DEPARTMENT HEAD PROPOSED
2016-2025 CAPITAL IMPROVEMENTS PROGRAM

Description	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Wastewater Fund										
Wastewater Facilities Plan	425,000	267,000	283,000	148,000	402,000	363,000	145,000	318,000		
Old Bagdad Road Sewer Improvements	135,000									
Collection System Upgrade	30,000									
WWTP Major Components Contigency	50,000									
18" Force Main Replacement	50,000	252,000	2,187,000							
Woodman Road Sewer Improvements		190,000								
3/4 Ton Pickup Truck Replacement			24,000	24,000						
WWTP Phase III					450,000	2,850,000				
Backhoe Replacement (Cost split w/Oper. & Water)							26,575			
Commercial Lawnmower							17,400			
TOTAL WASTEWATER FUND	$690,000	$709,000	$2,494,000	$172,000	$852,000	$3,213,000	$188,975	$318,000	$0	$0

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2016*	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)

2016 - $425,000 - Replace fire alarm system and old inefficient lighting $100,000, replace mechanisms - grit tanks and primary clarifiers $325,000

2017 - $267,000 - Replace (3) scum pumps $135,000, replace electric manhole $57,000, chlorine contact tank slide gates $75,000

2018 - $283,000 - Replacement of primary gates $73,000, upgrade electrical equipment for compliance $210,000

2019 - $148,000 - Install kick plates around all railings $51,000, additional sodium hydroxide tanks $24,000, replace yard pump station $73,000

2020 - $402,000 - Install a partition wall in sludge building $402,000

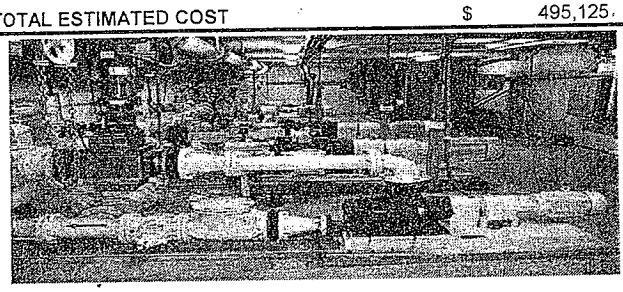
2021 - $363,000 - Replace (4) primary sludge pumps $293,000, replace ventilation and heating system in blower room $70,000

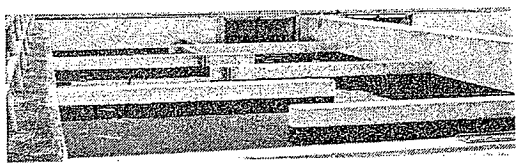
2022 - $145,000 - Fixture replacement with accessibility $145,000

2023 - $318,000 - Upgrade headworks ventilation $116,000, investigate solar array for rooftops on buildings $202,000

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
	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	$	70,125
	TOTAL ESTIMATED COST	$	495,125





CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2016*	PROJECT COST	*$135,000*
DESCRIPTION	*Old Bagdad Road Sewer Improvements*	DEPARTMENT	*Public Works - Wastewater*

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

Dept Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

This project consists of the upgrade of approximately 1,000 lf of sewer located along Old Bagdad Road which was originally constructed in 1947. Its current conditions are hydraulically restricted, leading to the potential for system overflow. This is a common problem area for the wastewater department and is a high priority area to upgrade. Video inspections of the sewer lines will be completed to determine the most suitable repair and/or rehabilitation technologies. It is expected that a complete replacement will be needed. Manhole repairs may be required for select locations and either replacement or rehabilitation (epoxy or cementitious liner) will be considered. Includes design contract (which as already been drafted) with Wright-Pierce to study, design and prepare bid package for construction. Construction costs are estimated and will be further refined during design.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING		
	FINAL DESIGN AND ENGINEERING	$	15,000
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	120,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	135,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	135,000
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	135,000
IF BONDED:	NUMBER OF YEARS		10
	TOTAL PRINCIPAL	$	135,000
	TOTAL INTEREST	$	22,500
	TOTAL ESTIMATED COST	$	157,500

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2016*	PROJECT COST	*$30,000*
DESCRIPTION	*Collection System Upgrade*	DEPARTMENT	*Public Works - Wastewater*

