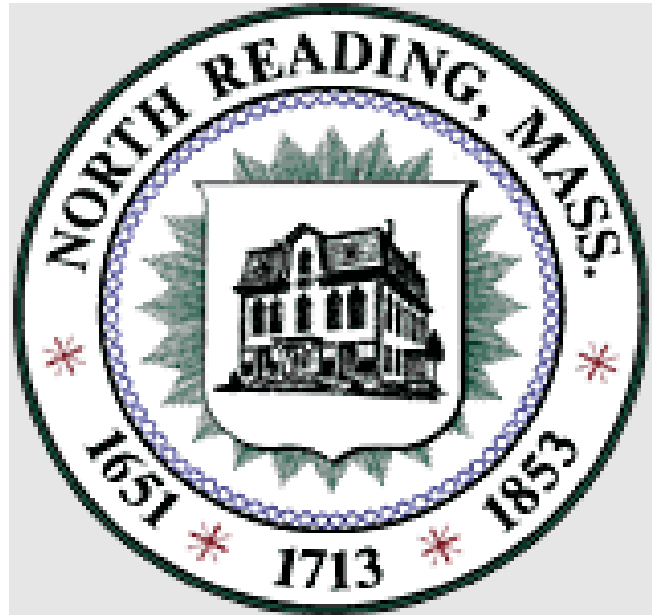


Town of North Reading



FY 2017 Capital Improvement Plan

To: North Reading Board of Selectmen

From: Capital Improvements Planning Committee

Date: April 25, 2016

RE: F/Y 2017 Capital Acquisition Recommendation

This year's deliberations by the Capital Improvement Planning Committee (CIPC) were longer in duration than those of the past due to several factors, including the reorganization within the town DPW, a developing situation in the Stormwater Permits issued by the EPA and a late request to consider bathroom facilities at the High School football field. As in the past requests were presented in writing by the various town department heads to the Finance Director. The Committee met with those requesting the capital items and where appropriate conducted field trips to examine the equipment or vehicles proposed for replacement. The requests covered F/Ys 17, 18 & 19. The Committee met on several occasions to discuss each of the requests before we individually ranked each item.

The initial list of requests included 33 items totaling more than \$2.8m, not including the late request for the bathroom facilities at the football field. Early in the process several items were eliminated or withdrawn because they were repair and maintenance items that belong in the operating budget rather than in the capital budget. The School Department also withdrew its request to fund wireless infrastructure in the elementary schools in order to evaluate grant possibilities and bring it back to the CIPC next year. Several DPW initiatives were also withdrawn pending the reevaluation of the department. We expect that several of these requests will come back next year. As shown on the attached Ranking Sheet, we ended up with 16 requests totaling \$1.9m. We are recommending 10 items with a total value of \$665k.

We are proposing spending \$200k this cycle on improvements to the fire station primarily to improve the living conditions at the station. The committee was presented with Space Study Report on the Fire Station which, if acted upon, would cost nearly \$5m. We recognize that this is not affordable, but our site visit impressed on everyone that we have to improve living conditions for the firefighters.

It has been the goal of the Committee to decrease the Town's dependence on bonding of short duration items (5 year bonding). To that end, we are proposing to withdraw funds from the Capital Improvement Stabilization Fund (\$96k in f/y 17 and \$50k each subsequent year) to augment the funds from June Town Meeting in order to pay cash for all 5 year items. There will be one 5 year item (WiFi upgrade for town facilities-- \$70k) bonded from this year's recommended list because the Stormwater request is not bonding eligible and will require the use of \$105k in cash, essentially consuming the balance of available cash.

Looking down the road, there are several big ticket items on the horizon that will, if approved, put a strain on capital program and the resulting debt service.

In 2018 there is a request for a replacement fire engine (\$525K), the bathroom facilities at the football field, the scope and amount are unclear, but could approach \$500k and a possible \$225k item for the design and permitting of a \$1.9m project to connect town buildings in the center to the waste water treatment plant at the high school. There will be a needs assessment undertaken of the current septic systems at those buildings to determine when or if we need to do the hookup to the WWTP.

The 2019 capital request will likely include the replacement of another fire engine at an estimated cost of \$500k.

