2018-2027 TOWN COUNCIL CAPITAL IMPROVEMENT PROGRAM

	Description	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
101	Water Fund										
102	Technology Drive PRV Station	30,000									
103	Madbury Road Booster Pump Station	40,000									
104	Town/UNH Shared Water System Improvements	70,000	70,000	70,000	70,000	70,000					
105	Wiswali Dam Spillway		490,000					-			
106	Madbury Road Water Line Replacement			700,000	975,000					;	
108	Backhoe Replacement (Cost split w/Oper. & WW)					26,500					
109	One Ton Utility Truck Replacement					40,000					
	TOTAL WATER FUND	140,000	560,000	770,000	1,045,000	136,500				0	

PROJECT YEAR	2018	PROJECT COST	\$30,000			
DESCRIPTION	Technology Drive/PRV	DEPARTMENT	Public Works - Water			
MPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)						

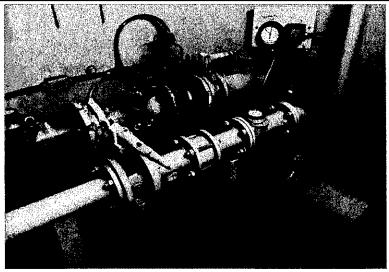
DESCRIPTION (TO INCLUDE JUSTIFICATION)

Department Initiative

The Technology Drive PRV Station was identified in the 2016 Water System Asset Management Plan as a critical system asset at the end of its useful life. The original station was built in 1986 and is 31 years old. An equipment upgrade this station will ensure water users have consistent system pressures and will prevent costly and unexpected repairs for staff.

* Town's Share is 1/3 of this proj	iect cost	
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ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$		-	
	FINAL DESIGN AND ENGINEERING	·			
	CONSTRUCTION ENGINEERING OVERSIGHT	\$	-		
•	CONSTRUCTION COSTS	\$	30,000		
	CONTINGENCY	\$	-		
	TOTAL PROJECT COST	\$	30,000		<u>.</u>
FINANCING	OPERATING BUDGET	\$	10,000		•••
	UNH - CASH	\$	20,000		•
	BOND - TOWN PORTION	\$	-		· r
	UNH PORTION	\$	-		
	FEDERAL/STATE GRANT	\$	-		
	CAPITAL RESERVE ACCOUNT	\$	•		
	TOTAL FINANCING COSTS	\$	30,000		_
IF BONDED:	NUMBER OF YEARS		N/A		
	TOTAL PRINCIPAL	\$	-		
	TOTAL INTEREST	\$			
,	TOTAL ESTIMATED COST	\$	-	÷	_



Madbury Rd. Booster Pump	DEPARTMENT	Public Works - Water
E. MANDATED, COUNCI	L GOAL, DEPT INITIATIV	E, ETC.)
	E. MANDATED, COUNCI	E. MANDATED, COUNCIL GOAL, DEPT INITIATIV

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The Madbury Road Booster Pump Station was identified in the 2016 Water System Asset Management Plan as a critical system asset at the end of its useful life. The original station was built in 1993 and is 24 years old. An equipment upgrade for this station will ensure water users have consistent system pressures and will prevent costly and unexpected repairs for staff.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$ -	 <u>-</u>
	FINAL DESIGN AND ENGINEERING		•
	CONSTRUCTION ENGINEERING OVERSIGHT	\$ -	•
	CONSTRUCTION COSTS	\$ 40,000	
	CONTINGENCY	\$ <u>-</u>	
	TOTAL PROJECT COST	\$ 40,000	
FINANCING	OPERATING BUDGET	\$ 40,000	
	UNH - CASH	\$ <u>.</u>	
•	BOND - TOWN PORTION	\$ -	
	UNH PORTION	\$ -	
	FEDERAL/STATE GRANT	\$ · <u>-</u>	
	CAPITAL RESERVE ACCOUNT	\$ 4	
	TOTAL FINANCING COSTS	\$ 40,000	
IF BONDED:	NUMBER OF YEARS	N/A	
	TOTAL PRINCIPAL	\$ -	
	TOTAL INTEREST	\$ -	·
	TOTAL ESTIMATED COST	\$ -	



PROJECT YEAR	2018 - 2022	PROJECT COST	\$70,000
DESCRIPTION	Town/UNH Shared Water System Improvements	DEPARTMENT	Public Works - Water
IMPETUS FOR PROJE	CT (IE. MANDATED, COUNCI	L GOAL, DEPT INITIATIV	E, ETC.)

