HALEY WARD
ENGINEERING | ENVIRONMENTAL | SURVEYING

WATER PRODUCTION, TREATMENT AND STORAGE ASSET MANAGEMENT PLAN PRESENTATION SUMMARY

PREPARED FOR THE

Natick Select Board

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1.0 EXECUTIVE SUMMARY

1.1 EXECUTIVE SUMMARY

The main purpose of the Water Production, Treatment and Storage Asset Management Plan was to provide Natick with data and details to assist in their development of a Water Source Strategic Plan that will protect the public health of Natick water customers for the foreseeable future. The plan identified water source options from in-town sources to outside sources. We reviewed the options with the Department of Public Works (DPW), Water Department and other officials, and it was determined that the most advantageous course of action for Natick would be to continue with In-Town Sources, construct Tonka advanced water treatment plant and construct an MWRA direct water connection. This is detailed in Option 4b, that addresses future contaminants for Tonka water supplies with the construction of advanced water treatment plant for PFAS removal and provides flexibility in meeting system demand under most scenarios.

If MassDEP revised PFAS regulation equates to the EPA proposed regulation, then Elm Bank would require a PFAS removal plant. As discussed with the Town, it is unlikely that a water treatment plant to remove PFAS at Elm Bank could be constructed on the Elm Bank property, as it would require a large area of the forest to be cleared. Construction of the plant off site was considered, however a plant that could cost close to $20 million dollars to construct and not be available during most summertime high demand periods would not be cost effective solution. Therefore, Elm Bank water supply will continue to be utilized until the supply triggers a MCL for PFAS.

The increased chance of Elm Bank not being available due to streamflow conditions and ultimately due to PFAS regulation, a decision was made to consider Option 4b, which includes town sources and the addition of an MWRA water connection. The connection would provide supplemental water to Natick when needed to meet system demand, such as loss of Elm Bank.

The MWRA connection would be located at the intersection of Route 30 and Indian Rock Road where MWRA installed a 12" diameter connection pipe. The connection would require construction of a water booster station and water main upgrades in the distribution system to achieve a capacity of 1,500 gpm.

Option 4b will allow Natick to address water supply needs in the immediate future and provide flexibility in strategy should a change occur in regulations that severely limit intown water sources. Becoming an MWRA community now would provide flexibility in the future should regulations drive Natick to a full MWRA water community. In addition to that flexibility, Natick can take advantage of the MWRA entrance fee waiver for PFAS related connections.

1.2 WATER PRODUCTION CAPACITY

Natick owns and operates 11 gravel packed groundwater wells to produce water necessary to meet system demand including demand for firefighting. Rated water withdrawals total 13.22 million gallons per day (MGD), however actual average daily withdrawal volume is much less due to the Water Management Permit and Registration Statement limitations and in some cases well deficiencies. The actual authorized average daily withdrawal volume is 4.32 mgd for the Springvale, Evergreen, Morse Pond, and Pine Oaks water supplies and 1.31 mgd for the Elm Bank water supply. We reviewed Natick's water use over the last several years and determined that the existing water sources have adequate capacity to meet existing and future in-town water demand, provided all sources and water treatment plants (WTP) are operational, see Table *1* for historical water use patterns.

Table 1 Natick's Historical Water Use Pattern

Calendar Year	Total Pumped (MGY)	Average Daily Demand (MGD)	Maximum Daily Demand (MGD)
2021	1,048.85	2.874	4.231
2020	1,161.45	3.182	5.732
2019	1,171.28	3.209	5.21
2018	1,194.95	3.273	5.411
2017	1,168.48	3.201	4.7

The main deficiency in Natick's water supply is the ability to meet demand during the summer season where the Elm Bank Water Management Act (WMA) permit can require Elm Bank to be shut down for an extended period. In 2022 Elm Bank, per the permit, was required to be shut down in the spring and was not available until mid-November, due to low precipitation. Natick's WMA permit is presently held in an appeal process from 2010, and the authorized average daily withdrawal limit, in a renewed permit, could be set at 4.32 mgd (registered and permitted wells). Also, the permit will include mandatory water use restrictions during any phase of drought. Department of Conservation and Recreation (DCR) conducted a water needs forecast for Natick as part of the Charles River basin 2020 permit renewal process. DCR forecasted Natick's average daily water use in 2023 at 3.86 mgd, 2028 3.92 mgd and 2033 4.12 mgd. There is very little vacant land available for new development in Natick, which is reflected in the DCR water needs forecast.

Outside community requests for water should be carefully evaluated, as summertime restrictions hinder the ability to produce water. In addition, the Elm Bank Tri-Town agreement should be reviewed for the outside community water sharing restrictions.

1.3 WATER TREATMENT CAPACITY

Natick owns and operates five Water Treatment Plants (WTP) that treat water from all 11 sources and discharge water to the distribution system. The Tonka and H&T WTPs include iron, manganese and PFAS removal and chemical feed with capacities of approximately 3,200 gpm (4.61 mgd) and 1,500 gpm (2.16mgd) respectively. The other plants include chemical feed. The Elm Bank and Pine Oaks capacities are approximately 2,600 gpm (3.74 mgd) and 300 gpm (0.432 mgd) respectively. The Morse Pond plant capacity is approximately 600 gpm (0.864 mgd), however the Morse Pond water supply has been offline for several years due to contamination including potential fuel.

The H&T WTP treats water from the registered wells, Springvale #3 & 4 and Tonka WTP treats water from Springvale #1 & 2 and Evergreen #1,3 & 3A. If ALL plants were operating at full capacity, total capacity would be approximately 11.81 mgd, far exceeding the historical maximum day demand of 6.0 mgd. If a plant is offline due to repairs and Elm Bank is offline due to WMA shutdown condition, then meeting maximum day demand could be an issue with remaining supplies.

1.4 WATER STORAGE TANK CAPACITY

Natick owns and operates two concrete water storage tanks, Broad Hill and Town Forest with full tank capacities of 4 mgd and 5 mgd respectively and were constructed in the1965 and 1966. The tanks provide continuous water pressure (hydraulic grade) to the water system as water supplies are turned on and off and provide additional capacity for fire protection if required.

The available (usable) capacity in Town Forest is 1.167 mg (7 feet of water) and Broad Hill available capacity is 0.933 mg (7 feet of water). When considering the capacity of water storage tanks, fire protection is a main factor. Natick's tanks have been able to maintain water pressure in the system under all scenarios to date.

We determined that Natick has available capacity from pumping and water storage tanks to meet the worst-case scenario, 6,500 gpm fire incident occurring during a peak day demand. Therefore, we have determined that additional storage capacity is not required for the Natick water system.

1.5 NATICK WATER SUPPLY ASSET CAPITAL PLAN

The Natick Water Supply Assets were found to be generally in good to very good condition. The facilities ages range from the early 70's to new construction in 2022. Water supply assets include the following.

