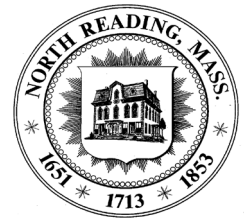


TOWN OF NORTH READING WASTEWATER PROJECT

Update to the Select Board
Monday, April 1st
North Reading Town Hall



In-Town Wastewater Collection System



Summary of 2022-2024 Wastewater Planning Efforts

- October, 2021: Town Meeting authorizes funding for planning/design/permitting for wastewater connection to GLSD.
- Fall, 2022: Betterment Assessment Financing Model was presented to the Select Board, Town boards/commissions/committees, and to residents at a series of Information Sessions.
- March, 2023: Town Meeting amends General Bylaws to require that a majority of property owners along a route to be assessed betterments vote in support of betterments.
- April, 2023: Select Board removes betterments from consideration and reviews options for the assessment of System Development Fees
- September, 2023 –Select Board supports moving forward with Final Design efforts utilizing ARPA funding to maintain the project timeline.
- Fall, 2023 / Winter, 2024: Town's consultants assemble information regarding cost/benefit of a wastewater project as well as cost of operating a wastewater utility.

Project Timeline in September, 2023

Project Timeline Considerations

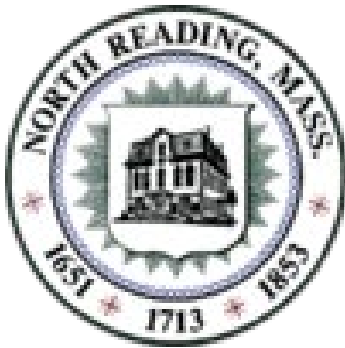
- SRF Funding
 - For Eligible Construction Costs, the standard terms are 2% interest for a 20 year repayment period or 2.4% for a 30-year repayment period.
 - To be eligible for the next round of SRF Financing, the Town must have construction funding Appropriated by **June 30, 2024** and apply for financing by **October 2024** along with 90% Design Plans submittal.
 - To meet the October 2024 deadline, final design efforts must begin this **November 2023** in order to have enough time to complete plans.
- MassDOT Route 114 Road Improvements Project
 - Determine Route to Greater Lawrence Sanitary District.
 - Submit Final Design Plans for Selected Route to MassDOT/GPI.
 - Sign Agreement with MassDOT to be part of their project construction by **September 2024**.
 - Construction begins **June 2025** starting with underground utility relocation and installation.

Items to Discuss Tonight

1. Cost/benefit analysis of potential development
2. Cost of operating sewer and potential offsetting revenues
 - Information from Kleinfelder
 - Integration into Town's financial forecast
3. Update on out-of-town portion of route

COST/BENEFIT ANALYSIS

(Presentation by Kleinfelder)



Town of North Reading Municipal Wastewater System Financial Assessment Study

April 1st, 2024



Agenda

1

New Growth Impacts On Town
Operating Costs

2

Sewer Operation & Maintenance
Costs

3

Municipality Comparison

How Can We Pay For Sewers?



Existing Property Value
Increase Tax Levy

Residential New
Growth Tax Levy

Commercial New
Growth Tax Levy

Alternative Revenues
(Grants, Land Sale, System
Development/ Connection Fees)

To Avoid
Increasing
General Tax
Rates:
Increase \$ In
Decrease \$ Out

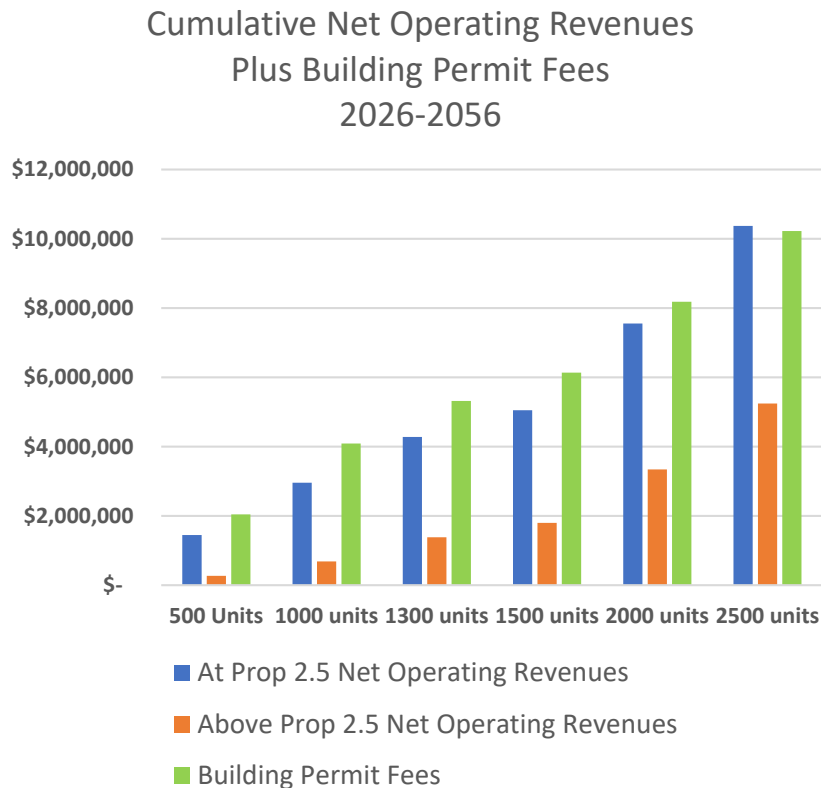
New Growth Cost Impacts

FXM evaluated how new multifamily residential growth cost and budget impacts the Town’s annual budget.

The following Town budget scenarios projected to 2056 were used for this analysis:

Town Budget Scenario (2023-2043)	Average Annual Cost Increase		
	Education	Municipal	Other Fixed
Using 2 1/2 Percent Growth Factor	2.5%	2.5%	4.5%
Using Historical Average Growth Factor	4.1%	3.3%	5.0%

Annual Net Operating Revenues Due to Residential Multi-Family New Growth



Findings:

Multifamily residential development provides cumulative **net positive** operating revenues over the 2026 to 2056 period in all scenarios.

The **greater** the number of multifamily units, the **greater** the cumulative net positive revenue.

COST BENEFIT ANALYSIS OF MULTI-FAMILY

Kleinfelder assessed the costs and benefits of implementing a municipal sewer system projected over 30 years.