Department Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

2018 - Waterworks Road, Increasing Water Main from 10" to 12" - \$70,000

2019 - New Watermain for South Road to connect loop to main feed from WTP - \$70,000

2020 - Main St. from Leavitt to Mast Road, Increasing 10" to 12" - \$70,000

2021 - Connecting 12" Mains from Strafford Ave to Woodsides from Edgewood - \$70,000

2022 - Connecting 12" Mains on Main St in front of NH Hall - \$70,000

*Estimated costs are Town's Share of 1/3 of the total cost estimated at \$210,000 per year

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$			•
	FINAL DESIGN AND ENGINEERING				
	CONSTRUCTION ENGINEERING OVERSIGHT	\$	-		
	CONSTRUCTION COSTS	\$	70,000		
,	CONTINGENCY	\$			
	TOTAL PROJECT COST	\$	70,000		
FINANCING	OPERATING BUDGET	\$	70,000		
	UNH - CASH	. \$	-		
	BOND - TOWN PORTION	\$	-		
	UNH PORTION	\$	-	'	
	FEDERAL/STATE GRANT	\$	-		
	CAPITAL RESERVE ACCOUNT	\$	-		
	TOTAL FINANCING COSTS	\$	70,000		
IF BONDED:	NUMBER OF YEARS		N/A		
	TOTAL PRINCIPAL	\$	-		
	TOTAL INTEREST	\$	<u>-</u>		
	TOTAL ESTIMATED COST	\$	<u>-</u>		



PROJECT YEAR	2019	PROJECT COST	\$4 90,000			
DESCRIPTION	Wiswall Dam Spillway	DEPARTMENT	Public Works - Water			
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)						

NHDES Mandated

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The Wiswall Dam was constructed in 1912 and although the abutments have been rehabilitated, including complete replacement of the left abutment in 2011, the spillway has not had any attention in all these years. Part of the 2011 Wiswall Dam Repair and Fishladder Project was to include repair of the dam's spillway and installation of rock anchors in the dam's spillway to improve the dam's stability and reduce the risk of failure. During the 2011 construction it was determined rock anchor installation could not be performed as designed due to the presence of large boulders cast into the spillway's concrete. A geotechnical investigation conducted in July 2012, which included the extraction of two core samples into the spillway confirmed the presence of the boulders and provided concrete strength values needed for the design of the stability solution. The 2014 CIP included \$70,000 for preliminary design and the 2015 CIP included \$90,000 for final design and permitting.

\$70,000 (bond) was approved in 2014 and \$90,000 (bond) approved in 2015 towards this project.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$ -	
	FINAL DESIGN AND ENGINEERING	\$ 	
	CONSTRUCTION ENGINEERING OVERSIGHT	\$ -	
	CONSTRUCTION COSTS	\$ 490,000	,
	CONTINGENCY	\$ -	
,	TOTAL PROJECT COST	\$ 490,000	
FINANCING	OPERATING BUDGET	\$ -	
	UNH - CASH	\$ -	
	BOND - TOWN PORTION	\$ 490,000	
	UNH PORTION	\$ 	
	FEDERAL/STATE GRANT	\$ -	
	CAPITAL RESERVE ACCOUNT	\$ 	
	TOTAL FINANCING COSTS	\$ 490,000	
IF BONDED:	NUMBER OF YEARS	10	
	TOTAL PRINCIPAL	\$ 490,000	
	TOTAL INTEREST	\$ 46,200	
<u> </u>	TOTAL ESTIMATED COST	\$ 536,200	



PROJECT YEAR	2020	PROJECT COST	\$700,000			
DESCRIPTION	Madbury Road Water Line (Garrison - Edgewood)	DEPARTMENT	Public Works - Water			
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)						

Department Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The Madbury Road water line from Garrison Road to Edgewood Road (approx. 2300 ft) is a combination of 6" and 8" old pit cast iron pipe. The Town has experienced 3 water main ruptures in the past 10 years along this stretch of pipe. This project entails replacing the old, undersized pipe with new 12" ductile iron pipe which has a life expectancy of 80-100 years.

