

**TAYLOR COASTAL WATER & SEWER DISTRICT**  
**Balance Sheet**  
 As of January 31, 2019

Jan 31, 19

**ASSETS**

Current Assets

Checking/Savings

OPERATING, SMALL BUSINESS CHKG (MAIN ACCOUNT, CHECKING)  
 SAVINGS, TCW&SD RESERVE ACCOUNT (BUSINESS SAVINGS)

196,291.08

CAPITAL IMPROVEMENTS, MINOR

52,394.92

CONTINGENCY RESERVE

490,351.91

DEPRECIATION RESERVE-Major R&R (Major Repair/Replacement)

GRINDER PUMP REPAIR FEE

100,628.84

WATER SERVICE FEE, NEW LOTS

50,709.94

PAYMENTS, USDA-RD 91-03, TCU

38,000.00

DEBT RESERVE USDA-RD 91-03, TCU

13,714.28

PAYMENTS, USDA-RD 92-01, CONST.

26,245.00

DEBT RESERVE RD 92-01, CONST.

16,405.00

PAYMENTS, USDA-RD - PHASE II

48,753.00

DEBT RESERVE, USDA-RD-PHASE II

17,830.91

SAVINGS, TCW&SD RESERVE ACCOUNT (BUSINESS SAVINGS) - Other

19,780.00

Total SAVINGS, TCW&SD RESERVE ACCOUNT (BUSINESS SAVINGS)

883,407.70

Total Checking/Savings

1,079,698.78

Accounts Receivable

ACCOUNTS RECEIVABLE (990 line 47a)

1,211.07

Total Accounts Receivable

1,211.07

Other Current Assets

PREPAID EXPENSES

6,498.00

INVENTORY

48,613.08

RVS - SYSTEM INCOME

51,406.66

Total Other Current Assets

106,517.74

Total Current Assets

1,187,427.59

Fixed Assets

2017 FORD F-150 PICKUP

23,518.22

Improvements

8,400.00

ACCUMULATED DEPRECIATION

-3,434,763.00

BUILDINGS

9,281.23

CIP, PHASE II WASTEWATER CONST

5,680.00

CUSTOMER PURCHASED GPs

262,129.82

EQUIPMENT

133,536.36

EXPANSION, 95.68 Acres, WWTP (From Foley Lands & Timber through Suwannee River Water ...

111,587.90

FIRE HYDRANTS from TCBC

10,700.00

LAND

167,749.00

OFFICE EQUIPMENT

5,336.88

PIPING, TANKS & WELLS

797,853.40

**TAYLOR COASTAL WATER & SEWER DISTRICT**  
**Balance Sheet**  
 As of January 31, 2019

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PUMPS & CONTROLS	27,407.72
WASTEWATER SYSTEM, PHASE I (Quality Plus Services contract 8/17/04; Start 9/1/2004; subst...	6,673,144.46
WATER EXPANSION 2002	28,328.02
WATER SYS EXPA, PRECOST 6/30/04	7,363.22
WATER SYSTEM EXPANSION	87,255.43
WWTP O&M SHOP/OFF BLDG. 07-08	56,959.74
<b>Total Fixed Assets</b>	<b>4,981,468.40</b>

**TOTAL ASSETS**

**6,168,895.99**

**LIABILITIES & EQUITY**

Liabilities	
Current Liabilities	
Accounts Payable	3,242.26
ACCOUNTS PAYABLE (990 line 60)	3,242.26
<b>Total Accounts Payable</b>	<b>3,242.26</b>

**Credit Cards**

CARDMEMBER SERVICE (Capital City Bank Visa)	808.23
CCB VISA-SEAN MURPHY-1682	21,073.73
CCB BUSINESS VISA-BENNETT-6125	17,667.19
CCB BUSINESS VISA-SENTER-1850	8,497.19
CCB BUSINESS VISA - CARL 2994	5,012.28
CCB BUSINESS VISA - MORG 3018	-51,851.47
CARDMEMBER SERVICE (Capital City Bank Visa) - Other	1,207.15
<b>Total CARDMEMBER SERVICE (Capital City Bank Visa)</b>	<b>1,207.15</b>

