


RESOLUTION R1112-03

**RESOLUTION ACCEPTING THE CITY OF GOLD BEACH OREGON
SEWER UTILITY FINANCIAL CAPACITY ANALYSIS REPORT AND RATE
STUDY REVISED WITH ADDENDUM**

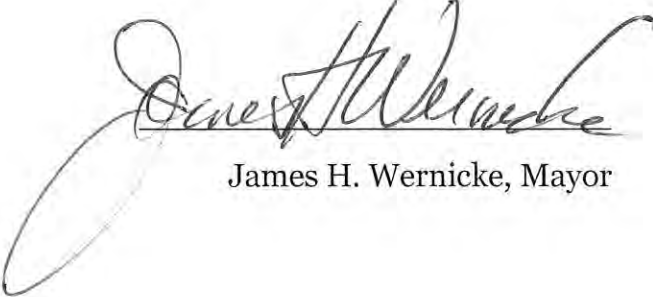
- WHEREAS:** The City of Gold Beach is eligible to receive grant and loan funding from the USDA Rural Development Program to help fund improvements to the City's wastewater treatment facility; and
- WHEREAS:** As a condition of receiving these funds, the City was required to complete a sewer rate study; and
- WHEREAS:** The City of Gold Beach contracted with RCAC to review current sewer rates and rate structures and make recommendations for adjustments that will meet the revenue requirements for servicing project debt requirements; and
- WHEREAS:** RCAC completed their sewer rate study with the submission of the attached City of Gold Beach Oregon Sewer Utility Financial Capacity Analysis Report and Rate Study Revised and Addendum 1.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Gold Beach, Oregon does hereby accept the City of Gold Beach Oregon Sewer Utility Financial Capacity Analysis Report and Rate Study Revised and Addendum 1 attached as Exhibit A.

**PASSED BY THE CITY COUNCIL OF THE CITY OF GOLD BEACH,
COUNTY OF CURRY, STATE OF OREGON, and EFFECTIVE THIS 11th
DAY OF JULY, 2011.**



Jodi Fritts, City Recorder



James H. Wernicke, Mayor



City of Gold Beach Oregon

Sewer Utility

Financial Capacity Analysis Report and Rate Study *Revised*

This report was updated in April 2011 to reflect information for the DEQ State Revolving Fund Planning Loan and the Oregon Economic and Community Development Department Loan not included in the original report. The revised version also adjusts Table 3 projected revenues based on the \$5.00/EDU rate increase effective July 2011 which was approved after the original report was presented.

STUDY PURPOSE

In an effort to create a financially sustainable sewer utility system, the City of Gold Beach is reviewing the sewer utility budget and rates. The City would like to adequately fund sewer utility operations, capital costs, and debt obligations while minimizing rates to the greatest degree possible. The sewer utility is undergoing significant facility improvements made possible by major funding from the Oregon Department of Environmental Quality (DEQ) State Revolving Fund (SRF), the USDA Rural Utilities Services (RUS) funding program and the Oregon Economic and Community Development Department (OECD). The City wants to ensure rates will be sufficient to maintain the utility and meet the requirements of the funders. At the same time, the City is sensitive to the potential financial impacts to ratepayers and strives to provide the best possible service with minimal impacts to customers. The City also seeks ways to improve customer communication regarding utility system costs and rates.

The City of Gold Beach requested the Rural Community Assistance Corporation (RCAC) assess and evaluate the existing sewer rates and provide recommendations. RCAC is a non-profit that provides technical assistance, training and financing to rural communities in 11 western states. RCAC would like to thank Ellen Barnes, City Administrator, and Jodi Fritts, Administrative Services Director, for their efforts and assistance during the study.

