

**TOWN OF HERTFORD
CAPITAL IMPROVEMENT PROGRAM REQUEST
FISCAL YEARS 2024-2033**

Fund:	Waste Water Treatment	Department	
Department:	Waste Water	Ranking:	17

Project Title:	3rd Clarifier plant expansion
Project Description:	Design and construct a 3rd Clarifer at the WWTP to accommodate additional Waste water influent with Town population and business expansion.
Justification:	The existing Waste Water Treatment plant was design/intended to handle 1 Million Gallons of Waste water flow coming in each day. However, the operation was permitted for only 700K Gallons per day due to various site specifics like using and irrigation field discharge. Since the removal of the irrigation and conversion to direct discharge to the river and the failure of the Grit and bar screens in the plan process, the System can only handle about 500K Gallons per day. With repairs of the bar screens and grit system, renovation of the remaining controls, the next limitation is the ability of the existing 2 clarifiers to handle and increased flow.

Capital Cost Breakdown			Capital Cost Per Year	
Cost Description	Funding Source	Amount	Fiscal Year	Amount
Planning, Design, and Engineering		\$ 75,000	Committed Prior To FY 2022-23	
Purchase		\$ 250,000	FY 2023-24	
Construction		\$ 750,000	FY 2024-25	
Miscellaneous		\$ 25,000	FY 2025-26	
Other			FY 2026-27	\$ 75,000
Other			FY 2027-28	
Other			FY 2028-29	
Other			FY 2029-30	
Other			FY 2030-31	
Other			FY 2031-32	
Other			FY 2032-33	
Other			Future Years	
		Total: \$ 1,100,000	Total: \$	75,000

Project – WWT3

**TOWN OF HERTFORD
CAPITAL IMPROVEMENT PROGRAM REQUEST
FISCAL YEARS 2024-2033**

Fund:	Waste Water Treatment	Department	
Department:	Waste Water	Ranking:	2

Project Title:	WWTP Operations Recovery Rehabilitation
Project Description:	Rehabilitation of the O2 Ditches, Digester, and control mechanism downstream of the Headworks repairs planned in 2024
Justification:	The failed headworks at the WWTP is approaching construction repairs in 2024. The effects of having no functioning headworks at the plant for many years has resulted in numerous secondary impacts to the treatment process that limit capacity and effluent quality. These include extensive build up of rags/stringy materials in the digester and probably the O2 Ditches. Additionally, with no grit removal, extensive sedimentation in the O2 ditches reduces the effective volume of the biological process. This project cleans out O2 ditches and digester, replaces digester aeration heads and associated piping, replaces flow control baffles in the O2 ditches, replaces motors on 2-13ft O2 rotators.

Capital Cost Breakdown			Capital Cost Per Year	
Cost Description	Funding Source	Amount	Fiscal Year	Amount
Planning, Design, and Engineering		\$ 50,000	Committed Prior To FY 2022-23	
Purchase			FY 2023-24	
Construction		\$ 450,000	FY 2024-25	
Miscellaneous			FY 2025-26	
Other			FY 2026-27	\$ 6
Other			FY 2027-28	\$ 100,000
Other			FY 2028-29	\$ 100,000
Other			FY 2029-30	\$ 100,000
Other			FY 2030-31	\$ 100,000
Other			FY 2031-32	\$ 100,000
Other			FY 2032-33	
Other			Future Years	
Total:		\$ 500,000	Total: \$ 500,006	

Project – WWT4

**TOWN OF HERTFORD
CAPITAL IMPROVEMENT PROGRAM REQUEST
FISCAL YEARS 2024-2033**

Fund:	Waste Water Treatment	Department	
Department:	Waste Water	Ranking:	7

Project Title:	WWTP Conversion of Gas to Solid Chlorination system
Project Description:	Pricing and procurement are growing challenges with the using of chlorine cylinders using for disinfection at the effluent of the WWTP. Conversion to a solid system will insure a safe and more consistent application of chlorine to the plant effluent.
Justification:	The challenges of continued use of gas chlorine and the poor condition of the existing system at the WWTP necessitate conversion to solid process recently the WWTP has been issued Notice of Violation of the chlorine discharge limit for releasing more than 100mg/l where the discharge is set at 20mg/l or less. Additionally, the gas phase of chlorine is an incrementally greater risk that handling chlorine in a solid form. Recent extensive inquiries about chlorine gas cylinders were uniformly negative in long term continued use.

Capital Cost Breakdown			Capital Cost Per Year	
Cost Description	Funding Source	Amount	Fiscal Year	Amount
Planning, Design, and Engineering		\$ 20,000	Committed Prior To FY 2022-23	
Purchase			FY 2023-24	
Construction		\$ 200,000	FY 2024-25	
Miscellaneous			FY 2025-26	
Other			FY 2026-27	
Other			FY 2027-28	\$ 110,000
Other			FY 2028-29	\$ 110,000
Other			FY 2029-30	
Other			FY 2030-31	
Other			FY 2031-32	
Other			FY 2032-33	
Other			Future Years	
Total:			Total:	\$ 220,000

Project – WWT5

**TOWN OF HERTFORD
CAPITAL IMPROVEMENT PROGRAM REQUEST
FISCAL YEARS 2024-2033**

Fund:	Waste Water Treatment	Department	
Department:	Waste Water	Ranking:	3

Project Title:	WWTP Effluent System Recovery
Project Description:	Rehabilitation of effluent filtering and pumping systems downstream of the Headworks repairs planned in 2024
Justification:	the WWTP permit, maintenance deficiencies and failure the headworks the disc filters no longer contribute to the performance of the WWTP meeting discharge limits. To limit further unnecessary expenses to operate and maintain the disc filters, this project would remove them from the process including repiping and/or restructuring the current filter chamber and also remove them from the permit. Additionally, the effluent pumping system is underperforming with periodic failures, unreliable performance monitoring, and subject to recurring issues. After a prior year lightning strike that damaged some of the controls, and generally poor condition of the controls, this project would "recover" those pumps and systems to functioning capability, fix discharge piping deterioration, and provide an adequate controls housing to protect the instrumentation and controls.

Capital Cost Breakdown			Capital Cost Per Year	
Cost Description	Funding Source	Amount	Fiscal Year	Amount
Planning, Design, and Engineering		\$ 50,000	Committed Prior To FY 2022-23	
Purchase			FY 2023-24	
Construction		\$ 650,000	FY 2024-25	
Miscellaneous			FY 2025-26	
Other			FY 2026-27	
Other			FY 2027-28	
Other			FY 2028-29	
Other			FY 2029-30	\$ 100,000
Other			FY 2030-31	\$ 100,000
Other			FY 2031-32	\$ 100,000
Other			FY 2032-33	\$ 100,000
Other			Future Years	\$ 300,000
Total:			Total:	\$ 700,000

Project – WWT6