The committee appreciates the support of the Board of Selectmen in continuing to recommend the Free Cash and Budget Appropriation so that there is a dependable source of funds allocated to the much needed capital projects. Because of this support, we feel comfortable in funding the 5 year items in cash, giving us more flexibility to consider longer term projects and maintain a stable annual debt service obligation. The plan requires that the Town make the following fiscal commitment:

Increase the \$150,000 in the current Operating Budget to the Capital Improvement Stabilization Fund (CISF) by \$25,000 in each succeeding year until we reach a steady state of \$200,000 in f/y2021

Dedicate \$150,000 of Free Cash to the CISF at the annual June Town Meeting.

Dedicate \$200,000 of Free Cash to the CISF at the annual October Town Meeting.

There are 6 items from the Water Enterprise totaling \$1.4m. Most of these items relate to the planned move to MWRA. The committee is recommending all of the proposed requests. There were no requests from the other two Enterprise Funds, Hillview Commission or Parks & Recreation.

The Committee's work will continue over the next several months prioritizing the F/Y 18 and 19 items as well as the F/Y 17 requests that could not be recommended at this time because of funding limitations.

We would like to thank the department heads for their cooperation and help in developing North Reading's capital plan.

North Reading Capital Improvements Planning Committee

Donald Kelliher, Chair

Elizabeth Rourke, Vice Chair

Janene Imbriano, Clerk

Michael Connelly

Joseph Foti

Michael Gilleberto

Abby Hurlbut

Stephen O'Leary

Jeffrey Yull

Department	Project	FY 17 Request	FY 17 Funding Source	Cash	Total Cash	Bonding	Total Bonding	AVG
Capital - FY2017 - Ranking Sheet								
Town Buildings	Fire Station-Misc Interior Upgrades	200,000	Bond	-		200,000	200,000	4.78
IT	Computer/Equipment Replacement Plan	35,000	Free Cash	35,000	35,000		200,000	4.67
IT	WiFi Upgrade	70,000	Bond	-	35,000	70,000	270,000	4.44
School Department	Special Education Van	45,000	R&A	45,000	80,000		270,000	4.44
DPW-Highway	Replace 3/4 Ton Pickup Truck #10	45,500	R&A	45,500	125,500		270,000	4.44
Town Buildings	Town Buildings - Install water conservation devices	25,279	Free Cash	25,279	150,779		270,000	4.22
School Department	Computer Replacement Plan	60,000	R&A	60,000	210,779		270,000	4.11
Stormwater	Drain Map Phase IIb - GIS data enhancement	105,000	Free Cash	105,000	315,779		270,000	4.11
School Department	Hood School Parking Lot Paving Phase 2	50,000	Free Cash	50,000	365,779		270,000	3.78
DPW-Highway	Multi function tractor flail mower	30,000	Free Cash	30,000	395,779		270,000	3.22
	Total Capital Request Recommended By CIPC	665,779			395,779		270,000	
Parks	Sanitary Facilities Turf Field	500,000						3.33
Sewer	Expand downtown sewer	225,000						3.11
School Department	Utility Vehicle (Toolcat)	65,000						3.56
Fire	Replace Car 4	38,139						3.00
School Department	Multi-Function Activity Bus	52,000						2.89
Fire/Police	Communications Part 1 of 2	362,154						1.00
	Total Capital Requests Submitted	\$ 1,908,072						
WATER ENTERPRISE								
Water	Reading water system improvements - design/permit/bid	100,000	Bond			100,000	100,000	4.89
Water	North Reading system improvements - design/permit/bid	175,000	Bond			175,000	275,000	4.78
Water	Pump station - site screening/design/permit/bid	100,000	Bond			100,000	375,000	4.67
Water	Pump Station land acquisition	750,000	Bond			750,000	1,125,000	4.44
Water	Water Distribution System Upgrades	150,000	Bond			150,000	1,275,000	4.33
Water	Chlorine Residual Evaluation- Phase I & II	150,000	Water Infrastructure	150,000	150,000		1,275,000	3.22
Total Water Enterprise Capital Requests Submitted		\$ 1,425,000			\$ 150,000		\$ 1,275,000	

