CAPITAL IMPROVEMENT PROGRAM

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101	*WASTEWATER FUND*	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
102	Wastewater Facilities Plan	425,000	425,000	425,000	425,000	425,000	425,000	425,000	425,000	425,000	425,000
103	Collection System Repair/Upgrade (Town/UNH)	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
104	Collection System Repair/Upgrade (Town Only)	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000
105	WWTP Major Components Contingency	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
106	Commercial Lawnmower Replacement		35,000								
107	Pickup Truck Replacement (One Ton)					76,000	76,000				

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2025-2034*	**PROJECT COST**	*$425,000*
DESCRIPTION	*Wastewater Facilities Plan*	**DEPARTMENT**	*Public Works - Wastewater*

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The Town of Durham owns, operates, and maintains its Wastewater Treatment Facility (WWTF), which is located on Piscataqua Road (Rte 4) in Durham, NH. Capital expenditures are planned within the Wastewater Facilities plan and are funded at a 2/3 (UNH) and 1/3 (Town of Durham) cost sharing allocation. The WWTF serves a large portion of the Town, including the University of New Hampshire (UNH). The WWTF was expanded to a secondary treatment facility in 1977 and has since undergone several capital upgrades, including the replacement of its dewatering equipment in 2015.

The Town, like many New Hampshire municipalities, is faced with increasing disposal costs for its dewatered biosolids. The facility has experienced substantial escalation in disposal costs increasing in the last 2 years from $72/ton to currently $225.30/ton. The Facility on average disposes approximately 1,000-1,100 wet tons annually. This dramatic increase in cost is primarily due to the decreased availability of disposal locations accepting wastewater biosolids and the potential for PFAS contamination within biosolids and subsequent processing costs. A sludge dryer would decrease the volume and weight of dewatered sludge requiring disposal, and it could potentially add disposal options with the production of a Class A product. In July 2024, Durham Public Works secured a $100,000 State Revolving Loan Fund Loan with $100,000 of principal forgiveness to complete this feasibility study, which is currently underway. In an effort to minimize disposal costs, Durham Public Works plans to complete a feasibility analysis and concept design for a biosolids (sludge) drying system at the WWTF. Concept design would include evaluating drying technologies and evaluating the economic feasibility of these systems. Future CIP funding years may be required to implement sludge dryer technology if result of feasibility study is favorable.

Funding for FY 2025 is allocated for civil site work, including roadway paving at the WWTF and a phased construction of select stormwater best management practices (BMP's) to capture and treat the stormwater runoff from impervious surfaces at the WWTF. The WWTF's stormwater management system discharges to the Oyster River, located to the south of the WWTF. The Oyster River is classified by the New Hampshire Department of Environmental Services (NHDES) as an impaired water body under the State's 2022 303(d) list. The latest update to the Town of Durham's Municipal Separate Storm Sewer System (MS4) Permit (2017) requires the installation of best management practices (BMPs) in catchment areas draining to impaired waters. The WWTF was listed as a potential site for drainage upgrades, including stormwater BMP retrofits, as part of the MS4 NPDES permit. This municipal-owned property has the largest area of impervious surface (approx. 4 acres) and therefore is a priority for treatment retrofits. A draft New Hampshire Medium Wastewater Treatment Facility General Permit is anticipated to be issued by the EPA before the end of 2024. This permit includes regulatory standards and maintenance requirements for all pollutants within the plant's effluent, not inclusive of Nitrogen which is regulated within the Town's Nitrogen General Permit. Based on initial discussions with the EPA on the contents of the draft permit, EPA's proposed copper effluent limit may require compliance measures, including future capital upgrades or plant process modifications at the WWTF.

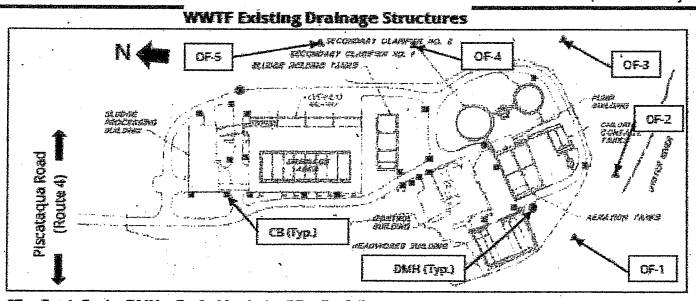
2025 - $425,000 - Civil Site Work/Stormwater BMP/Pavement

2026 - 2031 - TBD with completion of updated Wastewater Facilities Plan in 2025.

Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	425,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	425,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	141,667
	BOND - UNH PORTION	$	283,333
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	425,000
IF BONDED:	NUMBER OF YEARS		10
	TOTAL PRINCIPAL	$	425,000
	TOTAL INTEREST	$	82,800
	TOTAL ESTIMATED COST	$	507,800

WWTF Existing Drainage Structures



CB = Catch Basin; DMH = Drain Manhole; OF = Outfall

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2025-2034*	**PROJECT COST**	*$30,000*
DESCRIPTION	*Collection System Repair/ Upgrade (Town/UNH)*	**DEPARTMENT**	*Public Works - Wastewater*

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

Repairs will be made to the Town/UNH shared wastewater collection system including line replacement and line repairs, engineering investigation, sewer manhole rehabilitation or replacement. This project also includes an updated I/I Study (inflow and infiltration), to locate needed repairs within the wastewater collection system. Inflow is the illegal connection of plumbing such as a sump pump into the Wastewater Collection System and infiltration is the seepage of groundwater or stormwater into the Wastewater Collection System. The amount of staff time spent on collection system maintenance will decrease as these problem areas are corrected.
The Town received a $100,000 ARPA grant in FY22 to complete a West End Sewer Study and recently awarded a contract to Wright-Pierce Engineers to undertake this work. Findings will allow appropriate planning and upgrades to take place as required for new development and capacity demands on the Western side of the collection system.

Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.

ESTIMATED COSTS:	**PRELIMINARY STUDY, DESIGN AND ENGINEERING**	**$**	**-**
	FINAL DESIGN AND ENGINEERING	**$**	**-**
	CONSTRUCTION ENGINEERING OVERSIGHT	**$**	**-**
	CONSTRUCTION COSTS	**$**	**30,000**
	CONTINGENCY	**$**	**-**
	TOTAL PROJECT COST	**$**	**30,000**
FINANCING	**OPERATING BUDGET**	**$**	**-**
	UNH - CASH	**$**	**-**
	BOND - TOWN PORTION	**$**	**-**
	BOND - UNH PORTION	**$**	**-**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT	**$**	**30,000**
	TOTAL FINANCING COSTS	**$**	**30,000**
IF BONDED:	**NUMBER OF YEARS**		**N/A**
	TOTAL PRINCIPAL	**$**	**-**
	TOTAL INTEREST	**$**	**-**
	TOTAL ESTIMATED COST	**$**	**-**

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2025-2034*	**PROJECT COST**	*$65,000*
DESCRIPTION	*Collection System Repair/ Upgrade (Town)*	**DEPARTMENT**	*Public Works - Wastewater*

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

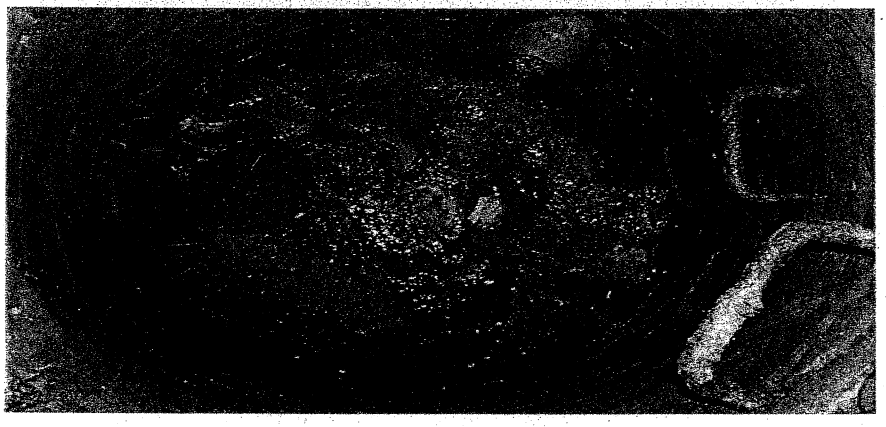
Dept Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

Repairs will be made to the Town's wastewater collection system including line replacement and line repairs, engineering investigation, sewer manhole rehabilitation or replacement. This project also includes inflow and infiltration within the wastewater collection system. Inflow is the illegal connection of plumbing such as a sump pump into the Wastewater Collection System and infiltration is the seepage of groundwater or stormwater into the Wastewater Collection System. The amount of staff time spent on collection system maintenance will decrease as these problem areas are corrected. The last inflow/infiltration study was completed in 2013 to prioritize future areas of repairs/improvements in the sewer collection system. The Town was fortunate to receive a $100,000 ARPA grant in FY22 to undertake additional studies including inflow/infiltration on the Western side of the collection system. Further inflow/infiltration studies and improvements are planned over the next several years including collection system rehabilitation on roadways such as Pettee Brook Lane and Woodman Road. Additionally, this capital request will fund collection system piping rehabilitation on Dennison Road in FY24 as part of the FY24 Road Program.