**Total Credit Cards**

1,207.15

**Other Current Liabilities**

TCWSD (TRUCK PAYMENT)	745.76
TREASURER STATE OF MAINE (DOUGLAS ADAMS CHILD SUPPORT PAYMENTS)	218.67
NET PENSION LIABILITY	49,466.00
Accrued Wages	10,117.76
ACCRUED INTEREST-RD	191,683.10
CUSTOMER OVERPAYMENTS	31,059.00
PAYROLL LIABILITIES	3,038.17
RETIREMENT PAYABLE	494.09

**Total Other Current Liabilities**

286,822.55

**Total Current Liabilities**

291,271.96

**Long Term Liabilities**

DEFERRED OUTFLOWS	-55,682.00
CONTRACT PAYABLE-Belcher/Sawgra (Water Service Agreement of 2002)	16,000.00

**TAYLOR COASTAL WATER & SEWER DISTRICT**  
**Balance Sheet**  
As of January 31, 2019

	Jan 31, 19
N/P, RD 2005A BONDS,TCU 91-03 (USDA-RD Loan #91-03)	351,864.60
N/P, RD 2005B BONDS,Const. 92-01 (USDA-RD Loan #92-01)	596,000.00
N/P, RD 2011A BONDS, PH II WW	149,500.04
TAYLOR CNTY BCC - FRS REIMBUR	820.00
<b>Total Long Term Liabilities</b>	<b>1,058,502.64</b>
<b>Total Liabilities</b>	<b>1,349,774.60</b>
<b>Equity</b>	
Opening Bal Equity (QB account)	23,518.22
<b>RETAINED EARNINGS</b>	<b>3,029,003.21</b>
Unrestricted (retained earnings) (990 line 21 & 67)	1,672,870.42
Net Income	93,729.54
<b>Total Equity</b>	<b>4,819,121.39</b>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>6,168,895.99</b>

WATER AUDIT  
Taylor Coastal Water and Sewer District

**MONTH:                      January                      2019**

**MASTER METER READING (entering distribution system):**

Current:	<u>227,711</u>				
Previous:	<u>226,716</u>				
	<u>995,000</u>	(x 1000)	=	<u>995,000</u>	
					<i>Gallons Pumped</i>

**UNMETERED WATER**

**GALLONS**

<b>#1</b>	<b>Booster Station</b>		
	a. Tank Drain	<u>1,000</u>	
	b. Air-Charge adjustments (200gpm)	<u>0</u>	
	c. Chlorine adjustment -- storage	<u>1,000</u>	
<b>#2</b>	<b>Line flushing (summary)</b>		
	a. North	<u>50,000</u>	
	b. South	<u>50,000</u>	
	c. Flush Hydrant Test	<u>50,000</u>	
<b>#3</b>	<b>Broken lines</b>	<u>25,000</u>	
<b>#4</b>	<b>Water Treatment Plant</b>		
	a. Clear 10K tank	<u>500</u>	
	b.	<u>          </u>	
	<b>Known unmetered water :</b>	<u>177,500</u>	
		<u>817,500</u>	

**Water sold (customer meters) per Director's Report (gallons)**

<b>Total Water Sold</b>	<u>( 720,000</u>
-------------------------	------------------

**Estimated Water Loss, gallons**

<b>97,500</b>
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Gallons pumped less known unmetered water & water sold.

**Estimated Water Loss (%)**

<b>9.80%</b>
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Equals loss (gallons) divided by pumped (gallons)

desire ≤ 10%

**POLICY**  
**TAYLOR COASTAL WATER & SEWER DISTRICT**

**Policy # 2019 - 01**

**Effective Date: February 26, 2019**

**TITLE:     EMPLOYEE WAGES – Annual Cost-of-Living Increase**

**PURPOSE:**

To provide an annual cost-of-living wage increase to all employees to coincide with the fiscal year budget preparation and review.