SEWER UTILITY BACKGROUND

Gold Beach is located in Curry County, Oregon where the Rogue River meets the Pacific Ocean. Sewer services are provided by the City. The existing wastewater treatment plant (WWTP) is a donut-style, activated sludge plant adjacent to the beach. The WWTP was installed in 1974 with a life expectancy of 20 years. The plant has been operational for over 30 years. There is no alternative or back-up sewer treatment. Therefore, the WWTP cannot be and has not been taken offline for maintenance or repairs. The plant shows serious, visible signs of deterioration. The plant effluent is sent to the drain field which was installed in 1993.

The WWTP has a sewage treatment capacity of 1.25 million gallons per day (mgd). However, the drain field capacity is limited to 0.75 mgd. Inflow and infiltration (I&I) of stormwater into the sewer pipes has caused the WWTP to exceed its National Pollutant Discharge Elimination System (NPDES) permit limits of 0.75 mgd on multiple occasions. The additional stormwater creates sewage flows to the plant that exceed the 0.75 mgd. The drain field cannot accommodate the additional flow which is instead discharged to Riley Creek after secondary treatment. In 2002 the City of Gold Beach signed a Mutual Agreement and Order (MAO) with the DEQ. In the MAO, the City agreed to make improvements to the sewer lines and the WWTP in an effort to reduce I&I, prevent overflows to Riley Creek and bring the system back into compliance with the NPDES permit. The City has replaced the main sewer line along Highway 101 and is currently in the pre-construction phase of replacing the WWTP.

EXISTING SEWER CLASSES AND RATE STRUCTURE

Gold Beach sewer utility has 848 active accounts and charges for 1586 Equivalent Dwelling Units (EDU, also known as Equivalent Residential Units, ERU). Gold Beach considers 7,000 gallons to be one equivalent dwelling unit. Residential accounts are charged one EDU. Sewer customers are currently broken up into 9 user classes: Residential, Commercial, Mobile Home Park, Motel, Apartments, RV Park, Sewer Only, Hunter Creek Residential and Hunter Creek Commercial. The Hunter Creek Residential and Commercial sewer classes exist because of the Local Improvement District (LID) created for improvements to the water utility. Table 1 shows the accounts and EDUs by user class.

Classes	Accounts	EDUs
Residential	614	614
Commercial	149	358
Mobile Home Park	3	145
Motel	10	176
Apartments	34	210
RV Park	3	42
Sewer Only	4	5
HC Residential	23	23
HC Commercial	8	13
Total	848	1586

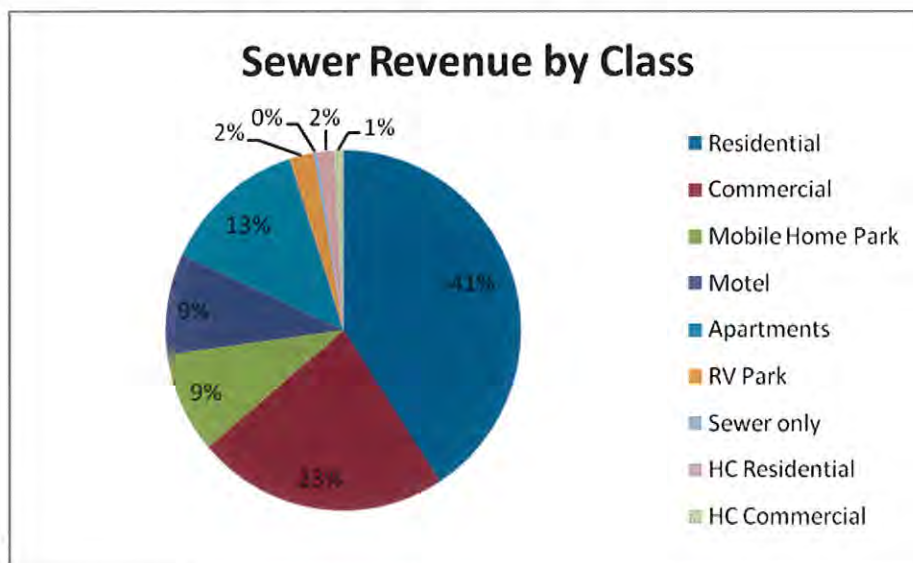
An EDU is often used as a reference point to calculate water and sewer bills of non-residential customers. One method to determine the EDU is to calculate the average monthly water use of your system's residential accounts. In order to exclude water used outdoors that does not end up in the sewer system, sewer EDU's can be calculated using the winter months only. Initial calculations suggest

