



City of Morro Bay



Financial Plan & Rate Analysis for a New Water Reclamation Facility

Draft 07/05/18



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City of Morro Bay
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Bartle Wells Associates is pleased to submit the attached *Financial Plan & Rate Analysis for a New Water Reclamation Facility*. The report develops financial projections and recommends rate surcharges to support the funding of a new Water Reclamation Facility (WRF) to replace and upgrade the City's aging wastewater treatment plant and provide recycled water to improve local supply reliability.

The report recommends the City adopt new water and sewer rate surcharges to help fund each utility's share of costs for the WRF Project. These WRF surcharges would be levied in addition to the City's previously-adopted water and sewer rates and would remain in effect while debt service incurred to fund the WRF Project remains outstanding.

Financial projections and rate surcharges were developed under two key scenarios including a) a Base Case Scenario with front-loaded WRF surcharges totaling \$41 per month per single family home starting 2019/20; b) a Phase-In Scenario with WRF surcharges phased in over a few years resulting in less cash funding for the WRF Project and total WRF surcharges of \$44 per month per single family home.

BWA also evaluated the impacts of c) securing a low-rate State Revolving Fund (SRF) loan to supplement the City's anticipated WIFIA financing, which would result in a roughly \$7 monthly reduction to the WRF surcharges, and d) a wastewater-only project with no recycled water facilities under which the savings due to reduced project costs are largely offset by the increase in debt service assuming all bond financing without WIFIA financing or additional SRF loans.

I enjoyed working with the City on this assignment and appreciate the input and assistance received from the City's project team and Blue Ribbon Commission in evaluating financial scenarios and rate alternatives. Please contact me anytime if you have questions about the findings and recommendations presented in the report or any related issues.

Sincerely,

BARTLE WELLS ASSOCIATES

Alex Handlers, CIPMA
Principal/Vice-President

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City of Morro Bay

Financial Plan & Rate Analysis for a New Water Reclamation Facility

1. Background

The City of Morro Bay is located on the Central California coast in San Luis Obispo County, about 12 miles northwest of the City of San Luis Obispo. The City has a population of approximately 10,500. The City provides water and wastewater service to residents and businesses within the City.

The City's existing wastewater treatment plant has reached the end of its useful life and needs to be rebuilt due to a number of factors including age and condition, as well as capacity and regulatory deficiencies. The existing plant was originally built in 1953 and last underwent major upgrades in 1984. The existing plant does not meet current wastewater discharge permit requirements and needs to be rebuilt to comply with the City's new Waste Discharge Permit requirement within a maximum of five years, as required by the Central Coast Regional Water Quality Control Board (RWQCB). Failure to meet the RWQCB's permit requirements can result in substantial fines.

Adding to the City's challenges, the wastewater treatment plant cannot be rebuilt at its current location. The existing plant is located on the coast in a flood plain and tsunami inundation zone. In 2013, the California Coastal Commission denied the City's development permit to build a new treatment plant near the existing site. In 2015 the Commission issued Sea Level Rise Policy Guidance that strongly discourages siting facilities in areas where they could be adversely affected by the impacts of sea level rise over the full life of the structure. The current location is also inconsistent with other provisions of the Coastal Act and Local Coastal Program.

Based on evaluation of a wide range of project and site alternatives, the City is now moving forward with a new Water Reclamation Facility (WRF) at a proposed site near the intersection of South Bay Boulevard and Highway 1, approximately 1 mile east of downtown Morro Bay. In June 2018, pursuant to a competitive proposal process, the City selected a team to construct the new WRF via a design-build process.

The full WRF project includes a new wastewater treatment plant, pumping facilities, a pipeline to convey wastewater to the new WRF, and water recycling facilities for potable reuse. Water recycling facilities are included in the WRF project for a number of reasons including:

- The City predominantly relies on imported water from the State Water Project for the

community's water supply. Recycled water provides the City with a relatively drought-proof local supply that improves water supply security and reliability.

- While water recycling infrastructure adds significant cost to the WRF project, it also helps make the WRF project eligible and competitive for grants and low-interest-rate loans. Financial analysis indicates that the impact of the added costs of the recycled water facilities would be largely offset by the financial benefits of subsidized financing available with recycling.
- Water recycling was identified as a community goal for the new WRF.

Over the past year, the City has been working to minimize the cost of the WRF Project. Together, the combined efforts of the City, various citizen-advisory groups and engineering consultants have helped substantially reduce costs from prior estimates developed in 2017. The City is currently in negotiations with the selected design-build team and hopes to further reduce costs during the design-build process.

2. Study Overview

Bartle Wells Associates (BWA) was retained to develop a financial plan and rate recommendations to support funding for the new WRF as well ongoing operating and capital improvement needs. This report presents findings and rate recommendations developed under a few financial scenarios. The proposed WRF Facility Surcharges were developed with input from City staff, Carollo Engineers, and the City's Blue Ribbon Commission -- a group of Morro Bay residents with substantial financial and business experience that was established to provide independent review and help evaluate the costs and potential rate increases needed to support the new WRF.