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

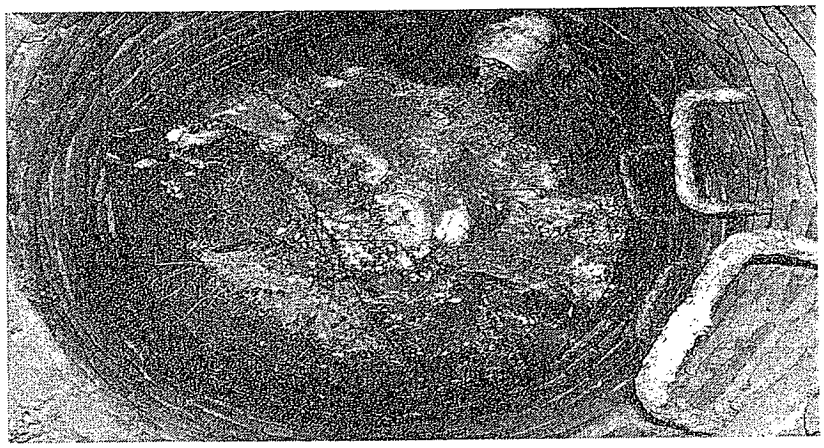
Dept Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

Repairs will be made to the 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.
For 2016, various manholes within the collection system will be rehabilitated or replaced, including those on Faculty Road, Pettee Brook Lane, Dennison Road and Hoitt Drive. Additionally, sewer tv'ing work will continue in order to prioritize future sewer line rehab projects.

Per current Agreement, this project will 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	$	10,000
	UNH - CASH	$	20,000
	BOND - TOWN PORTION	$	-
	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	$	-



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2016*	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)

Major Components are typically mechanical, laboratory or processing equipment replacements/upgrades necessary to continuing running the WWTP efficiently. The mechanical equipment within the wastewater division is used 24 hours a day - 7 days a week. This account is used for necessary replacements of these major components when they unexpectedly fail.

Per current Agreement, this project will 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	$	16,667
	UNH - CASH	$	33,333
	BOND - TOWN PORTION	$	-
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	50,000
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST	$	-
	TOTAL ESTIMATED COST	$	-

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2016*	PROJECT COST	*$50,000*
DESCRIPTION	*18" Force Main Replacement*	DEPARTMENT	*Public Works - Wastewater*

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

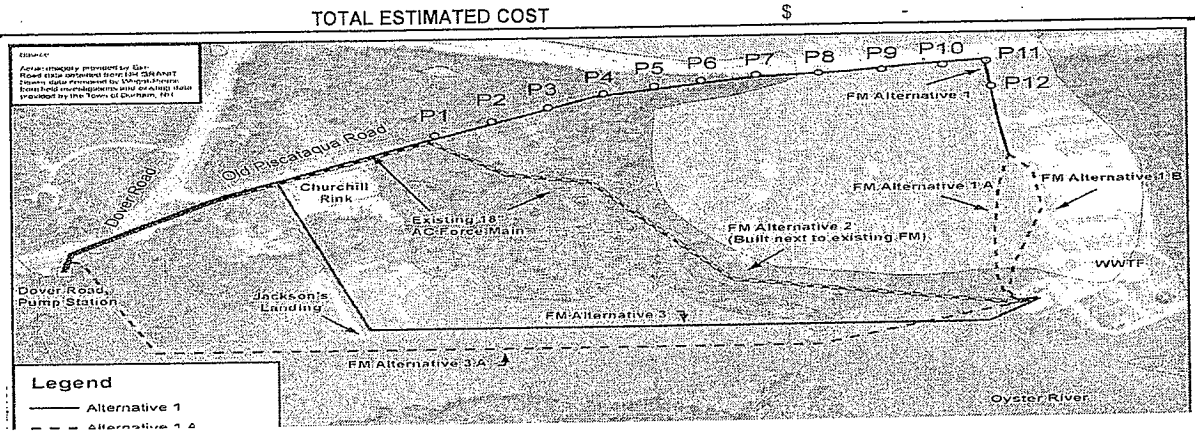
Dept Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