the EDU of 7,000 gallons may be higher than the actual EDU for Gold Beach. Based on a sample of water use data (102 residential accounts), the EDU was 4,411 gallons for the year and only 3,488 gallons for November to April. If one EDU is lowered from 7,000 gallons to 4,500 or 3,500 gallons, the total number of EDUs could increase.

Due to limitations of the existing software used by the City and the time involved in hand entering and calculating water usage, not all of the residential accounts were used in estimating the actual EDU for Gold Beach. These same limitations also make comparing water use and thus contribution to the sewer system by user class not feasible for this study. However this information could be helpful for adjusting EDUs as well as determining equity among sewer classes, by comparing water use by class to revenue by class. (See below.) The City has already invested in an improved accounting software program and is currently working to transition to the new program.

The current rates are based on a flat fee rate structure. Four sewer charges currently appear on a customer’s bill. The sewer charge (\$19), sewer line highway 101 payment (\$6), and the sewer treatment plant reserve fund charge (\$20, Motel and RV Park classes \$12) are charged per EDU. The sewer reserve fund (\$3) is charged per account. The average residential customer currently pays \$48 per month for sewer service. The total estimated sewer revenue based on the current rate structure, classes and fees is \$866,040 annually. The percentage of estimated sewer revenue generated from each class is shown in Figure 1.

Figure 1



BUDGET ANALYSIS

The City of Gold Beach Fiscal Year 2010-2011 Budget lists four funds related to the sewer utility: Sewer Utility Fund, I & I Correction Fund, Hwy 101 Debt Service Fund, and Sewer Reserve Fund. During the last three years, operating revenues have exceeded operating expenses. This trend is changing. It is budgeted during FY 2010-2011 that expenses will exceed revenues and existing reserves (unappropriated fund balances) will be used to cover the difference. The current reserves are healthy and are fully able to cover this cost. However this practice is not sustainable and reserve levels are expected to decline in the next 3 to 5 years as the new WWTP project progresses. The City has one existing loan with DEQ for the Hwy 101 project. Financing for the new WWTP planning and development phase included a planning loan through DEQ State Revolving Loan Fund and a loan from OECDD. Gold Beach is also acquiring two new loans (DEQ SRF and USDA RUS) to fund the WWTP project. Table 3 shows budget projections based on all funds associated with the sewer utility.