The City's water and sewer utilities are financially self-supporting enterprises funded primarily from monthly service charges. *In order to secure financing for the WRF, the City will need to first adopt utility rate surcharges adequate to support repayment of debt service for the new WRF.*

BWA developed financial projections and rate recommendations under four alternative scenarios.

- Base Case Scenario:** This scenario assumes the WRF project is funded by a combination of WIFIA financing, revenue bonds, and pay-as-you go cash funding from rates and fund reserves. Under this scenario, the City would levy the full WRF Facility Surcharges beginning fiscal year 2019/20.
- Phase-In Scenario:** This scenario is similar to the Base Case Scenario, but assumes the WRF Facility Surcharges would be phased in from fiscal year 2019/20 through 2021/22.

- C. **SRF Financing Scenario:** This scenario assumes the City obtains low-rate SRF financing, instead of bonds, to supplement the anticipated WIFIA loan and cash funding.
- D. **No Water Recycling Scenario:** This scenario eliminates the water recycling facilities resulting in a reduced-cost, wastewater-only WRF project, and also assumes no WIFIA financing with all project funding from bonds and pay-as-you-go cash contributions.

3. Prior Rate Increases & Need for WRF Surcharges

In 2015, the City adopted 5-years of water and sewer rate increases. The adopted rates were designed to phase in funding to support the cost of providing utility service and help provide funding for capital improvements to aging infrastructure. As of July 1, 2018, the City will have implemented 4 of the 5 years of adopted rate increases. Prior to these rate increases, the City had not adopted any water rate increases in 20 years but had periodically adopted some sewer rate adjustments.

The previously-adopted sewer rates were also designed to help support funding for a new wastewater treatment plant assuming Morro Bay would need to fund approximately \$56 million of project costs, equal to 75% of an estimated \$75 million wastewater treatment plant that would be jointly owned with Cayucos funding the remaining 25%. The \$75 million preliminary cost estimate from 2015 was based on a conceptual design and parametric estimates.

In addition, the adopted rates were not designed to fund recycled water facilities, which were previously expected to be a future phase of the project. The adopted sewer rates also assumed the City would be able to obtain low-rate financing from the State Revolving Fund (SRF) for all debt financing needs of the new treatment plant. SRF financing was previously fairly easy to obtain but is now substantially more difficult to secure.

The adopted rates substantially strengthened the financial condition of the City's water and sewer utilities but do not provide adequate funding to support each utility's share of costs for the new WRF. Additional water and sewer charges are needed to provide adequate funding for each utility's share of debt service for the WRF project.

BWA recommends the City adopt new water and sewer WRF Facility Surcharges to supplement the previously-adopted rates in order to provide adequate funding for WRF-related debt repayment. These would be separate surcharges levied in addition to the City's adopted utility rates.

4. Summary of Proposed WRF Facility Surcharges

Table 1 shows proposed WRF Facility Surcharges for single family residential customers under the four financial scenarios. Note that the surcharges shown under the Phase-In Scenario are maximum surcharges with full phase-in starting 2022/23. Surcharges for residential customers are structured as fixed monthly charges. Surcharges for all customer classes are detailed later in this report.

Table 1 – Summary of Maximum Single Family Residential WRF Facility Surcharges

	Base Case	Phase-In	WIFIA & SRF	No Recycling*
	WRF+Recycling WIFIA+Bonds	Base Case with Rate Phase In	WRF+Recycling WIFIA+SRF	No Recycling All Bonds
WRF Facility Surcharges				
Sewer WRF Facility Surcharge	\$25.00	\$27.00	\$20.00	\$44.00
Water WRF Facility Surcharge	16.00	17.00	14.00	-
Total	41.00	44.00	34.00	44.00*

* Under the No Recycling Scenario, the fifth and final year of the previously-adopted water rate increases would not need to be implemented, resulting in a \$4.50 reduction in the monthly water bill for a typical single family home using 5 units of water per month compared to other scenarios. This results in a net reduction of \$1.50 per month compared to the Base Case Scenario.

5. Key Alternative for Implementing & Billing WRF Facility Surcharges

The City has options for implementing and billing the proposed WRF Facility Surcharge noted below.

Timing of Surcharge Implementation

At this stage, the City is considering two approaches regarding the timing of implementing the WRF Facility Surcharges, including:

- **Front-Load** - Levy the full WRF Facility Surcharges starting fiscal year 2019/20 (Base Case Scenario)
- **Phase-In** - Phase-in the WRF Facility Surcharges in upcoming years (Phase-In Scenario)

The Phase-In Scenario results in a lower level of surcharge revenues than the front-loaded Base Case Scenario until the surcharges are fully phased-in. The Phase-In Scenario results in approximately \$4.3 million less of pay-as-you-go cash funding which results in the need for a corresponding increase in debt financing, higher annual debt service, and ultimately a higher surcharge.

Method of Bill Collection

The City currently bills customers monthly via a combined utility bill for water and sewer service. The City is considering two methods of bill collection for recovering the WRF Facility Surcharges, including:

- **Monthly Billing** - Add the WRF Facility Surcharges as a new line-item in the monthly bills.
- **Property Tax Rolls** - Recover the proposed WRF Facility Surcharges on the property tax rolls.