- 11 Gravel packed wells
- Pumping equipment for each gravel packed well
- 8 Water supply pump station buildings
- Electrical equipment

Natick has had a proactive funding program to renovate and construct new water pumping stations and wells, leaving their present condition in a good to very good status. All stations have either been rehabilitated or replaced within the last 10-15 years or funding is in place to rehabilitate or replace remaining stations.

We conducted an evaluation of each facility to provide an overview of present condition and needs, that was utilized in preparation of a 55-year Capital Improvement Plan (CIP) for Natick's Water Supply Assets. The rolled up 55-year CIP probable cost, if work was completed in 2022, to rehabilitate and replace water supply wells and pump stations is $38.52 million dollars. See Appendix A for the 20-year CIP plan for water supply and water pump station assets.

1.6 NATICK WATER TREATMENT ASSET CAPITAL PLAN

The Natick Water Treatment Plant assets were found to be generally in good to very good condition. The facilities ages range from the early 1900's to new construction in 2022. WTP assets include five facilities, Tonka, H&T, Elm Bank, Pine Oaks, and Morse Pond. Tonka and H&T include iron, manganese and PFAS removal where the other plants include chemical feed. H&T is the oldest building, early 1900's but was fully renovated in 1995 when the greensand plant was constructed inside the building.

Natick has had a proactive funding program to renovate and construct new water treatment plants, leaving their present condition in a good to very good status. All WTP have been built or rehabilitated within the last 10-15 years or funding is in place to rehabilitate the remaining buildings.

We conducted an evaluation of each facility to provide an overview of the present condition that was utilized in preparation of a 55-year Capital Improvement Plan (CIP) for Natick's Water Treatment Plants (WTP). The rolled up 55-year CIP probable cost, if work was completed in 2022, to rehabilitate and replace WTPs is $128.63 million dollars.

See Appendix A for the 20-year CIP plan for water treatment assets of existing In-town sources. Also included in Appendix A is a 20-year plan for water treatment assets including additional water treatment to address future regulated contaminants.

1.7 NATICK WATER STORAGE ASSET CAPITAL PLAN

The Natick Water Storage Tank assets were found to be generally in good to very good condition. The Town Forest tank was constructed in 1965 and the Broad Hill tank in 1966.

Natick has had a proactive funding program to rehabilitate the water storage tanks and replace the buildings, leaving their present condition in a good to very good status. The two reservoirs were rehabilitated in 2011 with minor interior and exterior repairs and coating installed on the roof. The Town Forest chemical feed and control buildings were installed in 2010. The Broad Hill control building was also installed in 2010. The Broad Hill chemical feed building was installed in the early 1980's, equipment upgrades in 2010 and scheduled for replacement in 2023.

We conducted an evaluation of each asset to provide an overview of the present condition that was utilized in preparation of a 55-year Capital Improvement Plan (CIP) for Natick's Water Storage Tanks. The rolled up 55-year CIP probable cost, if work was completed in 2022, to rehabilitate and replace the tanks and buildings is $22.11 million dollars. See Appendix A for a 20-year CIP plan for water storage assets.

1.8 ADDRESSING WATER CONTAMINANT REGULATIONS

The development of a Water Source Strategic Plan should address present water contaminant regulations, and potential water contaminant regulations, by the Massachusetts Department of Environmental Protection (MassDEP) and the Federal Environmental Protection Agency (EPA).

The most recent regulation issued by MassDEP was for per-and polyfluoroalkyl substances (PFAS), enacted in 2020. The regulation has had a profound impact on Natick and many water suppliers across Massachusetts and across the country. The PFAS regulation has required Natick to fund the emergency construction of two PFAS removal plants to treat H&T and Tonka water supplies.

Natick has addressed PFAS in the H&T water supplies and has installed a temporary PFAS removal system to treat a portion of Tonka water supplies, that leaves the remaining water supplies that have varying levels of PFAS contamination.

Presently Morse Pond is the only supply besides H&T & Tonka water supply that is over the Massachusetts Maximum Contaminant Limit (MCL) of 20 ppt, however Morse Pond is not operational. The remaining water supplies, Pine Oaks and Elm Bank have lower levels of PFAS, ranging from 13.72 to 19.97 for Pine Oaks and 5.23 to 12.54 for Elm Bank.

After the completion of this Asset Management Plan, the Environmental Protection Agency (EPA) issued in the Spring of 2023 an Advance Notice of Proposed Rulemaking (ANPRM) to regulate 6 PFAS substances. The EPA is proposing an MCL of 4.0 ppt for PFOA and PFOS along with a Maximum Contaminant Limit Goal (MCGL) of zero. All Springvale, Evergreen, Elm Bank and Pine Oaks wells have PFOA and PFOS levels exceeding 4.0 ppt.

The EPA is proposing an MCL Hazard Index (HI) of 1.0 for the combination of PFNA, PFHxS, PFBS and HFPO-DA (also known as Gen X). The equation for calculating the hazard index for the combined four compounds is ([Gen X]/[10 ppt]) + ([PFBS]/[2000 ppt]) + ([PFNA]/[10 ppt]) + ([PFHxS]/[9 ppt]). Pine Oaks water supply HI is typically below 0.4. Springvale #3 is the highest HI at 0.8, however Springvale wells are treated for PFAS removal, which will meet the proposed EPA regulation. All other wells are in the mid 0.3's for HI.

If the EPA levels are implemented in Massachusetts, then Natick would be required to install PFAS removal plants at all water supply sources.

1.9 IN-TOWN WATER TREATMENT COST ANALYSIS

We prepared 55-year Probable Cost Plans for two In-Town options, 1a and 1b, that include probable capital and operation and maintenance (O&M) costs to provide an overview of possible costs over 55 years. The 55-year cost plan is included in the water source option comparison section of the report.

Table 2 summarizes the total probable cost for Option 1a, over the 55-year period, to rehabilitate, construct and replace WTP's, water supply facilities and water storage tanks. No additional water supply wells are developed, and Tonka PFAS advanced water treatment plant would be constructed. Also included is the typical frequency for maintenance and replacement work for each asset.

Table 2 Probable Cost – In-Town Sources Known Contaminants Option 1a

Asset	Frequency of Maintenance (Years)	Frequency of Replacement (Years)	Probable Cost Rehabilitation/ Replacement/Construction (M$'s)
Springvale Existing WTP & Associated Buildings	25	75 (WTP) 2 (GAC)	$75.75
Tonka Advanced WTP (New)	25	75 (WTP) 2 (GAC)*	$28.54
Elm Bank WTP	25	75	$14.99
Water Supply Pump Stations	20	80	$22.24
Water Supply Wells	7	50	$16.29
Water Storage Tanks	25	80	$20.1
Water Storage Chemical Buildings	25	50	$2.01
SCADA Panels	__	15	$5.52
SCADA Radios	__	10	$1.34
55-Year Total Costs			**$186.78**

*- GAC replacement is for the PFAS removal in backwash water

We then looked at the option of addressing future regulated contaminants that may require advanced water treatment plants, Option 1b. This would include substantial lowering of PFAS MCL and the addition of other unknown contaminants to the State regulated contaminants list. Table 3 summarizes the probable costs over the 55-year period, to rehabilitate, construct and replace WTP's, water storage tanks, water supply wells including addition of Tonka, H&T & Pine Oaks advanced water treatment facilities. Also included is the typical frequency for maintenance and building replacement work for each asset.