This 18-inch diameter wastewater force main carries all of the Town's wastewater (up to 2.4 million gallons per day) under pressure from the Dover Road Wastewater Pump Station to Durham's Wastewater Treatment Plant. This pipe was constructed of asbestos cement in 1967 and is approaching the end of its useful life. An investigation in 2008 revealed signs of diminished pipe capacity. Asbestos cement piping is no longer used in the industry because of its tendency to deteriorate over time, which is particularly a problem with piping that is under pressure. Asbestos pipe is not smooth and creates friction which over time makes the pumping of wastewater more difficult. Alternatives for the force main alignment were examined in a study completed by Wright Pierce in 2013. The current preferred alignment is Alternative 3 which has the least environmental impacts, avoids easement conflicts and would provide for redundancy, utilizing the existing force main during construction. Alternative 3 would involve open cut construction from the Dover Road Pump Station to Jackson's Landing followed by directional drilling along the riverbank to an area near the WWTP headworks. A geotechnical study is required to further develop this alternative. Initial estimates for alternatives 1, 2, and 3 are $3.1 million, $2.1 million, and $2.2 million respectively.

Per current Agreement, this project will be funded 2/3 UNH and 1/3 Town.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	50,000	Geotechnical Study
	FINAL DESIGN AND ENGINEERING	$	-	
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-	
	CONSTRUCTION COSTS	$	-	
	CONTINGENCY	$	-	
	TOTAL PROJECT COST	$	50,000	
FINANCING	OPERATING BUDGET	$	16,667	
	UNH - CASH	$	33,333	
	BOND - TOWN PORTION	$	-	
	UNH PORTION	$	-	
	FEDERAL/STATE GRANT	$	-	
	CAPITAL RESERVE ACCOUNT	$	-	
	TOTAL FINANCING COSTS	$	50,000	
IF BONDED:	NUMBER OF YEARS		N/A	
	TOTAL PRINCIPAL	$	-	
	TOTAL INTEREST	$	-	
	TOTAL ESTIMATED COST	$	-	



PROJECT YEAR	*2017*	PROJECT COST	*$252,000*
DESCRIPTION	*18" Force Main Replacement*	DEPARTMENT	*Public Works - Wastewater*

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

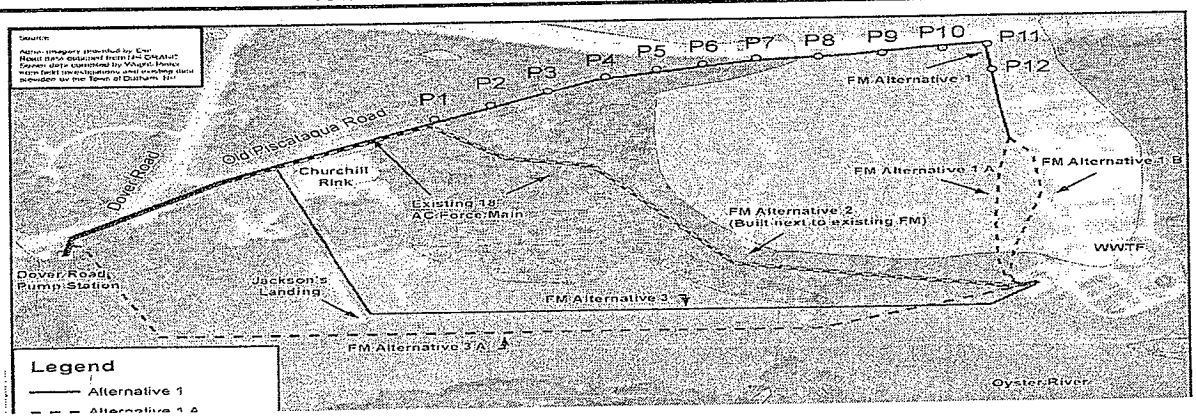
Department Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