Input Parameters:

Costs	Benefits
Project Capital Cost	Increase in Property Tax Revenue
Added Municipal and Educational Cost	Economic Expansion
As-is Potential Sewer Operating Cost Subsidy	Environmental Benefits
	Increased Building Permit Revenue

Findings:

- As the number of multi-family housing units increases, there is a corresponding **net positive increase** in tax revenue.

MUNICIPALITY COMPARISON

Kleinfelder developed and distributed a questionnaire to municipalities that are similar to North Reading that have installed municipal sewer to better understand the **net growth** and **potential ramifications** associated with the implementation of a municipal wastewater system.

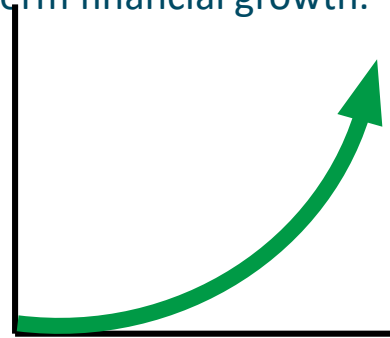
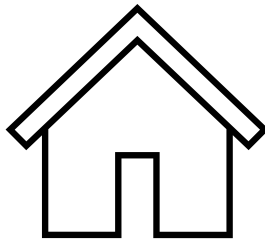
Surveyed Towns:

- Tewksbury
- Wayland
- Northborough
- Gloucester
- Stoughton



NEIGHBORING MUNICIPALITY COMPARISON

- **Has there been commercial development within the parameters of existing zoning as a result of municipal sewers?**
 - Yes, with long-term financial benefits.
- **Has there been residential development within the parameters of existing zoning as a result of municipal sewers?**
 - Dependent on zoning changes, which can be critical to supporting growth. Some towns have experienced stagnant growth since the 90s. Others are experiencing a current growth in residential developments which will lead to long-term financial growth.



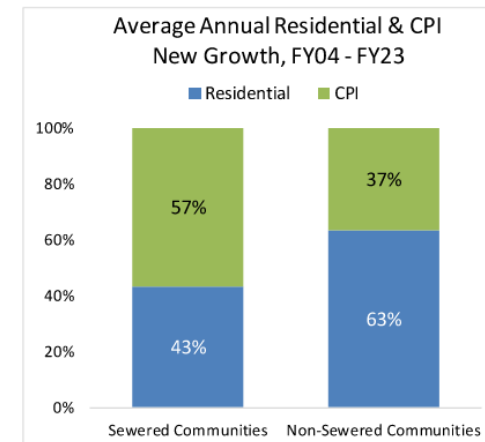
IMPACTS OF RESIDENTIAL GROWTH- TAXES

FXM performed an analysis to explore the **differences in new growth** between sewerred versus non-sewerred communities and the **effect on the total tax levy**.

Findings:

- Non-sewerred communities were shown to have a **lower** average annual new growth compared to sewerred communities
- Commercial new growth constitutes a **higher percentage** of new growth in sewerred communities compared to non-sewerred communities.
 - **Tax burden on residents would be diminished with additional commercial growth**

Figure 3



Source: Massachusetts Department of Revenue, Municipal Databank

Figure 4

SUMMARY

- New Growth
 - Overall, residential development provides cumulative **net positive** operating revenues projected over the 2026 to 2056 period.
 - The **greater** the number of multifamily units, the **greater** the cumulative net positive revenue.
 - Multi-family residential growth is **facilitated** by the implementation of municipal sewers to the extent that zoning allows.
 - Commercial growth is **significantly facilitated** by the implementation of municipal sewers as the majority of properties along the sewer route are commercially zoned.

Why Sewer? Revenue for Services (2022)

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 (2022)

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

Projected New Growth (Revenue)