The WRF Facility Surcharges would be the same under both billing alternatives and in many cases would be paid by the same people; only the method of billing and collection would vary. Additional information regarding potential billing on the property tax rolls is included later in this report.

Community & Advisory Board/Committee Input Received

The City conducted a community workshop to discuss the WRF project and proposed rate surcharges on Saturday, June 23, 2018. During the workshop, community members were requested to provide their preferences regarding: a) either phasing in or front-loading the WRF Facility Surcharges, and b) billing the WRF Facility Surcharges as a separate line-item on the monthly utilities bill vs. submitting the surcharges for recovery via the property tax rolls. Community members who participated at the workshop were fairly evenly split regarding their preferences on both the potential phase-in and method of bill collection.

The same feedback was sought from members of the Public Works Advisory Board (PWAB), Water Reclamation Facility Citizens Advisory Committee (WRFCAC), and Citizens Finance Advisory Committee (CFAC) during a joint meeting between these three committees held on June 25, 2018. Advisory board and committee members slightly favored phasing in the surcharges and strongly favored including the surcharges on the monthly utilities bill, not on the property tax rolls.

6. Total Monthly Water & Sewer Charges with WRF Facility Surcharges

Tables 2A and 2B show the total combined monthly water and sewer charges – *including water and sewer service charges and the proposed WRF Facility Surcharges* – for a typical single family home using 5 units (hcf) of water use per month under the Base Case and Phase-In Scenarios. Under the Phase-In Scenario, pay-as-you-go cash funding for the WRF Project generated by the Surcharges would be reduced by approximately \$4.3 million compared to the Base Case Scenario. This results in the need for a corresponding amount of additional debt financing which results in slightly higher debt service and a higher maximum surcharge.

Note that monthly single family residential use has averaged about 4.6 units (hcf) over the past year. BWA estimates that roughly 2/3rds of single family residential bills are at or below 5 hcf.

Table 2A – Base Case Scenario: Total Monthly Charges with WRF Surcharges

Typical Single Family Home with 5 Units (hcf) Monthly Water Use

	2018/19	2019/20	2020/21	2021/22	2022/23
Monthly Utility Bill					
Sewer Monthly Charge	\$77.00	\$83.00	\$83.00	\$83.00	\$83.00
Water Monthly Charge	62.50	67.00	67.00	67.00	67.00
Subtotal Monthly Bill	139.50	150.00	150.00	150.00	150.00
WRF Facility Surcharges					
Sewer WRF Facility Surcharge	-	25.00	25.00	25.00	25.00
Water WRF Facility Surcharge	-	16.00	16.00	16.00	16.00
Subtotal Monthly Bill		41.00	41.00	41.00	41.00
Total Monthly Charges	139.50	191.00	191.00	191.00	191.00

Table 2B – Phase-In Scenario: Total Monthly Charges with WRF Surcharges

Typical Single Family Home with 5 Units (hcf) Monthly Water Use

	2018/19	2019/20	2020/21	2021/22	2022/23
Monthly Utility Bill					
Sewer Monthly Charge	\$77.00	\$83.00	\$83.00	\$83.00	\$83.00
Water Monthly Charge	62.50	67.00	67.00	67.00	67.00
Subtotal Monthly Bill	139.50	150.00	150.00	150.00	150.00
WRF Facility Surcharges					
Sewer WRF Facility Surcharge	-	9.00	18.00	27.00	27.00
Water WRF Facility Surcharge	-	8.00	12.00	17.00	17.00
Subtotal Monthly Bill		17.00	30.00	44.00	44.00
Total Monthly Charges	139.50	167.00	180.00	194.00	194.00

7. WRF Project Costs & Timing

Table 3 shows projected WRF project capital and operating costs based on the winning design-build proposal received by the City (which is subject to final negotiation) and engineering cost estimates provided by Carollo Engineers. The WRF project is currently estimated to cost \$122.8 million including expenses incurred to date; the financial and rate projections are based on this amount. The total cost with roughly \$3 million of additional unallocated project reserve contingency is estimated at \$126 million.

Table 3 – WRF Project Cost Estimates

	Construction Costs ¹	Soft Costs	Project Reserves ²	Total Cost
Projected Capital Costs				
<i>Includes permitting, design, procurement, construction, and management.</i>				
Water Reclamation Facility	\$62,616,000	\$8,489,000	\$3,131,000	\$74,236,000
Conveyance Facilities	21,086,000	2,820,000	2,343,000	26,249,000
Offsite Recycled Water Facilities ³	8,592,000	2,648,000	859,000	12,099,000
General Program Implementation	0	5,160,000	0	5,160,000
Subtotal	92,294,000	19,117,000	6,333,000	117,744,000
Prior Project Expenditures	0	5,063,000		5,063,000
Total	92,294,000	24,180,000		122,807,000
<i>Total with Reserve Contingency</i>				<i>126,000,000</i>
Annual Operating & Maintenance Expenses				
<i>Projected online starting January 1, 2022.</i>	<u>2018 Estimate</u>	<u>Cost Inflation</u>	<u>2022 Projection</u>	
WRF Wastewater Operations	\$2,383,000	\$299,000	\$2,682,000	
Conveyance to WRF	246,000	31,000	277,000	
Recycled Water Operations	193,000	24,000	217,000	

Source: Carollo Engineers, WRF Program Revised Cost Estimates as of 6/20/18.