This 18-inch diameter wastewater force main carries all of the Town's wastewater (up to 2.4 million gallons per day) under pressure from the Dover Road Wastewater Pump Station to Durham's Wastewater Treatment Plant. This pipe was constructed of asbestos cement in 1967 and is approaching the end of its useful life. An investigation in 2008 revealed signs of diminished pipe capacity. Asbestos cement piping is no longer used in the industry because of its tendency to deteriorate over time, which is particularly a problem with piping that is under pressure. Asbestos pipe is not smooth and creates friction which over time makes the pumping of wastewater more difficult. Alternatives for the force main alignment were examined in a study completed by Wright Pierce in 2013. The current preferred alignment is Alternative 3 which has the least environmental impacts, avoids easement conflicts and would provide for redundancy, utilizing the existing force main during construction. Alternative 3 would involve open cut construction from the Dover Road Pump Station to Jackson's Landing followed by directional drilling along the riverbank to an area near the WWTP headworks. Initial estimates for alternatives 1, 2, and 3 are $3.1 million, $2.1 million, and $2.2 million respectively.

Per current Agreement, this project will be funded 2/3 UNH and 1/3 Town.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	252,000
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	-
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	252,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	84,000
	UNH PORTION	$	168,000
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	252,000
IF BONDED:	NUMBER OF YEARS		10
	TOTAL PRINCIPAL	$	252,000
	TOTAL INTEREST	$	41,580
	TOTAL ESTIMATED COST	$	293,580



PROJECT YEAR	*2018*	PROJECT COST	*$2,187,000*
DESCRIPTION	*18" Force Main Replacement*	DEPARTMENT	*Public Works - Wastewater*

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

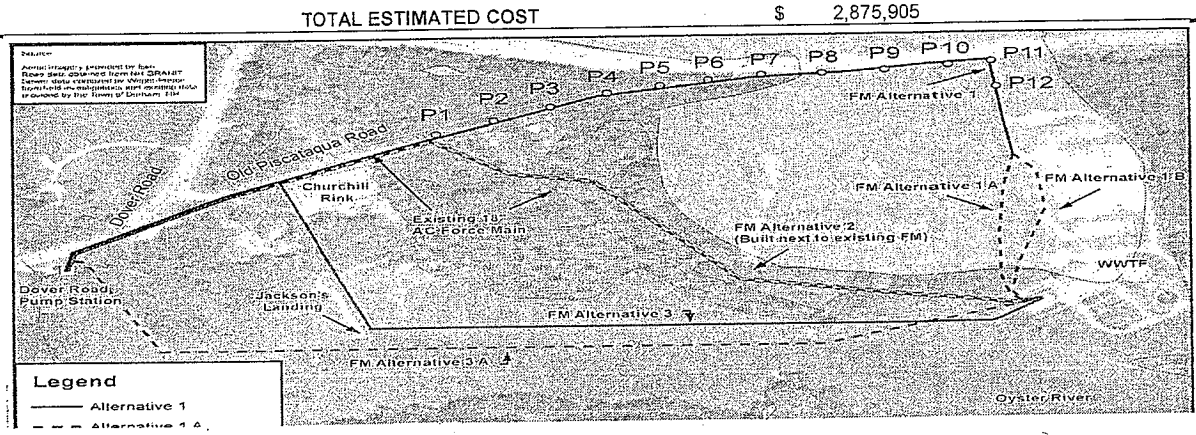
Department Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

This 18-inch diameter wastewater force main carries all of the Town's wastewater (up to 2.4 million gallons per day) under pressure from the Dover Road Wastewater Pump Station to Durham's Wastewater Treatment Plant. This pipe was constructed of asbestos cement in 1967 and is approaching the end of its useful life. An investigation in 2008 revealed signs of diminished pipe capacity. Asbestos cement piping is no longer used in the industry because of its tendency to deteriorate over time, which is particularly a problem with piping that is under pressure. Asbestos pipe is not smooth and creates friction which over time makes the pumping of wastewater more difficult. Alternatives for the force main alignment were examined in a study completed by Wright Pierce in 2013. The current preferred alignment is Alternative 3 which has the least environmental impacts, avoids easement conflicts and would provide for redundancy, utilizing the existing force main during construction. Alternative 3 would involve open cut construction from the Dover Road Pump Station to Jackson's Landing followed by directional drilling along the riverbank to an area near the WWTP headworks. Initial estimates for alternatives 1, 2, and 3 are $3.1 million, $2.1 million, and $2.2 million respectively.

