

PUBLIC WORKS						2023	2024	2025	2026	2027	2028	2029 - 2043	Comments
Physical Location	Funding Source	Year Installed/ Replaced	Life Cycle in Years	Comp Plan	3% Inflation Assumed								
Description Work Item													
WASTEWATER INSTALLED EQUIPMENT													
Compost Screen Stardeck rollers	Compost	414	1996	20		\$ 40,000							Rebuild screen
WWTP/CF watertight manholes	WWTP	405	NA			\$ 30,000							x4 remaining
Neuros Blower VFD replacement	WWTP	405	2007	20			\$ 20,000						Manufacturer recommended
Aqua Aerobics Filter PLC upgrade	WWTP	405	2004	20			\$ 30,000						
3W pump replacement	WWTP	405		10				\$ 10,000					Pump #1 of 4
Staffing: Establish LEAD Operator position	WWTP	405	NA			\$ 20,000							5% above Step E
Influent pump crane	WWTP	405	NA	20		\$ 10,000							Safer pump removal
Influent pump replacement	WWTP	405	2003	25						\$ 30,000			Pump #1 of 3
Inluent Pump Station Transfer Switch	WWTP	405	NA	25									Completed in 2021
Headworks screen #1	WWTP	405	2014	20								\$ 100,000	
Headworks screen #2	WWTP	405	2019	20								\$ 100,000	
PS 1 Upgrade	PS	405	2017	25	C-3							\$ 510,000	Completed in 2017
PS 2 Upgrade	PS	405	2011	25	C-110							\$ 700,000	Equipment replacement/upgrade
PS 3 Upgrade	PS	405	2018	25	C-4							\$ 573,000	Completed in 2018. Installed generator.
PS 4 Upgrade (PLC/Controls)(Pepin Subbasin)	PS	405	1997/2004	25	C-101	\$ 590,000							Other improvements?
PS 4 New Force Main (Pepin subbasin)	PS	405	1997/2004	25	C-108	\$ 873,500	\$ 873,500						See BHC Tech Memo
PS 6 Upgrade - Pumps and controls	PS	405	1998	25	C-101							470000	To be completed in 2022
PS 6 Generator	PS	405	NA	25									New equipment
PS 7 Upgrade	PS	405	1977/2004	25	C-109							\$ 590,000	Equipment replacement/upgrade
PS 8 Upgrade	PS	405	1972/2005	25	C-102							\$ 470,000	Equipment replacement/upgrade
PS 9 Upgrade- PLC/controls only	PS	405	1980/2011	25	C-107				\$ 590,000				Equipment replacement/upgrade.
PS 10 upgrade	PS	405	1977/2012	25	C-111							\$ 470,000	Equipment replacement/upgrade
PS 11 Upgrade- PLC Controls only	PS	405	1999/2010	25	C-104			\$ 510,000					Equipment replacement/upgrade
PS 11 Generator	PS	405		25				\$ 80,000					New equipment, May need easement
PS 12 Upgrade	PS	405	2019	25	C-5							\$ 500,000	Completed in 2019
PS 13 Upgrade	PS	405	2020	25	C-103							\$ 500,000	Completed in 2020
PS 14 upgrade	PS	405	2003	25	C-105							\$ 470,000	Equipment replacement/upgrade
PS 15 Upgrade	PS	405	2006	25	C-106							\$ 700,000	Equipment replacement/upgrade
Headworks Grit Pumps (Flygt) x 2	WWTP	405	2004	20				\$ 100,000					Equipment replacement/upgrade
Cross Connection - Chemical Feed Systems-	WWTP	405	NA	25				\$ 40,000	\$ 20,000				New equipment: Thickener, Dewatering, Maintenance buildings
Clarifier 2 gearbox (mechanical rehab)	WWTP	405	2004	20	W-7								Purchased 2021, install 2022
Clarifier 1 gearbox (mechanical rehab)	WWTP	405	2004	20	W-7	\$ 189,000							Purchase 2022, install 2023
Clarifier 2 recoating	WWTP	405	2004	20	W-8		\$ 287,000						
Clarifier 1 recoating	WWTP	405	2004	20	W-8	\$ 287,000							