1 Construction costs Include estimated cost inflation to construction mid-point where applicable.

2 Project Reserves are placeholder estimates for additional project funding requirements (e.g. outside project scope) with funding subject to City control.

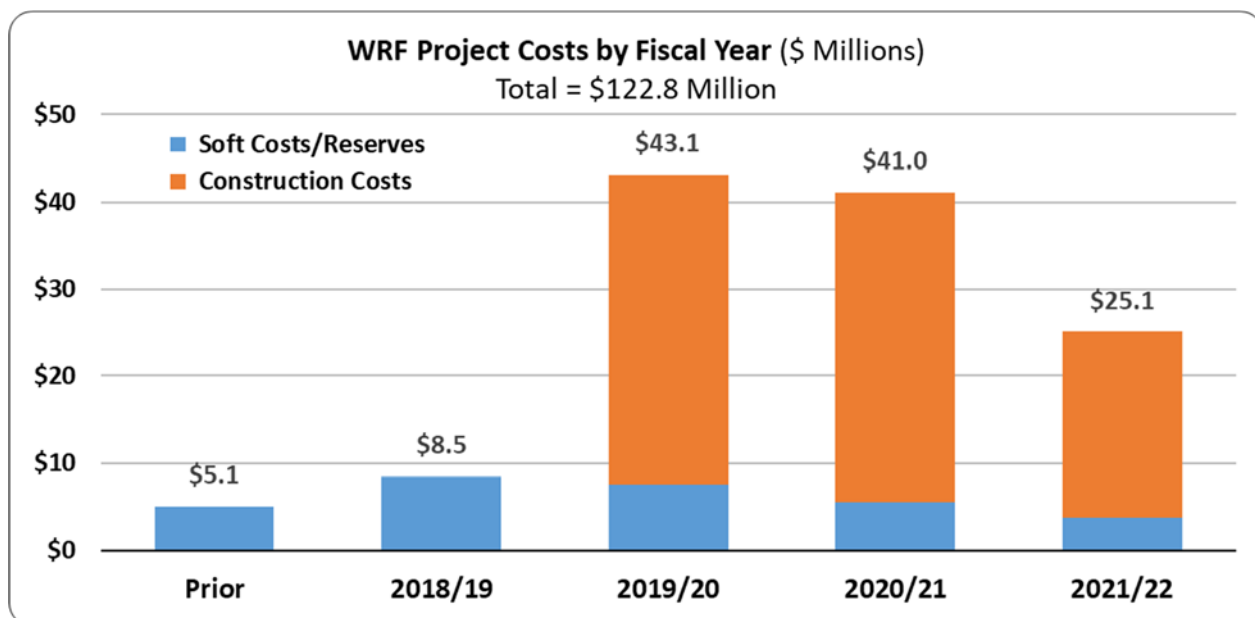
3 Offsite Recycled Water Facilities assume West alternative and include property acquisition estimate.

Without recycled water infrastructure, the cost of the project is reduced by approximately \$20 million to an estimated total of \$102.2 million. The reduction includes elimination of \$12 million of Offsite Recycled Water Facilities, and an \$8 million reduction in costs for the wastewater treatment plant. Tables detailing financial projections for a No Water Recycling Scenario are included in the appendix.

Table 4 shows projected WRF costs by fiscal year. The City estimates that a little over \$5 million will have been spent by the end of fiscal year 2017/18, with future costs totaling about \$117.7 million including estimated cost inflation to the projected mid-point of construction for each project component. The City anticipates incurring costs primarily for design in 2018/19, with construction occurring during the subsequent 3 fiscal years. The new wastewater treatment facility is targeted for completion by October 2021 with operations targeted to start January 2022.

Table 4 – Projected WRF Costs by Fiscal Year

	Prior Costs			Projected Costs			
	Prior	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Soft Costs	2,800,000	1,423,000	840,000	8,490,000	5,218,000	3,160,000	2,248,000
Construction					35,512,000	35,512,000	21,271,000
Project Reserves					2,377,000	2,377,000	1,579,000
Annual Total	2,800,000	1,423,000	840,000	8,490,000	43,107,000	41,049,000	25,098,000
<i>Subtotal</i>			5,063,000				117,744,000
<i>Total</i>							122,807,000



8. Water vs. Wastewater Cost Allocation

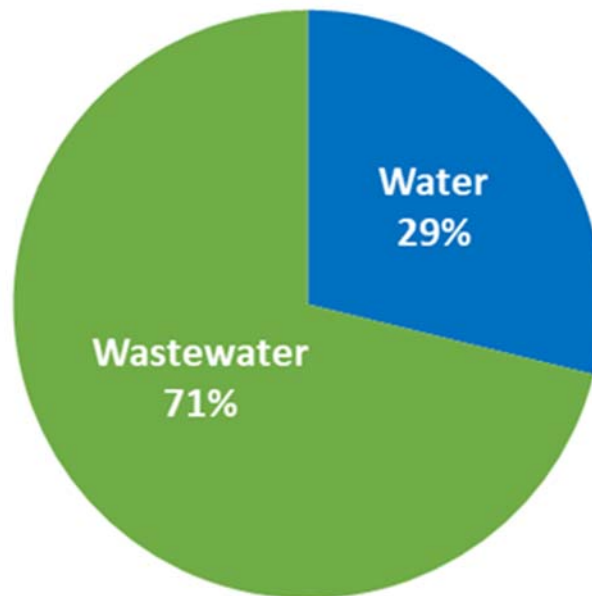
Table 5 shows an allocation of WRF project costs to water vs. wastewater based on analysis developed by Carollo Engineers. Costs allocated to the water utility include all facility costs related to recycled water production that are in excess of the costs that would be incurred for constructing a new WRF for wastewater only. Each utility is responsible for funding its share of project costs.