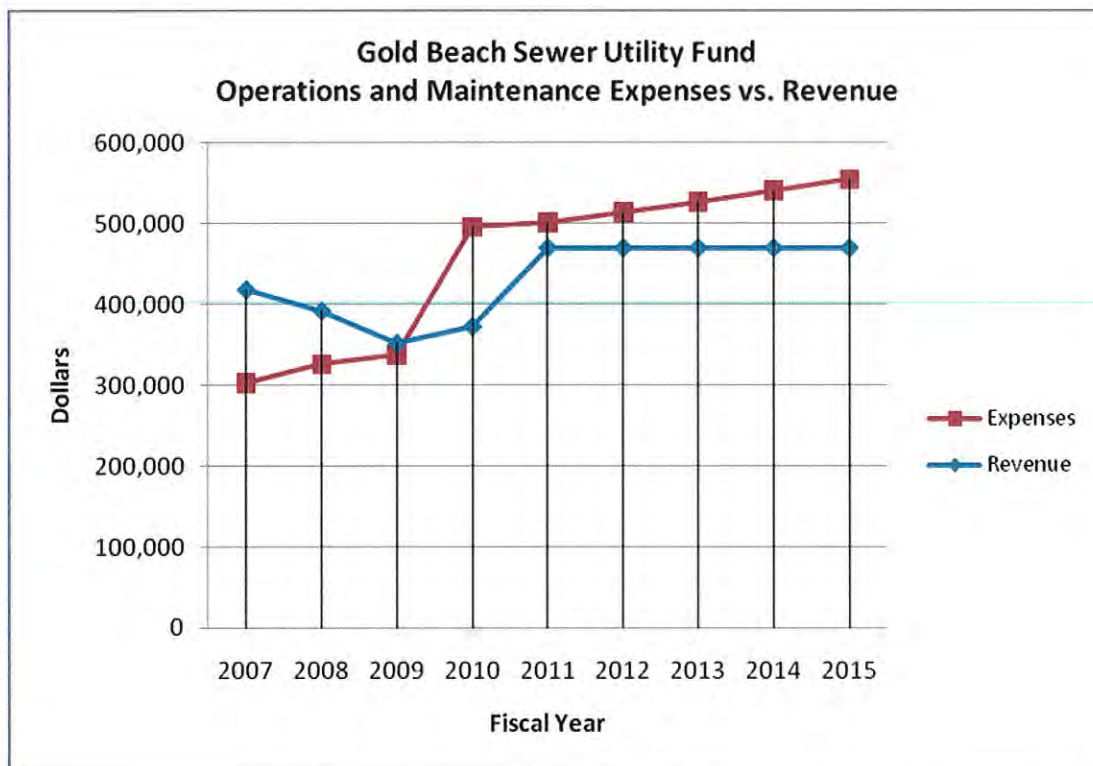
	Budget	Projected	Projected	Projected	Projected	Projected
	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Total Revenue¹	\$866,040	\$961,200	\$961,200	\$961,200	\$961,200	\$961,200
O&M Expenses ²	\$445,879	\$450,886	\$463,768	\$477,036	\$490,703	\$504,778
I&I Improvements ²	\$17,137	\$17,651	\$18,181	\$18,726	\$19,288	\$19,866
Hwy 101 Debt Service	\$118,099	\$118,099	\$118,099	\$118,099	\$118,099	\$118,099
WWTP City Contribution ³	\$500,000	\$166,667	\$166,667	\$166,667		
SRF Planning Loan	\$50,000	\$50,000	\$50,000	\$50,000		
OECDD Loan ⁴		\$185,629	\$108,683	\$108,683	\$108,683	\$108,683
New DEQ Debt Service	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
DEQ SRF Interim Finance			\$8,500			
New USDA Debt Service ⁵				\$162,204	\$162,204	\$162,204
Transfer to Reserve	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Total Expenses	\$1,431,115	\$1,288,932	\$1,233,898	\$1,401,415	\$1,198,977	\$1,213,630
Annual Surplus/(Deficit)	(\$565,075)	(\$327,732)	(\$272,698)	(\$440,215)	(\$237,777)	(\$252,430)
Reserves/Fund Balances	\$2,035,401	\$1,757,669	\$1,534,972	\$1,144,757	\$956,980	\$754,550

1. Revenue increase based on \$5.00 per EDU rate increase effective July 1, 2011.
2. Projections estimated based on 3% annual inflation.
3. Estimated out of pocket cost to city during WWTP construction. DEQ and USDA loans will cover the majority of the construction costs.
4. \$500,000 of the \$1.53 million OECDD loan may convert to grant upon completion of the WWTP project funding.
5. First payment for USDA Loan is typically due six months after loan closing at the end of the project.