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Oxidation Ditch Gear reducer 1D	WWTP	405	1996	25	W-6								Completed in 2022
Oxidation Ditch Gear reducer 2C	WWTP	405	1996	25	W-6			\$ 224,000					Equipment replacement/upgrade
Oxidation Ditch 1 mixer	WWTP	405		25	W-5	\$ 184,000							New equipment
Oxidation Ditch 2 mixer	WWTP	405		25	W-5	\$ 184,000							New equipment
Redundant Digester Blower	WWTP	405		25	W-4	\$ 298,000							New equipment
Digester aeration capacity expansion	WWTP	405	2004	20		\$ 500,000							New equipment - Pending BHC tech memo
Digester 1 cover replacement	WWTP	405	2004	20								\$ 500,000	Completed in 2021
Building 400 PLC Upgrade	WWTP	405	2020	15								\$ 100,000	Completed in 2020
RCP 1, MCC 1 and PS PLC Upgrade	WWTP	405		20			\$ 100,000						
IT Servers	WWTP/WTP	401/405	?	5									Completed in 2022
Compost ECS program update	Compost	405	2012	5		\$ 20,000							Software update
Compost Building PLC Upgrade	WWTP	405	1996	20			\$ 100,000						Equipment replacement/upgrade
WWTP VFD Replacement	WWTP	405	Various	15			\$ 30,000						Various locations, based on age
Hach sc200 controllers	WWTP	405		15									Completed in 2022
Ditch & 3W pump VFDs (x5)	WWTP	405		15									Completed one in 2022
West transformer OR MCC improvements	WWTP	405		15									Based on BHC findings
Influent Wet well flow meter	WWTP	405	2010	15			\$ 30,000						Instrument replacement
WWTP Effluent Filter Fabric	WWTP	405	2020	5								\$ 30,000	Remove Supplies 3101?
UV Lampe	WWTP	405	2020	3			\$ 30,000						Remove Supplies 3101?
WWTP Influent organics probe and monitor	WWTP	405	NA	10	W-3		\$ 65,000						New equipment/instrument
3W chlorine pump	WWTP	405	2020	20								\$ 20,000	Instaled in 2020
Dewatering Fournier Rotary Press - Add channel	WWTP	405	2008	30	W-104	\$ 184,000							New equipment - increase dewatering capacity
Sludge loadout facility	WWTP	405	1996	30	W-105			\$ 819,000					Add some components during 2023 Fournier expansion
Demo Ditch 2 Trickling Filter	WWTP	405	1978							\$ 1,000,000			
Sludge Thickening Emulsion Polymer System	WWTP	405	2004		W-102			\$ 126,000					Replace dry polymer system
Effluent Filtration Expansion	WWTP	405	2004		W-101					\$ 419,000			
Oxidation Ditch 1 Clean/Inspect- Tjoelker's	WWTP	405	2021	5					\$ 80,000			\$ 80,000	Clean every 5 years
Oxidation Ditch 2 Clean/Inspect- Tjoelker's	WWTP	405	2017	5						\$ 80,000		\$ 80,000	2022. Clean every 5 years
Digester 1 Clean/Inspect- Tjoelkers	WWTP	405	2021	5					\$ 300,000			\$ 300,000	Clean every 5 years
Digester 2 Clean/Inspect- Tjoelkers	WWTP	405	2013	5						\$ 80,000		\$ 300,000	2022. Clean every 5 years
Sludge Holding Tank 1 Clean/Inspect- Tjoelkers	WWTP	405	2000	5?		\$ 300,000					\$ 300,000	\$ 300,000	Clean every 5 years
Sludge Holding Tank 2 Clean/Inspect- Tjoelker's	WWTP	405	2020	5?				\$ 300,000				\$ 300,000	Clean every 5 years
F405 Totals by Year						\$ 3,609,500	\$ 1,615,500	\$ 2,056,000	\$ 1,010,000	\$ 1,599,000		\$ 8,163,000	

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WATER INSTALLED EQUIPMENT													
Dewatering tank mixer	WTP	401	2015	20									To be completed in 2022
WTP security cameras	WTP	401	2019	5			15,000						Completed in 2019
RIS PLC Upgrade	WTP	401	2020	20									Completed in 2020
Filter Turbidimeters (TU5300)	WTP	401	2020	20									Completed in 2020
Miscellaneous SCADA corrections - QCC	WTP	401	2015	10									Completed in 2021
Eaton UPS service and battery replacement	WTP	401	2020	5				\$ 15,000				\$ 15,000	Completed in 2020
Lagoon dredge and clean	WTP	401	2015	10								\$ 20,000	Completed in 2022
PS Radio telemetry upgrade or cellular conversion	Remote	401	NA			\$ 20,000		\$ 60,000					GE iNET radios no longer supported. Pilot at RIS in 2023, full implementation 2025
Streaming Current Monitor- Rapid mix	WTP	401	2015	10		\$ 10,000							Existing unit is no longer supported
BPS Chlorine analyzers (replace Hach cl17)	WTP	401	<2010	20		\$ 15,000	\$ 40,000						2 units at each station (x4 total); Pilot in 2023, replace all in 2024
OSEC Chlorine generator	WTP	401	2015	15			\$ 60,000						Rebuilt in 2015; saved from old WTP
3 MG Booster Pump Station - VFD Upgrade	WTP	401	2004	15			\$ 30,000						Equipment replacement
6 MG Booster Pump Station - VFD Upgrade	WTP	401	2003	15				\$ 30,000					Equipment replacement
Laboratory - Hach LIMS Software	WTP	401	NA	40			\$ 50,000						New software- Cancel
WTP Raw water organics probe and monitor	WTP	401	NA	10									Completed in 2021
Replace chlorine lines	WTP	401	2016	10		\$ 50,000							Numerous leaks and plugging issues
Advanced Fixed Base Metering (Sensus)	Various	401	NA	10		\$ 45,000							Systems
F401 Totals by Year						\$ 140,000	\$ 195,000	\$ 105,000	\$ -	\$ -	\$ -	\$ 35,000	