**SCOPE:**

All employees

**POLICY STATEMENT:**

The District Board of Commissioners shall annually review employee wages in May to consider wage increases based upon the determined cost-of-living increase and discretionary Board action per budgetary means. The wage increase will be effective with wages received October 1 of each year following the review.

**REQUIREMENTS:**

- Notation of the annual Cost of Living Assessment (COLA) as determined by Federal Government
- Profit Loss Budget Performance Report relative to current personnel costs
- Projected personnel costs with proposed increase

Approved: \_\_\_\_\_

Current

**POLICY**  
**TAYLOR COASTAL WATER & SEWER DISTRICT**

**Policy # 2010 - 01**

**Effective Date: January 26, 2010**

**TITLE: EMPLOYEE WAGES – Annual Cost-of-Living Increase**

**PURPOSE:**

To provide an annual cost-of-living wage increase to all employees as budget allows

**SCOPE:**

All employees

**POLICY STATEMENT:**

The District Board of Commissioners shall annually review employee wages in December to consider wage increases based upon the determined cost-of-living increase and discretionary Board action per budgetary means. The wage increase will be effective with wages received January 1 of each year following the review.

**REQUIREMENTS:**

- Notation of the annual Cost of Living Assessment (COLA) as determined by Federal Government
- Profit Loss Budget Performance Report relative to current personnel costs
- Projected personnel costs with proposed increase

Approved: \_\_\_\_\_

# **POLICY**

## **TAYLOR COASTAL WATER & SEWER DISTRICT**

**Policy # 2005 - 02**

**Effective Date: October 19, 2005**

**TITLE: ANNUAL COST-OF-LIVING ADJUSTMENT (COLA)**

**PURPOSE:**

To provide an annual cost-of-living wage adjustment to all employees

**SCOPE:**

All employees

**POLICY STATEMENT:**

The District shall provide an annual cost-of-living adjustment per the National index to each employee. The adjustment will begin with wages received in January of each year.

**REQUIREMENTS:**

The Office Manager shall obtain verification of the annual COLA determined by Social Security and adjust employee wages accordingly effective for wages received in January of each year.

Updated 04/16/2009

**POLICY**  
**TAYLOR COASTAL WATER & SEWER DISTRICT**

Policy # 2019 - 02

Effective Date: February 27, 2019

**TITLE: Authorization to Apply and Sign Documents for Water Improvements Project**

**PURPOSE:**

To approve the Intent to Apply for a USDA Rural Development Application; and to authorize the Board Secretary/Office Manager to sign all documents required in the Rural Development Application process.

**SCOPE:**

Office Manager

**POLICY STATEMENT:**

The District Board of Commissioners shall approve the Intent to Apply for a USDA Rural Development Application; and authorize the Board Secretary/Office Manager to sign all documents required in the Rural Development Application process.

Approved: \_\_\_\_\_





## GOVERNMENT CAPITAL

CORPORATION

345 Miron Drive Southlake Texas 76092 (800) 883-1199

Wednesday, January 30, 2019

Robert Peterson  
Empire Pipe and Supply Company  
2301 Alton Rd  
Birmingham, AL 35210

Robert

Thank you for the opportunity to present proposed financing for Taylor Coastal Water & Sewer District. I understand the Water & Sewer District is considering the acquisition of a Water Meter Retrofit from Empire Pipe and Supply Company, and is interested in utilizing Tax Exempt financing. I am submitting for you and the Water & Sewer District's review the following proposed financing structures.

BORROWER:	Taylor Coastal Water & Sewer District, FL
FINANCING STRUCTURE:	Tax Exempt Lease/Purchase with \$1.00 Purchase
PROPOSED PROJECT AMOUNT:	<b>\$ 150,500.00</b>
PAYMENT TERM:	<b><u>120 Monthly Pmts</u></b>
INTEREST RATE:	4.745% (fixed)
PAYMENT AMOUNT:	\$ 1,577.59/mo
1 <sup>st</sup> PAYMENT DUE:	30 days, monthly thereafter

The above proposal is an expression of interest, subject to audit analysis and mutually acceptable documentation and is not a binding commitment. The terms outlined herein are subject to change and rates are valid for fourteen (14) days from the date of this proposal. If funding does not occur within this time period, rates and terms may be indexed to current market at that time.






