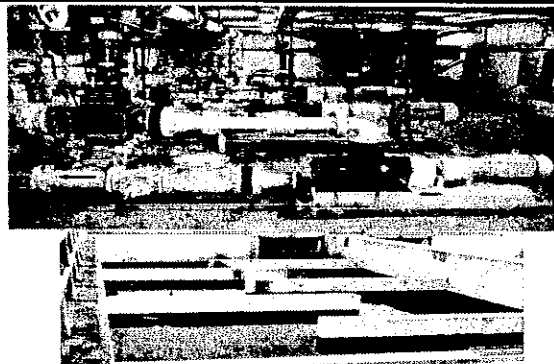


**TOWN ADMINISTRATOR PROPOSED  
2021-2030 Capital Improvement Program**

Page #											
110	<b>WASTEWATER FUND</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
111	Wastewater Facilities Plan	425,000	425,000	425,000	425,000	425,000	425,000	425,000	425,000	425,000	425,000
112	WWTP Major Components Contingency	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
113	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
114	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
115	Backhoe Replacement (Cost split with Sanitation & Water)	28,500									
116	Commercial Lawnmower Replacement		17,500								
117	Sewer Jet/Vac Truck Replacement			340,000							
118	WWTP Phase III				2,850,000						
119	Pickup Truck Replacement (One Ton)									41,000	42,000
	<b>WASTEWATER FUND TOTALS</b>	<b>598,500</b>	<b>587,500</b>	<b>910,000</b>	<b>3,420,000</b>	<b>570,000</b>	<b>570,000</b>	<b>570,000</b>	<b>570,000</b>	<b>611,000</b>	<b>612,000</b>

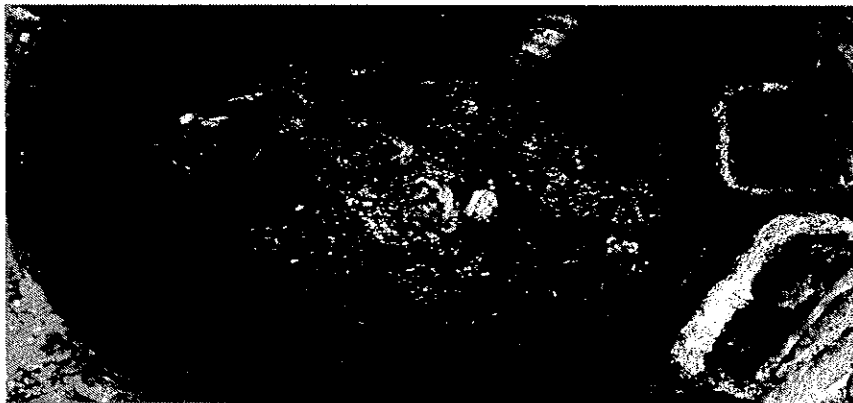
# CAPITAL IMPROVEMENT PROGRAM

<b>PROJECT YEAR</b>	2021-2030	<b>PROJECT COST</b>	\$425,000
<b>DESCRIPTION</b>	Wastewater Facilities Plan	<b>DEPARTMENT</b>	Public Works - Wastewater
<b>IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)</b>			
Dept Initiative			
<b>DESCRIPTION (TO INCLUDE JUSTIFICATION)</b>			
DPW is currently working on a Facility Plan Update which will be completed in 2020. The following projects are immediate priorities as determined from preliminary site walks and development of the facility plan update.			
<u>2021</u> - \$425,000 - Primary Clarifiers and Mechanisms <u>2022</u> - \$425,000 - Secondary Clarifier Mechanical Upgrade 1 <u>2023</u> - \$425,000 - Secondary Clarifier Mechanical Upgrade 2 <u>2024</u> - \$425,000 - Aeration Tanks Structural Concrete and Mechanical			
Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.			
<b>ESTIMATED COSTS:</b>	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	-
	FINAL DESIGN AND ENGINEERING	\$	-
	CONSTRUCTION ENGINEERING OVERSIGHT	\$	-
	CONSTRUCTION COSTS	\$	425,000
	CONTINGENCY	\$	-
	<b>TOTAL PROJECT COST</b>	\$	<b>425,000</b>
<b>FINANCING</b>	OPERATING BUDGET	\$	-
	UNH - CASH	\$	-
	BOND - TOWN PORTION	\$	141,667
	BOND - UNH PORTION	\$	283,333
	FEDERAL/STATE GRANT	\$	-
	CAPITAL RESERVE ACCOUNT	\$	-
	<b>TOTAL FINANCING COSTS</b>	\$	<b>425,000</b>
<b>IF BONDED:</b>	NUMBER OF YEARS		10
	TOTAL PRINCIPAL	\$	425,000
	TOTAL INTEREST	\$	46,750
	<b>TOTAL ESTIMATED COST</b>	\$	<b>471,750</b>