North Reading 2017 Capital Improvement Plan

	Bonding Term						
Capital Spending		2017	2018	2019	2020	2021	2022
Transfer From CIFS (FC)		150,000	150,000	150,000	150,000	150,000	150,000
Transfer From CIFS (R&A)		150,000	175,000	200,000	225,000	250,000	250,000
Transfer From CIFS		95,779	50,000	50,000	50,000	50,000	50,000
Total Available Cash		395,779	375,000	400,000	425,000	450,000	450,000
Bonding	5	70,000	-	-	-	-	-
	10		300,000	300,000	300,000	300,000	300,000
	15	-	-	150,000	150,000	150,000	175,000
	20	200,000	1,250,000	850,000	350,000	350,000	350,000
	30		-	-	-	-	-
Total Bonding		270,000	1,550,000	1,300,000	800,000	800,000	825,000
Total Before CH 90		665,779	1,925,000	1,700,000	1,225,000	1,250,000	1,275,000
Chapter 90		510,258	510,258	510,258	510,258	510,258	510,258
		1,176,037	2,435,258	2,210,258	1,735,258	1,760,258	1,785,258

Debt Service		2017	2018	2019	2020	2021	2022
PRE F/Y 2017 DEBT SERVICE w/o LS		1,082,709	1,004,829	860,612	614,188	544,637	457,060
Little School Roof		86,720	86,800	84,800	82,800	80,800	78,800
PRE F/Y 2017 DEBT SERVICE		1,169,429	1,091,629	945,412	696,988	625,437	535,860
Approved at June 2015 TM, not yet bonded		129,480	108,400	105,000	96,600	68,400	66,200
Potential Pre F/Y 2017 Debt Service		1,298,909	1,200,029	1,050,412	793,588	693,837	602,060
POST F/Y 2017 DEBT SERVICE							
BANS 2% (1/2 yr) of next year's bonding		5,400	31,000	26,000	16,000	16,000	16,500
2017 New Bonding	5		16,660	16,100	15,540	14,980	14,420
	10		-	-	-	-	-
	15		-	-	-	-	-
	20		17,900	17,500	17,100	16,700	16,300
	30		-	-	-	-	-
2018 New Bonding	5			-	-	-	-
	10			41,700	40,500	39,300	36,900
	15			-	-	-	-
	20			111,875	109,375	106,875	104,375
	30			-	-	-	-
2019 New Bonding	5				-	-	-
	10				41,700	40,500	39,300
	15				15,900	15,500	15,100
	20				76,075	74,375	72,675
	30				-	-	-
2020 New Bonding	5					-	-
	10					41,700	40,500
	15					15,900	15,500
	20					76,075	74,375
	30					-	-
2021 New Bonding	5						-
	10						41,700
	15						15,900
	20						31,325
	30						-
Transfer From CISF to keep to TARGET		(117,589)	(78,789)	(78,787)	-	-	-
POST F/Y 2014 DEBT SERVICE		(112,189)	(13,229)	134,388	332,190	457,905	534,870
Total Annual Debt Service		1,186,720	1,186,800	1,184,800	1,125,778	1,151,742	1,136,930
TARGET \$1.1m plus Little School Roof		1,186,720	1,186,800	1,184,800	1,182,800	1,180,800	1,178,800
Capital Improvement Stabilization Fund							
Beginning Balance		977,472	964,104	1,035,315	1,106,528	1,256,528	1,406,528
June TM							
Deposits From Free Cash		150,000	150,000	150,000	150,000	150,000	150,000
R&A June Budget		150,000	175,000	200,000	225,000	250,000	250,000
Withdrawals							
Transfer to Capital Spending (FC)		(150,000)	(150,000)	(150,000)	(150,000)	(150,000)	(150,000)
Transfer to Capital Spending(R&A)		(150,000)	(175,000)	(200,000)	(225,000)	(250,000)	(250,000)
October TM							
Deposits From Free Cash		200,000	200,000	200,000	200,000	200,000	200,000
Withdrawals							
Transfer to Capital Spending for 5 yr Acquisitions		(95,779)	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
Transfer to Debt Service		(117,589)	(78,789)	(78,787)			
Ending Balance		964,104	1,035,315	1,106,528	1,256,528	1,406,528	1,556,528

Water Enterprise**Capital Spending**

	2017	2018	2019	2020	2021	2022
5	-					
10						
15	-					
20	1,275,000					
30	-					
	1,275,000	-	-	-	-	-