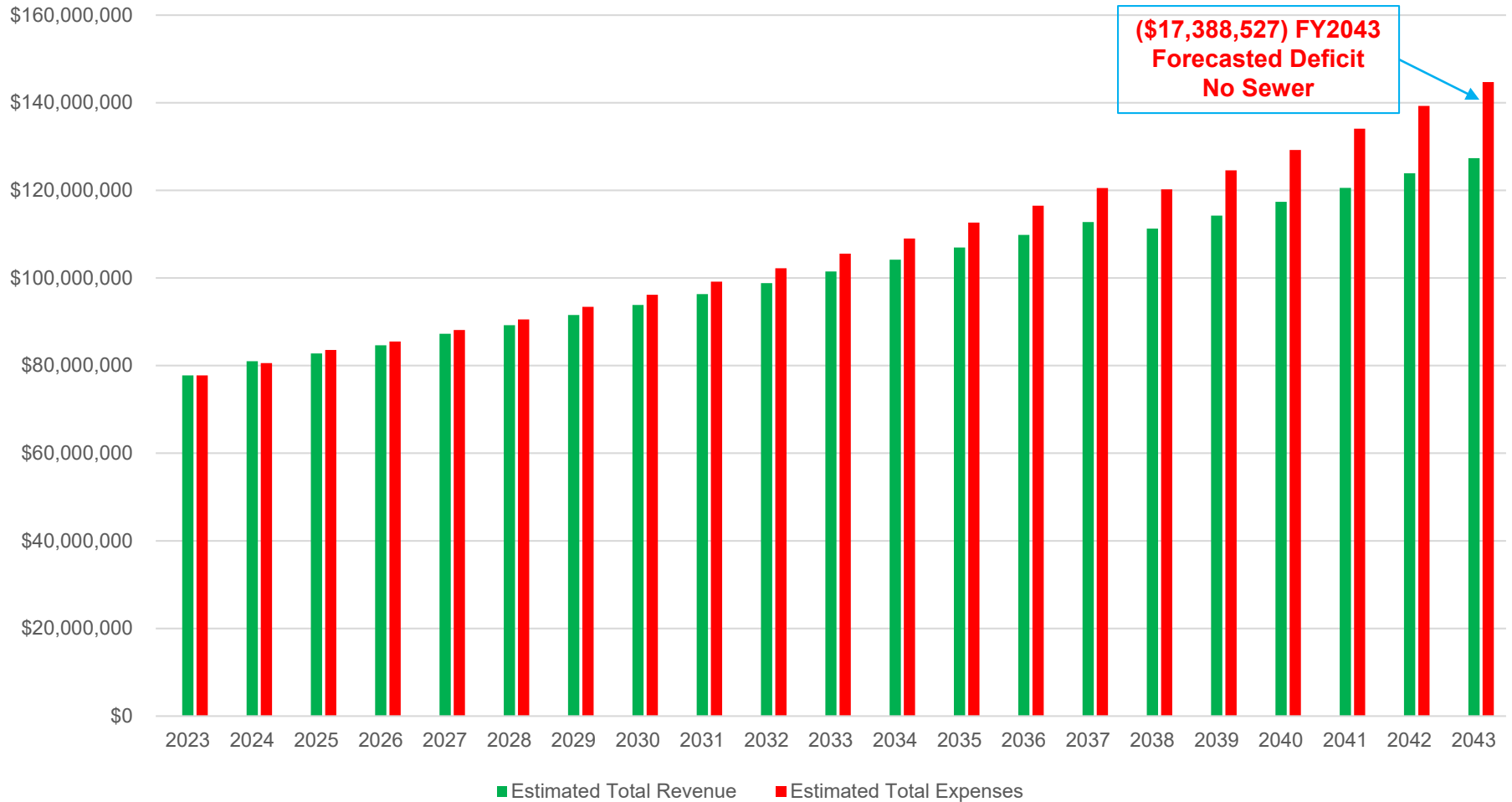
FXM Market Growth at 100% Potential

		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
	2026	\$18,664,213	\$18,442,642	\$37,106,855	\$261,112	\$258,013	\$519,125	\$0	\$0	\$519,125	\$519,125
1	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
2	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
3	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
4	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
5	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
6	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
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	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
16	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
17	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
18	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
19	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
20	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
21	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
22	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
23	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
24	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
25	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
26	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
27	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
28	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
29	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
30	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
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

Town's Financial 20 Year Projections

(based on **Prop 2 ½ expenditure limits**, current service levels, **No Sewer**)
(fixed costs growth rate: **4.5%**, municipal: **2.5%**, schools, **2.5%**)

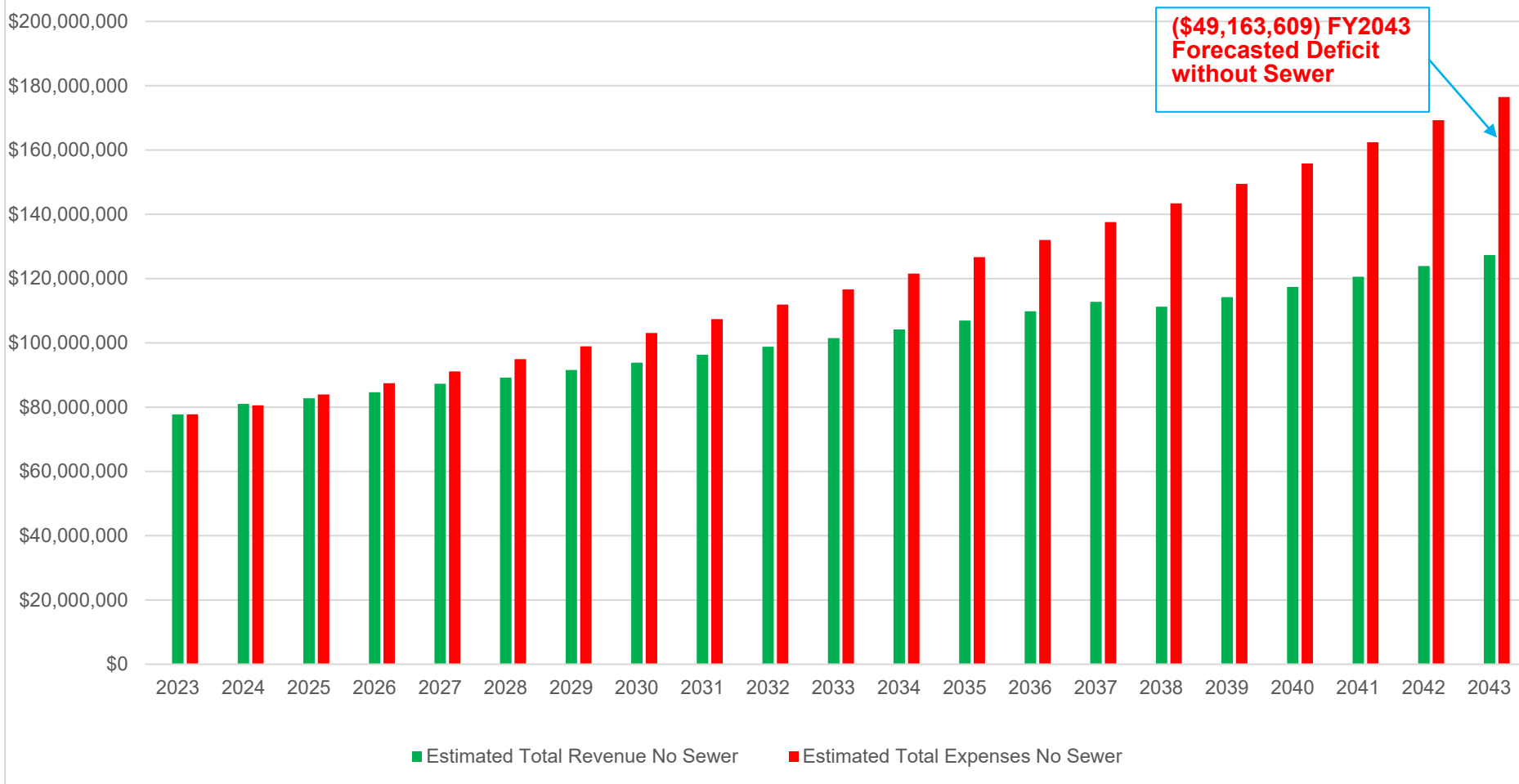
Projection No Sewers: Budgeted Revenues vs Budgeted Expenses



Town's Financial 20 Year Projections

(based on 20 year historical growth, current service levels, No Sewer)
(fixed costs growth rate: 5%, municipal: 3.3%, schools, 4.1%)