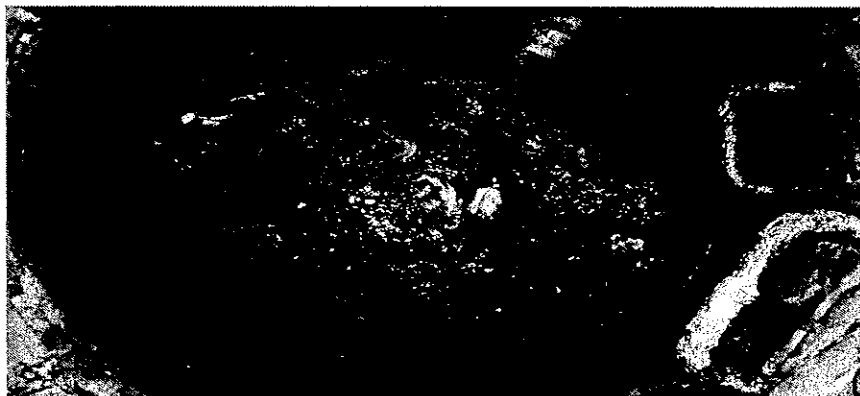
# CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR		2021-2030	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, 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	\$	-	



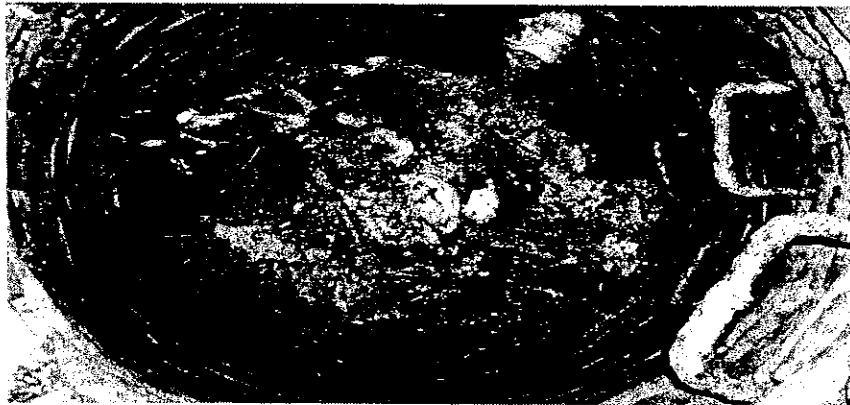
# **CAPITAL IMPROVEMENT PROGRAM**

<b>PROJECT YEAR</b>	2021-2030	<b>PROJECT COST</b>	\$30,000
<b>DESCRIPTION</b>	Collection System Repair/ Upgrade (Town/UNH)	<b>DEPARTMENT</b>	Public Works - Wastewater
<b>IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)</b>			
Dept Initiative			
<b>DESCRIPTION (TO INCLUDE JUSTIFICATION)</b>			
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 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. Efforts will be focused on West End Sewer Study to look at wastewater capacity on the West side of town with the potential for future research park.			
Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.			
<b>ESTIMATED COSTS:</b>	<b>PRELIMINARY STUDY, DESIGN AND ENGINEERING</b>	\$	-
	<b>FINAL DESIGN AND ENGINEERING</b>	\$	-
	<b>CONSTRUCTION ENGINEERING OVERSIGHT</b>	\$	-
	<b>CONSTRUCTION COSTS</b>	\$	30,000
	<b>CONTINGENCY</b>	\$	-
	<b>TOTAL PROJECT COST</b>	\$	30,000
<b>FINANCING</b>	<b>OPERATING BUDGET</b>	\$	-
	<b>UNH - CASH</b>	\$	-
	<b>BOND - TOWN PORTION</b>	\$	-
	<b>BOND - UNH PORTION</b>	\$	-
	<b>FEDERAL/STATE GRANT</b>	\$	-
	<b>CAPITAL RESERVE ACCOUNT</b>	\$	30,000
	<b>TOTAL FINANCING COSTS</b>	\$	30,000
<b>IF BONDED:</b>	<b>NUMBER OF YEARS</b>	N/A	
	<b>TOTAL PRINCIPAL</b>	\$	-
	<b>TOTAL INTEREST</b>	\$	-
	<b>TOTAL ESTIMATED COST</b>	\$	-