Table 3 55-Year CIP Probable Cost Future Regulated Contaminants Option 1b

Asset	Frequency of Maintenance (Years)	Frequency of Replacement (Years)	Probable Cost Rehabilitation/ Replacement/Construction (M$'s)
H&T & Tonka Advanced WTP & Associated Buildings	25	75 (WTP) 2 (GAC)*	$111.29
Elm Bank & Pine Oaks Water Treatment Facilities	25	75	$37.24
Water Supply Pump Stations	20	80	$22.24
Water Supply Wells	7	50	$16.29
Water Storage Tanks	25	80	$20.1
Water Storage Chemical Buildings	25	50	$2.01
SCADA Panels	__	15	$5.52
SCADA Radios	__	10	$1.34
55- Year Total Costs			**$216.03**

*- GAC replacement is for the PFAS removal in backwash water

1.10 WATER SOURCE STRATEGIC PLAN

The main purpose of this study was to provide Natick with data and details to assist in their development of a Water Source Strategic Plan that will protect the public health of Natick water customers for the foreseeable future. The Strategic plan would include a decision-making process that will determine if Natick continues maintaining and operating their own water supply sources and treatment or switch to an outside source or a hybrid approach if costs and risks become too extreme to maintain safe drinking water. We identified four primary water supply options for Natick to consider in their development of the Natick Water Source Strategic Plan, as summarized below.

OPTION 1. IN-TOWN SOURCE: Maintain all In-Town water sources and Water Treatment Plants (WTP).

OPTION 2. OUTSIDE SOURCE: Connect to an outside water source, such as the Massachusetts Water Resources Authority (MWRA) water system and abandon In-Town water sources and water treatment assets. Target 6.0 mgd maximum day from outside source.

a. There are multiple neighboring water systems, however most are MWRA water members. Therefore, we considered direct connections to the WWRA source, where Natick would own and operate the infrastructure without paying a neighboring community for water delivery.

b. We also looked at a combination scenario where Natick would construct one direct connection and utilize an indirect connection where a neighboring community delivers (Wheels) MWRA water to Natick.

OPTION 3. HYBRID SOURCES: Maintain specific existing in-town water source assets and water treatment assets and connect to an outside water source, such as MWRA, to provide the balance of required water supply. Target maximum day 4.0 mgd with in-town sources and 2.0 mgd from outside source.

OPTION 4. IN-TOWN WITH MWRA SUPPLEMENT: This option will utilize Natick's In-Town water sources and treatment plants and add a MWRA supplement connection.

We identified three major factors to be included in the decision-making process for selecting the option that best suites Natick's needs, present and future. They include the following.

- Long-Term Costs,
- Control over water supply and treatment decisions,
- Risk level the town is willing to take regarding maintaining safe drinking water.

1.11 55-YEAR COST ANALYSIS

We analyzed costs for the four water supply options over a 55-year life cycle that included capital costs, operating and maintenance costs, MWRA use fees and neighboring community delivery fees. The MWRA entrance fee was eliminated from the analysis, per the recent MWRA vote to waive the entrance fee for the period of 2022 to 2027.

In-Town Options 1a includes the addition of PFAS removal advance water treatment plant for Tonka water supplies only. In-Town Option 1b includes PFAS removal treatment for Tonka, Elm Bank and Pine Oaks, but also includes advanced treatment for addressing future potential regulated contaminants. Option 1b added the PFAS removal plants early on, since EPA is moving forward with their PFAS regulation and MassDEP will follow, possibly as early as 2024.

We looked at the potential for a shared infrastructure system with Wayland and Wellesley where they construct the water booster station and transmission mains, and Natick shares the capital cost. This is similar to Option 2c where Wellesley constructs a booster station and transmission main and delivers (wheels) water to Natick. Most of the cost increase for Option 2c is O&M, MWRA user charges and Wellesley's pass-through charges (estimated) and they totaled the highest NPV. We discussed the

high resulting costs for a shared system with Natick and the decision was made to eliminate those options.

Table 4 provides a comparison of probable capital and O&M NPV, in million dollars, for each option, exclusive of water use revenue needed to meet the costs for each option. Comparing Natick water rate adjustments can be a separate exercise once an option is selected.

If Natick continues to construct treatment plants to address present and future contaminants, Option 1b, Table 4 indicates that it has the least expensive NPV but the risk may be higher. The MWRA options have a substantial decrease in capital costs with only a minor decrease in Natick's O&M cost, however the MWRA user charges substantially elevates the options O&M costs and overall NPV.

Table 4 55-Year NPV Water Source Option Comparison

WATER SOURCE OPTION	TOTAL COST (MILLION DOLLARS)	55-YEAR LIFE NET PRESENT VALUE (MILLION DOLLARS)			
		CAPITAL	O&M	MWRA USER FEE	TOTAL COST
1a. In-Town Water Source: Not addressing future contaminants	$1,359.3	$79.70	$499.6	$0	$579.3
1b. In-Town Sources: Address Future contaminants	$1,419.2	$120.9	$502.0	$0	$622.9
2a. Full MWRA: Direct Connect Shaft L & Shaft N	$2,172.9	$52.5	$481.3	$375.2	$909.0
2b. Full MWRA: Direct Connect Shaft L and Sudbury Aqueduct	$2,159.7	$43.2	$481.3	$375.2	$899.7
2c. Full MWRA: Direct to Shaft L & Indirect to Wellesley	$2,296.2	$45.8	$480.8	$454.6*	$980.7
3. Hybrid: 75% Springvale, 25% MWRA Shaft L & Rt 30, No Elm Bank	$1,644.5	$123.3	$500.5	$93.8	$717.60
4a. In-Town & MWRA RT 30: Future Contaminants & MWRA Supplemental	$1,550.6	$126.2	$503.2	$55.2**	$684.6
4b. In-Town & MWRA RT 30: Future Contaminants No Elm Bank	$1,622.1	$103.3	$499.4	$109.0***	$711.7

*- MWRA User Fee also includes Wellesley's user fee
** - MWRA water use 145.8MG (possibly 3 months use, 1,500 gpm, 18 hrs per day)
***-MWRA water use 288MG (approximately 25% of total water for town, typical for Elm Bank)

To provide a different vision of the option costs we prepared graphs of CIP Debt, O&M and a combined graph. See Figure *1* for probable CIP Debt over the 1st 23-year period to allow a cost comparison for each water source option.

In the early years, 2022 to 2046, the In-Town source options were much higher than most of the MWRA options due to the extensive WTP construction. After 2046 the CIP debt costs were closer due to less capital outlays. The MWRA options carry a lower CIP debt due to a reduction in treatment and pumping stations that require periodic rehabilitation and replacement. The MWRA options having a much lower CIP debt service may be beneficial for a water community when addressing risk of future regulated contaminants and the costs that might carry.