Projection No Sewers: Budgeted Revenues vs Budgeted Expenses



Residential Cost/Benefit Analysis

Table 3

Summary Findings

Cumulative (2026-2056) Expenditures and Revenues

	Number of Units and Zoning Scenarios					
	Current Zoning			New Zoning		
	500 Units	1,000 units	1,300 Units	1,500 units	2,000 units	2,500 units
Budget Assumptions *						
Operating Forecast @ Proposition 2 1/2 Expenditure Levels						
General Government Expenditures (2.5%)	\$ 2,035,523	\$ 3,871,826	\$ 4,891,966	\$ 5,386,644	\$ 6,880,618	\$ 8,259,387
Other Fixed Cost Expenditures (4.5%)	\$ 3,582,964	\$ 6,815,258	\$ 8,610,926	\$ 9,481,668	\$ 12,111,387	\$ 14,538,322
School Expenditures (2.5%)	\$ 1,179,512	\$ 2,359,023	\$ 3,066,731	\$ 3,538,536	\$ 4,718,048	\$ 5,897,559
Total Expenditures	\$ 6,797,999	\$ 13,046,108	\$ 16,569,623	\$ 18,406,847	\$ 23,710,053	\$ 28,695,269
Property Tax Revenue	\$ 8,174,027	\$ 15,867,228	\$ 20,675,479	\$ 23,265,730	\$ 31,020,974	\$ 38,776,217
Net Revenues	\$ 1,376,028	\$ 2,821,120	\$ 4,105,856	\$ 4,858,883	\$ 7,310,921	\$ 10,080,948
Operating Forecast Above Proposition 2 1/2 Expenditure Levels						
General Government Expenditures (3.3%)	\$ 2,293,523	\$ 4,357,818	\$ 5,502,628	\$ 6,057,243	\$ 7,730,156	\$ 9,271,266
Other Fixed Cost Expenditures (5.0%)	\$ 3,955,859	\$ 7,516,346	\$ 9,490,909	\$ 10,447,507	\$ 13,332,940	\$ 15,991,039
School Expenditures (4.1%)	\$ 1,654,014	\$ 3,308,027	\$ 4,300,435	\$ 4,962,041	\$ 6,616,054	\$ 8,270,068
Total Expenditures	\$ 7,903,396	\$ 15,182,192	\$ 19,293,973	\$ 21,466,791	\$ 27,679,151	\$ 33,532,373
Property Tax Revenue	\$ 8,174,027	\$ 15,867,228	\$ 20,675,479	\$ 23,265,730	\$ 31,020,974	\$ 38,776,217
Net Revenues	\$ 270,631	\$ 685,036	\$ 1,381,506	\$ 1,798,939	\$ 3,341,823	\$ 5,243,844

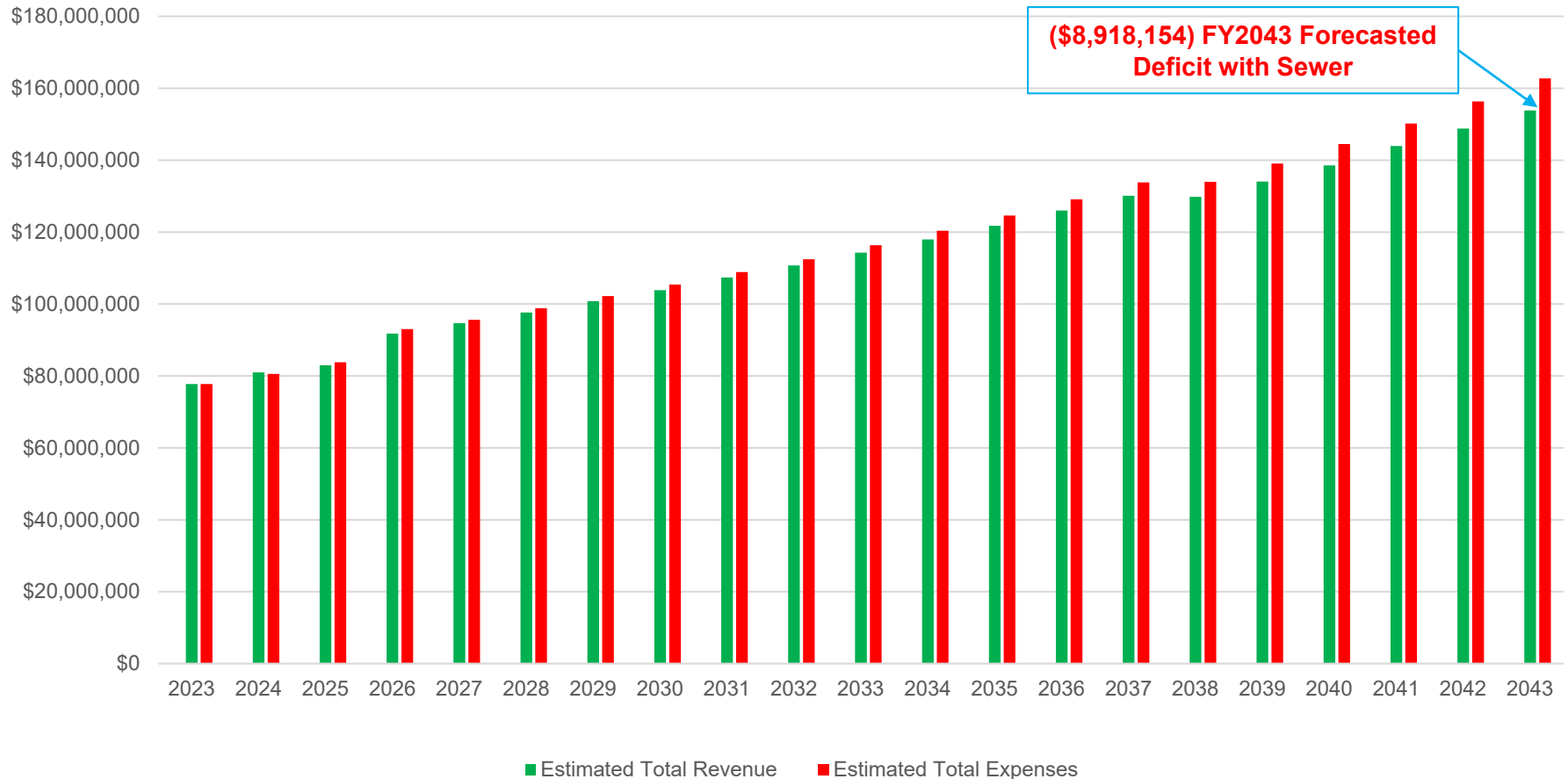
* () show average annual growth projected by town for 2023-2043 carried through 2056

Source: Town of North Reading, data sources op. cit., and FXM Associates

Town's Financial 20 Year Projections

(based on **Prop 2 ½ expenditure limits**, current service levels, **with Sewer**)
(fixed costs growth rate: **4.5%**, municipal: **2.5%**, schools, **2.5%**)

Projection with Sewer: Budgeted Revenues vs Budgeted Expenses with New Growth Revenues Attributable to Sewers