Sewer Utility Fund

The sewer utility fund is an enterprise fund that covers the operations and maintenance expenses. During the last three years, revenues have been declining while expenses are on the rise. The \$19 monthly sewer charge generates a projected \$360,000 which combined with miscellaneous revenues, \$12,700, yields \$372,700 in revenues for FY 2010-2011. Operations and maintenance expenses are projected at \$418,379. This amount does not include capital outlay or transfer to sewer reserve fund. These costs would increase expenses by \$77,500 bringing the total expenses to \$495,879. The difference between revenues and expenses will be covered by the unappropriated fund balance. The contingency line item of \$200,000, which functions as an emergency reserve rather than a specific expense, is not included in the discussion above. Figure 2 shows the operations and maintenance expenses compared to the current sewer charge (\$19/EDU) revenue. The increase in revenue in 2011 is based on the \$5.00 per EDU rate increase effective July 2011.

Figure 2



Infiltration and Inflow (I&I) Correction Fund

The I&I correction fund is used for reducing stormwater contributions to the sewer lines. This fund functions similar to an equipment or capital improvements reserve. Other than a minimal amount of interest, there is no current revenue stream for this fund. For FY2010-2011 total resources are budgeted at \$165,575. Expenses are budgeted at \$17,187 with another \$20,000 set aside as contingency leaving an unappropriated ending fund balance of \$128,388.

Hwy 101 Debt Service Fund

Improvements to the sewer main line along Highway 101 were funded in 2005 with a 20 year loan from DEQ State Revolving Loan Fund. The Hwy 101 Debt Service Fund exists to manage the repayment of the loan and holds the debt service reserve required by DEQ (\$55,111). The \$6 per EDU sewer line highway 101 charge generates a projected \$114,192 in annual revenues for this fund. Revenues exceeded expenses in 2008. However, during 2007, 2009 and the current fiscal year expenses exceeded or are projected to exceed revenues. FY 2010-2011 budget shows revenues at \$116,800 while expenses are \$118,099. **With an unappropriated fund balance of approximately \$255,000, there are sufficient funds to cover the shortfall and maintain the required debt service reserve.**

Sewer Reserve Fund

The sewer reserve fund acts as a general reserve account to pay for the new WWTP project and also holds the system development charge (SDC) funds. Use of the SDC funds are restricted by state law to certain activities, however the remaining funds are not restricted. Revenue in this fund comes from several sources: \$50,000 is transferred from the sewer utility fund each year, loans or grants are deposited into this fund, customers pay a sewer reserve fund charge of \$3 per account and a sewer treatment plant reserve fund charge of \$20 per EDU (\$12 for motel and RV park classes). The sewer reserve fund charge generates projected revenue of \$30,528, while the sewer treatment plant reserve fund charge generates \$359,712.

Reserve Fund Targets

The City of Gold Beach has significant reserve funds at the present as shown in Table 3. This is due in part to the previous planning efforts to establish reserve funds for the improvements required by the MAO with DEQ. All four of the previously discussed funds contain reserve monies of one kind or another. The current draft of the City of Gold Beach Policy Manual designates a reserve goal of at least 25% of the operating budget. While there are no reserves required by the State of Oregon, funders often require specific reserves to protect their financial interests. For the existing DEQ SRF loan from the Highway 101 project, the debt service reserve required is \$55,111.

There are generic industry recommendations for additional reserves, however these do vary. Operating reserves are commonly set at 12.5% (45 days) of the annual operating budget. For FY 2010-2011, 12.5% of the sewer operating budget is \$52,297. Under the current budget system, the unappropriated balances in the sewer utility fund or the sewer reserve fund both easily meet the 12.5% target. However neither fund clearly designates an operating reserve through a line item entry or other explanation.

Emergency or contingency reserves ideally cover the cost of responding to the most costly major failure in the utility. This could be the cost of a pump at the plant, a lift/pump station emergency, a break in a crucial conveyance line or other emergency. Due to the deteriorated state of the existing sewer treatment plant, \$200,000 is currently set aside for contingency in the budget.

