$334,064	\$787,681	\$15,978,100	\$399,453	\$787,681	\$17,165,234
22	2047	\$33,332,285	\$24,189,198	\$57,521,483	\$466,319	\$338,407	\$804,726	\$17,165,234	\$429,131	\$804,726	\$18,399,091
23	2048	\$34,265,589	\$24,503,658	\$58,769,247	\$479,376	\$342,806	\$822,182	\$18,399,091	\$459,977	\$822,182	\$19,681,250
24	2049	\$35,225,026	\$24,822,206	\$60,047,232	\$492,798	\$347,263	\$840,061	\$19,681,250	\$492,031	\$840,061	\$21,013,342
25	2050	\$36,211,326	\$25,144,894	\$61,356,220	\$506,596	\$351,777	\$858,374	\$21,013,342	\$525,334	\$858,374	\$22,397,049
26	2051	\$37,225,244	\$25,471,778	\$62,697,022	\$520,781	\$356,350	\$877,131	\$22,397,049	\$559,926	\$877,131	\$23,834,107
27	2052	\$38,267,550	\$25,802,911	\$64,070,461	\$535,363	\$360,983	\$896,346	\$23,834,107	\$595,853	\$896,346	\$25,326,305
28	2053	\$39,339,042	\$26,138,349	\$65,477,391	\$550,353	\$365,675	\$916,029	\$25,326,305	\$633,158	\$916,029	\$26,875,491
29	2054	\$40,440,535	\$26,478,147	\$66,918,682	\$565,763	\$370,429	\$936,192	\$26,875,491	\$671,887	\$936,192	\$28,483,571
30	2055	\$41,572,870	\$26,822,363	\$68,395,233	\$581,604	\$375,245	\$956,849	\$28,483,571	\$712,089	\$956,849	\$30,152,509
31	2056	\$42,736,910	\$27,171,054	\$69,907,964	\$597,889	\$380,123	\$978,012	\$30,152,509	\$753,813	\$978,012	\$31,884,335
30 Yr TOTALS		\$902,476,100	\$698,587,399	\$1,601,063,499	\$12,625,641	\$9,773,238	\$22,398,878	\$379,418,251	\$9,485,456	\$22,398,878	\$411,302,586

Projected New Growth / Fees (Revenue)

FXM Market Growth at 100% Potential

		CIP Class	Residential Class	Avg New Growth Tax Rate Factor Over 30 Years	
Potential Market New Growth Adj.		100%	100%		\$13.99
Debt Service Year	Fiscal Year	Commercial New Growth Tax Levy @ \$13.99 Avg. Tax Rate	Residential New Growth Tax Levy @ \$13.99 Avg. Tax Rate	FY Total Tax Levy Sewer System Revenue	
3	2028	\$275,939	\$264,764	\$1,629,144	
8	2033	\$316,796	\$282,427	\$4,863,980	
13	2038	\$363,701	\$301,269	\$8,853,528	
18	2043	\$417,552	\$321,367	\$13,737,921	
23	2048	\$479,376	\$342,806	\$19,681,250	
28	2053	\$550,353	\$365,675	\$26,875,491	

Projected New Growth / Fees (Revenue)

FXM Market Growth at 75% Potential

Potential Market New Growth Adjustment		CIP Class	Residential Class	Avg New Growth Tax Rate Factor Over 30 Years	
		75%	75%		\$13.99
Debt Service Year	Fiscal Year	Commercial New Growth Tax Levy @ \$13.99 Avg. Tax Rate	Residential New Growth Tax Levy @ \$13.99 Avg. Tax Rate	FY Total Tax Levy Sewer System Revenue	
3	2028	\$206,955	\$198,573	\$1,221,858	
8	2033	\$237,597	\$211,821	\$3,647,985	
13	2038	\$272,776	\$225,952	\$6,640,146	
18	2043	\$313,164	\$241,025	\$10,303,441	
23	2048	\$359,532	\$257,105	\$14,760,937	
28	2053	\$412,765	\$274,257	\$20,156,618	

Projected New Growth (Revenue)

FXM Market Growth at 50% Potential

Potential Market New Growth Adjustment		CIP Class	Residential Class	Avg. New Growth Tax Rate Factor Over 30 Years	
		50%	50%		\$13.99
Debt Service Year	Fiscal Year	Commercial New Growth Tax Levy @ \$13.99 Avg. Tax Rate	Residential New Growth Tax Levy @ \$13.99 Avg. Tax Rate	FY Total Tax Levy Sewer System Revenue	
3	2028	\$137,970	\$132,382	\$814,572	
8	2033	\$158,398	\$141,214	\$2,431,990	
13	2038	\$181,851	\$150,634	\$4,426,764	
18	2043	\$208,776	\$160,684	\$6,868,961	
23	2048	\$239,688	\$171,403	\$9,840,625	
28	2053	\$275,177	\$182,838	\$13,437,746	