# **CAPITAL IMPROVEMENT PROGRAM**

<b>PROJECT YEAR</b>	2021-2030	<b>PROJECT COST</b>	\$65,000
<b>DESCRIPTION</b>	Collection System Repair/ Upgrade (Town)	<b>DEPARTMENT</b>	Public Works - Wastewater
<b>IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)</b>			
Dept Initiative			
<b>DESCRIPTION (TO INCLUDE JUSTIFICATION)</b>			
<p>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 and will be updated in 2021 to prioritize future areas of the sewer collection system repairs/improvements. Sewer tv/lng work will continue in order to prioritize future sewer line rehab projects.</p>			
Per current Agreement, this project will be funded 100% by the Town.			
<b>ESTIMATED COSTS:</b>	<b>PRELIMINARY STUDY, DESIGN AND ENGINEERING</b>	\$	-
	<b>FINAL DESIGN AND ENGINEERING</b>	\$	-
	<b>CONSTRUCTION ENGINEERING OVERSIGHT</b>	\$	-
	<b>CONSTRUCTION COSTS</b>	\$	65,000
	<b>CONTINGENCY</b>	\$	-
	<b>TOTAL PROJECT COST</b>	\$	65,000
<b>FINANCING</b>	<b>OPERATING BUDGET</b>	\$	-
	<b>UNH - CASH</b>	\$	-
	<b>BOND - TOWN PORTION</b>	\$	65,000
	<b>BOND - UNH PORTION</b>	\$	-
	<b>FEDERAL/STATE GRANT</b>	\$	-
	<b>CAPITAL RESERVE ACCOUNT</b>	\$	-
	<b>TOTAL FINANCING COSTS</b>	\$	65,000
<b>IF BONDED:</b>	<b>NUMBER OF YEARS</b>	10	
	<b>TOTAL PRINCIPAL</b>	\$	65,000
	<b>TOTAL INTEREST</b>	\$	7,200
	<b>TOTAL ESTIMATED COST</b>	\$	72,200



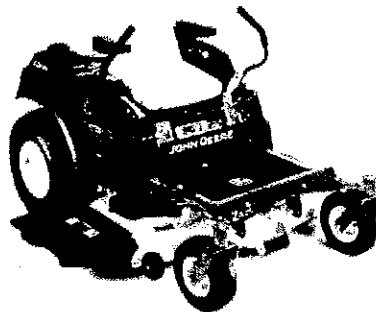
# CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR2021		PROJECT COST\$28,500	
DESCRIPTIONBackhoe Replacement		DEPARTMENTPublic Works- Sanitation, Water, WW	
DESCRIPTION (TO INCLUDE JUSTIFICATION):			
Replace the 2006 JCB 4 Wheel Drive Backhoe. This piece of equipment is scheduled for replacement in 2021. 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 (\$63,000), 25% Water (\$31,000), 25% Wastewater (\$31,000 of which is 2/3 funded by UNH) will fund this purchase.			
ESTIMATED COST	PURCHASE PRICE	\$31,000	Wastewater Fund Portion Only
	ACCESSORIES*	\$-	
	LESS TRADE-IN**	\$(2,500)	
	NET PURCHASE PRICE	\$28,500	
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	OPERATING BUDGET	\$-	
	UNH - CASH	\$-	
	BOND - TOWN PORTION	\$9,500	
	BOND - UNH PORTION	\$19,000	
	FEDERAL/STATE GRANT	\$-	
	CAPITAL RESERVE ACCOUNT	\$-	
	TOTAL FINANCING COSTS	\$28,500	
IF BONDED:	NUMBER OF YEARS	5	
	TOTAL PRINCIPAL	\$28,500	
	TOTAL INTEREST (EST'D)	\$1,300	
	TOTAL PROJECT COST	\$29,800	