Water Enterprise Debt Service**PRE F/Y 2017 DEBT SERVICE**

Bans 2%of next year's bonding

	2017	2018	2019	2020	2021	2022
	444,566	306,234	253,519	182,856	137,047	128,888
	25,500					
5	-	-	-	-	-	-
10		-	-	-	-	-
15						
20		114,113	111,563	109,013	106,463	103,913
30						
	-	114,113	111,563	109,013	106,463	103,913

Total Annual Debt Service

444,566	420,347	365,082	291,869	243,510	232,801
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Water Stabilization Fund

Account Balance 10/5/2015

542,412

Capital Acquisition F/Y 2017

(150,000)

Account Balance 6/30/2016

392,412

PUBLIC SAFETY BUILDING—
FIRE STATION INTERIOR UPGRADES

Director of Public Works
235 North St,
North Reading, MA 01864
(978) 664-6060

Description

This project allows for various improvement projects within the Fire Station including replacement, of flooring, renovation of the bunk-room, interior painting, and replacement of furniture.

Justification

The Department’s facilities are antiquated.

Impact

This project will make modest improvements to the working conditions at a 24-hour public safety facility.



General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	0.00	Water Bonds	0.00
General Obligation Bonds	200,000.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	
Other Grants	0.00	200,000.00	

COMPUTER/EQUIPMENT REPLACEMENT PLAN

Eugene Tworek
Director of IT
235 North St.
North Reading, MA 01864
(978) 664-6055
Etworek@northreadingma.gov

Description

Annual Computer replacement plan
for aging computers town wide.

Justification

Replace aging computers, laptops,
tablets on a 5 year cycle. Replace
printers and monitors when they
become unserviceable.

Impact

Improve efficiency and productivity
of staff.



General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	35,000.00	Water Bonds	0.00
General Obligation Bonds	0.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	
Other Grants	0.00	35,000.00	

TOWN FACILITIES WiFi UPGRADE

Eugene Tworek
Director of IT
235 North St.
North Reading, MA 01864
(978) 664-6055
Etworek@northreadingma.gov

Description

Implement a coordinated upgrade of WiFi* infrastructure and service for Town facilities (*WiFi is a local area wireless technology that enables electronic devices such as, personal and tablet computers and smartphones, to exchange data or connect to the Internet. The technology utilizes wireless Access Points (AP), network devices that allow wireless electronic devices to connect to wired networks). The project is an implementation of a unified network of cloud-managed wireless APs.

Justification

Provision reliable, secure and robust WiFi service at Town facilities.

Impact

Improve efficiency and productivity of staff.



General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	0.00	Water Bonds	0.00
General Obligation Bonds	70,000.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	
Other Grants	0.00	70,000.00	

SCHOOL DEPARTMENT- SPECIAL EDUCATION VAN

Wayne Hardacker
Supervisor, Buildings & Grounds
Sherman Road
North Reading, MA 01864
(978) 664-7810
whardacker@northreading.mec.edu

Description

The 2005 special education van was approved in FY'16 for replacement with capital funds and transferred to the Food Service Department. The district currently utilizes three special education vans daily to transport students between in town special education programs. The 2007 special education van is currently used as a spare and is also used to transport athletic teams and activities when appropriate, which has helped reduce athletic transportation costs. The District capital request involves a replacement plan to replace the 2006 and 2007 vans over the next two years.

Justification

The next van in need of replacement is the 2006 wheel chair van, this van has over 120,000 miles on it and must be special outfitted to accommodate the transportation of students in a wheel chair.

Having a well equipped and reliable vehicle to safely transport students to and from programs on a daily ba-

sis is essential. This will ensure the Special Education Department can safely transport students and has an appropriate spare vehicle on hand in the event of emergencies.

Impact

Inaction raises the possibility of a vehicle breakdown which would compromise our ability to safely transport our students with special needs. A special education vehicle would improve our ability to transport student safely and maintain the students routine and schedule.