Per current Agreement, this project will be funded 2/3 UNH and 1/3 Town.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	$	365,000
	CONSTRUCTION COSTS	$	1,301,000
	CONTINGENCY	$	521,000
	TOTAL PROJECT COST	$	2,187,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	729,000
	UNH PORTION	$	1,458,000
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	2,187,000
IF BONDED:	NUMBER OF YEARS		20
	TOTAL PRINCIPAL	$	2,187,000
	TOTAL INTEREST	$	688,905
	TOTAL ESTIMATED COST	$	2,875,905



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2017*	PROJECT COST	*$190,000*
DESCRIPTION	*Woodman Road Sewer Improvements*	DEPARTMENT	*Public Works - Wastewater*

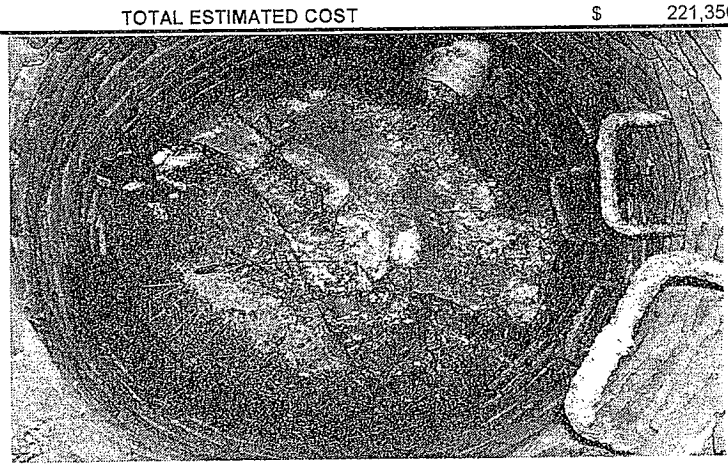
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept Initiative

DESCRIPTION (TO INCLUDE JUSTIFICATION)

This project consists of the upgrade of approximately 1,700 lf of sewers on the north and south side of Woodman Road. The condition of the existing sewer in this area is largely unknown and video inspections of the sewer lines will be completed to determine the most suitable repair and/or rehabilitation technologies. Manhole repairs may be required for select locations and either replacement or rehabilitation (epoxy or cementitious liner) will be considered. Includes design contract (which as already been drafted) with Wright-Pierce to study, design and prepare bid package for construction. Construction costs are estimated and will be further refined during design.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	20,000
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	170,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	190,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	190,000
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	190,000
IF BONDED:	NUMBER OF YEARS		10
	TOTAL PRINCIPAL	$	190,000
	TOTAL INTEREST	$	31,350
	TOTAL ESTIMATED COST	$	221,350



CAPITAL IMPROVEMENTS PROGRAM

PROJECT YEAR	*2018*	VEHICLE COST	*$24,000*
DESCRIPTION	*3/4 Ton Pick-Up*	DEPARTMENT	*Public Works - Wastewater*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The Wastewater Treatment Plant motor pool consists of two pick-up trucks which are utilized by five employees. The truck fleet is on a 10 -12 year replacement plan. According to this plan the 2007 ¾ Ton Pick-up Truck will be replaced in 2018. This Division is responsible for the maintenance of the Treatment Plant, Wastewater Collection System and five Pump Stations.
No impact to other Departments, normal future maintenance costs (i.e. tires, battery, oil, filters). This division has downsized these vehicles over the past 20 years.

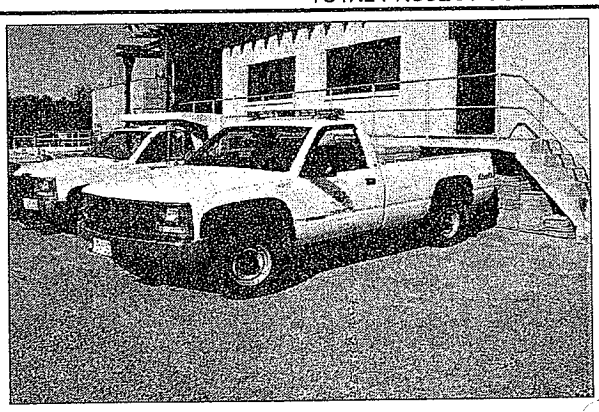
Per current Agreement, this project will be funded 2/3 UNH and 1/3 Town.