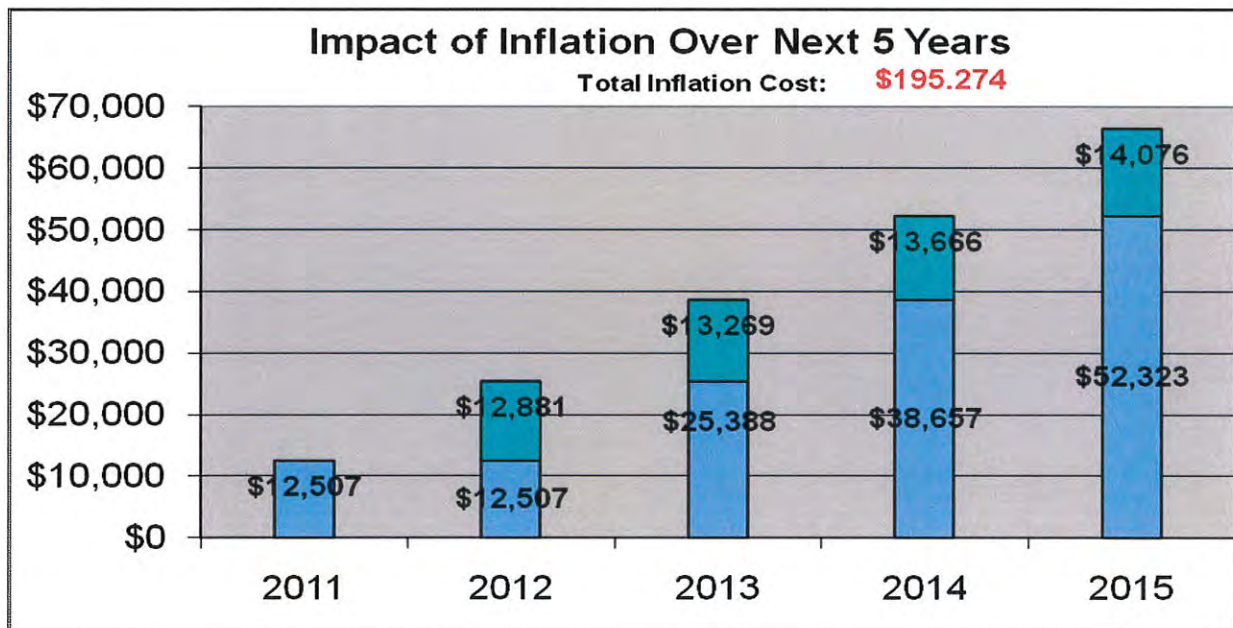
Equipment replacement or capital improvements reserve is generally determined by the utility's Capital Improvements Plan (CIP). This reserve covers projects that are small enough to not require outside financing but are larger than what would be considered regular maintenance. The truck CDs in the sewer utility fund as well as the I&I correction fund could be considered a part of the sewer utility's equipment replacement reserve. Ideally the equipment reserve amount corresponds directly to the projects outlined in the CIP.

Inflow and Infiltration Correction Fund	\$148,388
HWY 101 Debt Service Fund	\$264,696
Sewer Reserve Fund	\$1,512,861
Sewer Utility Fund – Truck CDs (2)	\$90,000
Sewer Utility Fund – CD	\$105,394
Sewer Utility Fund – Cash Ending Balance	\$576,989
*Numbers from Balance Sheets dated 6/30/10 Except I&I Fund – from 10-11 Budget	

Impact of Inflation

The impact of inflation on a utility budget, while often overlooked, can significantly affect expenses. Commonly, 3% is considered a reasonable annual inflation rate, although the economic recession has slowed inflation. For the purposes of this study, 3% was still chosen to represent the impact inflation could have on the sewer utility budget. Figure 3 shows the cost of inflation based on the FY 2010-2011 sewer budget. Over the next five years, annual inflation of 3% will cost the City \$195,274. Revenues must keep up with the cost of inflation to remain financially viable.

Figure 3



NEW WASTEWATER TREATMENT PLANT DEBT

Funding the design and construction of the new WWTP resulted in the City securing four new loans.