Our finance programs are extremely flexible and our goal is total customer satisfaction. If you have any questions or wish to consider other payment terms, frequencies or conditions, please contact me toll free at (800) 883-1199 x116.

With Best Regards,

*Kevin D. Lerner*

Kevin D. Lerner  
Vice President, Public Finance

"YOUR PUBLIC FINANCE PARTNER"

<b>For:</b> TAYLOR COASTAL WATER & SEWER			 <b>EMPIRE</b> <b>Pipe &amp; Supply</b>		<b>Date:</b> 1/30/2019
<b>To:</b> BOARD MEMBERS					<b>Project:</b>
			EMPIRE PIPE AND SUPPLY COMPANY - 2606 Airport Road, Panama City, FL 32405 PHONE: 850-481-0788		<b>MASTER METER</b> <b>5/8 X 3/4" Radio Read Meters</b>
			* QUANTITIES AND DESCRIPTIONS ARE BELIEVED TO BE TRUE BUT NOT GUARANTEED FOR ACCURACY. ALL "TAKE-OFFS" SHOULD BE REVIEWED BY CUSTOMER PRIOR TO PLACING ORDER. *		
#	QTY	UNIT	ITEM DESCRIPTION	PRICE	EXT
1	530	ea	5/8 X 3/4 Master Meter Multi-Jet Water Meter w/3G radio read register	\$ 205.00	\$108,650.00
2	530	ea	Install 5/8 x 3/4 Water Meter	\$ 45.00	\$ 23,850.00
3	1	ea	Master Meter Reading Equipment - Includes Hardware, Software, 2 days of software training, Interface to existing billing system and first year of software support	\$ 18,000.00	\$ 18,000.00
			AMR Project Total - \$150,500		
			Government Capital Tax Exempt Municipal Lease Quotation		
			120 MONTHLY PAYMENTS		
			FIXED INTEREST RATE 4.745%		
			MONTHLY PAYMENT \$1,577.59		
			\$1,577.59 / 530 water meters = \$2.98		
			Cost per meter per month - \$2.98		
			<i>Thank You, Robert Peterson</i>		
			<i>Please contact me with any questions or concerns.</i>		
			<i>robert@empirepipe.com Cell: (251) 533-9028</i>		
			<b>\$150,500.00</b>		
DUE TO CURRENT MARKET CONDITIONS, ALL QUOTES ARE VALID FOR UP TO 30 DAYS FROM THE DATE OF QUOTATION AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL CONTRACTS AND SHIPMENTS ARE CONTINGENT ON STRIKES, ACCIDENTS, AND OTHER CAUSES BEYOND OUR CONTROL. THIS QUOTATION IS SUBJECT TO THE ADDITION OF ANY TAX IMPOSED BY ANY PRESENT OR FUTURE FEDERAL, STATE, COUNTY, OR MUNICIPAL LAW. ALL SALES ARE SUBJECT TO THE ATTACHED TERMS AND CONDITIONS.					
 Ford Meter Box Company		 HIGH VALVE COMPANY			
					

# Taylor Coastal Water & Sewer District Water Treatment Plant Energy Efficiency Assessment

This assessment is prepared by Mark Hallett, Energy Efficiency Circuit Rider.

Thank you for being a member of our rural water association!



Committed to the future of rural communities.



## Executive Summary

Florida Rural Water Association (FRWA) strives to help its members in every possible way. Thanks to funding received from the United States Department of Agriculture (USDA), FRWA now provides free energy assessments to its members. Energy use is often the largest part of a water system's total operating cost. Thus this program will benefit water utilities by identifying equipment and strategies to improve energy efficiency. As energy efficiency improves, the cost of energy purchasing will decrease resulting in lower costs for utilities. These lower costs can maximize profits, create capital for improvements, and allow utilities to save customers money. FRWA is committed to helping systems improve their energy efficiency through training, engineering services, and help in securing funding.