General Fund

Operating Budget	45,000.00
Free Cash Appropriation	0.00
General Obligation Bonds	0.00

Grants

Chapter 90	0.00
Other Grants	0.00

Enterprise Funds

Water Fund

Water Bonds	0.00
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Hillview/Parks & Recreation Fund

Re-appropriated Bonds	0.00
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Total Project Funding	45,000.00
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DPW—HIGHWAY

REPLACE 3/4 TON PICKUP TRUCK

#10

Director of Public Works
235 North St,
North Reading, MA 01864
(978) 664-6060

Description

This project is to replace Truck #10. This vehicle is used year round, specifically in conjunction with road and public grounds maintenance and is responsible for plowing one of the Town's residential snow routes as well as the roads within public property. This project includes the vehicle, equipment to be installed, safety equipment, etc.

Justification

The current vehicle is 16 years old and is used constantly, specifically in conjunction with road and public grounds maintenance and is responsible for plowing one of the Town's residential snow routes.

Impact

New vehicle with better reliability would assist to maintain high level of service expected by residents



General Fund

Operating Budget	45,500.00
Free Cash Appropriation	0.00
General Obligation Bonds	0.00

Grants

Chapter 90	0.00
Other Grants	0.00

Enterprise Funds

Water Fund

Water Bonds	0.00
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Hillview/Parks & Recreation Fund

Bonds	0.00
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Total Project Funding	45,500.00
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PUBLIC BUILDINGS— INSTALL WATER CONSERVATION DEVICES

Director of Public Works
235 North St,
North Reading, MA 01864
(978) 664-6060

Description

This project will implement the results of the 2014 Town of North Reading Water Conservation Master Plan. The Plan evaluated all Town & School Buildings relative to water use & examined costs to improve water use efficiency (reduced operating costs).

Impact

Lack of action will adversely affect water & wastewater project environmental permitting and cause excessive costs

Justification

1. As part of the Town's ongoing water & wastewater projects, the Town would have to comply with the Commonwealth of Massachusetts Water Conservation Standards. One part of these requirements is to implement water conservation devices in all municipal buildings. 2. sixty six percent (66%) of these projects have less than a 2.5 year Rate of Return.



General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	25,279.00	Water Bonds	0.00
General Obligation Bonds	0.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	
Other Grants	0.00	25,279.00	

SCHOOL DEPARTMENT— COMPUTER REPLACEMENT

Patrick Daly
Assistant Superintendent
Sherman Road
North Reading, MA 01864
(978) 664-7810
pdaly@north-reading.k12.ma.us

Description

The District over the last three years has been able to increase our capacity to incorporate many mobile devices (iPads, Chromebooks, tablets, etc.) into our educational plans. Each device has its benefit to enhance the educational experience and function as a tool for learning. In order to meet our Digital Learning goals our schools need additional devices in order to meet the needs of the students. The District has worked on an on-going computer/device replacement plan which includes replacing devices as they reach the end of their useful life and continuing to add devices to increase the student to computer ratio. Budgeting an annual amount for computer replacement will allow the school district to meet its goals for digital learning. The District has received \$60,000 each of the last two years where it has been able to purchase additional Chrome book carts at each elementary school.

Justification

The current devices were purchased in 2006 or earlier. These devices are running specifications that are not sufficient for the software and programs we are attempting to utilize in our classrooms. Furthermore, as we will be required to upgrade from Windows XP when it is no longer supported by Microsoft, these devices will not be able to be upgraded.

Impact

Improve efficiency and productivity of staff and students.



General Fund		Enterprise Funds	
Operating Budget	60,000.00	Water Fund	
Free Cash Appropriation	0.00	Water Bonds	0.00
General Obligation Bonds	0.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	60,000.00
Other Grants	0.00		

GIS DRAIN SYSTEM DATA ENHANCEMENT

Director of Public Works
235 North St,
North Reading, MA 01864
(978) 664-6060

Description

Continue to upgrade the existing digital drain map for the town. One requirement of the USEPA Phase II storm water permit is to have an accurate drain map. Our current map does not meet this requirement. The work funded at the fall 2012 town meeting is locating & inspecting all drain manholes and catchbasins, and then importing into the drain layer of the town's GIS. This next phase address drain systems requiring additional inspection, and the inspection of all culverts & outfalls.

data; increased data query, reporting and map production capabilities

5. Increased decision support capabilities and better informed employees and citizens
6. Better customer service



Justification/Impact

1. Federal regulatory requirement from 2003 MS4 permit
2. access to current, accurate digital information; more efficient performance of daily duties
3. Reduction or elimination of data redundancy among departments, decrease operating costs
4. Improved accuracy of existing