DEQ SRF Planning Loan:

The city is currently paying \$50,000 a year for a planning loan through the Oregon Dept. of Environmental Quality Clean Water State Revolving Loan Fund. The last payment is expected to be in the 2013-2014 budget. If this loan payment was to be covered directly from the customers, the monthly cost per EDU would be \$2.63. Alternatively, since this payment is relatively short term, there are adequate funds to cover these payments using existing reserves and unappropriated fund balances.

OECD Loan:

The Oregon Economic and Community Development Department made a \$1.53 million loan to Gold Beach. There is a possibility that \$500,000 of the loan will convert to grant upon completion of the funding for the rest of the WWTP project. The first payment of \$185,629 will be made in 2011-2012. After that the annual payment will be \$108,683. The monthly cost per EDU would be \$5.71.

DEQ SRF Loan:

A \$5 million 30-year loan was secured through the DEQ Clean Water State Revolving Loan Fund. The estimated annual payment is \$250,000, which equates to \$13.14 per month per EDU. A debt service reserve estimated at \$125,000 must be established for this loan. Repayment for the DEQ loan and the required reserve are included in the current Sewer Reserve Fund budget.

USDA RUS Loan:

The USDA Rural Utility Service loan is for \$4.158 million resulting in an estimated annual payment of \$162,204 or \$8.52 per EDU per month. The required reserve for the USDA loan is equal to one annual payment and, at a minimum, 10% of the required reserve must be saved each year for the first ten years of the loan. Repayment for the USDA loan is expected to begin after the completion of the project (2013-2014).

Annually combined debt service on the new WWTP loans is projected at \$570,887 for the 2013-2014 budget. To cover the cost of all four loans a total of \$30.00 per EDU per month will be needed. This is not to say rates must be raised by this amount, but this would be the cost of repaying the loans if split equally per EDU.

As the debt service payments begin in the next one to three years, revenue must be generated to cover these expenses for the long-term life of the loans (30-40 years). One option would be to redirect the sewer treatment plant reserve fund (STP) charge (currently \$20 or \$12 per EDU depending on class, generating an estimated \$359,712 annually) from the reserve account to cover the new debt service. Unfortunately, excluding the short term debt service for the SRF Planning loan, annual debt service payments (estimated at \$520,887 starting with the 2014-2015 budget) exceed the revenue from the STP charge by \$161,175. If split equally per EDU, the charge would need to be increased by \$8.47 per EDU (\$28.47 and \$20.47) to make-up the difference. If this option was chosen, this could be implemented over the course of several years with a \$2-\$3 increase each year until the required revenues were met.

BILL PAY ASSISTANCE PROGRAM

While assistance programs for electricity and food costs exist, there is not a clear means of assistance for Curry County residents to pay water and sewer bills. According to the 2000 US Census 12.4% of Gold Beach residents were low income. A 2008 Oregon Housing and Community Services Poverty Report for Curry County listed 36% of households as low income and 27% of residents were 65 or older. Assistance programs across the board have seen an increase in need as a result of the economic recession. There are many examples of bill pay assistance programs being implemented in Oregon. There are many options and policy considerations for these programs. Where will the funds come from? Donations, rates, other? Will the assistance be a monthly discount or one-time credit? Who will qualify? Low-income, seniors, others?

If Gold Beach decides to create a bill pay assistance program, the impact on the budget must be evaluated. For example if 20% of residential classes (128 out of 641 accounts) were given a discount of 25% (bill reduced from \$48 to \$36 per month), rate revenue would decrease by \$18,432 per year. Any decrease in revenue would need to be recovered (through donations, rate adjustments, etc.) in order to maintain a solvent sewer utility. Many communities and water/sewer districts in Oregon have assistance programs. Examples of these policies can be found on the League of Oregon Cities website or by visiting the individual city/district websites. Some of the utilities with programs include: Albany, Ashland, Prineville, Bend, Central Point, Milwaukie, Junction City and Hood River.