This report was prepared for Taylor Coastal Water & Sewer District Water Treatment Plant following the on-site visit on December 14, 2018.

## Section 1: At-a-Glance Findings and Scope

### 1.1 At-a-Glance Findings

Project Item	Energy Conservation Measure Description	Annual Energy Savings (kWh)	Annual Cost Savings (\$)	Estimated Cost of Improvement (\$)	Rebate Total (\$)	Payback (Years)	Reference Pages
LED Lighting Upgrade	Install LED bulbs instead of fluorescent bulbs.	2920	\$282.07	\$191.68		0.68	3
		2920	\$282.07	\$191.68	\$0.00		

### 1.2 Scope

This assessment will detail information concerning Taylor Coastal Water & Sewer District Water Treatment Plant and how it can improve. To begin, the report will introduce a baseline energy usage. This data is collected from electrical bills, name plate information on motors, and through an on-site survey. Operators are asked essential questions about operation and maintenance. After this, suggestions are made on how the system can improve efficiency. Each suggestion will also be broken down to show how quickly your savings could pay back investing in that option. This report will also highlight aspects where the system does well in already conserving energy.

There is a small HVAC system that is rarely used and will not be considered as part of this assessment. This report is fair and impartial. Any products named are solely named as examples of potential investments for the system to use. This report is not advertising any product.

## Section 2: Initial Findings and Baseline

### 2.1 Electric Bills

The bills for the system show that the system is not charged for demand. This is excellent as demand often makes up 30% of a system's monthly electric bill and can cost thousands of dollars annually. The other thing the bills reveal about the system is that the overall energy use is low. Even though the average monthly consumption is 2,168 kWh, it is still lower than other plants of a comparable size. It should be noted that the system purchases power at a wholesale price. While this tends to reduce the cost per kWh individually, it does not affect the other parts of the bill such as facility charges and tax.

### 2.2 Operations and Facility

The facility is well maintained and simplistic in its design. There are multiple wells and well pumps of various sizes that help meet demand based on level of water in the ground storage tank. This system is simplistic yet very efficient at meeting the demands of the system. The smallest well pump is hardly used. The chlorination and other chemical additions are handled by small and low wattage pumps. They will not be considered during this assessment.

### 2.3 Baseline

The average amount of energy consumed by the plant over the last year is 2,168 kWh with an average monthly bill of \$351.89. The average cost per kWh is \$0.16 after including all additional charges such as tax and facility charges; this is higher than the state average of \$0.11. When the wholesale

pricing is taken into account, the actual charge per kWh is \$0.11. These figures will be used to develop the estimates in the following section.

### Section 3: Suggested Improvements and Potential Savings

#### 3.1 LED Lighting Retrofit

Lighting technology has changed a lot over the past few centuries. From fire to torches to incandescent light bulbs, we arrive at the current lighting source of choice: fluorescent bulbs. Fluorescent bulbs are amazing efficient when compared to incandescent bulbs. However, new technology has made an even better light bulb: the LED bulb. LED bulbs do not need a ballast to operate; this makes them more efficient than fluorescent bulbs. This rewiring can be done by any electrician. The estimate below is for parts **only** and **does not** include the cost of hiring an electrician to rewire the lighting fixtures.

During the on-site visit, a total of 20 fluorescent bulbs were observed. These bulbs were used about 4 hours a day according to staff. To replace the fluorescent bulbs with LED bulbs would cost an estimated \$191.68 and create an estimated annual cost savings of \$282.07. This yields an estimated simple payback of 8 months.