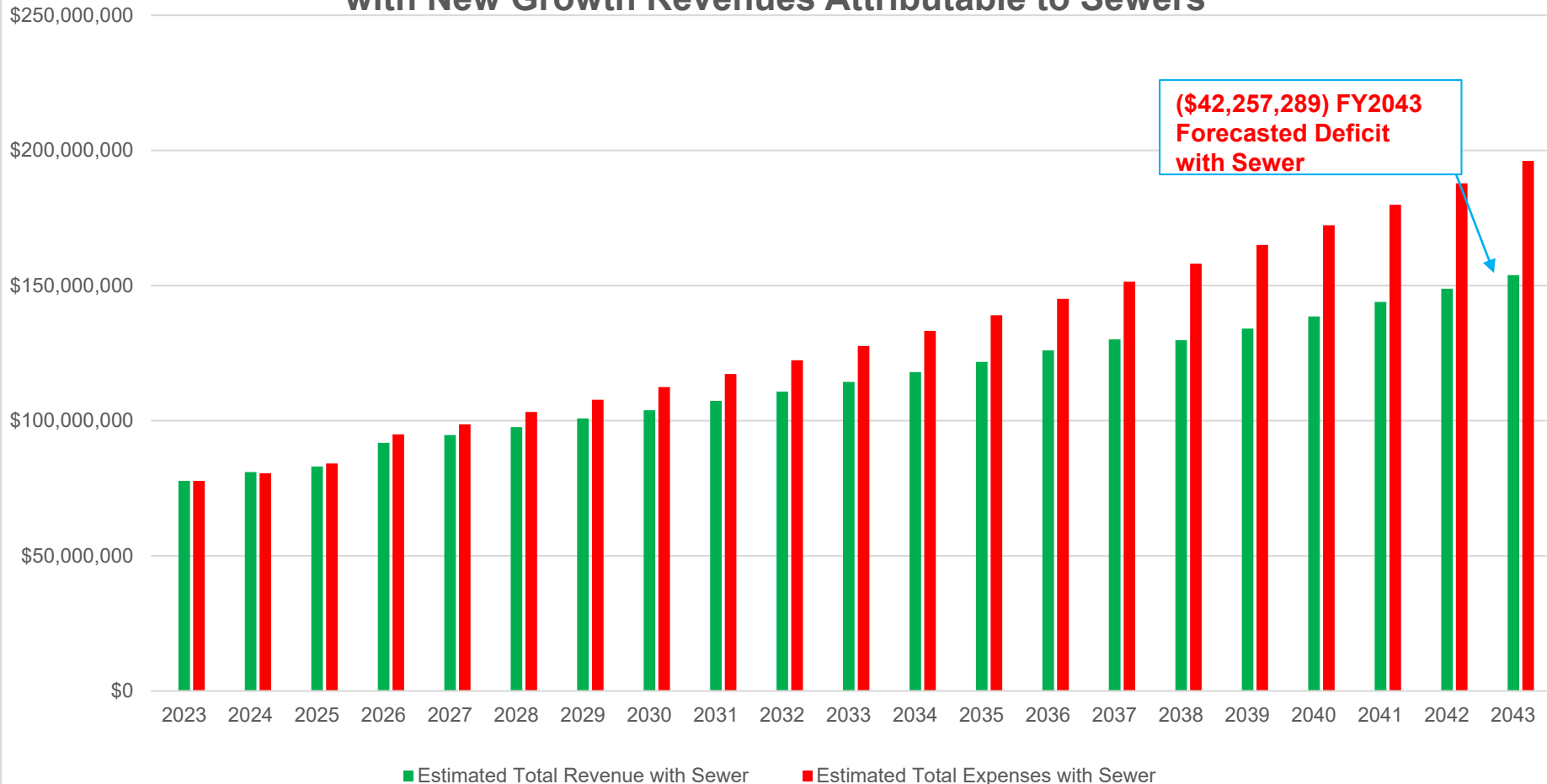


Town's Financial 20 Year Projections

(based on 20 year historical growth, current service levels, with Sewer)

(fixed costs growth rate: 5%, municipal: 3.3%, schools, 4.1%)

Projection with Sewers: Budgeted Revenues vs Budgeted Expenses with New Growth Revenues Attributable to Sewers



Conclusions from the 2022 & 2024 Cost/Benefits Analysis

- The 2022 FXM Report concluded that over a 30 year debt repayment period the combined Commercial & Residential New Growth Tax Dollars attributable to the construction of a Municipal Wastewater System could yield \$24,015,952 over 30 years.
- When the Commercial and Residential annual New Growth attributable to the sewer system is used in calculating the Prop 2 ½ Tax Levy, the cumulative “Sewer” Tax Levy assessed over that same 30 year period would yield \$440,996,339.
- The 2024 FXM Report, an analysis of the Educational & Municipal cost impacts due to Residential New Growth attributable to Sewer, concluded that there would be net positive tax revenues after the Educational & Municipal cost impacts are satisfied.
- When Commercial New Growth attributable to the sewer system is added to the Residential New Growth and used in calculating the Prop 2 ½ Tax Levy, the cumulative “Sewer” Tax Levy assessed over that same 30 year period would yield \$552,242,612.

Wastewater-related development and our long-term financial projections

- The Town utilizes a 20 year financial projection model. It is based on 20 years of history projected forward under two scenarios:
 - Limiting municipal and school operating cost growth to 2.5% (the limitation under Proposition 2 ½)
 - Reflecting actual historical 20-year trends in growth forward (5% for fixed costs, 3.3% for municipal operating expenses, and 4.1% for school operating expenses)
- Under a residential build-out scenario consistent with current zoning (1,300 units), the “2 ½ percent” projection sees the year 2043 deficit reduced from \$17.4 million to \$8.9 million.
- Under a residential build-out scenario consistent with current zoning (1,300 units), the actual historical trend projection sees the year 2043 deficit reduced from \$49.1 million to \$42.3 million.
- *These comparisons presume the \$6.4 million average annual debt service cost is offset by a debt exclusion, which is a \$6.4 million annual increase in property taxes.*