OPTIONS FOR REVENUE ADJUSTMENTS

Individual fund revenues are not meeting the associated expenses. The City is relying on fund balances and reserves to cover the differences. Due to planning for the WWTP construction, large amounts are being placed into reserve accounts. Based on the FY 2010-2011 budget, \$88,178 will be needed from fund balances or reserves to cover operations and maintenance, debt service and capital outlay costs. In consideration of the number of changes that the sewer utility is currently undergoing, it was requested that alternative rate structures, such as water use based sewer rates, not be included at this time. Therefore, the following options assume that the city will remain with the existing rate structure.

Option 1: Raise rates by \$4.63 per EDU.

Estimated annual revenue increase of \$88,178. This action would bring revenues more closely in line with expenses. This would also limit the amount of fund balances or reserves used to cover budgeted expenses. Option 1 would impact all customers.

Option 2: Lower 1 EDU from 7,000 gallons to 4,500 gallons.

There are currently 945 non-residential EDUs. If the total number of EDUs were increased by 250 (26.5%), estimated annual revenue for the sewer charge and Hwy 101 charge would increase by \$75,000. (Reserve revenue would also increase.) This option increases revenues without raising rates. Residential customers would see no change in their bills. Non-residential bills would vary in the amount of change. Heavy water users would see the greatest change. Option 2 would require time to calculate the new EDU numbers. Exact impact on revenue would be unknown until calculations are complete.

Option 3: Redirect revenues from reserve charges into other funds.

\$358,264 is the projected annual revenue generated by the sewer treatment plant reserve fund charge. Part of this revenue could be redirected to cover expenses in other funds. This option results in no change to customers. However a rate change in the near future would likely be needed to account for inflation and additional debt service payments. (See discussion on pages 8 and 9 and recommendation 3.)

RECOMMENDATIONS

1. **Clearly identify reserve targets and uses.** While reserves and fund balances are significant at the present, the expectation is those reserves will decline during the construction of the new WWTP. Identify targets now and monitor expenses to ensure adequate reserves exist at the end of the project. Don't forget to include the debt reserves required for the new loans. Create written descriptions identifying the reserve's purpose and a funding plan for any reserve that falls below targeted amount. (See discussion above for suggested reserve targets.)
2. **Create a Capital Improvements Plan.** Identify projects and purchases (other than those identified in the new WWTP project) that are anticipated in the next 5 to 7 years. Ensure funding for projects will be available. (RCAC offers assistance in developing asset management plans.)
3. **Keep up with inflation.** Adopt a resolution that adjusts rates annually or biannually to keep pace with inflation. Small regularly planned increases are often better received and understood by rate payers than larger increases 5 or 10 years apart.
4. **Simplify customer billing.** Restructure the billing format to show only one sewer charge. The current bill can be confusing and misleading for customers. (i.e. Why am I charged only once for water but four times for sewer service?) Revenue can be distributed as necessary to the various funds. Customers that are interested in how the rate is divided up will have access to the city budget. Announce this change with plenty of notice especially if rates are increased.
5. **Simplify user classes.** Can the 4 Sewer Only accounts be absorbed into the residential class? The Mobile Home Park class seems to be the same as the Apartments class; they could be combined to create a multi-residential class. With the new accounting software program, now is a great time to restructure and simplify billing and accounting processes. Once the Local Improvement District water project is paid for, combine Residential and Hunter Creek Residential classes and combine Commercial and Hunter Creek Commercial classes.
6. **Simplify budget funds.** Unless the money in the I&I Corrections Fund is limited to I&I improvements, combine this fund with the sewer reserve fund and create a line item designating funds for equipment replacement/capital improvements. (The amount needed would be determined by your CIP.)
7. **Adjust \$3 reserve fund charge.** The \$3 reserve fund charge is the only charge based per account not per EDU. For consistency and ease in billing change to a per EDU charge. Current revenue is \$30,528 annually. A \$1.61/EDU charge would create \$30,642 in annual revenue.