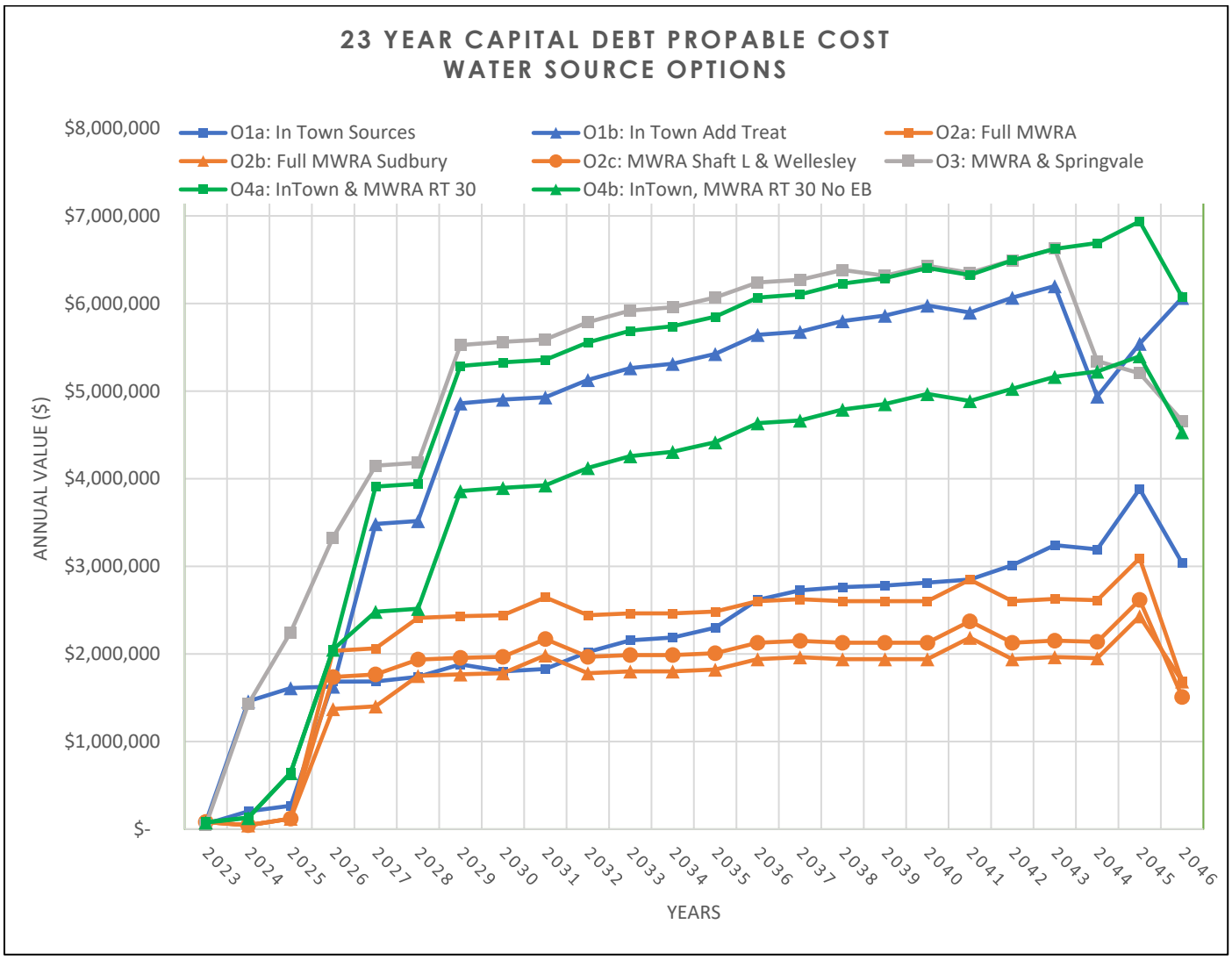

Figure 1 23 Year Options Capital Debt Probable Cost

See Figure 2 for probable O&M costs over a 23-year period to allow a cost comparison for each water source option. The MWRA options carry a higher O&M charge due to the MWRA water purchase cost, which is projected with a 3.9% increase per year. The MWRA user charge in 2029 for the full MWRA options, 2a and 2b, was scheduled at $6.6M and increasing to $41.5M in 2077. Natick's FY 2023 water related O&M cost is approximately $6.84M, which would only see a minor reduction with the full MWRA options with reduced utility and chemical costs. If Natick continued with their existing sources, Option 1b, probable O&M cost could be $50.5M in 2077, while a Full MWRA Option 2a O&M cost could be $90.5M in 2077, which includes the MWRA assessment for water use.