Projected New Growth / Fees (Revenue)

FXM Market Growth at 25% Potential

	CIP Class	Residential Class		
Potential Market New Growth Adjustment	25%	25%	Avg New Growth Tax Rate Factor Over 30 Years	\$13.99

Debt Service Year	Fiscal Year	Commercial New Growth Tax Levy @ \$13.99 Avg. Tax Rate	Residential New Growth Tax Levy @ \$13.99 Avg. Tax Rate	FY Total Tax Levy Sewer System Revenue
3	2028	\$68,985	\$66,191	\$407,286
8	2033	\$79,199	\$70,607	\$1,215,995
13	2038	\$90,925	\$75,317	\$2,213,382
18	2043	\$104,388	\$80,342	\$3,434,480
23	2048	\$119,844	\$85,702	\$4,920,312
28	2053	\$137,588	\$91,419	\$6,718,873

HOW WOULD WE PAY FOR SEWER?

Wastewater Project Cost Breakdown

- Total Project Cost Estimate = \$129,100,000
 - General Benefit Facilities Cost (To Pump Out of Town) = \$73,580,000
 - Special Benefit Facilities Cost (In Town Collection) = \$55,520,000
\$129,100,000
- Project Cost Eligible for Low Interest **SRF Loan** = \$112,600,000
- Project Cost Not Eligible for Low Interest **SRF Loan** = \$16,500,000
\$129,100,000

Additional Financial Assistance Available

- **\$1.5 million** in federal funding for final design earmarked for the Town (Congressman Moulton; Senators Warren and Markey)
- **\$250,000** in state funding for design/permitting earmarked for the Town (Rep. Jones and Senator Tarr)
- It is anticipated that these grants will reduce the amount of funding to be borrowed.
- Additionally, the Town has available for potential use:
 - **\$15 million** from the sale of Town-Owned Land (Berry Property/104 Lowell Road)
 - **\$4 million** from American Rescue Plan Act funding

“SRF”

- The Town has been notified that the wastewater project has been included on the Massachusetts State Revolving Fund (SRF) program 2023 Draft Intended Use plan.
- SRF is a federal-state partnership that provides communities low-cost financing for a wide range of water quality infrastructure projects.
- Construction Costs are Eligible for SRF Financing.
- Design Cost, Land Purchases, Administrative Costs and Fees are not.
- For Eligible Costs, the standard terms are 2% interest for a 20 year repayment period or 2.4% for a 30-year repayment period.
- Non-Eligible Project Cost is financed at the current market Interest rate.
- The Initial Project Borrowing will require a Short Term Interest Only Bond Anticipation Note (BAN) at current market interest rate.