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PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	-		
FINAL DESIGN AND ENGINEERING	\$	160,000		
CONSTRUCTION ENGINEERING OVERSIGHT	\$	-		
CONSTRUCTION COSTS	\$	540,000		
CONTINGENCY	\$.		
TOTAL PROJECT COST	\$	700,000		
OPERATING BUDGET	\$			
UNH - CASH	\$	-		-
BOND - TOWN PORTION	\$	700,000		
UNH PORTION	\$	•		
FEDERAL/STATE GRANT	\$	-		
CAPITAL RESERVE ACCOUNT	\$			
TOTAL FINANCING COSTS	\$	700,000		
NUMBER OF YEARS	_	20 ,		
TOTAL PRINCIPAL	\$	700,000		
TOTAL INTEREST	_\$	184,500		
TOTAL ESTIMATED COST	\$	884,500		
	FINAL DESIGN AND ENGINEERING CONSTRUCTION ENGINEERING OVERSIGHT CONSTRUCTION COSTS CONTINGENCY TOTAL PROJECT COST OPERATING BUDGET UNH - CASH BOND - TOWN PORTION UNH PORTION FEDERAL/STATE GRANT CAPITAL RESERVE ACCOUNT TOTAL FINANCING COSTS NUMBER OF YEARS TOTAL PRINCIPAL TOTAL INTEREST	FINAL DESIGN AND ENGINEERING CONSTRUCTION ENGINEERING OVERSIGHT CONSTRUCTION COSTS CONTINGENCY TOTAL PROJECT COST S OPERATING BUDGET UNH - CASH BOND - TOWN PORTION UNH PORTION FEDERAL/STATE GRANT CAPITAL RESERVE ACCOUNT TOTAL FINANCING COSTS NUMBER OF YEARS TOTAL PRINCIPAL \$ S S S S S S S S S S S S	FINAL DESIGN AND ENGINEERING \$ 160,000 CONSTRUCTION ENGINEERING OVERSIGHT \$ - CONSTRUCTION COSTS \$ 540,000 CONTINGENCY \$ - TOTAL PROJECT COST \$ 700,000 OPERATING BUDGET \$ - UNH - CASH \$ - BOND - TOWN PORTION \$ 700,000 UNH PORTION \$ - FEDERAL/STATE GRANT \$ - CAPITAL RESERVE ACCOUNT \$ - TOTAL FINANCING COSTS \$ 700,000 NUMBER OF YEARS 20 TOTAL PRINCIPAL \$ 700,000 TOTAL INTEREST \$ 184,500	FINAL DESIGN AND ENGINEERING \$ 160,000 CONSTRUCTION ENGINEERING OVERSIGHT \$ - CONSTRUCTION COSTS \$ 540,000 CONTINGENCY \$ - TOTAL PROJECT COST \$ 700,000 OPERATING BUDGET \$ - UNH - CASH \$ - BOND - TOWN PORTION \$ 700,000 UNH PORTION \$ - FEDERAL/STATE GRANT \$ - CAPITAL RESERVE ACCOUNT \$ - TOTAL FINANCING COSTS \$ 700,000 NUMBER OF YEARS 20 TOTAL PRINCIPAL \$ 700,000 TOTAL INTEREST \$ 184,500



PROJECT YEAR	2021	PROJECT COST	\$975,000
	Madbury Road Water Line		
DESCRIPTION	(Edgewood - Rte 4)	DEPARTMENT	Public Works - Water
IMPETUS FOR DROJECT (IE MANDATED COUNCIL COAL DEDT INITIATIVE ETC.)			

Department Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The Madbury Road water line from Edgewood Road to Route 4 (approx. 3300 ft) is a combination of 6" old pit cast iron pipe. The Town has experienced 4 water main ruptures in the past 10 years along this stretch of pipe. This project entails replacing the old, undersized pipe with new 12" ductile iron pipe which has a life expectancy of 80-100 years.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$ -	
	FINAL DESIGN AND ENGINEERING	\$ 225,000	
	CONSTRUCTION ENGINEERING OVERSIGHT	\$ -	
	CONSTRUCTION COSTS	\$ 750,000	
	CONTINGENCY	\$,
	TOTAL PROJECT COST	\$ 975,000	
FINANCING	OPERATING BUDGET	\$ -	
	UNH - CASH	\$ -	•
	BOND - TOWN PORTION	\$ 975,000	
	UNH PORTION	\$ -	
	FEDERAL/STATE GRANT	\$ •	
	CAPITAL RESERVE ACCOUNT	\$ 	
	TOTAL FINANCING COSTS	\$ 975,000	
IF BONDED:	NUMBER OF YEARS	20	
•	TOTAL PRINCIPAL	\$ 975,000	•
	TOTAL INTEREST	\$ 252,100	
	TOTAL ESTIMATED COST	\$ 1,227,100	