ESTIMATED COST	PURCHASE PRICE	$	28,150
	ACCESSORIES*	$	850
	LESS TRADE-IN**	$	(5,000)
	NET PURCHASE PRICE	$	24,000

*Accessories include lighting, radios, striping, misc. equipment.

FINANCING	OPERATING BUDGET	$	8,000
	UNH - CASH	$	16,000
	BOND - TOWN PORTION	$	-
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	24,000

IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST (EST'D)	$	-
	TOTAL PROJECT COST	$	-



VEHICLE TO BE REPLACED (info as of July 2015)

YEAR/MAKE/MODEL: 2007 Chevy 2500HD

CONDITION: General Rusting

CURRENT MILEAGE/HOURS: 31,034 miles

MAJOR REPAIRS DONE: None to date

Will this vehicle be traded-in: YES

CAPITAL IMPROVEMENTS PROGRAM

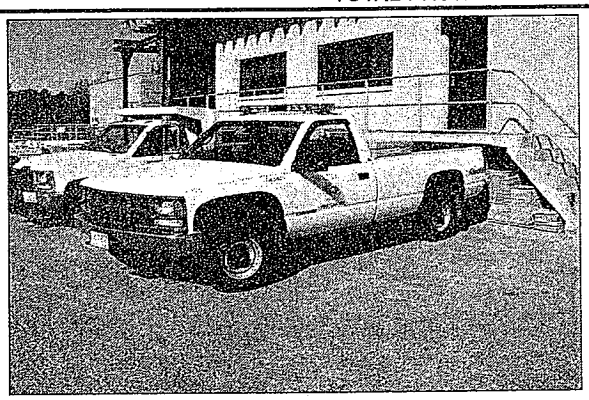
PROJECT YEAR	*2019*	VEHICLE COST	*$24,000*
DESCRIPTION	*3/4 Ton Pick-Up*	DEPARTMENT	*Public Works - Wastewater*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

The Wastewater Treatment Plant motor pool consists of two pick-up trucks which are utilized by five employees. The truck fleet is on a 10 -12 year replacement plan, according to this plan the 2008 ¾ Ton Pick-up Truck will be replaced in 2019. This Division is responsible for the maintenance of the Treatment Plant, Wastewater Collection System and five Pump Stations.
No impact to other Departments, normal future maintenance costs (i.e. tires, battery, oil, filters). This division has downsized these vehicles over the past 20 years.

Per current Agreement, this project will be funded 2/3 UNH and 1/3 Town.

ESTIMATED COST	PURCHASE PRICE	$	28,150
	ACCESSORIES*	$	850
	LESS TRADE-IN**	$	(5,000)
	NET PURCHASE PRICE	$	24,000
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	OPERATING BUDGET	$	8,000
	UNH - CASH	$	16,000
	BOND - TOWN PORTION	$	-
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	24,000
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST (EST'D)	$	-
	TOTAL PROJECT COST	$	-



VEHICLE TO BE REPLACED (info as of July 2015)

YEAR/MAKE/MODEL: 2008 Ford F250 Super Duty

CONDITION: Moderate Rust

CURRENT MILEAGE/HOURS: 26,660 miles

MAJOR REPAIRS DONE: None to date

Will this vehicle be traded-in: YES

CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2020*	PROJECT COST	*$450,000*
DESCRIPTION	*WWTP Phase III*	DEPARTMENT	*Public Works - Wastewater*