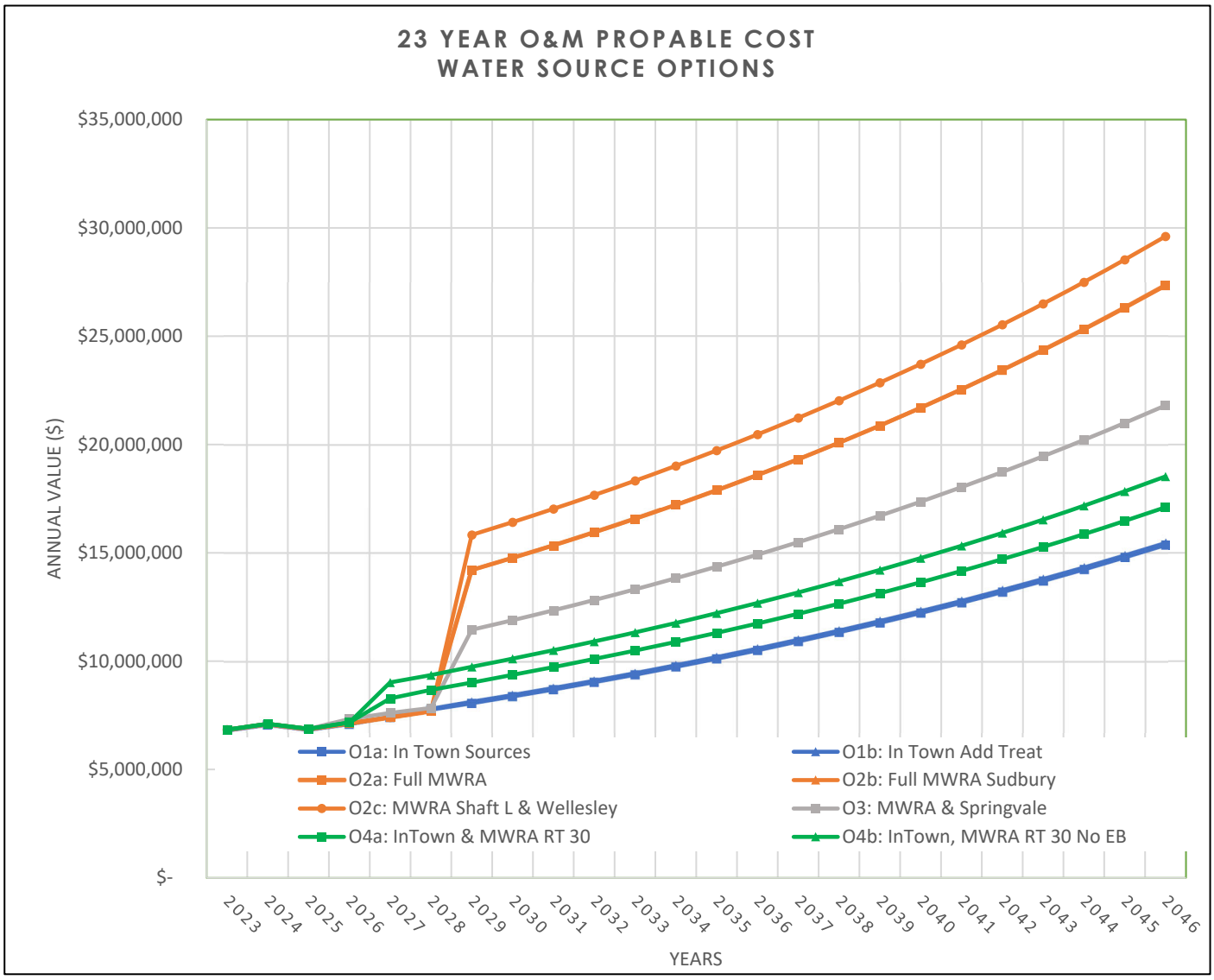

Figure 2 23 Year Options O&M Probable Costs

The O&M graph displays eight sets of data points, however due to similar data among several options, only 5 lines are visual. The bottom curve, blue line and blue squares represent Option 1a and 1b. The line 2nd up from the bottom, green line and green square, represent Options 4a and 4b. The 2nd curve from the top, orange line and orange square, represent Options 2a and 2b.

See Figure 3 for probable CIP Debt and O&M costs over a 23-year period to allow a cost comparison for each water source option. The MWRA options carry higher costs due to the MWRA user fees. The O&M graph displays eight sets of data points, however due to similar data, only 6 curves are visual. The top curve, orange line and orange squares, represent Options 2a and 2b.

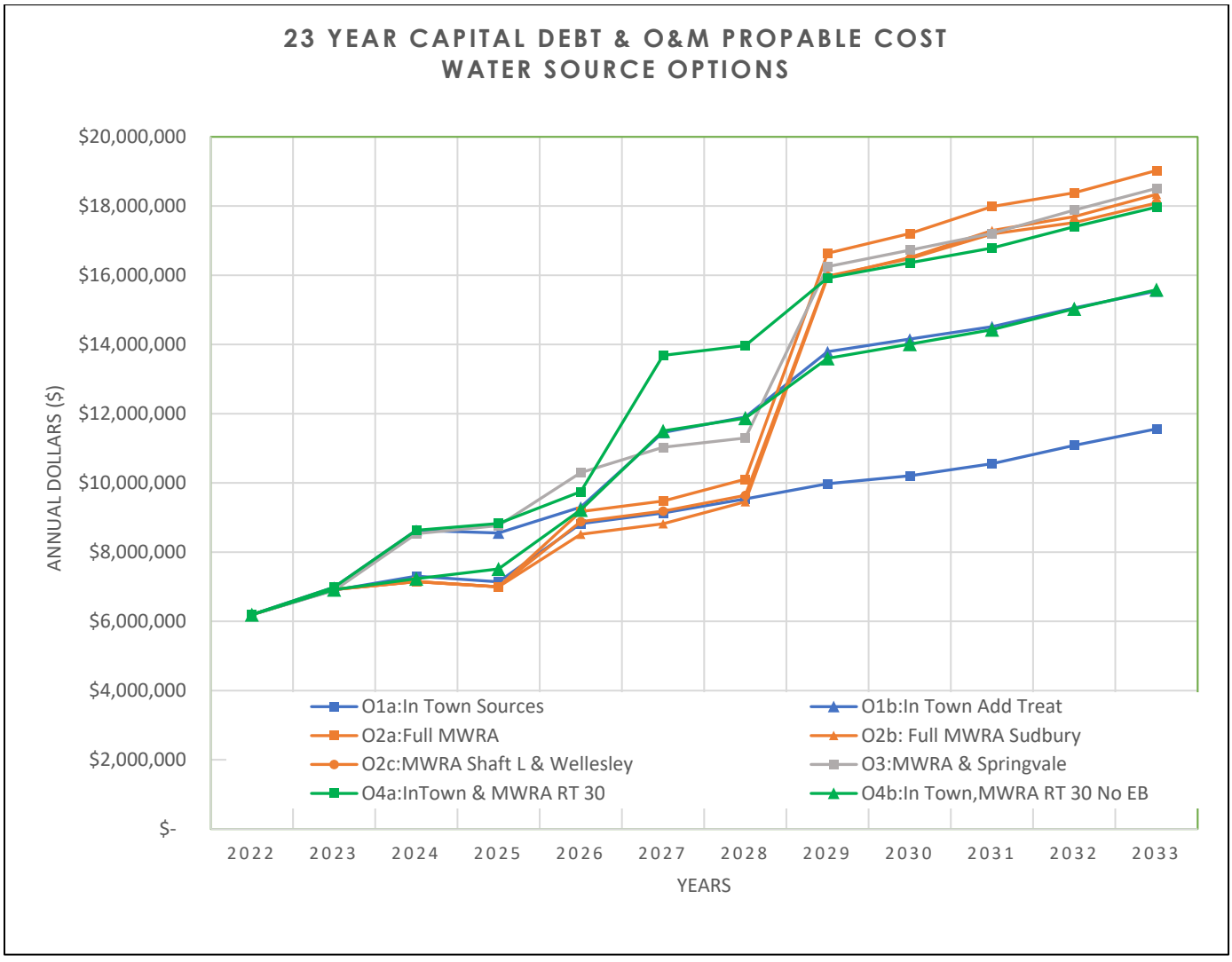

Figure 3 23 Year Options CIP & O&M

1.12 WATER SOURCE RISK ANALYSIS

The costs analysis provided a starting point for your decision-making process for selecting a water supply option. We recommend a holistic evaluation of options, considering cost and non-cost factors (risks). Non-cost factors are directed towards operational restraints, In-Town source water quality changes, regulatory changes impacting ability to produce water without additional treatment.

We selected supply options that address certain conditions/risks, however there is not one option that can alleviate all concerns. We provided Table 5 in the report that provides Natick with a decision-making tool when developing a Water Source Strategic Plan.

We discussed the risk table with Natick and selecting Option 4b allowed mitigation of risk for future contaminants impacting production from Tonka supplies and replicates the loss capacity of the Elm Bank water supply through the MWRA connection.

1.13 ADMISSION TO THE MWRA

A water community outside the MWRA's water service area, as with Natick, seeking admission to the MWRA water system must follow the procedures in the MWRA Policy # OP.10 as set forth in section 8 of MWRA's Enabling Act (St. 1984, c.372). See Appendix C for a copy of MWRA's Policy# OP.10.

