

Town of Braintree
Water and Sewer Rate Study
Tri-Town Analysis

Option 1: MWRA

Option 2: Tri-Town Plant, with no State Match

Option 3: Tri-Town Plant, with State Match at 50% for Treatment Plant Capital

Expenditures	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Totals
MWRA	\$ 5,505,230	\$ 5,856,765	\$ 6,214,004	\$ 6,171,001	\$ 6,398,648	\$ 6,801,728	\$ 7,107,708	\$ 7,457,795	\$ 7,344,312	\$ 7,189,575	\$ 66,046,767
Tri-Town Plant, with no State Match	\$ 2,646,541	\$ 2,497,812	\$ 2,512,642	\$ 2,527,839	\$ 2,543,408	\$ 2,559,358	\$ 2,575,696	\$ 2,592,431	\$ 2,609,569	\$ 2,627,120	\$ 25,692,416
Tri-Town Plant, with State Match	\$ 1,883,235	\$ 1,816,779	\$ 1,832,294	\$ 1,848,189	\$ 1,864,471	\$ 1,881,148	\$ 1,898,228	\$ 1,915,719	\$ 1,933,629	\$ 1,951,967	\$ 18,825,660

Notes:
Even though first debt payments in FY 2018 for Tri-Town options, including them in Year 1 here for comparison purposes

Town of Braintree
Water and Sewer Rate Study
Tri-Town Analysis

Option 1

Summary of the following:

- MWRA Total Cost to Connect
- Annual Buy-in or Connect Cost
- Projected Annual Water Cost

Expenditures	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Totals
Annual Assessments	\$ 4,192,429	\$ 4,531,964	\$ 4,876,963	\$ 4,821,475	\$ 5,036,388	\$ 5,426,479	\$ 5,719,210	\$ 6,055,783	\$ 5,928,515	\$ 5,759,718	\$ 52,348,924
Entrance Fee	\$ 682,801	\$ 682,801	\$ 682,801	\$ 682,801	\$ 682,801	\$ 682,801	\$ 682,801	\$ 682,801	\$ 682,801	\$ 682,801	\$ 6,828,010
Total Additional MWRA-Related Costs	\$ 4,875,230	\$ 5,214,765	\$ 5,559,764	\$ 5,504,276	\$ 5,719,189	\$ 6,109,280	\$ 6,402,011	\$ 6,738,584	\$ 6,611,316	\$ 6,442,519	\$ 59,176,934
O&M Costs (pumps, labor, electricity, etc.)	\$ 600,000	\$ 612,000	\$ 624,240	\$ 636,725	\$ 649,459	\$ 662,448	\$ 675,697	\$ 689,211	\$ 702,996	\$ 717,056	\$ 6,569,833
Maintenance at dam (shrubs)	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 300,000
Total Existing Costs with MWRA	\$ 630,000	\$ 642,000	\$ 654,240	\$ 666,725	\$ 679,459	\$ 692,448	\$ 705,697	\$ 719,211	\$ 732,996	\$ 747,056	\$ 6,869,833
Total MWRA-Related Costs	\$ 5,505,230	\$ 5,856,765	\$ 6,214,004	\$ 6,171,001	\$ 6,398,648	\$ 6,801,728	\$ 7,107,708	\$ 7,457,795	\$ 7,344,312	\$ 7,189,575	\$ 66,046,767

Notes:

O&M estimates from Lou; assume 2% incr yearly

Maintenance at dam estimates from Lou

Assumes the entrance fee will be paid over 25 years interest free, no State subsidy.

Town of Braintree
Water and Sewer Rate Study
Tri-Town Analysis

Option 2

Combined Tri-Town Plant with the following stipulations:

- \$50 million Cost
- 50% is Braintree's Portion
- Include Debt Service
- Include Annual Water Cost

Capital Summary	Costs	State Match	Costs After State Match	Braintree's Portion
Total Regional Facility Capital Program	\$ 43,520,000	\$ -	\$ 43,520,000	\$ 21,760,000
Randolph/Holbrook Finished Water Pipeline	\$ 2,000,000	\$ -	\$ 2,000,000	\$ -
Total Dam Rehab Capital & O&M Costs	\$ 3,609,500	\$ -	\$ 3,609,500	\$ 1,732,560
Total Capital Costs	\$ 49,129,500	\$ -	\$ 49,129,500	\$ 23,492,560

Braintree's Share of Treatment Plant Capital	50.00%
Braintree's Share of Other Costs	48.00%

O&M Summary	Costs	Braintree's Portion
Total O&M with Contingency	\$ 1,925,000 per year	\$ 924,000 per year