Per current Agreement, this project will be funded 100% by the Town.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	65,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	65,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	65,000
	BOND - UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	65,000
IF BONDED:	NUMBER OF YEARS		3
	TOTAL PRINCIPAL	$	65,000
	TOTAL INTEREST	$	4,525
	TOTAL ESTIMATED COST	$	69,525



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2025-2034*	**PROJECT COST**	*$50,000*
DESCRIPTION	*WWTP Major Components Contingency*	**DEPARTMENT**	*Public Works - Wastewater*

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

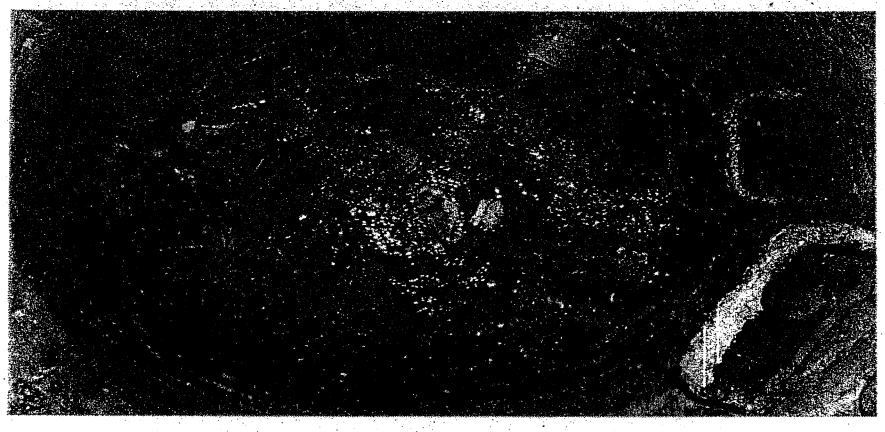
Dept Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

It is a sound management practice to build a major components contingency fund for the Durham Wastewater Treatment Plant which operates on a continuous basis, 24 hours a day, 7 days per week. This fund allocates funding for unplanned, extraordinary equipment failures to maintain uninterrupted operations, and to prudently manage unforeseen challenges, while complying with the facilities federal and state discharge permits and upholding the facility's vital role in environmental protection and public health. Given the non-stop nature of operations at the Treatment Plant, the contingency fund becomes even more essential.

Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	50,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	50,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	-
	BOND - UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	50,000
	TOTAL FINANCING COSTS	$	50,000
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST	$	-
	TOTAL ESTIMATED COST	$	-



CAPITAL IMPROVEMENTS PROGRAM

PROJECT YEAR	*2026*	**EQUIPMENT COST**	*$35,000*
DESCRIPTION	*Commercial Lawnmower Replacement*	**DEPARTMENT**	*Public Works - Wastewater*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The 2013 John Deere Z72 Commercial Lawn Mower is scheduled for replacement in 2025. This equipment is operated weekly throughout the growing season, to maintain the manicured lawn areas on the five-acre Wastewater Treatment Plant site. The 2013 John Deere Z72 Commercial Lawn Mower will be 12 years old in 2025 and requires replacement due to the wear and tear it has experienced over the years, leading to reduced performance. Minor routine maintenance has been undertaken annually, however, it is evident after several costly mechanical failures recently that a new mower is necessary to ensure optimal efficiency and effectiveness in maintaining the site's grounds. Durham Public Works is proactively exploring alternative fuel options for this upcoming mower acquisition, including battery electric where, due to the nature of this equipment's operational demands, existing battery technology may be a viable option. Durham Public Works intends to replace this equipment with a fully electric machine in 2025 subject to price, performance and availability.

Equipment to Replace: 2013 John Deere Z72

Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.

ESTIMATED COST	**PURCHASE PRICE**	**$**	**35,000**
	ACCESSORIES*	**$**	**-**
	LESS TRADE-IN**	**$**	**-**
	NET PURCHASE PRICE	**$**	**35,000**
	***Accessories include lighting, radios, striping, misc. equipment.**		
FINANCING	**OPERATING BUDGET**	**$**	**11,900**
	UNH - CASH	**$**	**23,100**
	BOND - TOWN PORTION	**$**	**-**
	BOND - UNH PORTION	**$**	**-**
	FEDERAL/STATE GRANT	**$**	**-**
	CAPITAL RESERVE ACCOUNT		
	TOTAL FINANCING COSTS	**$**	**35,000**
IF BONDED:	**NUMBER OF YEARS**		**N/A**
	TOTAL PRINCIPAL	**$**	**-**
	TOTAL INTEREST (EST'D)	**$**	**-**
	TOTAL PROJECT COST	**$**	**-**

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2029*	**VEHICLE COST**	*$76,000*
DESCRIPTION	*One Ton Pick-Up Replacement*	**DEPARTMENT**	*Public Works - Wastewater*