The policy has several steps before the connection can be made, as summarized below.

1. Enabling Act Criteria: Must meet 6 criteria
2. Other Criteria: Analysis of MWRA water system to strive for no negative impact on the interest of the current MWRA water customers, water quality, hydraulic performance of the MWRA water system. MWRA typically conducts this analysis.
3. Application Process: Application is submitted to the MWRA Executive Director for review, with copies to the MWRA Advisory Board.
4. Concurrent Reviews: Other regulatory approvals and permits may be required before MWRA grants approval to connect.
    a. Massachusetts Environmental Policy Act (MEPA)
    a. Interbasin Transfer Act Water Resources Commission
5. Legislation: Legislation is required to extend the MWRA water system to a community not presently listed in section 8 (d) of MWRA's Enabling Act (St. 1984,c.372) as a MWRA water community.

6. Water Supply Agreement: If MWRA approves the application they will issue a draft water supply agreement, with appropriate terms and conditions of service.
7. Entrance Fees
    a. Waived for a 5-year period (2022-2027) for Water Quality or Water quantity deficiency related connections.

The MWRA Policy# OP.10 process can take 2-3 years especially for the MEPA and Interbasin Transfer Act work, with certain items occurring concurrently such as Town Meeting and legislature voting. The MEPA timeline can be reduced to 1-2 years with an Option 4b selection, which does not involve with extensive environmental impacts.

END OF PRESENTATION REPORT

WATER STORAGE CAPITAL PLAN 2023-2027

WATER STORAGE ASSET NAME	ESTIMATED COST		CALENDER YEAR										TOTALS
			2023		2024		2025		2026		2027		
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
Town Forest Reservoir	$ 477,000.00	$ 5,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Town Forest Reservoir Chemical Feed Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Town Forest Reservoir Control Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Town Forest Reservoir Mixer	$ -	$ 15,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 17,021.12	$ -	$ -	$ 17,021
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Broad Hill Reservoir	$ 477,000.00	$ 4,500,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Broad Hill Reservoir Chemical Feed Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Broad Hill Reservoir Control Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Broad Hill Reservoir Mixer	$ -	$ 15,000.00	$ -	$ -	$ -	$ 16,219.63	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,220
TOTALS	**$ 1,254,000.00**	**$ 10,386,000.00**	**$ -**	**$ -**	**$ -**	**$ 16,220**	**$ -**	**$ -**	**$ -**	**$ 17,021**	**$ -**	**$ -**	**$ 33,241**

WATER STORAGE CAPITAL PLAN 2028-2032

WATER STORAGE ASSET NAME	ESTIMATED COST												TOTALS
			2028		2029		2030		2031		2032		
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
Town Forest Reservoir	$ 477,000.00	$ 5,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Town Forest Reservoir Chemical Feed Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Town Forest Reservoir Control Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Town Forest Reservoir Mixer	$ -	$ 15,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 19,425.58	$ -	$ -	$ 19,426
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Broad Hill Reservoir	$ 477,000.00	$ 4,500,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Broad Hill Reservoir Chemical Feed Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ 271,421.01	$ -	$ -	$ -	$ -	$ 271,421
Broad Hill Reservoir Control Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Broad Hill Reservoir Mixer	$ -	$ 15,000.00	$ -	$ -	$ -	$ 18,624.09	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,624
TOTALS	**$ 1,254,000**	**$ 10,386,000**	**$ -**	**$ -**	**$ -**	**$ 18,624**	**$ -**	**$ 271,421**	**$ -**	**$ 19,426**	**$ -**	**$ -**	**$ 309,471**

WATER STORAGE CAPITAL PLAN 2033-2037

WATER STORAGE ASSET NAME	ESTIMATED COST		CALENDER YEAR										TOTALS
			2033		2034		2035		2036		2037		
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
Town Forest Reservoir	$ 477,000.00	$ 5,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ 681,451.64	$ -	$ -	$ -	**$ 681,451.64**
Town Forest Reservoir Chemical Feed Building	$ 75,000.00	$ 214,000.00	$ 101,135.34	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 101,135.34**
Town Forest Reservoir Control Building	$ 75,000.00	$ 214,000.00	$ 101,135.34	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 101,135**
Town Forest Reservoir Mixer	$ -	$ 15,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,830.04	**$ 21,830**
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Broad Hill Reservoir	$ 477,000.00	$ 4,500,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ 681,451.64	$ -	$ -	$ -	**$ 681,452**
Broad Hill Reservoir Chemical Feed Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Broad Hill Reservoir Control Building	$ 75,000.00	$ 214,000.00	$ 101,135.34	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 101,135**
Broad Hill Reservoir Mixer	$ -	$ 15,000.00	$ -	$ -	$ -	$ -	$ -	$ 21,028.55	$ -	$ -	$ -	$ -	**$ 21,029**
TOTALS	**$ 1,254,000.00**	**$ 10,386,000.00**	**$ 303,406**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 21,029**	**$ 1,362,903**	**$ -**	**$ -**	**$ 21,830**	**$ 1,709,168**

WATER STORAGE CAPITAL PLAN 2038-2042

WATER STORAGE ASSET NAME	ESTIMATED COST		2038		2039		2040		2041		2042		TOTALS
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
Town Forest Reservoir	$ 477,000.00	$ 5,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Town Forest Reservoir Chemical Feed Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Town Forest Reservoir Control Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Town Forest Reservoir Mixer	$ -	$ 15,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Broad Hill Reservoir	$ 477,000.00	$ 4,500,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Broad Hill Reservoir Chemical Feed Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Broad Hill Reservoir Control Building	$ 75,000.00	$ 214,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Broad Hill Reservoir Mixer	$ -	$ 15,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,433.01	$ -	$ -	**$ 23,433**
TOTALS	**$ 1,254,000**	**$ 10,386,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 23,433**	**$ -**	**$ -**	**$ 23,433**

WATER SUPPLY CAPITAL PLAN 2023-2027

WATER SUPPLY ASSET NAME	ESTIMATED COST		CALENDER YEAR										TOTALS
			2023		2024		2025		2026		2027		
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
Springvale #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Springvale #2 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 29,704	$ -	$ 29,704
Springvale #1&#2 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Springvale #3 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Springvale #3 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Springvale #4 Well	$ 25,000	$ 330,000	$ -	$ -	$ 27,701	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 27,701
Springvale #4 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Springvale #4A Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Springvale #4A PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Evergreen #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Evergreen #1 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Evergreen #2 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ 374,465	$ -	$ -	$ -	$ -	$ 374,465
Evergreen #3 Well	$ 25,000	$ 330,000	$ 324,393	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 324,393
Evergreen #3A Well	$ 25,000	$ 330,000	$ 324,393	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 324,393
Pine Oaks #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ 28,369	$ -	$ -	$ -	$ -	$ -	$ 28,369
Pine Oaks PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Morse Pond #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Morse Pond #1A Well	$ 100,000	$ 900,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Elm Bank #2 Well	$ 30,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ 374,465	$ -	$ -	$ -	$ -	$ 374,465
Elm Bank #4 Well	$ 30,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Elm Bank #4 Vaults	$ 250,000	$ 800,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ 2,760,000**	**$ 13,787,000**	**$ 648,785**	**$ -**	**$ 27,701**	**$ -**	**$ 28,369**	**$ 748,929**	**$ -**	**$ -**	**$ 29,704**	**$ -**	**$ 1,483,488**