General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	105,000.00	Water Bonds	0.00
General Obligation Bonds	0.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	
Other Grants	0.00		105,000.00

SCHOOL DEPARTMENT— HOOD SCHOOL PARKING LOT PAVING—PHASE II

Wayne Hardacker
Supervisor, Buildings & Grounds
Sherman Road
North Reading, MA 01864
(978) 664-7810
whardacker@northreading.mec.edu

Description

Phase 1 of the Hood School parking lot and playground area repaving began in the summer of 2015. The request involves the second phase of the project to completely repave most of the parking lot, and entranceway. The request also includes re-grading and installing new curbing. Economies of scale could be obtained by working cooperatively with the DPW. The playground area and back walkway were done during Phase 1 of this project in the summer of 2015.



Justification

The area is showing signs of deterioration resulting in safety concerns.

Impact

If the project is not completed or is delayed, it could result in a safety hazard for students, staff and parents.



General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	50,000.00	Water Bonds	0.00
General Obligation Bonds	0.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	
Other Grants	0.00	50,000.00	

DPW—HIGHWAY
REPLACE MULTI FUNCTION FLAIL
MOWER

Director of Public Works
235 North St,
North Reading, MA 01864
(978) 664-6060

Description

This is a flail mower attachment for the new multi function tractor. The existing Holder flail mower is not compatible to to limitations in the attachment hydraulic system of the new Trackless Tractor.

and property damage may result if not purchased.

Justification

This piece of equipment is essential. It is used seasonally for roadside brush control. The inability to cut roadside brush adversely affects driving safety as driver sight lines are restricted.



Impact

This equipment mpacts vehicle safety as brush reduces sight distance. More accidents with personal injury

General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	30,000.00	Water Bonds	0.00
General Obligation Bonds	0.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	
Other Grants	0.00	30,000.00	

READING WATER SYSTEM IMPROVEMENTS

Director of Public Works
235 North St,
North Reading, MA 01864
(978) 664-6060

Description

This project provides for water system improvements in Reading in order to move water through Reading into North Reading from the MWRA.

Justification

Readings system is inadequate hydraulically under existing conditions and must be improved in order for North Reading to receive water from MWRA.

Impact

Reliable water supply to North Reading residents on the water system.



General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	0.00	Water Bonds	100,000.00
General Obligation Bonds	0.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	100,000.00
Other Grants	0.00		

NORTH READING WATER SYSTEM IMPROVEMENTS

Director of Public Works
235 North St,
North Reading, MA 01864
(978) 664-6060

Description

This project provides for water system improvements in North Reading between Readings water system and a proposed water booster pump station to be constructed for North Reading.

Justification

There is currently no physical connection between the North Reading and Reading water systems. This connection is needed to receive water from MWRA.

Impact

Reliable water supply to North Reading residents on the water system.



General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	0.00	Water Bonds	175,000.00
General Obligation Bonds	0.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	175,000.00
Other Grants	0.00		

PUMP STATION— ACQUIRE LAND FOR PUMP STATION.

Director of Public Works
235 North St,
North Reading, MA 01864
(978) 664-6060

Description

Acquire land for the construction of a water booster pump station needed to pump MWRA water from Reading to North Reading. The Town will identify needed land off of or near Mill Street in North Reading suitable for the pump station. A study funded at the Fall 2015 Town meeting will screen the parcels to recommend a specific parcel (test borings, possible flooding impacts, historical limitations, acquisition cost, environmental permitting requirements, etc).

Impact

Reliable water supply for residents of North Reading on the water system.

Justification

Project is required to implement an MWRA water connection through the Town of Reading. MWRA water connection is critical for the Town to assure a long-term, sustainable and cost-effective water supply required for supporting existing and future customers and for economic development.



General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	0.00	Water Bonds	750,000.00
General Obligation Bonds	0.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	
Other Grants	0.00		

PUMP STATION—SITE SCREENING, DESIGN, PERMIT, AND BUILDING

Director of Public Works
235 North St,
North Reading, MA 01864
(978) 664-6060

Description

This project provides funding for the design and permitting of a water booster pump station needed to receive water from the MWRA through the Town of Reading.