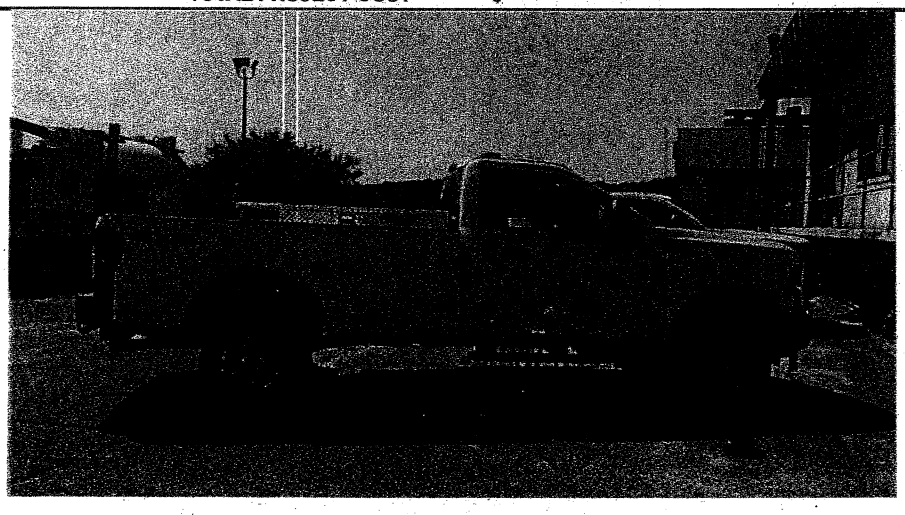
DESCRIPTION (TO INCLUDE JUSTIFICATION):

The Wastewater Division's motor pool currently includes two one-ton pick-up trucks, which are used by the five plant employees. These trucks play a crucial role in transporting personnel, equipment, and materials for both routine and emergency maintenance tasks across the Wastewater Treatment Plant Campus and the Town's network of 14 miles of wastewater collection and conveyance system piping, around 350 sewer manholes, and five pump stations. Furthermore, the pick-up truck is also instrumental in handling snow and ice control operations at the Wastewater Treatment Plant Campus and the pump station facilities. To satisfactorily address these requirements, this vehicle will come equipped with a plow package. The Department continues to explorie alternative fuel options for this upcoming acquisition, including battery electric. However due to the operational demands of these vehicles, sometimes exceeding 30 continuous hours during winter emergency response events, the battery technology to satisfy this demand has proven to be unavailable at this time. As part of its maintenance plan, this vehicle is scheduled for replacement every 10-12 years.

Vehicle to be Replaced: Truck # WW-1- 2019 Ford F-350

Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.

ESTIMATED COST	**PURCHASE PRICE**	$	73,000
	ACCESSORIES*	$	8,000
	LESS TRADE-IN**	$	(5,000)
	NET PURCHASE PRICE	$	76,000
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	**OPERATING BUDGET**	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	-
	BOND - UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	76,000
	TOTAL FINANCING COSTS	$	76,000
IF BONDED:	**NUMBER OF YEARS**		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST (EST'D)	$	-
	TOTAL PROJECT COST	$	-



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2030*	**VEHICLE COST**	*$76,000*
DESCRIPTION	*One Ton Pick-Up Replacement*	**DEPARTMENT**	*Public Works - Wastewater*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Durham Public Works will be replacing the Wastewater Division's 2019 Ford F-350 One Ton Pick-Up Truck in 2030. The Wastewater Division's motor pool currently includes two one-ton pick-up trucks, which are used by the five plant employees. These trucks play a crucial role in transporting personnel, equipment, and materials for both routine and emergency maintenance tasks across the Wastewater Treatment Plant Campus and the Town's network of 14 miles of wastewater collection and conveyance system piping, ~350 sewer manholes, and five pump stations. Furthermore, the pick-up truck is instrumental in handling snow and ice control operations at the Wastewater Treatment Plant Campus and the pump station facilities. To facilitate these operational requirements, this vehicle will come equipped with a plow package. The Department continues to explorie alternative fuel options for this upcoming acquisition, including battery electric. However due to the operational demands of these vehicles, sometimes exceeding 30 continuous hours during winter emergency response events, the battery technology to satisfy this demand has proven to be unavailable at this time. As part of its maintenance plan, this vehicle is scheduled for replacement every 10-12 years and is jointly funded 2/3 (UNH) and 1/3 (Town of Durham).

Vehicle to be Replaced: Truck # WW-2- 2019 Ford F-350

Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.

ESTIMATED COST	PURCHASE PRICE	$	72,000
	ACCESSORIES*	$	8,000
	LESS TRADE-IN**	$	(4,000)
	NET PURCHASE PRICE	$	76,000
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	-
	BOND - UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	76,000
	TOTAL FINANCING COSTS	$	76,000
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST (EST'D)	$	-
	TOTAL PROJECT COST	$	-