WATER SUPPLY CAPITAL PLAN 2028-2032

WATER SUPPLY ASSET NAME	ESTIMATED COST		CALENDER YEAR										TOTALS
			2028		2029		2030		2031		2032		
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
Springvale #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ 31,040	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 31,040
Springvale #2 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Springvale #1&#2 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Springvale #3 Well	$ 25,000	$ 330,000	$ -	$ -	$ 31,040	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 31,040
Springvale #3 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,534,557	$ 1,534,557
Springvale #4 Well	$ 25,000	$ 330,000	$ -	$ 400,914	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 400,914
Springvale #4 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Springvale #4A Well	$ 25,000	$ 330,000	$ -	$ -	$ 31,040	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 31,040
Springvale #4A PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Evergreen #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Evergreen #1 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Evergreen #2 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,044	$ -	$ 33,044
Evergreen #3 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Evergreen #3A Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pine Oaks #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,044	$ -	$ 33,044
Pine Oaks PS	$ 300,000	$ 1,161,000	$ -	$ -	$ 31,040	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 31,040
Morse Pond #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Morse Pond #1A Well	$ 100,000	$ 900,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Elm Bank #2 Well	$ 30,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,044	$ -	$ 33,044
Elm Bank #4 Well	$ 30,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Elm Bank #4 Vaults	$ 250,000	$ 800,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	**$ 2,760,000**	**$ 13,787,000**	**$ -**	**$ 400,914**	**$ 124,161**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 99,132**	**$ 1,534,557**	**$ 2,158,763**

WATER SUPPLY CAPITAL PLAN 2033-2037

WATER SUPPLY ASSET NAME	ESTIMATED COST		CALENDER YEAR										TOTALS
			2033		2034		2035		2036		2037		
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
Springvale #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,715	$ -	$ -	$ -	**$ 35,715**
Springvale #2 Well	$ 25,000	$ 330,000	$ -	$ -	$ 34,380	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 34,380**
Springvale #1&#2 PS	$ 300,000	$ 1,161,000	$ -	$ 1,565,575	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 1,565,575**
Springvale #3 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,715	$ -	$ -	$ -	**$ 35,715**
Springvale #3 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Springvale #4 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ 35,048	$ -	$ -	$ -	$ -	$ -	**$ 35,048**
Springvale #4 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ 1,627,610	$ -	$ -	$ -	$ -	**$ 1,627,610**
Springvale #4A Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,715	$ -	$ -	$ -	**$ 35,715**
Springvale #4A PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Evergreen #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Evergreen #1 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Evergreen #2 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Evergreen #3 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Evergreen #3A Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Pine Oaks #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Pine Oaks PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,715	$ -	$ -	$ -	**$ 35,715**
Morse Pond #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Morse Pond #1A Well	$ 100,000	$ 900,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Elm Bank #2 Well	$ 30,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Elm Bank #4 Well	$ 30,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Elm Bank #4 Vaults	$ 250,000	$ 800,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Total	**$ 2,760,000**	**$ 13,787,000**	**$ -**	**$ 1,565,575**	**$ 34,380**	**$ -**	**$ 35,048**	**$ 1,627,610**	**$ 142,862**	**$ -**	**$ -**	**$ -**	**$ 3,405,474**

WATER SUPPLY CAPITAL PLAN 2038-2042

WATER SUPPLY ASSET NAME	ESTIMATED COST		CALENDER YEAR										TOTALS
			2038		2039		2040		2041		2042		
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
Springvale #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Springvale #2 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 39,055	$ -	$ -	$ -	**$ 39,055**
Springvale #1&#2 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Springvale #3 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Springvale #3 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Springvale #4 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 39,723	$ -	**$ 39,723**
Springvale #4 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Springvale #4A Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Springvale #4A PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 476,675	$ -	**$ 476,675**
Evergreen #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Evergreen #1 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Evergreen #2 PS	$ 300,000	$ 1,161,000	$ -	$ -	$ 37,719	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 37,719**
Evergreen #3 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Evergreen #3A Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Pine Oaks #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ 37,719	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 37,719**
Pine Oaks PS	$ 300,000	$ 1,161,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Morse Pond #1 Well	$ 25,000	$ 330,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Morse Pond #1A Well	$ 100,000	$ 900,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Elm Bank #2 Well	$ 30,000	$ 330,000	$ -	$ -	$ 37,719	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 37,719**
Elm Bank #4 Well	$ 30,000	$ 330,000	$ -	$ 1,720,663	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 1,720,663**
Elm Bank #4 Vaults	$ 250,000	$ 800,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Total	**$ 2,760,000**	**$ 13,787,000**	**$ -**	**$ 1,720,663**	**$ 113,158**	**$ -**	**$ -**	**$ -**	**$ 39,055**	**$ -**	**$ 516,398**	**$ -**	**$ 2,389,273**

WATER TREATMENT CAPITAL PLAN 2023-2027

WATER TREATMENT ASSET NAME	ESTIMATED COST		CALENDER YEAR 2023		2024		2025		2026		2027		TOTALS
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
H&T Greensand Plant	$ 800,000.00	$ 8,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tonka Greensand Plant	$ 1,263,000.00	$ 10,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tonka Membrane Plant PFAs removal New	$ 1,764,000.00	$ 18,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,906,237	$ -	$ -	$ 20,906,237
Air Stripping Towers 1-3	$ 500,000.00	$ 1,125,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Air Stripping Towers 4	$ 150,000.00	$ 450,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
H&T PFAS Building	$ 300,000.00	$ 4,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
GAC H&T Replacement	$ 249,500.00	$ 249,500.00	$ -	$ -	$ -	$ 276,452	$ -	$ -	$ -	$ 289,784	$ -	$ -	$ 566,236
GAC Tonka Replacement	$ 147,250.00	$ 147,250.00	$ -	$ 159,223	$ -	$ -	$ -	$ 167,091	$ -	$ -	$ -	$ -	$ 326,313
High Lift Building	$ 1,000,000.00	$ 6,000,000.00	$ -	$ -	$ 1,108,025	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,108,025
Backwash Tank #1	$ 100,000.00	$ 504,000.00	$ -	$ -	$ 110,803	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 110,803
Backwash Tank #2	$ 100,000.00	$ 504,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
WTP General Town Maintenenace	$ 75,000.00	$ -	$ -	$ -	$ 83,102	$ -	$ -	$ -	$ 87,109	$ -	$ -	$ -	$ 170,211
Office/Garage	$ 150,000.00	$ 2,500,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Highlift Generator	$ -	$ 300,000.00	$ -	$ -	$ -	$ 332,408	$ -	$ -	$ -	$ -	$ -	$ -	$ 332,408
Pump Station Generator	$ -	$ 200,000.00	$ -	$ -	$ -	$ 221,605	$ -	$ -	$ -	$ -	$ -	$ -	$ 221,605
Elm Bank Water Treatment Plant	$ 700,000.00	$ 6,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Morse Pond Water Treatment Plant	$ 800,000.00	$ 5,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TOTALS	**$ 8,098,750.00**	**$ 62,979,750.00**	**$ -**	**$ 159,223**	**$ 1,301,930**	**$ 830,465**	**$ -**	**$ 167,091**	**$ 87,109**	**$ 21,196,021**	**$ -**	**$ -**	**$ 23,741,838**