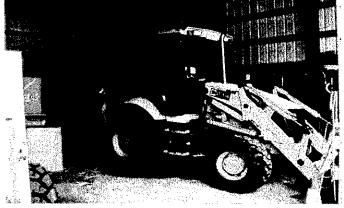


PROJECT YEAR	2022	PROJECT COST	\$26,500
DESCRIPTION	Backhoe Replacement	DEPARTMENT	Public Works- Operations, Water, WW

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Replace the 2006 JCB 4 Wheel Drive Backhoe. This piece of equipment is scheduled for replacement in 2022. The 2006 JCB was on a 12 year replacement schedule, however with the purchase of the rubber tired excavator in 2013, we were able to push this out further due to the excavator picking up a good percentage of the jobs. The machine is an essential piece of equipment for all Public Works Divisions and programs and is used year round. FUNDING: 50% Operations (\$53,000), 25% Water (\$26,500), 25% Wastewater (\$26,500 of which is 2/3 funded by UNH) will fund this purchase.

ESTIMATED COST	PURCHASE PRICE	\$	26,500	Water Fund Portion Only
	ACCESSORIES*	\$	-	
	LESS TRADE-IN**	\$	_	
	NET PURCHASE PRICE	\$	26,500	
	*Accessories include lighting, radios	s, striping,	misc. equipr	nent.
FINANCING	OPERATING BUDGET	\$	26,500	
	UNH - CASH	\$	-	
	BOND - TOWN PORTION	\$	-	
	UNH PORTION	\$	-	
	FEDERAL/STATE GRANT	\$	-	
	CAPITAL RESERVE ACCOUNT	\$	<u></u>	• • • • • • • • • • • • • • • • • • •
	TOTAL FINANCING COSTS	\$	26,500	·
IF BONDED:	NUMBER OF YEARS		N/A	
. '	TOTAL PRINCIPAL	\$	-	
	TOTAL INTEREST (EST'D)	\$	-	-
	TOTAL PROJECT COST	\$	-	



PROJECT YEAR	2022	VEHICLE COST	\$40,000	
DESCRIPTION	1-Ton Utility Truck Replacement	DEPARTMENT	Public Works - Water	
DECORPORALIZED INCLUDE (HOTIEIGATION)				

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Replace the Water Division's 2012 Ford 1-ton utility truck.

The current vehicle is a 2012 and on a 10 -12 year replacement schedule. Current unit is the only service vehicle in the Water Division and will have approximately 145,000 miles in 2022. This vehicle is equipped with numerous tools and equipment, such as a generator and a 2 ton crane.

According to the New England Water Works Association equipment replacement survey 2022 is the optimum time to replace this piece of equipment. We anticipate a \$4,500 trade in.

Vehicle to be Replaced:

2012 Ford Utility Truck

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ESTIMATED COST	PURCHASE PRICE	\$	43,500		
	ACCESSORIES*	\$	1,000		
•	LESS TRADE-IN**	_\$	(4,500)		
	NET PURCHASE PRICE	\$	40,000	-	
	*Accessories include lighting, radios, s	triping, misc.	equipment.		
FINANCING	OPERATING BUDGET	\$			-
	UNH - CASH	\$	_		
	BOND - TOWN PORTION	\$	40,000		
	UNH PORTION	\$	<u>.</u>		
	FEDERAL/STATE GRANT	\$	-		
	CAPITAL RESERVE ACCOUNT	\$	<u></u>		
	TOTAL FINANCING COSTS	\$	40,000		
IF BONDED:	NUMBER OF YEARS		7		
	TOTAL PRINCIPAL	\$	40,000		
	TOTAL INTEREST (EST'D)	\$	3,200	•	•
	TOTAL PROJECT COST	\$	43,200		