Expenditures	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Totals
Total Regional Facility Capital Program	\$ 1,526,610	\$ 1,362,067	\$ 1,360,697	\$ 1,359,299	\$ 1,357,873	\$ 1,356,419	\$ 1,354,936	\$ 1,353,423	\$ 1,351,880	\$ 1,350,306	\$ 13,733,511
Total Dam Rehab Capital & O&M Costs	\$ 155,930	\$ 152,465	\$ 149,000	\$ 145,535	\$ 142,070	\$ 138,605	\$ 135,140	\$ 131,675	\$ 128,209	\$ 124,744	\$ 1,403,374
Total O&M with Contingency	\$ 924,000	\$ 942,480	\$ 961,330	\$ 980,556	\$ 1,000,167	\$ 1,020,171	\$ 1,040,574	\$ 1,061,386	\$ 1,082,613	\$ 1,104,266	\$ 10,117,542
Total Additional Costs for Tri-Town	\$ 2,606,541	\$ 2,457,012	\$ 2,471,026	\$ 2,485,390	\$ 2,500,111	\$ 2,515,195	\$ 2,530,650	\$ 2,546,483	\$ 2,562,703	\$ 2,579,316	\$ 25,254,427
Local Testing and Storage	\$ 40,000	\$ 40,800	\$ 41,616	\$ 42,448	\$ 43,297	\$ 44,163	\$ 45,046	\$ 45,947	\$ 46,866	\$ 47,804	\$ 437,989
Total Existing Costs with Tri-Town	\$ 40,000	\$ 40,800	\$ 41,616	\$ 42,448	\$ 43,297	\$ 44,163	\$ 45,046	\$ 45,947	\$ 46,866	\$ 47,804	\$ 437,989
Total Costs for Tri-Town	\$ 2,646,541	\$ 2,497,812	\$ 2,512,642	\$ 2,527,839	\$ 2,543,408	\$ 2,559,358	\$ 2,575,696	\$ 2,592,431	\$ 2,609,569	\$ 2,627,120	\$ 25,692,416

Notes:

All capital costs borrowed, plant SRF and dam rehabs conventional

All borrowings start July 1, 2017, with first payment in first half of FY 2018

Estimates do not include costs related to short-term borrowings

Local Testing and Storage estimates from Lou; assume 2% increase yearly

The 48% share used is based on a decades-old agreement between the Randolph, Holbrook, and Braintree. The share may change if/when the plant is online and flows are analyzed.

Town of Braintree
Water and Sewer Rate Study
Tri-Town Analysis

Option 2

Combined Tri-Town Plant with the following stipulations:

- \$50 million Cost
- 50% is Braintree's Portion
- Include Debt Service
- Include Annual Water Cost

Capital Summary	Costs	State Match	Costs After State Match	Braintree's Portion
Total Regional Facility Capital Program	\$ 43,520,000	\$ 21,760,000	\$ 21,760,000	\$ 10,880,000
Randolph/Holbrook Finished Water Pipeline	\$ 2,000,000	\$ -	\$ 2,000,000	\$ -
Total Dam Rehab Capital & O&M Costs	\$ 3,609,500	\$ -	\$ 3,609,500	\$ 1,732,560
Total Capital Costs	\$ 49,129,500	\$ 21,760,000	\$ 27,369,500	\$ 12,612,560

Braintree's Share of Treatment Plant Capital	50.00%
Braintree's Share of Other Costs	48.00%

O&M Summary	Costs	Braintree's Portion
Total O&M with Contingency	\$ 1,925,000 per year	\$ 924,000 per year

Expenditures	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Totals
Total Regional Facility Capital Program	\$ 763,305	\$ 681,033	\$ 680,348	\$ 679,649	\$ 678,937	\$ 678,210	\$ 677,468	\$ 676,712	\$ 675,940	\$ 675,153	\$ 6,866,756
Total Dam Rehab Capital & O&M Costs	\$ 155,930	\$ 152,465	\$ 149,000	\$ 145,535	\$ 142,070	\$ 138,605	\$ 135,140	\$ 131,675	\$ 128,209	\$ 124,744	\$ 1,403,374
Total O&M with Contingency	\$ 924,000	\$ 942,480	\$ 961,330	\$ 980,556	\$ 1,000,167	\$ 1,020,171	\$ 1,040,574	\$ 1,061,386	\$ 1,082,613	\$ 1,104,266	\$ 10,117,542
Total Additional Costs for Tri-Town	\$ 1,843,235	\$ 1,775,979	\$ 1,790,678	\$ 1,805,741	\$ 1,821,174	\$ 1,836,985	\$ 1,853,182	\$ 1,869,772	\$ 1,886,763	\$ 1,904,163	\$ 18,387,671
Local Testing and Storage	\$ 40,000	\$ 40,800	\$ 41,616	\$ 42,448	\$ 43,297	\$ 44,163	\$ 45,046	\$ 45,947	\$ 46,866	\$ 47,804	\$ 437,989
Total Existing Costs with Tri-Town	\$ 40,000	\$ 40,800	\$ 41,616	\$ 42,448	\$ 43,297	\$ 44,163	\$ 45,046	\$ 45,947	\$ 46,866	\$ 47,804	\$ 437,989
Total Costs for Tri-Town	\$ 1,883,235	\$ 1,816,779	\$ 1,832,294	\$ 1,848,189	\$ 1,864,471	\$ 1,881,148	\$ 1,898,228	\$ 1,915,719	\$ 1,933,629	\$ 1,951,967	\$ 18,825,660

Notes:

- All capital costs borrowed, plant SRF and dam rehabs conventional
- All borrowings start July 1, 2017, with first payment in first half of FY 2018
- Estimates do not include costs related to short-term borrowings
- Local Testing and Storage estimates from Lou; assume 2% increase yearly
- The 48% share used is based on a decades-old agreement between the Randolph, Holbrook, and Braintree. The share may change if/when the plant is online and flows are analyzed.