Table 5 – WRF Project Cost Allocation to Water vs. Wastewater

Project Component	Total Cost	Water		Wastewater	
Water Reclamation Facility	\$74,236,000	\$21,528,000	29.0%	\$52,708,000	71.0%
Conveyance Facilities	26,249,000	0	0.0%	26,249,000	100.0%
Offsite Recycled Wtr Facilities	12,099,000	12,099,000	100.0%	0	0.0%
General Program Implementation *	5,160,000	1,541,000	29.9%	3,619,000	70.1%
Prior Project Expenditures	<u>5,063,000</u>	<u>244,000</u>	<u>4.8%</u>	<u>4,819,000</u>	<u>95.2%</u>
Total	122,807,000	35,412,000	28.8%	87,395,000	71.2%

* Allocated based on proportionate share of total future facility costs.

Water vs. Wastewater Costs



9. WRF Project Funding Sources

The City anticipates funding the WRF project via a combination of long-term debt and pay-as-you-go cash funding provided by utility rates and available fund reserves. The Base Case Scenario assumes the City secures WIFIA funding for the maximum allowable 49% of the WRF project cost, with remaining funding provided by cash funding and revenue bonds. Table 6 and the chart below show a breakdown of anticipated funding sources for the WRF project under the Base Case Scenario. For comparison, the Phase-In Scenario results in \$4.3 million of reduced cash funding for the WRF and a corresponding \$4.3 million increase in Revenue Bond financing.

Table 6A – Base Case: WRF Project Funding Sources

	Total	% of Ttl	Water	% of Source	Wastewater	% of Source
WRF Total Project Costs	\$122,807,000		\$35,412,000	28.8%	87,395,000	71.2%
Projected Funding Sources						
WIFIA Loan	60,175,000	49.0%	17,352,000	28.8%	42,823,000	71.2%
SRF Planning Loan	10,300,000	8.4%	2,970,000	28.8%	7,330,000	71.2%
Revenue Bonds	24,700,000	20.1%	10,246,000	41.5%	14,454,000	58.5%
Sewer New Cash Funding	17,969,000	14.6%	0	0.0%	17,969,000	100.0%
Water New Cash Funding	4,600,000	3.7%	4,600,000	100.0%	0	0.0%
Prior Cash Contributions	<u>5,063,000</u>	<u>4.1%</u>	<u>244,000</u>	<u>4.8%</u>	<u>4,819,000</u>	<u>95.2%</u>
Total	122,807,000	100.0%	35,412,000	28.8%	87,395,000	71.2%

Base Case: WRF Project Funding Sources

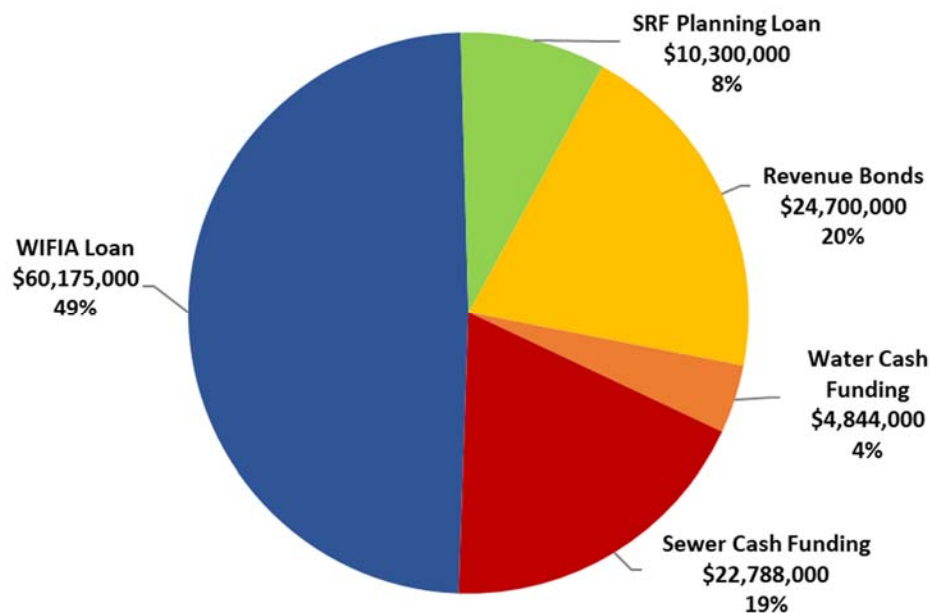


Table 7 shows a breakdown of anticipated funding sources for the WRF Project by fiscal year under the Base Case Scenario.