Development Cost/Benefit Scenarios

Additional Municipal & Educational Cost & Revenues 10 Year Interval Summary									
Using 2 1/2 Percent Growth Factors					1,300 Units Constructed Over 30 Years				
Fiscal Year	Additional Municipal Costs Impacts	Additional Educational Costs Impacts	Sewer Operations Cost	Total Additional Expenditures	Sewer New Growth Tax Revenue	Sewer Fees & Building Permit Revenues	Total Revenues	Net Revenues	Debt Service
2023	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2033	\$2,541,042	\$585,860	\$1,246,400	\$4,373,302	\$5,911,046	\$544,595	\$6,455,640	\$2,082,339	\$6,421,995
2043	\$7,736,658	\$1,687,387	\$2,251,000	\$11,675,046	\$17,894,419	\$2,319,143	\$20,213,561	\$8,538,516	\$6,371,718
Using 2 1/2 Percent Growth Factors					2,500 Units Constructed Over 30 Years				
Fiscal Year	Additional Municipal Costs Impacts	Additional Educational Costs Impacts	Sewer Operations Cost	Total Additional Expenditures	Sewer New Growth Tax Revenue	Sewer Fees & Building Permit Revenues	Total Revenues	Net Revenues	Debt Service
2023	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2033	\$4,886,619	\$1,126,653	\$1,246,400	\$7,259,672	\$9,051,737	\$587,088	\$9,638,826	\$2,379,153	\$6,421,995
2043	\$14,878,189	\$3,244,976	\$2,251,000	\$20,374,165	\$27,644,005	\$2,382,043	\$30,026,049	\$9,651,884	\$6,371,718

Development Cost/Benefit Scenarios

Additional Municipal & Educational Cost & Revenues 10 Year Interval Summary									
Using Historical Average Growth Factors					1,300 Units Constructed Over 30 Years				
Fiscal Year	Additional Municipal Costs Impacts	Additional Educational Costs Impacts	Sewer Operations Cost	Total Additional Expenditures	Sewer New Growth Tax Revenue	Sewer Fees & Building Permit Revenues	Total Revenues	Net Revenues	Debt Service
2023	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2033	\$2,715,794	\$663,145	\$1,246,400	\$4,625,339	\$5,911,046	\$544,595	\$6,455,640	\$1,830,301	\$6,421,995
2043	\$8,758,132	\$2,229,966	\$2,251,000	\$13,239,099	\$17,894,419	\$2,319,143	\$20,213,561	\$6,974,463	\$6,371,718
Using Historical Average Growth Factors					2,500 Units Constructed Over 30 Years				
Fiscal Year	Additional Municipal Costs Impacts	Additional Educational Costs Impacts	Sewer Operations Cost	Total Additional Expenditures	Sewer New Growth Tax Revenue	Sewer Fees & Building Permit Revenues	Total Revenues	Net Revenues	Debt Service
2023	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2033	\$5,222,681	\$1,275,279	\$1,246,400	\$7,744,360	\$9,051,737	\$587,088	\$9,638,826	\$1,894,466	\$6,421,995
2043	\$16,842,562	\$4,288,397	\$2,251,000	\$23,381,959	\$27,644,005	\$2,382,043	\$30,026,049	\$6,644,090	\$6,371,718