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

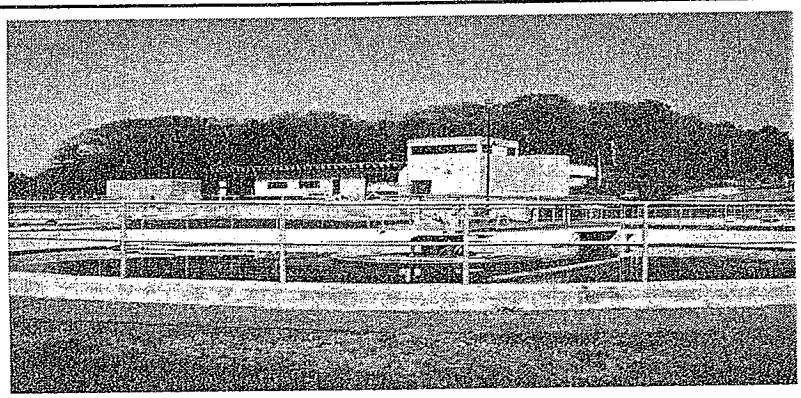
Mandated

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The NPDES discharge permit is a federal permit which allows the Town of Durham Wastewater Treatment Facility to safely discharge (treated) effluent into the Oyster River.
NPDES Permit renewal was due in 2005. EPA should have issued a new draft and final NPDES permit in 2004 for the 2005-2010 time frame. As of the writing of this document the town has still not received a new NPDES Permit. Stricter limits on Copper, Zinc, Nitrogen and Ammonia are expected. The Wastewater Facilities Plan update prepared by Wright-Pierce recommended upgrading the Treatment Plan to an enhanced biological nutrient removal process and carry out a pilot test to evaluate the best treatment options. This was completed in 2014 with the Sludge Dewatering and Four Stage Bardenpho Nutrient Removal Pilot Project. Results of the pilot are still being studied. The final phase of this project is the full conversion of the treatment process for enhanced nutrient removal based on the NPDES permit utilizing results of the pilot study.

Per current Agreement, this project will be funded 2/3 UNH and 1/3 Town.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	100,000
	FINAL DESIGN AND ENGINEERING	$	150,000
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	200,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	450,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	150,000
	UNH PORTION	$	300,000
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	450,000
IF BONDED:	NUMBER OF YEARS		10
	TOTAL PRINCIPAL	$	450,000
	TOTAL INTEREST	$	74,250
	TOTAL ESTIMATED COST	$	524,250



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2021*	PROJECT COST	*$2,850,000*
DESCRIPTION	*WWTP Phase III*	DEPARTMENT	*Public Works - Wastewater*

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

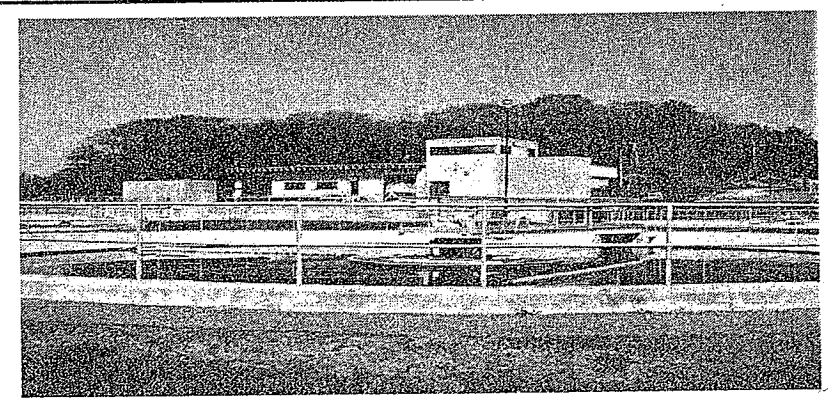
Mandated

DESCRIPTION (TO INCLUDE JUSTIFICATION)

The NPDES discharge permit is a federal permit which allows the Town of Durham Wastewater Treatment Facility to safely discharge (treated) effluent into the Oyster River.
NPDES Permit renewal was due in 2005. EPA should have issued a new draft and final NPDES permit in 2004 for the 2005-2010 time frame. As of the writing of this document the town has still not received a new NPDES Permit. Stricter limits on Copper, Zinc, Nitrogen and Ammonia are expected. The Wastewater Facilities Plan update prepared by Wright-Pierce recommended upgrading the Treatment Plan to an enhanced biological nutrient removal process and carry out a pilot test to evaluate the best treatment options. This was completed in 2014 with the Sludge Dewatering and Four Stage Bardenpho Nutrient Removal Pilot Project. Results of the pilot are still being studied. The final phase of this project is the full conversion of the treatment process for enhanced nutrient removal based on the NPDES permit utilizing results of the pilot study.