Table 7 – Base Case: WRF Funding Sources by Year

	Prior	2018/19	2019/20	2020/21	2021/22
WRF Project Costs	\$5,063,000	\$8,490,000	\$43,107,000	\$41,049,000	\$25,098,000
WRF Funding Sources					
SRF Planning Loan		5,800,000	4,500,000		
WIFIA Loan			31,100,000	29,075,000	
Revenue Bonds				7,400,000	17,300,000
Sewer Cash Contribution	4,819,000	2,390,000	5,307,000	3,374,000	6,898,000
Water Cash Contribution	244,000	300,000	2,200,000	1,200,000	900,000
Total	5,063,000	8,490,000	43,107,000	41,049,000	25,098,000

The City has been pursuing state and federal grants and low-interest-rate loans to help finance the WRF project. The City has been successful in obtaining commitments for a substantial amount of low-interest-rate financing to date and continues to seek additional financial assistance. The City has retained Kestrel Consulting, a grant specialist, to assist in identifying and applying for grants and subsidized financing programs.

- The City was awarded a \$10.3 million Planning Loan from California's Clean Water State Revolving Fund (SRF) Financing Program with a subsidized interest rate of 1.70%.
- Morro Bay was as one of 12 communities nationwide invited to apply for low-interest-rate financing from the Water Infrastructure and Financing Innovation Act (WIFIA) funding program administered by the United State Environmental Protection Agency (EPA). WIFIA financing can be used to fund up to 49% of the WRF project cost and has favorable repayment terms including low interest rates. The rate for a long-term WIFIA loan is currently in the 3% range but would not be formally set until final approval is obtained.
- The City was previously awarded a small Recycled Water Planning Feasibility Study Grant.
- The City is pursuing additional financing from Clean Water SRF Financing Program, which offers low-interest-rate loans – currently below 2% -- and repayment terms up to 30 years.
- The City has been pursuing grant financing from the United States Bureau of Reclamation.

Any additional grant or subsidized loan financing received would result in lower future debt service and could reduce annual funding needs from future water and sewer charges.

10. Debt Service Estimates

Tables 8A and 8B show debt service estimates under the Base Case and Phase-In Scenarios. Debt service is partially structured around the 10-year repayment term of the SRF Planning Loan to result in level annual future debt service. The debt service estimates for the anticipated WIFIA Loan and projected Revenue Bonds are based on slightly conservative assumptions of interest rates. Interest rates are currently lower but would be established when the WIFIA financing agreement is finalized and when Revenue Bonds are issued.

Table 8A – Base Case: Debt Service Estimates

	SRF Planning Loan	WIFIA Loan	Revenue Bonds	Total
Project Funding	\$10,300,000	\$60,175,000	\$24,700,000	\$95,175,000
Term	10 Years	35 Years	30 Years	All-In TIC
Avg Interest Rate	1.70%	3.25%	4.70%	3.48%
<u>Debt Service</u>				
Through 2029/30	\$1,130,000	\$2,973,000	\$1,190,000	\$5,293,000
After 2029/30	-	\$3,422,000	\$1,871,000	\$5,293,000

The Phase-In Scenario generates less cash funding for the WRF Project which results in a corresponding increase in debt financing needs from revenue bonds and a resulting increase in debt financing and debt service.

Table 8B – Phase-In: Debt Service Estimates

	SRF Planning Loan	WIFIA Loan	Revenue Bonds	Total
Project Funding	\$10,300,000	\$60,175,000	\$29,000,000	\$99,475,000
Term	10 Years	35 Years	30 Years	All-In TIC
Avg Interest Rate	1.70%	3.25%	4.70%	3.51%
<u>Debt Service</u>				
Through 2029/30	\$1,130,000	\$3,051,000	\$1,396,000	\$5,577,000
After 2029/30	-	\$3,383,000	\$2,194,000	\$5,577,000

11. Capital Improvement Plans

The City recently collaborated with Carollo Engineers to evaluate and prioritize capital improvement needs to the City's aging water and sewer infrastructure resulting in the development of updated Capital Improvement Plans (CIPs) for the water and sewer utilities. The CIP projects include replacement and rehabilitation of old water and sewer pipelines, water pump stations, sewer lift stations, and water storage tanks. The CIPs are designed to address the highest priority needs the soonest. The City plans to continue evaluating its capital improvement needs and may re-prioritize projects in future years.

Tables 9 and 10 summarize annual water and sewer CIP funding needs. The City plans to fund these improvements on a pay-as-you-go basis with no additional debt. A detailed list of CIP projects and costs is included in the appendix to this report. Note that costs are shown in current dollars.

