



City of Marine City
303 S. Water St.
Marine City, MI 48039

Long Term Capital Equipment Replacement/Improvement Plan

Department: Water Plant

Item	Comments	2017 Replacement Cost	In Service Year	Useful Life Yrs	Duty Load	Budget Year(s)										
						CURRENT YR 2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	5 Years 2024-28	5 Years 2029-33	5 Years 2034-38	5 Years 2039-43
Estimated Inflation Rate (Per/Yr):						0.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Filter #1	Sand/Gravel/Media Replacement Every 5 Years			5				\$10,000						\$10,000		
Filter #2	Sand/Gravel/Media Replacement Every 5 Years			5					\$10,000						\$10,000	
Filter #3	Sand/Gravel/Media Replacement Every 5 Years			5						\$10,000						\$10,000
Aluminum Chemical Feed Pump # 1			1995	10					\$4,000					\$4,000		
Aluminum Chemical Feed Pump #2			1995	10						\$4,000						
Bleach Pump # 1			2016	2					\$600		\$600					
Bleach Pump # 2			2016	2						\$600		\$600				
Basement Sump Pumps	QTY = 2		2016	3						\$700						
Low Lift Pumps & Motors	QTY = 3		2007	15									\$65,000			
V.F.D. Drives for 2 Low Lift Pumps	QTY = 2		2007	12					\$4,000	\$4,000						
High Service Pumps & Motors	QTY = 3 motors have been replaced; pumps have not		2007	20										\$75,000		
Sludge Motors	QTY=2		1997	25							\$15,000					
Flocculators Mixers and Motor #1			2007	20										\$23,000		
Flocculators Mixers and Motor #2													\$23,000			
Chlorine in-line Meters/Sedimentary Basin/Final Tap Water #1			2017	7				\$2,500	\$5,000					\$5,000		
Chlorine in-line Meters/Sedimentary Basin/Final Tap Water #2			2012	7						\$5,000						
Filter Meter #1			2007	10					\$5,000							
Filter Meter #2			2007	10						\$5,000						
Filter Meter #3			2007	10							\$5,000					
P.H./Flouride/Meter			2017	5				\$1,900		\$1,900						
Lab Turbidity Meter			2017	5				\$1,600								
Final Tap & Distribution Flow Meter			2017	6		\$4,000										
Aluminum Sulfate & Chlorine Storage Tanks	\$500/each	\$1,000													\$2,000	
Settling Basin Lining	Never Replaced								\$70,000							
Incubator (Lab)			2014	10								\$3,000				
Water Bath (Lab)			2015	5						\$1,500						
Auto Clave (Lab Equipment)			2012	10								\$6,000				

Duty Load:
1-Used Rarely or Emergency Only
2-Light Use
3-Moderate Use
4-Daily Use
5-Extreme Use or 24/7 Use



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Misc. Piping & Small Valve Replacement	Never Replaced	\$50,000						20,000		\$60,000						
Electric Repairs Cleanup									\$3,000							
Roof			2012	20											\$60,000	
Exterior Building Maintenance	Never Replaced															
Alarm System	Out-Dated		1994							\$6,000						
Departmental Server-City Offices	PD Server-Total Cost is \$27,000. Split with Police/Buildings & Grounds/ Water & Sewer								\$4,500							
Plant Computers	QTY = 3; \$1,000/each		2015	5						\$3,000						
Scada Program	Out-Dated		1997						\$15,000							
Present Value:						4,000	6,000	\$30,000	121,100	101,700	20,600	9,600	\$107,000	108,000	72,000	-
Total Cost:						\$ 4,000	\$ 6,000	\$ 30,000	\$ 121,100	\$ 101,700	\$ 20,600	\$ 9,600	\$ 107,000	\$ 108,000	\$ 72,000	\$ -

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