# CAPITAL IMPROVEMENTS PROGRAM

PROJECT YEAR	2022	EQUIPMENT COST	\$17,500
DESCRIPTION	Commercial Lawnmower Replacement	DEPARTMENT	Public Works - Wastewater
DESCRIPTION (TO INCLUDE JUSTIFICATION):			
<p>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 is estimated at \$300/year.</p> <p>Equipment to Replace: 2013 John Deere</p> <p>Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.</p>			
ESTIMATED COST	PURCHASE PRICE	\$	17,500
	ACCESSORIES*	\$	-
	LESS TRADE-IN**	\$	-
	NET PURCHASE PRICE	\$	17,500
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	OPERATING BUDGET	\$	5,833
	UNH - CASH	\$	11,667
	BOND - TOWN PORTION	\$	-
	BOND - UNH PORTION	\$	-
	FEDERAL/STATE GRANT	\$	-
	CAPITAL RESERVE ACCOUNT	\$	-
	TOTAL FINANCING COSTS	\$	17,500
IF BONDED:	NUMBER OF YEARS	N/A	
	TOTAL PRINCIPAL	\$	-
	TOTAL INTEREST (EST'D)	\$	-
	TOTAL PROJECT COST	\$	-



# **CAPITAL IMPROVEMENT PROGRAM**

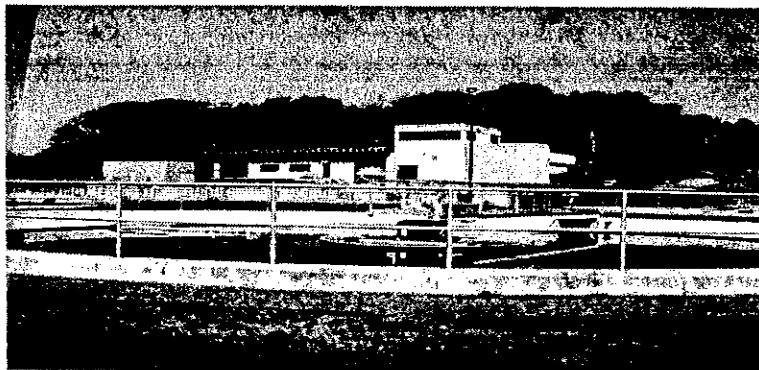
PROJECT YEAR	2023	PROJECT COST	\$340,000
DESCRIPTION	Sewer Jet/Vac Truck	DEPARTMENT	Wastewater
DESCRIPTION (TO INCLUDE JUSTIFICATION):			
The Jet/Vac sewer jet flushing truck is used by the Wastewater Division, Highway Division and the UNH Grounds and Roads Department. The present unit was purchased in 2008 and is used to clean 14 miles of Town sewers and 4 miles of UNH sewers annually. It is a prime emergency response vehicle that has been very successful in responding to and unplugging sewer line blockages for the Town and UNH. New England Municipal Equipment estimates the cost for replacement to be approximately \$350,000.			
Vehicle to be Replaced: 2008 International Jet/Vac Truck			
ESTIMATED COST	PURCHASE PRICE	\$	350,000
	ACCESSORIES*	\$	-
	LESS TRADE-IN**	\$	(10,000)
	NET PURCHASE PRICE	\$	340,000
	*Accessories include lighting, radios, striping, misc. equipment.		
FINANCING	OPERATING BUDGET	\$	-
	UNH - CASH	\$	-
	BOND - TOWN PORTION	\$	113,333
	BOND - UNH PORTION	\$	226,667
	FEDERAL/STATE GRANT	\$	-
	CAPITAL RESERVE ACCOUNT	\$	-
	TOTAL FINANCING COSTS	\$	340,000
IF BONDED:	NUMBER OF YEARS	\$	10
	TOTAL PRINCIPAL	\$	340,000
	TOTAL INTEREST (EST'D)	\$	37,400
	TOTAL PROJECT COST	\$	377,400





# CAPITAL IMPROVEMENT PROGRAM

PROJECT YEAR2024		PROJECT COST\$2,850,000	
DESCRIPTIONWWTP Phase III		DEPARTMENTPublic Works - Wastewater	
IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)			
Mandated			
DESCRIPTION (TO INCLUDE JUSTIFICATION)			
<p>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.</p> <p>On January 7, 2020, EPA Region 1 issued a Draft Great Bay Total Nitrogen General Permit (Draft GBTN GP) for 13 eligible wastewater treatment facilities (WWTFs) that discharge treated wastewater containing nitrogen within the Great Bay watershed in New Hampshire. The Draft GBTN GP establishes effluent limitations and monitoring requirements for total nitrogen, ambient monitoring requirements, reporting requirements and standard conditions for 13 eligible wastewater treatment facilities in New Hampshire. The discharge of all pollutants other than nitrogen from these WWTFs will continue to be authorized by each WWTF's respective individual NPDES permit. EPA released the draft permit on January 7, 2020 and the Town submitted comments on the draft permit on May 8, 2020. It is unknown what the schedule is for EPA to respond to comments received.</p> <p>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.</p>			
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	\$	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
	BOND - 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	\$	748,000
	TOTAL ESTIMATED COST	\$	3,598,000