Tax Levy 30 Year Projections with Sewer

Calculated For Sewer New Growth Tax Dollars Only

Fiscal Year	Commercial New Growth Property Values	Residential Units	Residential Value	Residential New Growth Property Values	Total New Growth Property Values	FY New Growth Sewer System Contribution (\$13.99 per \$1,000 of New Growth Value)	Commercial New Growth Tax Levy	Residential New Growth Tax Levy	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	Compounding Sewer Related New Growth Revenue
2025	\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2026	\$18,664,213	41.9	\$579,305	\$24,293,434	\$42,957,647	\$600,977	\$261,112.34	\$339,865	\$0	\$0	\$600,977	\$600,977
2027	\$19,186,811	41.9	\$602,477	\$25,265,171	\$44,451,982	\$621,883	\$268,423.49	\$353,460	\$600,977	\$15,024	\$621,883	\$1,237,885
2028	\$19,724,042	41.9	\$626,576	\$26,275,778	\$45,999,820	\$643,537	\$275,939.35	\$367,598	\$1,237,885	\$30,947	\$643,537	\$1,912,370
2029	\$20,276,315	41.9	\$651,639	\$27,326,809	\$47,603,124	\$665,968	\$283,665.65	\$382,302	\$1,912,370	\$47,809	\$665,968	\$2,626,147
2030	\$20,844,052	41.9	\$677,705	\$28,419,881	\$49,263,933	\$689,202	\$291,608.29	\$397,594	\$2,626,147	\$65,654	\$689,202	\$3,381,003
2031	\$21,427,685	41.9	\$704,813	\$29,556,677	\$50,984,362	\$713,271	\$299,773.31	\$413,498	\$3,381,003	\$84,525	\$713,271	\$4,178,799
2032	\$22,027,660	41.9	\$733,006	\$30,738,944	\$52,766,604	\$738,205	\$308,166.96	\$430,038	\$4,178,799	\$104,470	\$738,205	\$5,021,474
2033	\$22,644,435	41.9	\$762,326	\$31,968,502	\$54,612,937	\$764,035	\$316,795.65	\$447,239	\$5,021,474	\$125,537	\$764,035	\$5,911,046
2034	\$23,278,479	41.9	\$792,819	\$33,247,242	\$56,525,721	\$790,795	\$325,665.92	\$465,129	\$5,911,046	\$147,776	\$790,795	\$6,849,617
2035	\$23,930,276	41.9	\$824,532	\$34,577,131	\$58,507,407	\$818,519	\$334,784.56	\$483,734	\$6,849,617	\$171,240	\$818,519	\$7,839,376
2036	\$24,600,324	41.9	\$857,513	\$35,960,217	\$60,560,541	\$847,242	\$344,158.53	\$503,083	\$7,839,376	\$195,984	\$847,242	\$8,882,602
2037	\$25,289,133	41.9	\$891,813	\$37,398,625	\$62,687,758	\$877,002	\$353,794.97	\$523,207	\$8,882,602	\$222,065	\$877,002	\$9,981,669
2038	\$25,997,229	41.9	\$927,486	\$38,894,570	\$64,891,799	\$907,836	\$363,701.23	\$544,135	\$9,981,669	\$249,542	\$907,836	\$11,139,047
2039	\$26,725,151	41.9	\$964,585	\$40,450,353	\$67,175,504	\$939,785	\$373,884.86	\$565,900	\$11,139,047	\$278,476	\$939,785	\$12,357,308
2040	\$27,473,456	41.9	\$1,003,169	\$42,068,367	\$69,541,823	\$972,890	\$384,353.65	\$588,536	\$12,357,308	\$308,933	\$972,890	\$13,639,131
2041	\$28,242,712	41.9	\$1,043,296	\$43,751,102	\$71,993,814	\$1,007,193	\$395,115.54	\$612,078	\$13,639,131	\$340,978	\$1,007,193	\$14,987,303
2042	\$29,033,508	41.9	\$1,085,027	\$45,501,146	\$74,534,654	\$1,042,740	\$406,178.78	\$636,561	\$14,987,303	\$374,683	\$1,042,740	\$16,404,725
2043	\$29,846,446	41.9	\$1,128,428	\$47,321,192	\$77,167,638	\$1,079,575	\$417,551.78	\$662,023	\$16,404,725	\$410,118	\$1,079,575	\$17,894,419
2044	\$30,682,147	41.9	\$1,173,566	\$49,214,039	\$79,896,186	\$1,117,748	\$429,243.24	\$688,504	\$17,894,419	\$447,360	\$1,117,748	\$19,459,527
2045	\$31,541,247	41.9	\$1,220,508	\$51,182,601	\$82,723,848	\$1,157,307	\$441,262.05	\$716,045	\$19,459,527	\$486,488	\$1,157,307	\$21,103,322
2046	\$32,424,402	41.9	\$1,269,329	\$53,229,905	\$85,654,307	\$1,198,304	\$453,617.38	\$744,686	\$21,103,322	\$527,583	\$1,198,304	\$22,829,208
2047	\$33,332,285	41.9	\$1,320,102	\$55,359,101	\$88,691,386	\$1,240,792	\$466,318.67	\$774,474	\$22,829,208	\$570,730	\$1,240,792	\$24,640,731
2048	\$34,265,589	41.9	\$1,372,906	\$57,573,465	\$91,839,054	\$1,284,828	\$479,375.59	\$805,453	\$24,640,731	\$616,018	\$1,284,828	\$26,541,578
2049	\$35,225,026	41.9	\$1,427,822	\$59,876,404	\$95,101,430	\$1,330,469	\$492,798.11	\$837,671	\$26,541,578	\$663,539	\$1,330,469	\$28,535,586
2050	\$36,211,326	41.9	\$1,484,935	\$62,271,460	\$98,482,786	\$1,377,774	\$506,596.45	\$871,178	\$28,535,586	\$713,390	\$1,377,774	\$30,626,750
2051	\$37,225,244	41.9	\$1,544,332	\$64,762,318	\$101,987,562	\$1,426,806	\$520,781.16	\$906,025	\$30,626,750	\$765,669	\$1,426,806	\$32,819,225
2052	\$38,267,550	41.9	\$1,606,105	\$67,352,811	\$105,620,361	\$1,477,629	\$535,363.02	\$942,266	\$32,819,225	\$820,481	\$1,477,629	\$35,117,334
2053	\$39,339,042	41.9	\$1,670,350	\$70,046,924	\$109,385,966	\$1,530,310	\$550,353.20	\$979,956	\$35,117,334	\$877,933	\$1,530,310	\$37,525,577
2054	\$40,440,535	41.9	\$1,737,164	\$72,848,801	\$113,289,336	\$1,584,918	\$565,763.08	\$1,019,155	\$37,525,577	\$938,139	\$1,584,918	\$40,048,634
2055	\$41,572,870	41.9	\$1,806,650	\$75,762,753	\$117,335,623	\$1,641,525	\$581,604.45	\$1,059,921	\$40,048,634	\$1,001,216	\$1,641,525	\$42,691,376
2056	\$42,736,910	41.9	\$1,878,916	\$78,793,263	\$121,530,173	\$1,700,207	\$597,889.37	\$1,102,318	\$42,691,376	\$1,067,284	\$1,700,207	\$45,458,867
30 Yr TOTALS	\$902,476,100	1,300		\$1,441,288,986	\$2,343,765,086	\$32,789,274	\$12,625,641	\$20,163,633	\$506,783,744	\$12,669,594	\$32,789,274	\$552,242,612

Conclusion

- New growth associated with sewer under the Town's existing zoning (1,300 housing units) will reduce but not eliminate the Town's long-term deficits.
- Allowing for additional housing further reduces the Town's long-term deficits.

COST OF OPERATING A WASTEWATER UTILITY

Operating a Municipal Wastewater System

- The cost to operate a Municipal Wastewater System varies from community to community.
- Factors include size of the system to maintain, treatment costs, and the age of system.
- The long-term goal is to have fees from the users cover the entire cost of operating the system, however in the initial years following the construction of the system it is likely that other revenue sources will be needed to pay for a majority of the operating costs of the sewer system until more users (sewer ratepayers) connect to the system.
- Connection Fee Revenues may be used to pay for a portion of the cost of operating a sewer system.

Estimate of Sewer Operations Costs Items

• Direct Employee Salary & Benefits	\$ 71,000
• Contract Operations for Pump Stations	\$165,000
• Emergency Contract Services	\$ 75,000
• Wastewater Conveyance & Treatment Cost	\$370,100
• Electricity Costs for Pump Station Operations	\$ 8,000
• Chemical Additives at P.S. for Odor Control	\$ 31,200
• Diesel Fuel for P.S. Emergency Generators	\$ 15,000
• Miscellaneous Other Expenses	\$ 25,000
• <u>Small Capital Annual Expense Allowance</u>	<u>\$ 50,000</u>
•	\$810,300

Potential Wastewater Utility Revenue Streams

- **System Development Fees** – One Time Fee paid by each Property Owner that chooses to connect to the Municipal Wastewater System.
- **Municipal Wastewater User Fees** – A fee charged on the quarterly utility bill issued to connecting property for the quantity of wastewater usage used by the property within the prior 3 month period. Similar to the water bills, a sewer rate will be determined typically on an annual basis that would be multiplied by the amount of sewer usage to yield the total quarterly sewer user fee.