Per current Agreement, this project will be funded 2/3 UNH and 1/3 Town.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	$	-
	FINAL DESIGN AND ENGINEERING	$	350,000
	CONSTRUCTION ENGINEERING OVERSIGHT	$	-
	CONSTRUCTION COSTS	$	2,500,000
	CONTINGENCY	$	-
	TOTAL PROJECT COST	$	2,850,000
FINANCING	OPERATING BUDGET	$	-
	UNH - CASH	$	-
	BOND - TOWN PORTION	$	950,000
	UNH PORTION	$	1,900,000
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	2,850,000
IF BONDED:	NUMBER OF YEARS		20
	TOTAL PRINCIPAL	$	2,850,000
	TOTAL INTEREST	$	897,750
	TOTAL ESTIMATED COST	$	3,747,750



CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR	*2022*	PROJECT COST	*$26,575*
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 ($53,150), 25% Water ($26,575), 25% Wastewater ($26,575 of which is 2/3 is funded by UNH) will fund this purchase.

Per current Agreement, this project will be funded 2/3 UNH and 1/3 Town.

ESTIMATED COST	PURCHASE PRICE	$	26,575
	ACCESSORIES*	$	-
	LESS TRADE-IN**	$	-
	NET PURCHASE PRICE	$	26,575

*Accessories include lighting, radios, striping, misc. equipment.

FINANCING	OPERATING BUDGET	$	7,973
	UNH - CASH	$	18,603
	BOND - TOWN PORTION	$	-
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	26,576

IF BONDED:	NUMBER OF YEARS	$	7
	TOTAL PRINCIPAL	$	26,575.00
	TOTAL INTEREST (EST'D)	$	3,189.00
	TOTAL PROJECT COST	$	29,764.00

VEHICLE(S) TO BE REPLACED (info as of July 2015)

YEAR/MAKE/MODEL 2006

CONDITION Good

CURRENT MILEAGE/HOURS: 5,824 hours

MAJOR REPAIRS DONE

Will this vehicle be traded-in or used for other purpose?

If other purpose, please specify:

Trade in

CAPITAL IMPROVEMENTS PROGRAM

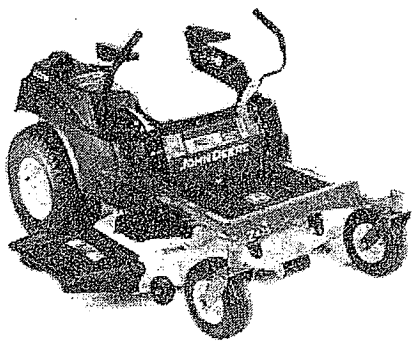
PROJECT YEAR	*2022*	EQUIPMENT COST	*$17,400*
DESCRIPTION	*Commercial Lawnmower*	DEPARTMENT	*Public Works - Wastewater*

DESCRIPTION (TO INCLUDE JUSTIFICATION):

Replacement of 2013 zero turning radius commercial lawn mower needed to maintain the five acre Wastewater Treatment site.
The current mower will be 9 years old in 2022 and due to wear and tear and reduced performance needs to be replaced.
Minor routine maintenance. Runs 300/year

Per current Agreement, this project will be funded 2/3 UNH and 1/3 Town.

ESTIMATED COST	PURCHASE PRICE	$	17,400
	ACCESSORIES*	$	-
	LESS TRADE-IN**	$	-
	NET PURCHASE PRICE	$	17,400
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	OPERATING BUDGET	$	5,800
	UNH - CASH	$	11,600
	BOND - TOWN PORTION	$	-
	UNH PORTION	$	-
	FEDERAL/STATE GRANT	$	-
	CAPITAL RESERVE ACCOUNT	$	-
	TOTAL FINANCING COSTS	$	17,400
IF BONDED:	NUMBER OF YEARS		N/A
	TOTAL PRINCIPAL	$	-
	TOTAL INTEREST (EST'D)	$	-
	TOTAL PROJECT COST	$	-



EQUIPMENT TO BE REPLACED (info as of July 2015)

YEAR/MAKE/MODEL	2013 John Deere
CONDITION	Good
CURRENT MILEAGE/HOURS	131 Hours
MAJOR REPAIRS DONE	none

Will this vehicle be traded-in or used for other purpose?
If other purpose, please specify:

This mower will be handed down to the Parks Department as a spare mower.