

REPLACEMENT SNOW AND ICE EQUIPMENT

UNIT	DIVISION	YEAR	REPLACEMENT	AMOUNT
76	Highway	2006	Skid Steer Loader	\$122,182

The Town Manager’s recommendation for General Fund Core Fleet Replacement is \$426,942 to be funded by Free Cash.

The Town Manager’s recommendation for General Fund Specialized Equipment is \$1,272,481 to be funded by Free Cash in the Tier 1 category and \$392,980 to be funded by Free Cash in the Tier 2 category.

The Town Manager’s recommendation for General Fund Snow & Ice Replacement is \$122,182 to be funded by Free Cash.

**RECYCLING AND TRANSFER STATION (RTS)
ENTERPRISE FUND**

SMART TECHNOLOGY TRASH CANS

The Town has been investigating long term strategies for reducing public litter. Over the past year, the DPW has met with vendors to review a Town-wide deployment of waste management receptacles. These receptacles have two compartments, one for recycling and one for trash, with solar powered compactors, and technology that provides an alert when the receptacles are full. The Town is pursuing a pilot program to deploy these receptacles at two recreational facilities around Town. This deployment will include 12 trash and recycling receptacles. Eleven receptacles will be solar powered compactors and one will be a solar powered non-compactable receptacle. The solar powered compactors will be deployed in areas of high trash volume and the non-compactable receptacle will be deployed in an area that is not prone to substantial trash generation. The receptacles will be purchased by the Town and their impact on reducing overflowing trash and minimizing odors will be monitored. There is a potential in the future to either purchase or lease additional receptacles. The 12 trash and recycling receptacles being purchased under this pilot program may also be incorporated into a lease program in the future. *(Submitted by: Department of Public Works)*

The Town Manager’s recommendation for Smart Technology Trash Cans is \$100,000 to be funded by RTS Enterprise Fund Retained Earnings.

RECYCLING AND TRANSFER STATION PROPERTY IMPROVEMENTS

This funding will enable the Town to make improvements to the Recycling & Transfer Station (RTS) facility to increase efficiency, comply with regulatory requirements, and improve the facility function. The Town’s design consultant conducted two evaluations in 2016 on the roof and structure of the 1998 building. Emergency structural repairs were made to address immediate safety concerns in the building, including cleaning and painting of the steel framing, and repairs to the fire protection system. The remaining structural repairs that must be addressed include miscellaneous repairs to the pre-engineered metal framing, additional repairs to the fire protection system, additional

cleaning and painting of the steel framing, roof repair, installation of a fall protection/warning system at tipping pit, replacement of the steel approach at tipping pit, and repair of the slab-on-grade. This funding will support the design, engineering and construction of these items. *(Submitted by Department of Public Works)*

The Town Manager’s recommendation for RTS Property Improvements is \$645,000 to be financed by RTS Enterprise Fund debt.

FLEET REPLACEMENT – SPECIALIZED EQUIPMENT

Unit	Division	Year	Replacement	Amount
143	RTS	2010	Large Tractor Loader	\$245,360

The Town Manager’s recommendation for RTS Specialized Equipment is \$245,360 to be funded by RTS Enterprise Fund Retained Earnings.

SEWER ENTERPRISE FUND

SEWER MAIN EXTENSION ZONES I AND II

The Massachusetts Department of Environmental Protection designates certain sensitive areas for aquifer protection. The Zone I and Zone II aquifer protection areas for the Charles River Wellfield include homes with private septic systems. Zone I includes land within a 400 foot radius of existing or potential public water supply wells, and Zone II includes the area of an aquifer that, given the most severe pumping and recharge conditions that can be realistically anticipated, would potentially be affected by nearby septic systems. All three of Needham's wells are located in an area that is vulnerable to contamination from nearby septic systems. Extending the sewer main will enable access to homes within Zones I & II and reduce the risk of contamination.

This funding will support the installation of a new sewage pumping station and extension of the sewer main in Winding River Road. With this new service, the Town will provide sewer service for one critical home on a private septic system. This service will extend 712 feet up Winding River Road, allowing additional homes to connect to the sewer system through a betterment program. *(Submitted by: Department of Public Works)*

The Town Manager’s recommendation for Sewer Main Extension Zone I and II is \$690,000 to be funded by Sewer Enterprise Fund Retained Earnings.

SEWER MAIN REPLACEMENTS

The Greendale Avenue/Route 128 sewer interceptor is in need of rehabilitation/replacement. The existing sewer line is deteriorating and in need of rehabilitation/replacement. This funding will replace or reline 12,000 feet (2.25 miles) of 18 inch reinforced concrete gravity sewer main running through Town property in the Right of Way from Greendale Avenue near Cheney Street towards Route 128, and along the Route 128 Right of Way to Great Plain Avenue. This interceptor sewer collects and conveys waste water from numerous sewer lines. FY2019 funding will be allocated to a feasibility study for this project.

