

**CITY OF TYBEE ISLAND**  
**WASTEWATER TREATMENT PLANT**  
**FIVE YEAR CAPITAL IMPROVEMENT PLAN**

ASSET	CONDITION OF EQUIPMENT	MAINTENANCE REQUIRED	CAPACITY ASSESMENT	EXPECTED LIFE OF EQUIPMENT		COST ( ADD 5% PER YEAR FOR INFLATION)
BELT PRESS	POOR	SIGNIFICANT	SUFFICIENT	20 years	Installed 1992, 1 year remaining	\$250,000.00
GRIT REMOVAL AND ODOR CONTROL SYSTEM	GOOD	NORMAL	SUFFICIENT	20 years	Installed 2009, 17 years remaining	\$900,000.00
WAS SLUDGE PUMP	POOR	SIGNIFICANT	CANNOT MEET CURRENT REQUIREMENTS	20 years	Installed 2001, 10 years remaining	\$17,000.00
RAS PUMPS	FAIR	NORMAL	SUFFICIENT	20 years	Installed 1998, 7 years remaining	3 each X \$5,000.00
CLARIFIERS	GOOD	NORMAL	CANNOT MEET FUTURE REQUIREMENTS	20 years	Installed 2001, 10 years remaining	\$1,000,000.00 each X 2
DIGESTERS	POOR	NORMAL	STRUCTURE OF EQUIPMENT NOT SOUND	20 years	Installed 2001, 10 years remaining	
ROTARY SCREEN	FAIR	NORMAL	CANNOT MEET CURRENT REQUIREMENTS	20 years	Installed 1995, 4 years remaining	
ULTRA VIOLET SYSTEM	GOOD	NORMAL	SUFFICIENT	20 years	Installed 2001, 10 years remaining	\$200,000.00
UTILITY VEHICLE (MULE)	BAD	NORMAL	CANNOT MEET CURRENT REQUIREMENTS	20 years	Unknown, got it 2 <sup>nd</sup> hand	\$7,000.000
ROTARY BRUSH AERATORS	FAIR	SIGNIFICANT	SUFFICIENT	20 years	Installed 2007, 16 years remaining	\$60,000.00 each X 4

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**5 YEAR CAPITAL IMPROVEMENT PLAN**

<b>ASSET</b>	<b>JUSTIFICATION FOR REQUEST</b>	<b>ORDER OF PRIORITY</b>
<b>BELT PRESS</b>	Parts are very hard to get and the equipment is worn out. It requires full attention of an operator when in use.	<b>1</b>
<b>GRIT REMOVAL SYSTEM</b>	Will most likely need refurbishing in five years because it runs almost constantly and by the nature of the grit itself many parts will be worn out	<b>6</b>
<b>WAS SLUDGE PUMP</b>	Pump is worn out and leaks excessively and will not meet the capacity of the new press, when we get it	<b>3</b>
<b>RAS PUMPS</b>	The spare pump is broken and we need to keep a replacement on hand in order to stay at full capacity	<b>4</b>
<b>CLARIFIERS</b>	At times the clarifiers have to taken out of service for repairs and servicing. We need a spare in order to do these things and also for any increase in inflow	<b>5</b>
<b>DIGESTERS</b>	Cat walks are old and some of the framework is corroded away and is unsafe and needs to be replaced. A spare aerator is needed because if one goes down there would be a great increase in the possibility of odor problems. However the Digesters themselves are good.	<b>2</b>
<b>ROTARY SCREEN</b>	The rotary screen is about worn out and parts for it are hard to get and may not be available at all in the near future	<b>7</b>
<b>ULTRAVIOLET SYSTEM</b>	Because of upgrades in electronics and their availability and in order to save electricity as well as the cost and availability of quartz lamps the UV system should be upgraded or replaced	<b>8</b>
<b>UTILITY VEHICLE (MULE)</b>	Worn out	<b>1</b>
<b>ROTARY BRUSH AERATORS</b>	Requires a lot of maintenance and we have to rent a very expensive crane in order to remove them. Units use an extreme amount of electricity.	<b>10</b>

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<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
New Utility Vehicle	Repair metal structure on digesters	Replace WAS Pump	Replace Rotary Screen	Replace Rotary Brush Aerators	Upgrade or Replace UV System
	Replace Belt Press	Buy Another RAS Pump for a Spare			
		Buy a Spare Aerator for the Digesters			