Wastewater Project Borrowing Over a 30 Year Repayment Period

112.6 Million in
SRF Eligible Cost
16.5 Million in
Non-Eligible Cost

4% BAN Rate
5% Market Rate
2.4% SRF Rate

Town of North Reading, Massachusetts \$129,100,000 Wastewater						Est. Tax Rate Impact Per \$1,000 in Property Value	
112,600,000	Est. MCWT Eligible Costs						
16,500,000	Est. Ineligible Costs						
1,750,000	Application of Grants (\$1.5M Federal Funds + \$250k State Funding)						
14,750,000	Est. Ineligible Costs; GOB Financing						
4.00	Est. BAN Rate						
5.00	Est. GOB 30yr Bond Rate						
2.40	Est. MCWT 30yr Rate						
Financing Plan 1 - 30yrs						Est. Tax Impact Per \$1,000 in Property Value	
Fiscal Year	Est. Short Term Interest	Est. MCWT 30yr dated June 2025	Est. \$7.7M GOB dated June 2026	Est. \$7.05M GOB dated June 2028	Projected Debt Service	Est. Tax Rate Impact Per \$1,000	Est. Impact per \$100,000 Home Valuation
06/30/2024	-	-	-	-	-	0.05	5.37
06/30/2025	228,000	-	-	-	228,000.00	0.05	5.37
06/30/2026	308,000	8,095,800	-	-	8,403,800.00	1.41	150.82
06/30/2027	16,000	5,474,873	510,000.00	-	6,000,872.50	1.41	150.82
06/30/2028	352,000	5,466,788	508,750.00	-	6,327,537.50	1.49	148.95
06/30/2029	-	5,467,173	507,250.00	467,500.00	6,441,922.50	1.52	151.64
06/30/2030	-	5,460,773	510,500.00	466,750.00	6,438,022.50	1.52	151.55
06/30/2031	-	5,457,715	508,250.00	465,500.00	6,431,715.00	1.51	151.40
06/30/2032	-	5,452,873	510,750.00	464,500.00	6,428,122.50	1.51	151.32
06/30/2033	-	5,448,245	507,750.00	468,000.00	6,421,995.00	1.51	151.17
06/30/2034	-	5,442,833	509,500.00	466,000.00	6,418,332.50	1.51	151.00
06/30/2035	-	5,437,508	505,750.00	463,750.00	6,407,007.50	1.51	150.82
06/30/2036	-	5,435,270	506,750.00	466,250.00	6,408,270.00	1.51	150.85
06/30/2037	-	5,425,993	507,250.00	463,250.00	6,396,492.50	1.51	150.57
06/30/2038	-	5,424,803	507,250.00	465,000.00	6,397,052.50	1.51	150.59
06/30/2039	-	5,416,445	506,750.00	466,250.00	6,389,445.00	1.50	150.41
06/30/2040	-	5,411,048	510,750.00	467,000.00	6,388,797.50	1.50	150.39
06/30/2041	-	5,408,483	509,000.00	467,250.00	6,384,732.50	1.50	150.30
06/30/2042	-	5,403,623	506,750.00	467,000.00	6,377,372.50	1.50	150.12
06/30/2043	-	5,396,468	509,000.00	466,250.00	6,371,717.50	1.50	149.99
06/30/2044	-	5,392,018	510,500.00	465,000.00	6,367,517.50	1.50	149.89
06/30/2045	-	5,385,145	506,250.00	463,250.00	6,354,045.00	1.50	149.59
06/30/2046	-	5,375,850	506,500.00	466,000.00	6,348,350.00	1.49	149.44
06/30/2047	-	5,374,133	511,000.00	463,000.00	6,348,132.50	1.49	149.43
06/30/2048	-	5,364,738	509,500.00	464,500.00	6,338,737.50	1.49	149.21
06/30/2049	-	5,357,793	507,250.00	465,250.00	6,330,292.50	1.49	149.01
06/30/2050	-	5,353,170	509,250.00	465,250.00	6,327,670.00	1.49	148.95
06/30/2051	-	5,345,743	510,250.00	464,500.00	6,320,492.50	1.49	148.78
06/30/2052	-	5,340,510	510,250.00	463,000.00	6,313,760.00	1.49	148.63
06/30/2053	-	5,332,345	509,250.00	465,750.00	6,307,345.00	1.48	148.47
06/30/2054	-	5,321,248	507,250.00	467,500.00	6,295,997.50	1.48	148.21
06/30/2055	-	5,317,218	509,250.00	463,250.00	6,289,717.50	1.48	148.06
06/30/2056	-	-	-	463,250.00	463,250.00	0.11	0.90
06/30/2057	-	-	-	467,250.00	467,250.00	0.11	1.00
Total	904,000	\$162,784,415.00	\$14,748,500.00	\$13,497,250.00	\$191,934,165.00		

NOTES:

FY23 Valuation = 4,248,113,076

Interest estimated, subject to change.

Averages
\$1.50/\$1,000 in
Assessed
Property Value
over 30 Years

Averages
\$150/\$100,000
in Assessed
Property Value
over 30 Years

Would the Town be allowed to incur the debt associated with this project?

- Yes, the Town is allowed to incur the debt associated with this project.
- The Town's current debt limit is \$180,383,440 and, with state approval, the debt limit can be doubled to \$360,766,880. The outstanding debt and debt authorized but not yet issued subject to the debt limit is 15,077,369.75, leaving additional borrowing capacity of \$165,306,070 under the normal debt limit and \$345,689,510 under the double debt limit.
- Having the capacity should not be confused with the Town's ability to support the payment of additional debt service within the Town's Proposition 2 ½ levy limit or the need for additional revenues (debt exclusion revenues).

Municipal Finance: Debt Exclusion

- A debt exclusion is a vote to exclude from the levy limit the costs of debt service for capital projects. This exclusion remains in effect for the life of the debt only.
- A project funded by a debt exclusion is paid for by raising property taxes townwide above and beyond what they would normally be in a given year or years.