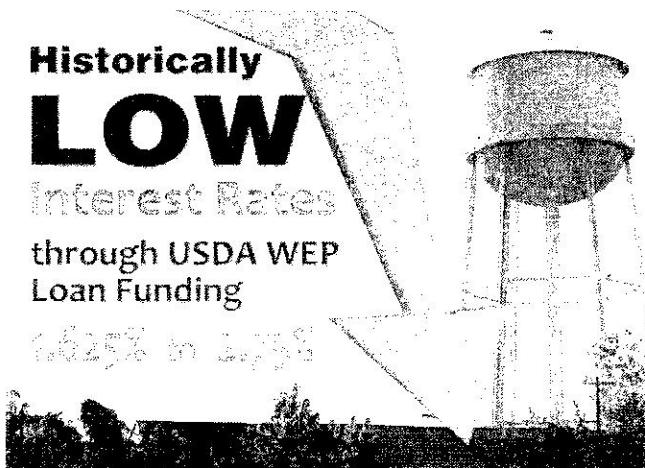
### Section 4: Financing Options

#### 4.1 USDA Rural Development Loan

The USDA Rural Development Loan program loans rural communities the funds to finance installations of and improvements to water, sanitary sewerage, solid waste, and storm water facilities. Taylor Coastal Water & Sewer District is eligible to apply. FRWA can help your system apply to the program. Contact your circuit rider for more information. You can also contact the State Rural Development Office with the information below:

#### **LAKE CITY AREA OFFICE**

971 W Duval St, Suite 190  
Lake City, Florida 32055-3736  
Telephone: (386) 719-5590  
Fax: (855) 474-6983



#### 4.2 State Revolving Fund

Taylor Coastal Water & Sewer District can apply for a loan from the State Revolving Fund (SRF) managed by the Department of Environmental Protection (DEP). This program helps communities and municipalities install and improve their water systems. FRWA can help your system apply to the program. Contact your circuit rider for more information.

2/2/19

# Taylor Coastal Water & Sewer District Wastewater Treatment Plant Energy Efficiency Assessment

This assessment is prepared by Mark Hallett, Energy Efficiency Circuit Rider.

Thank you for being a member of our rural water association!



Committed to the future of rural communities.



## Executive Summary

Florida Rural Water Association (FRWA) strives to help its members in every possible way. Thanks to funding received from the United States Department of Agriculture (USDA), FRWA now provides free energy assessments to its members. Energy use is often the largest part of a water system's total operating cost. Thus this program will benefit water utilities by identifying equipment and strategies to improve energy efficiency. As energy efficiency improves, the cost of energy purchasing will decrease resulting in lower costs for utilities. These lower costs can maximize profits, create capital for improvements, and allow utilities to save customers money. FRWA is committed to helping systems improve their energy efficiency through training, engineering services, and help in securing funding.

This report was prepared for Taylor Coastal Water & Sewer District Wastewater Treatment Plant following the on-site visit on December 14, 2018.

Section 1: At-a-Glance Findings and Scope

1.1 At-a-Glance Findings

Project Item	Energy Conservation Measure Description	Annual Energy Savings (kWh)	Annual Cost Savings (\$)	Estimated Cost of Improvement (\$)	Rebate Total (\$)	Payback (Years)	Reference Pages
VFDs Installed on Blowers	Install VFDs on blowers to help reduce demand and consumption.	3371	\$4,146.00	\$8,708.50		2.10	3
LED Lighting Upgrade	Install LED bulbs instead of fluorescent bulbs.	2628	\$253.86	\$95.84		0.38	3
		5999	\$4,399.86	\$8,804.34	\$0.00		

1.2 Scope

This assessment will detail information concerning Taylor Coastal Water & Sewer District Wastewater Treatment Plant and how it can improve. To begin, the report will introduce a baseline energy usage. This data is collected from electrical bills, name plate information on motors, and through an on-site survey. Operators are asked essential questions about operation and maintenance. After this, suggestions are made on how the system can improve efficiency. Each suggestion will also be broken down to show how quickly your savings could pay back investing in that option. This report will also highlight aspects where the system does well in already conserving energy.