The Town Manager’s recommendation for Sewer Main Replacements is \$330,000 to be funded by Sewer Enterprise Fund Retained Earnings.

SEWER SYSTEM INFILTRATION & INFLOW (I/I) REMOVAL

The Town recently completed a study identifying priority areas for inflow and infiltration removal for the next ten years. The Town of Needham, along with numerous other communities, is under Administrative Orders from the Department of Environmental Protection (DEP) to identify and remove Infiltration and Inflow (I/I) in existing sewer systems. Infiltration is defined as groundwater or storm water runoff that enters the system through deteriorated pipe or manhole structures that need to be repaired. Inflow is defined as clean, non-septic water, which is introduced to the system. This water is generally produced by residential sump pumps that drain basements. Unless circumstances require otherwise, this funding will support the design of the removal of the remaining locations of identified infiltration in the system.

The Town Manager's recommendation for Sewer System Infiltration and Inflow Removal is \$205,000 to be funded by Sewer Enterprise Fund Retained Earnings.

CORE FLEET REPLACEMENT

Unit	Division	Year	Replacement	Amount
28	Sewer	2001	Light Work Truck Class 3	\$64,247
94	Sewer	2014	Light Work Truck Class 2b	\$67,864
Total				\$132,111

(Submitted by: Department of Public Works)

The Town Manager's recommendation for Sewer Core Fleet Replacement is \$132,111 to be funded by Sewer Enterprise Fund Retained Earnings.

WATER ENTERPRISE FUND

BIRDS HILL WATER TANK

The water tank located at Birds Hill ensures that the Town is able to maintain proper operating system pressure of the water distribution system. The tank is filled through one central pipe at the bottom of the tank — and this is also how the tank is drained. The movement of water is therefore predominately at the bottom of the tank. This tank is 100 feet in diameter at the foundation and is 45 feet in elevation. This funding will allow the Town to install a mixing valve that will circulate water throughout the tank. The improved circulation will assist in maintaining chlorine levels inside the tank, improving water quality. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Birds Hill Water Tank is \$340,000 to be funded by Water Enterprise Fund Retained Earnings.

WATER DISTRIBUTION SYSTEM IMPROVEMENTS

Water System Rehabilitation

Through the Water System Rehabilitation Program, the Town's water infrastructure is continually evaluated to assess functionality and performance, and to identify areas in need of repair. Water infrastructure requires ongoing attention and periodic replacement, and portions of the Town's water infrastructure are 75+ years old and approaching the end of their useful life. A diligent rehabilitation program encompassing maintenance, repair, and replacement ensures a continual supply of water to the public.

The Department of Public Works prioritizes replacement of water pipes based upon pipe condition, water break history, and adequacy of water flow to fire hydrants. Unless circumstances require otherwise, the FY2019 funding will support the replacement of 8 inch water mains on Bennington Street from High Street to Concord Street (unlined) and on Country Way (unlined).

Water Main Replacement

This request is to replace a total of 11,500 linear feet of 14" water main. The existing water line dates from 1936-1939 and is cast iron with bitumastic or coal tar liner. The water quality in areas serviced by this line is a concern, as the lining of these pipes breaks down over time causing discoloration in the water. In 2008, the Town began addressing areas served by this type of piping, which at the time was approximately 19,000 linear feet. The 14" water main was relined from the Charles River Water Treatment Facility to Grove Street. In 2010, the second phase of this project replaced the 14" water main with a new 16" water main extending from Grove Street to Central Avenue. In FY2016, the Town replaced the water main in Oak Street from Maple Street to Chestnut Street and in Chestnut Street from Oak Street to School Street. Unless circumstances require otherwise, FY2019 funding will be allocated to the construction of the remaining 11,500 linear feet of water main to be replaced from the intersection of Pine Street to Marked Tree Road to Oak Street, and Maple Street. The 14 inch water main will be replaced by a 16 inch water main. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Water Distribution System Improvements is \$830,000 to be funded by Water Enterprise Fund Retained Earnings.

WATER SPECIALTY EQUIPMENT

Unit	Division	Year	Replacement	Amount
14	Water	2009	Heavy Duty Truck Class 7	\$239,404
22	Water	2009	Medium Work Truck Class 4	\$115,644
Total				\$355,048

(Submitted by: Department of Public Works)

The Town Manager's recommendation for Water Specialty Equipment is \$355,048 to be funded by Water Enterprise Fund Retained Earnings.