Justification

Hydraulic differences between North Reading and the Town of Reading's water system require a pump station to transfer water between the systems.

Impact

Reliable water supply to residents in North Reading on the water system.



General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	0.00	Water Bonds	100,000.00
General Obligation Bonds	0.00	Hillview/Parks & Recreation Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	100,000.00
Other Grants	0.00		

WATER DISTRIBUTION IMPROVEMENTS— WATER MAIN REPLACEMENT ACCEPTED STREETS

Richard Carnevale
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Description

Replace undersized or outdated water mains in streets to be reconstructed under the Town's Road Improvement Program, or as identified by the 2014 Water Master Plan

Justification

The water mains in such streets would be assessed in terms of age, material, construction, size and hydraulic benefit to the water distribution system as a whole. The Town's water distribution system consists of approximately 80 miles of water main, three water storage tanks, 750 fire hydrants and 4,800 water services installed from 1936 to the present. These components are all subject to physical degradation, and each component has a useful lifespan.

This project is to fund the replacement of components – hydrants, gate valves, water services and water main – that has reached the end of its useful life. The goal is to have a distribution system that continues to function without an interruption of service to the residents and businesses supplied by that system: fire hydrants that can be relied on when needed, gate valves that will shut off water mains during a water main break, water services that continually supply water to individual homes and businesses.

This project also is implemented in conjunction with the Town Road program, by undertaking replacements of water system components prior to the roadway reconstruction. This project is not specifically identified as a need in the Water System Master Plan, as the timely replacement of outdated components falls more in

the area of routine maintenance practices.

Impact

Lack of action could result in a loss of water supply and public health and safety could be compromised.



General Fund

Operating Budget	0.00
Free Cash Appropriation	0.00
General Obligation Bonds	0.00

Grants

Chapter 90	0.00
Other Grants	0.00

Enterprise Funds

Water Fund

Water Bonds	150,000.00
Water Infrastructure Stabilization Fund	0.00

Bonds

Total Project Funding	150,000.00
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CHLORINE RESIDUALS EVALUATION- PHASE I AND II

Director of Public Works
235 North St,
North Reading, MA 01864
(978) 664-6060

Description

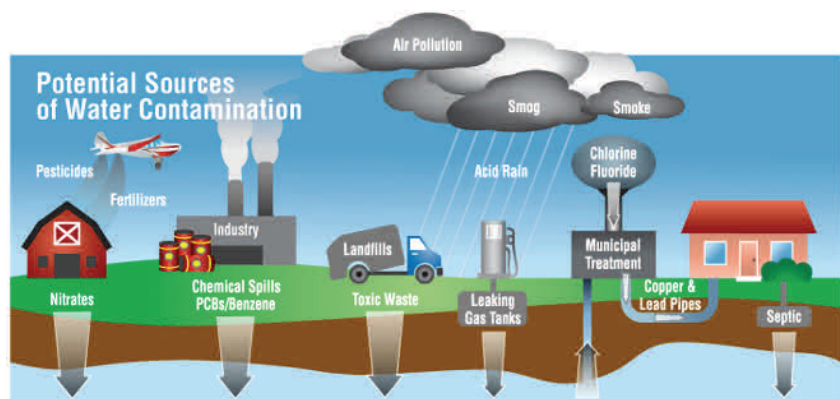
Study and determine solutions for improving chlorine residual & turnover in the system. It should also include an analysis of water quality under a new source configuration from MWRA to determine impacts of two different disinfection chemistries (Chloramines vs chlorine) mixing in the water distribution system.

Justification

2013 total coliform issue & 2014 TTHM issues revealed this issue, significant public safety impacts if E.coli water contamination occurs due to disinfection issues. Also critical re dealing with chloramination disinfection of a "sequential" MWRA community. Scope TBD but may include water tank mixers, supplemental disinfection ports in the water distribution system, etc.

Impact

Ensures that water meets all Federal and State Standards.



General Fund		Enterprise Funds	
Operating Budget	0.00	Water Fund	
Free Cash Appropriation	0.00	Water Bonds	0.00
General Obligation Bonds	0.00	Water Infrastructure	150,000.00
		Stabilization Fund	
Grants		Bonds	0.00
Chapter 90	0.00	Total Project Funding	150,000.00
Other Grants	0.00		