This report is fair and impartial. Any products named are solely named as examples of potential investments for the system to use. This report is not advertising any product.

Section 2: Initial Findings and Baseline

2.1 Electric Bills

The electric bills reveal a major issue that the system has to address: demand charges. Demand is a measure of how much electricity a consumer needs at any given point in time, usually during a fifteen minute window. Demand is on average 30% of a water system’s monthly electric bill. The average monthly percentage for this system is 36.8%. The system should try to reduce their demand; more information can be found in Section 3.1.

2.2 Operations and Facility

The wastewater plant is in excellent condition and well maintained. The system uses a proven method for wastewater treatment. The oxidation system and aeration help remove nutrients from the waste to reduce its impact on the environment. The system runs a few motors non-stop; while this is not always advisable, the motors are of low enough horsepower that consumption is not a problem. The facility has no HVAC system. The facility lighting will be mentioned later in this report in Section 3.2.

2.3 Baseline

The monthly average from the past twelve months spent on electricity is \$1,275.52, with an average of 7043 kWh purchased each month. The average cost per kWh is \$0.18, which is higher than the State average of \$0.10 per kWh. These figures will be used to calculate the estimated savings in this report.



### Section 3: Suggested Improvements and Potential Savings

#### 3.1 VFD Installation on Blowers

The system generates a large demand. This is most often caused by multiple motors turning on at the same time. Electric motors use up to 3 times their running amperage when they start. This large but short amount of energy consumption is what electric providers try to avoid. While there are several solutions to reducing demand, the most common one is variable frequency drive (VFD) installation.

VFDs, sometimes called variable speed drives (VSDs), allow control over the running speed of a motor. Most motors have only two speeds: on and off. With the help of a VFD, the motor can run at speeds in between its max speed and 50% of its max speed. VFDs allow a motor to start at a much lower speed and slowly build up to an optimal running speed. This reduces the demand created by motor start up and reduces the electrical consumption of the motor.

When installing VFDs, it is important to consult a specialist. Manufacturers such as Siemens or ABB have such specialists and will work with you on sizing and installing VFDs to fit your exact needs. The estimates contained below are for parts only and do not include installation fees. The purpose of this estimate is to help guide decision making and give a general figure for costs.

To equip each of the three blowers with a VFD would cost an estimated \$8,078.50. The VFDs, set to 80% max speed, would create an estimated annual cost savings of \$4,146, yielding an estimated simple payback period of 2 years and 2 months. Of this savings, 56% come from demand reduction. A VFD table has been included below to show other estimates for other running speeds; the table shows the estimated annual savings for a **single** motor.

Hp	Eff. HP	Eff. Hp	Conver. to kW	kW Kw	Q Flow	2.31' kW	Oper Hours	Day kW hr	Days week	kWh Week	Wks WkYr	Yr.kWh kWh Yr.	kWh \$ Cost	kWh Year	kW D Fee	kW Month Demand	Year Demand	Total	Saved Yr.	
10	0.865	11.6	0.746	8.6	100%	8.02	4.15	36.7	7	287	x 52	14,988	\$0.18	\$2,410	\$7.00	37	\$257	\$3,079	\$5,489	
10	0.865	11.6	0.746	8.6	97%	8.04	4.4	35.2	7	247	x 52	12,868	\$0.18	\$2,316	\$7.00	35	\$247	\$2,959	\$5,276	\$219
10	0.865	11.6	0.746	8.6	95%	7.66	4.5	34.3	7	240	x 52	12,524	\$0.18	\$2,254	\$7.00	34	\$240	\$2,880	\$5,135	\$354
10	0.865	11.6	0.746	8.6	90%	6.77	4.7	32.0	7	224	x 52	11,674	\$0.18	\$2,101	\$7.00	32	\$224	\$2,685	\$4,786	\$763
10	0.865	11.6	0.746	8.6	80%	5.16	5.3	27.4	7	192	x 52	10,017	\$0.18	\$1,803	\$7.00	27	\$192	\$2,304	\$4,107	\$1,382
10	0.865	11.6	0.746	8.6	70%	3.8	6.1	23.1	7	161	x 52	8,421	\$0.18	\$1,516	\$7.00	23	\$161	\$1,937	\$3,452	\$2,036
10	0.865	11.6	0.746	8.6	60%	2.66	7.1	18.9	7	132	x 52	6,891	\$0.18	\$1,240	\$7.00	19	\$132	\$1,585	\$2,825	\$2,663
10	0.865	11.6	0.746	8.6	50%	1.75	8.5	14.9	7	104	x 52	5,437	\$0.18	\$979	\$7.00	15	\$104	\$1,250	\$2,229	\$3,260