System Development Fees

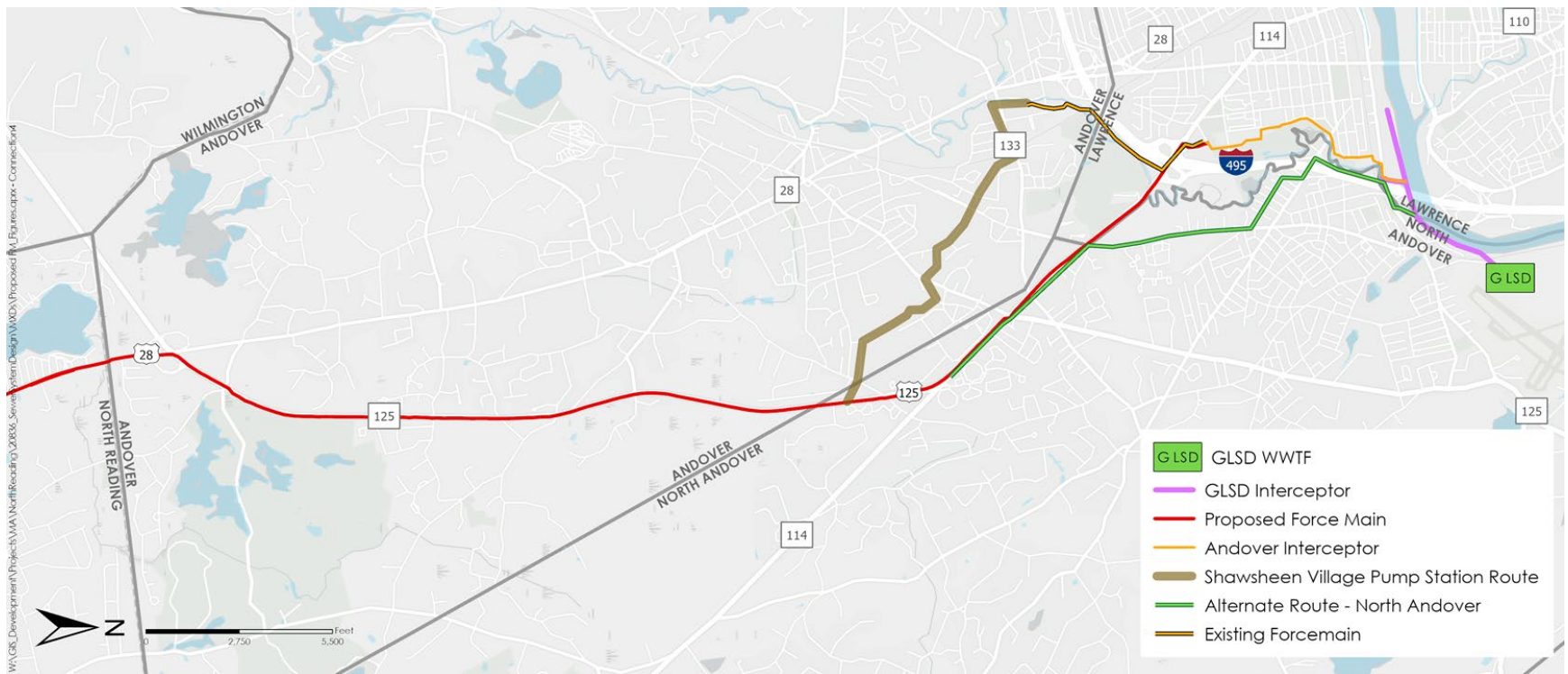
- State Law allows the Town to assess a fee to property owners who choose to connect to the sewer system.
- This fee is only charged when a property owner chooses to connect to the system.
- This fee may be discounted to promote connections to the system.
- The Town currently charges a System Development 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

UPDATE ON OUT-OF-TOWN ROUTE

Wastewater Conveyance System to GLSD



MassDOT Highway System Route

- Early on in the development of possible route alternatives to GLSD Treatment Facility, a route that stays on MassDOT Highway systems was mapped and reviewed with MassDOT as well as with Andover and North Andover.
- MassDOT indicated that they are planning a Rte 114 Improvements Project in a section of the highway located in North Andover that our planned route would travel through.
- MassDoT is open to North Reading installing wastewater on Route 114 and 125, but is requiring that host communities (Andover and North Andover) approve of such installation.
- Andover is generally amenable to the Route 125 route but North Andover is not in support of having a force main under Route 114.

North Andover

- A potential sewer route through North Andover has been mapped and meetings with North Andover have been held to review and discuss the feasibility of connecting into their existing Municipal Sewer System as a means of conveying North Reading Wastewater to the GLSD Treatment Facility in North Andover.
- If wastewater from North Reading is going to pass through North Andover, North Andover prefers it flow through their wastewater system, with improvements, rather than flow through in a pressurized force main under state highway.
 - They are concerned a separate force main could cause conflict with future North Andover utility expansion as well as generate odor issues and possible sewer overflow events.
- There are routes to connect to GLSD that would achieve this, but they will impact neighborhoods.

Andover

- Likewise, a potential sewer route through Andover has also been mapped and meetings with Andover were held to review and discuss the feasibility of connecting into their existing Municipal Sewer System as a means of conveying North Reading Wastewater to the GLSD Treatment Facility in North Andover.
- Routes through Andover involve streets that had gas line work performed in recent years, resulting in the roads having been repaved.
- Mitigation of the impact of construction on these streets may be costly.

Out-of-Town Route

- Our ability to negotiate with Andover and North Andover is limited. Both communities have been willing to work with us, but they do have concerns and need to show direct benefits for their residents.
- All roads lead to GLSD:
 - Seeking to force a route through MassDoT with potential objection from Andover or North Andover will complicate relationships with GLSD, for which both towns are voting board members

Other considerations...

- The number of residential condominium units along the route is significant (962 out of 1,260 parcels), and these properties have expressed little interest or need in public sewer.
- The initial project funding plan partially relied on betterments, which are a predictable revenue stream. This would have reduced the tax implications for properties not on the route. By vote of Town Meeting, and based on concerns expressed by residential property owners along the route, is no longer an option.

Other considerations...

- The New Growth (new revenue) generated by development supported by having a public wastewater utility won't be realized for at least three years and will be spread out over a number of years thereafter.
- The Town's financial position has become increasingly strained, resulting in now ongoing discussions for an operating budget Proposition 2 ½ override (tax increase) as soon as this June Town Meeting.
- The general fund is likely going to need to subsidize the operation of a wastewater utility in its first few years.
- Ongoing efforts for a Fire Station reconstruction project will result in a request for a Proposition 2 ½ debt exclusion (tax increase) at June or another soon upcoming Town Meeting.

Risks Associated with Delay

- A delay in the project will likely lead to an increase in construction costs.
- The sooner we add wastewater capacity, the sooner we are to realizing the tax revenue associated with growth.
- This project was intended to create a wastewater utility that the Martins Pond neighborhood could connect to at a lower cost in the future. Environmental needs could require wastewater be made available in the future, which could potentially be at a higher cost as a standalone project.

END