Debt Exclusion (Property Tax) Impact

- Debt Exclusion Property Tax Amount:
 - **\$1.50** per \$1,000 of assessed property valuation
 - For the average valued single family home of \$745,319: **\$1,116**
- This Debt Exclusion amount can be reduced with the use of other revenues sources to lower the amount borrowed or to contribute to payment of the annual debt service amount.
- If available funds from the sale of the former JT Berry property (\$14+ million) and state/federal grant funds (\$1.75 million) are used to reduce the amount borrowed for the project:
 - **\$1.28** per \$1,000 of assessed property valuation
 - For the average valued single family home of \$745,319: **\$956**

Debt Exclusion (Property Tax) Impact

Line #	Project Construction Cost Borrowing & Debt Exclusion Costs Scenario 1	
1	Total Probable Estimated Municipal Wastewater Project Cost	\$129,100,000
2	Use of State & Federal Earmarks to Reduce Wastewater Project Cost Borrowing Amount	\$1,750,000
3	Borrowed from Mass Clean Water Trust for Qualified Construction Costs	\$112,600,000
4	Borrowed at Market Interest Rates for Non-Eligible Design Costs, Land Acquisition & Legal Costs	\$14,750,000
5	Average Annual Project Debt Service Over 30 Year Period	\$6,359,189
6	Debt Exclusion per \$1,000 in Assessed Property Value Over 30 Year Period	\$1.50
7	Debt Exclusion for Avg Single Family Home = \$745,319 Over 30 Year Period	\$1,116

Line #	Project Construction Cost Borrowing & Debt Exclusion Costs Scenario 2	
8	Total Probable Estimated Municipal Wastewater Project Cost	\$129,100,000
9	Use of State & Federal Earmarks to Reduce Wastewater Project Cost Borrowing Amount	\$1,750,000
10	Borrowed from Mass Clean Water Trust for Qualified Construction Costs	\$112,600,000
11	Appropriation of Sale of Land Funds to Reduce Wastewater Project Cost Borrowing Amount	\$14,750,000
12	Average Annual Project Debt Service Over 30 Year Period	\$5,448,681
13	Debt Exclusion per \$1,000 in Assessed Property Value Over 30 Year Period	\$1.28
14	Reduced Debt Exclusion for Avg Single Family Home = \$745,319 Over 30 Year Period	\$956
15	Net Reduction of Debt Exclusion for Avg Single Family Home = \$745,319 Over 30 Year Period	(\$160)

System Development Fees

- State Law allows the Town to assess a fee (beyond the debt exclusion) to property owners who choose to connect to the sewer system.
- This fee is only charged when a property owner chooses to connect to the system.
- This fee may be discounted to promote connections to the system.
- The Town currently charges a System Development Fee for new connections to the water system.
- The Select Board is no longer considering the use of betterments, which are charged to property owners along the route regardless of whether they choose to connect, for this project.

System Development Fee Scenarios

Line #	System Development Fee Per Bedroom Discount Schedule										
1	% of Full Project Cost to be Recovered by System Development Fees	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%
2	Per Bedroom System Development Fee Years 1-5	\$667	\$1,333	\$2,000	\$2,667	\$3,333	\$4,000	\$4,667	\$5,333	\$6,000	\$6,667
3	Per Bedroom System Development Fee Years 5-10	\$826	\$1,651	\$2,477	\$3,303	\$4,128	\$4,954	\$5,780	\$6,605	\$7,431	\$8,257
4	Per Bedroom System Development Fee Years 10-15	\$985	\$1,969	\$2,954	\$3,939	\$4,923	\$5,908	\$6,893	\$7,877	\$8,862	\$9,847
5	Per Bedroom System Development Fee Years 15-20	\$1,144	\$2,287	\$3,431	\$4,575	\$5,718	\$6,862	\$8,006	\$9,149	\$10,293	\$11,437
6	Per Bedroom System Development Fee Years 20-25	\$1,303	\$2,605	\$3,908	\$5,211	\$6,513	\$7,816	\$9,119	\$10,421	\$11,724	\$13,026
7	Per Bedroom System Development Fee Years 25-30	\$1,462	\$2,923	\$4,385	\$5,847	\$7,308	\$8,770	\$10,231	\$11,693	\$13,155	\$14,616
8	Per Bedroom System Development Fee Years 30+	\$1,621	\$3,241	\$4,862	\$6,483	\$8,103	\$9,724	\$11,344	\$12,965	\$14,586	\$16,206
9	Total Sewer Units Assumed to Connect Over 30 Year Period	3,983	3,983	3,983	3,983	3,983	3,983	3,983	3,983	3,983	3,983
10	Total System Development Fee Revenue Over 30 Year Period - Discounted Fees	\$4,238,528	\$8,477,056	\$12,715,583	\$16,954,111	\$21,192,639	\$25,431,167	\$29,669,694	\$33,908,222	\$38,146,750	\$42,385,278
11	Avg Annual System Development Fee Revenue Over 30 Year Period - Discounted Fees	\$141,284	\$282,569	\$423,853	\$565,137	\$706,421	\$847,706	\$988,990	\$1,130,274	\$1,271,558	\$1,412,843