Another option, and often less expensive, is to use soft starts. Soft starts offer the same motor start-up benefits discussed above, but do not grant the speed control capabilities of a VFD. This solution can also help offset or reduce demand.

#### 3.2 LED Lighting Upgrade

The system currently uses fluorescent bulbs in the wastewater offices. These bulbs are more efficient than their incandescent predecessors but technology continues to advance. New LED lighting technology offers a more efficient alternative to fluorescent bulbs. LED bulbs require a rewiring of most fluorescent fixtures. This rewiring can be done by any electrician and removes the ballast required to

use fluorescent bulbs. The ballast is the largest consumer of energy in a fluorescent fixture. The estimate below accounts **only** for the bulb replacement cost and **does not** include the cost of hiring an electrician to rewire the fixtures.

During the on-site visit, a total of 8 4ft fluorescent bulbs were observed. To replace these bulbs with LED bulbs, there is an estimated cost of \$95.84 with an estimated annual energy cost savings of \$253.86 and an estimated simple payback period of 6 months.

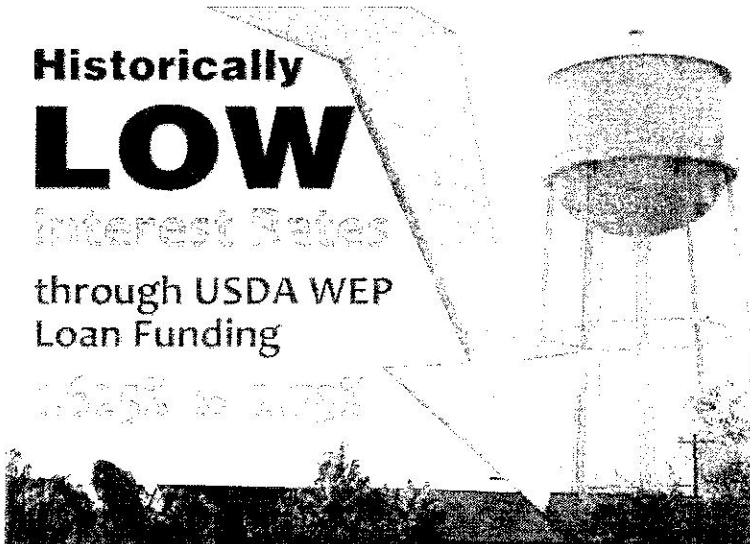
#### Section 4: Financing Options

##### 4.1 USDA Rural Development Loan

The USDA Rural Development Loan program loans rural communities the funds to finance installations of and improvements to water, sanitary sewerage, solid waste, and storm wastewater facilities. Taylor Coastal Water & Sewer District is eligible to apply. FRWA can help your system apply to the program. Contact your circuit rider for more information. You can also contact the State Rural Development Office with the information below:

##### **LAKE CITY AREA OFFICE**

971 W Duval St, Suite 190  
Lake City, Florida 32055-3736  
Telephone: (386) 719-5590  
Fax: (855) 474-6983



##### 4.2 State Revolving Fund

Taylor Coastal Water & Sewer District can apply for a loan from the State Revolving Fund (SRF) managed by the Department of Environmental Protection (DEP). This program helps communities and municipalities install and improve their water systems. FRWA can help your system apply to the program. Contact your circuit rider for more information.