# **CAPITAL IMPROVEMENT PROGRAM**

<b>PROJECT YEAR</b>	2029	<b>VEHICLE COST</b>	\$41,000
<b>DESCRIPTION</b>	<i>One Ton Pick-Up Replacement</i>	<b>DEPARTMENT</b>	<i>Public Works - Wastewater</i>
<b>DESCRIPTION (TO INCLUDE JUSTIFICATION):</b>			
<p>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 2019 1-Ton Pick-up Truck will be replaced in 2029. This Division is responsible for the maintenance of the Treatment Plant, Wastewater Collection System and five Pump Stations.</p> <p>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.</p> <p>Vehicle to be Replaced:    Truck # WW-1- 2019 Ford F350</p>			
Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.			
<b>ESTIMATED COST</b>	<b>PURCHASE PRICE</b>	\$	45,000
	<b>ACCESSORIES*</b>	\$	1,000
	<b>LESS TRADE-IN**</b>	\$	(5,000)
	<b>NET PURCHASE PRICE</b>	\$	41,000
*Accessories include lighting, radios, striping, misc. equipment.			
<b>FINANCING</b>	<b>OPERATING BUDGET</b>	\$	13,667
	<b>UNH - CASH</b>	\$	27,333
	<b>BOND - TOWN PORTION</b>	\$	-
	<b>BOND - UNH PORTION</b>	\$	-
	<b>FEDERAL/STATE GRANT</b>	\$	-
	<b>CAPITAL RESERVE ACCOUNT</b>	\$	-
	<b>TOTAL FINANCING COSTS</b>	\$	41,000
<b>IF BONDED:</b>	<b>NUMBER OF YEARS</b>	N/A	
	<b>TOTAL PRINCIPAL</b>	\$	-
	<b>TOTAL INTEREST (EST'D)</b>	\$	-
	<b>TOTAL PROJECT COST</b>	\$	-



<b>PROJECT YEAR</b>	2030	<b>VEHICLE COST</b>	\$42,000
<b>DESCRIPTION</b>	1-Ton Pick-Up Replacement	<b>DEPARTMENT</b>	Public Works - Wastewater
<b>DESCRIPTION (TO INCLUDE JUSTIFICATION):</b>			
<p>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 2019 1-Ton Pick-up Truck will be replaced in 2030. This Division is responsible for the maintenance of the Treatment Plant, Wastewater Collection System and five Pump Stations.</p> <p>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.</p> <p>Vehicle to be Replaced: Truck # WW-2- 2019 Ford F350</p>			
Per current Agreement, these projects would be funded 2/3 UNH and 1/3 Town.			
<b>ESTIMATED COST</b>	<b>PURCHASE PRICE</b>	\$	45,000
	<b>ACCESSORIES*</b>	\$	1,000
	<b>LESS TRADE-IN**</b>	\$	(4,000)
	<b>NET PURCHASE PRICE</b>	\$	42,000
	*Accessories include lighting, radios, striping, misc. equipment.		
<b>FINANCING</b>	<b>OPERATING BUDGET</b>	\$	14,000
	<b>UNH - CASH</b>	\$	28,000
	<b>BOND - TOWN PORTION</b>	\$	-
	<b>BOND - UNH PORTION</b>	\$	-
	<b>FEDERAL/STATE GRANT</b>	\$	-
	<b>CAPITAL RESERVE ACCOUNT</b>	\$	-
	<b>TOTAL FINANCING COSTS</b>	\$	42,000
<b>IF BONDED:</b>	<b>NUMBER OF YEARS</b>	N/A	
	<b>TOTAL PRINCIPAL</b>	\$	-
	<b>TOTAL INTEREST (EST'D)</b>	\$	-
	<b>TOTAL PROJECT COST</b>	\$	-