Septic System Repair/Replacement Costs

Ranges between \$25,000 - \$50,000 for the typical Single Family Home

Septic System Costs							
		Local Contractors		Town's Design Engineer		Local Design Engineer	
		NR Contractor 1	NR Contractor 2	Wright-Pierce 1	Wright-Pierce 2	Eng Costs	Const Costs
Repair	Replace Septic Tank	\$6,000 to \$7,000	\$8,500			\$0	\$5,000 to \$7,000
	Replace Leaching Field	\$20,000 to \$30,000	\$20,000			\$2,250 to \$2,750	\$20,000 to \$25,000
	Replace Raised Leaching Field	\$25,000 to \$40,000				\$2,250 to \$2,750	\$30,000 to \$35,000
New	Conventional (Gravity) Septic System	\$25,000 to \$40,000	\$38,500	\$30,000 to \$40,000	\$24,000 to \$28,000	\$2,250 to \$2,750	\$32,500 to \$40,000
	Pumped system with Raised Leaching Field	\$35,000 to \$45,000	\$60,000		\$32,000 to \$36,000	\$2,250 to \$2,750	\$37,500 to \$47,500
	Non-Conventional System (Alternative Technology)	\$30,000 to \$50,000				\$2,250 to \$3,250	Can add \$7,000 to \$8,000

Septic Systems Along the Route

- Board of Health has indicated that it may consider requiring properties along the route that experience total or significant septic system failure to connect to the system.
- Board of Health has indicated that it may consider requiring properties along the route that seek to expand / construct additions to connect to the system.
- Board of Health has indicated that it would be unlikely to require properties along the route that require septic system repairs to connect to the system.
- Systems over 10,000 gallons per day fall outside of the Board of Health's regulation and are regulated by the Massachusetts Department of Environmental Protection

Subdivision & Site Plan Regulations

- Community Planning Commission (CPC) regulations require all lots in a new subdivision to connect to sewer if available within 1,000 feet of the development.
- Where the Town has a sewer line planned but not constructed (per a Comprehensive Sewer Plan), the subdivision developer is required to design and install sewerage laterals which can be connected later to the public sewerage system in the street and to every lot.
- CPC regulations require all developments that fall under Site Plan Review to connect to sewer if available within 1,000 of the property.

Sewer Rates of the GLSD Municipalities

- Rates are shown per Hundred Cubic Feet (HCF) Quantities which is approximately 748 Gallons
 - Andover: \$4.45 per HCF
 - North Andover: \$9.24 per HCF
 - Lawrence: \$3.58 per HCF
 - Methuen: \$4.48 per HCF
 - Salem New Hampshire: \$4.65 per HCF
- Using Highest Sewer Rate of the GLSD Municipalities = \$9.24
- The Average Single Family Home using 130 GPD
- The Average Quarterly Sewer Bill = \$147

Operating a Sewer System

- The cost to operate a sewer system varies from community to community.
- Factors include maintenance costs, proximity to plant, and age of system.
- The long-term goal is to have fees from the users cover the cost of operating the system, however in the earlier years following the construction of the system it is likely that a general fund (taxpayer) subsidy will be required to ease the burden on the users (ratepayers).
- System Development Fee revenues may be used to subsidize the cost of operating a sewer system.

Sewer Operating Costs / Utility Bills

North Reading		
Wastewater Collection System		
Estimated Annual Sewer Operating Budget		
Components	Cost	
Salary	\$450,000	
Benefits/Insurances	\$ 300,000	est. 2/3 labor costs
Sewer Charges from Municipality	TBD	
Sewer Charges from GLSD	TBD	
Electricity	\$66,000	
Chemicals	\$300,000	
Other expenses	\$50,000	estimated based on other Towns' budgets

Next Steps: Meetings / Info Sessions

- **Additional Information Sessions – Coming Soon**
 - Residential Property Owners
 - Condominium Associations
 - Commercial Property Owners
- **Special Town Meeting – Date TBD**
- **Special Election for Wastewater Project Debt Exclusion**
 - No More Than 90 Days After Special Town Meeting