Table 9 – Water Capital Improvement Plan Summary

	Near-Term Years 1 - 5	Mid-Term Years 6 - 10	Long-Term Through 2040
CIP Cost Estimates	\$6,788,000	\$4,977,000	\$11,586,000
Average Annual Cost	1,357,600	995,400	965,500

Table 10 – Sewer Capital Improvement Plan Summary

	Near-Term Years 1 - 5	Mid-Term Years 6 - 10	Long-Term Through 2040
CIP Cost Estimates	\$5,096,000	\$5,726,000	\$7,349,000
Average Annual Cost	1,019,200	1,145,200	612,417

12. Financial Projections

BWA developed 10-year water and sewer utility financial projections to evaluate annual revenue requirements and project rate increases under each of the four financial scenarios. The projections are based on reasonable and slightly conservative assumptions including:

- Operating expenses are based on the 2018/19 preliminary budget.
- Operating costs escalate at the annual rate of 4% per year for planning purposes.
- Future costs for a) wastewater treatment at the new WRF and b) wastewater conveyance to the new WRF, and c) recycled water operations are based on engineering estimates developed by Carollo Engineers and account for future cost inflation.
- The projections assume a low-growth scenario of 5 new single family homes or equivalents per year.
- Water and sewer service charge revenues assume monthly water use remains constant based on usage over the past fiscal year. Note that residential sewer rates and all WRF Facility Surcharges are fixed monthly charges that do not vary with changes in water use.
- Sewer financial projections assume that Cayucos Sanitary District funds 25% of the operating costs of the existing wastewater treatment plant for two more fiscal years – through 2019/20 – after which Cayucos anticipates transitioning to its own planned treatment facility. *Note: The reduction in wastewater flow from Cayucos SD is not projected to result in a significant decrease in operating costs. Most of the treatment plant's operating and maintenance costs are fixed costs (e.g. staffing) that do not vary with changes in wastewater flow.*
- The sewer cash flow projections show how the entire WRF Project is funded and include the full debt service payments which are offset by the debt service paid by the water utility.
- Water and sewer capital improvement plans are funded entirely on a pay-as-you-go basis from revenues generated each year by water and sewer service charges.
- The City has accrued some fund reserves that can eventually be applied toward the WRF Project and anticipates generating additional cash contributions for the project from future rates and WRF Facility Surcharges. BWA recommends the City maintain its water and sewer fund reserves while the WRF Project is being built. The City can draw down a portion of its water and sewer fund reserves during fiscal year 2021/11, the final year of construction. Over the longer-term, the cash flow projections assume the City would maintain at least \$4 million in fund reserves for each utility.

Tables 11A and 12A show 10-year sewer cash flow projections and water cash flow projections under the Base Case Scenario. Tables 11B and 12B show financial projections under the Phase-In Scenario.

Table 11A - City of Morro Bay - Sewer Cash Flow Projections

Base Case Scenario

Years 1 - 5	Projected				
	2017/18	2018/19	2019/20	2020/21	2021/22
Monthly Single Family Sewer Charge	\$70.00	\$77.00	\$83.00	\$83.00	\$83.00
Monthly Single Family Surcharge			\$25.00	\$25.00	\$25.00
Beginning Sewer Accounts	5,346	5,351	5,356	5,361	5,366
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	-	0.1%	0.1%	0.1%	0.1%
Sewer Development Impact Fee	\$5,445	\$5,550	\$5,660	\$5,770	\$5,890
Interest Earnings Rate	1.25%	1.75%	2.0%	2.0%	2.0%
Cost Escalation			4.0%	4.0%	4.0%
Beginning Fund Reserves	\$6,402,000	\$8,112,000	\$8,251,000	\$8,274,000	\$8,357,000
REVENUES					
Sewer Service Charges	6,100,000	6,716,000	7,246,000	7,253,000	7,260,000
Sewer WRF Facility Surcharges	0	0	2,173,000	2,173,000	2,173,000
Development Impact Fees	30,000	28,000	28,000	29,000	29,000
Interest Earnings	80,000	142,000	165,000	165,000	167,000
Rental Income/Other (Excl Penalties)	25,000	30,000	30,000	30,000	30,000
Subtotal	6,235,000	6,916,000	9,642,000	9,650,000	9,659,000
<u>WRF Debt Financing</u>					
SRF Planning Loan		5,800,000	4,500,000		
WIFIA Loan			31,100,000	29,075,000	
Bond Proceeds				7,400,000	17,300,000
EXPENSES					
Operating & Maintenance	<u>Estimated</u>	<u>Projected</u>			
Sewer Collection	1,100,000	1,480,000	1,539,000	1,601,000	1,665,000
Wastewater Treatment Existing	2,000,000	2,210,000	2,298,000	2,390,000	1,247,000
Wastewater Treatment New WRF	-	-	-	-	1,500,000
Conveyance to New WRF	-	-	-	-	140,000
<i>Less Cayucos SD Reimbursements</i>	<i>(495,000)</i>	<i>(553,000)</i>	<i>(575,000)</i>	<i>0</i>	<i>0</i>
Subtotal	2,605,000	3,137,000	3,262,000	3,991,000	4,552,000
Debt Service					
SRF Planning Loan: Sewer Share	-	-	-	804,000	804,000
WRF WIFIA Loan: Sewer Share	-	-	-	-	-
WRF Revenue Bonds: Sewer Share	-	-	-	348,000	696,000
Subtotal	0	0	0	1,152,000	1,500,000
Capital Improvements					
Sewer Cash Contribution to WRF	840,000	2,390,000	5,307,000	3,374,000	6,898,000
Sewer System Pay-Go CIP	630,000	1,200,000	1,000,000	1,000,000	1,000,000
Vehicle/Equipment Replacement	450,000	50,000	50,000	50,000	50,000
Subtotal	1,920,000	3,640,000	6,357,000	4,424,000	7,948,000
Total Sewer Expenses	4,525,000	6,777,000	9,619,000	9,567,000	14,000,000
Revenues Less Expenses	1,710,000	139,000	23,000	83,000	(4,341,000)
Ending Fund Reserves	8,112,000	8,251,000	8,274,000	8,357,000	4,016,000
Debt Service Coverage	-	-	-	4.91	3.40