WATER TREATMENT CAPITAL PLAN 2028-2032

WATER TREATMENT ASSET NAME	ESTIMATED COST		2028		2029		2030		2031		2032		TOTALS
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
H&T Greensand Plant	$ 800,000.00	$ 8,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tonka Greensand Plant	$ 1,263,000.00	$ 10,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Tonka Membrane Plant PFAS removal New	$ 1,764,000.00	$ 18,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Air Stripping Towers 1-3	$ 500,000.00	$ 1,125,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 958,272	$ 329,778	$ 1,288,050
Air Stripping Towers 4	$ 150,000.00	$ 450,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
H&T PFAS Building	$ 300,000.00	$ 4,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
GAC H&T Replacement	$ 249,500.00	$ 249,500.00	$ -	$ 303,115	$ -	$ -	$ -	$ 316,446	$ -	$ -	$ -	$ -	$ 619,562
GAC Tonka Replacement	$ 147,250.00	$ 147,250.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 190,694	$ 2,032	$ -	$ 192,726
High Lift Building	$ 1,000,000.00	$ 6,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	Rehab	Replace	$ -
Backwash Tank #1	$ 100,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Backwash Tank #2	$ 100,000.00	$ 504,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
WTP General Town Maintenance	$ 75,000.00	$ 504,000.00	$ 91,117	$ -	$ -	$ -	$ 95,124	$ -	$ -	$ -	$ -	$ -	$ 186,241
Office/Garage	$ 150,000.00	$ -	$ -	$ -	$ -	$ -	$ 190,248	$ -	$ -	$ -	$ -	$ -	$ 190,248
Highlift Generator	$ -	$ 2,500,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pump Station Generator	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Elm Bank Water Treatment Plant	$ 700,000.00	$ 300,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Morse Pond Water Treatment Plant	$ 800,000.00	$ 200,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TOTALS	**$ 8,098,750.00**	**$ 51,979,750.00**	**$ 91,117**	**$ 303,115**	**$ -**	**$ -**	**$ 285,373**	**$ 316,446**	**$ -**	**$ 190,694**	**$ 960,304**	**$ 329,778**	**$ 2,476,827**

WATER TREATMENT 20-YEAR CAPITAL PLAN 2033-2037

WATER TREATMENT ASSET NAME	ESTIMATED COST		CALENDER YEAR 2033		2034		2035		2036		2037		TOTALS
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
H&T Greensand Plant	$ 800,000.00	$ 8,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,142,896	$ -	$ -	$ -	**$ 1,142,896**
Tonka Greensand Plant	$ 1,263,000.00	$ 10,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Tonka Membrane Plant PFAs removal New	$ 1,764,000.00	$ 18,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Air Stripping Towers 1-3	$ 500,000.00	$ 1,125,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Air Stripping Towers 4	$ 150,000.00	$ 450,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
H&T PFAS Building	$ 300,000.00	$ 4,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
GAC H&T Replacement	$ 249,500.00	$ 249,500.00	$ -	$ -	$ -	$ 343,109	$ -	$ -	$ -	$ 356,441	$ -	$ -	**$ 699,550**
GAC Tonka Replacement	$ 147,250.00	$ 147,250.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 210,364	$ -	$ -	**$ 210,364**
High Lift Building	$ 1,000,000.00	$ 6,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Backwash Tank #1	$ 100,000.00	$ 504,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Backwash Tank #2	$ 100,000.00	$ 504,000.00	$ 134,847	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 134,847**
WTP General Town Maintenenace	$ 75,000.00	$ -	$ -	$ -	$ 103,139	$ -	$ -	$ -	$ 107,146	$ -	$ -	$ -	**$ 210,286**
Office/Garage	$ 150,000.00	$ 2,500,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Highlift Generator	$ -	$ 300,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Pump Station Generator	$ -	$ 200,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Elm Bank Water Treatment Plant	$ 700,000.00	$ 6,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Morse Pond Water Treatment Plant	$ 800,000.00	$ 5,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
TOTALS	**$ 8,098,750.00**	**$ 62,979,750.00**	**$ 134,847**	**$ -**	**$ 103,139**	**$ 343,109**	**$ -**	**$ -**	**$ 1,250,042**	**$ 566,805**	**$ -**	**$ -**	**$ 2,397,943**

WATER TREATMENT CAPITAL PLAN 2038-2042

WATER TREATMENT ASSET NAME	ESTIMATED COST		2038		2039		2040		2041		2042		TOTALS
	Rehabilitation	Replacement	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	Rehab	Replace	
H&T Greensand Plant	$ 800,000.00	$ 8,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Tonka Greensand Plant	$ 1,263,000.00	$ 10,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Tonka Membrane Plant PFAS removal New	$ 1,764,000.00	$ 18,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Air Stripping Towers 1-3	$ 500,000.00	$ 1,125,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 794,459	$ -	**$ 794,459**
Air Stripping Towers 4	$ 150,000.00	$ 450,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 238,338	$ -	**$ 238,338**
H&T PFAS Building	$ 300,000.00	$ 4,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
GAC H&T Replacement	$ 249,500.00	$ 249,500.00	$ -	$ 369,772	$ -	$ -	$ -	$ 383,103	$ -	$ -	$ -	$ 396,435	**$ 1,149,310**
GAC Tonka Replacement	$ 147,250.00	$ 147,250.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 230,034	$ -	$ -	**$ 230,034**
High Lift Building	$ 1,000,000.00	$ 6,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Backwash Tank #1	$ 100,000.00	$ -	$ -	$ -	$ 150,877	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 150,877**
Backwash Tank #2	$ 100,000.00	$ 504,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
WTP General Town Maintenance	$ 75,000.00	$ 504,000.00	$ 111,154	$ -	$ -	$ -	$ 115,161	$ -	$ -	$ -	$ 119,169	$ -	**$ 345,484**
Office/Garage	$ 150,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Highlift Generator	$ -	$ 2,500,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Pump Station Generator	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Elm Bank Water Treatment Plant	$ 700,000.00	$ 300,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
Morse Pond Water Treatment Plant	$ 800,000.00	$ 200,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**
TOTALS	**$ 8,098,750.00**	**$ 51,979,750.00**	**$ 111,154**	**$ 369,772**	**$ 150,877**	**$ -**	**$ 115,161**	**$ 383,103**	**$ -**	**$ 230,034**	**$ 1,151,965**	**$ 396,435**	**$ 2,908,501**