Table 11A - City of Morro Bay - Sewer Cash Flow Projections

Base Case Scenario

Years 6 - 10	Projected				
	2022/23	2023/24	2024/25	2025/26	2026/27
Monthly Residential Sewer Charge	\$83.00	\$85.00	\$87.00	\$90.00	\$92.00
Monthly Single Family WRF Surcharge	\$25.00	\$25.00	\$25.00	\$25.00	\$25.00
Beginning Sewer Accounts	5,371	5,376	5,381	5,386	5,391
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Sewer Development Impact Fee	\$6,010	\$6,130	\$6,250	\$6,380	\$6,510
Interest Earnings Rate	2.0%	2.0%	2.0%	2.0%	2.0%
Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Beginning Fund Reserves	\$4,016,000	\$4,245,000	\$4,445,000	\$4,604,000	\$4,802,000
REVENUES					
Sewer Service Charges	7,267,000	7,449,000	7,631,000	7,901,000	8,084,000
Sewer WRF Facility Surcharges	2,173,000	2,173,000	2,173,000	2,173,000	2,173,000
Development Impact Fees	30,000	31,000	31,000	32,000	33,000
Interest Earnings	86,000	91,000	95,000	98,000	102,000
Rental Income/Other (Excl Penalties)	30,000	30,000	30,000	30,000	30,000
Subtotal	9,586,000	9,774,000	9,960,000	10,234,000	10,422,000
<u>WRF Debt Financing</u>					
SRF Planning Loan					
WIFIA Financing					
Bond Financing					
EXPENSES					
Operating & Maintenance					
Sewer Collection	1,732,000	1,801,000	1,873,000	1,948,000	2,026,000
Wastewater Treatment Existing	0	0	0	0	0
Wastewater Treatment New WRF	2,682,000	2,789,000	2,901,000	3,017,000	3,138,000
Conveyance to New WRF	277,000	288,000	300,000	312,000	324,000
<i>Less Cayucos SD Reimbursements</i>	0	0	0	0	0
Subtotal	4,691,000	4,878,000	5,074,000	5,277,000	5,488,000
Debt Service					
SRF Planning Loan: Sewer Share	804,000	804,000	804,000	804,000	804,000
WRF WIFIA Loan: Sewer Share	2,116,000	2,116,000	2,116,000	2,116,000	2,116,000
WRF Revenue Bonds: Sewer Share	696,000	696,000	696,000	696,000	696,000
Subtotal	3,616,000	3,616,000	3,616,000	3,616,000	3,616,000
Capital Improvements					
Sewer Cash Contribution to WRF	0	0	0	0	0
Sewer System Pay-Go CIP	1,000,000	1,030,000	1,061,000	1,093,000	1,126,000
Vehicle/Equipment Replacement	50,000	50,000	50,000	50,000	50,000
Subtotal	1,050,000	1,080,000	1,111,000	1,143,000	1,176,000
Total Expenses	9,357,000	9,574,000	9,801,000	10,036,000	10,280,000
Revenues Less Expenses	229,000	200,000	159,000	198,000	142,000
Ending Fund Reserves	4,245,000	4,445,000	4,604,000	4,802,000	4,944,000
Debt Service Coverage	1.35	1.35	1.35	1.37	1.36

Table 12A - City of Morro Bay - Water Cash Flow Projections Base Case Scenario

Years 1 - 5	Projected				
	2017/18	2018/19	2019/20	2020/21	2021/22
Fixed Monthly Water Charge	\$28.00	\$30.00	\$32.00	\$32.00	\$32.00
Fixed Monthly Single Family WRF Surcharge	-	-	\$16.00	\$16.00	\$16.00
Water Rate Adjustment %		7.1%	6.7%	0.0%	0.0%
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Change in Water Sales		0.0%	0.0%	0.0%	0.0%
Water Development Impact Fee	\$5,392	\$5,500	\$5,610	\$5,720	\$5,830
Interest Earnings Rate	1.25%	1.75%	2.0%	2.0%	2.0%
State Water Project Cost Escalation			4.0%	4.0%	4.0%
Operating Cost Escalation			4.0%	4.0%	4.0%
Beginning Fund Reserves	\$3,132,000	\$4,456,000	\$4,537,000	\$4,622,000	\$4,687,000
REVENUES	<u>Estimated</u>	<u>Projected</u>			
Water Service Charges	5,280,000	5,700,000	6,086,000	6,092,000	6,098,000
Water WRF Facility Surcharges	0	0	1,654,000	1,654,000	1,654,000
Development Impact Fees	30,000	28,000	28,000	29,000	29,000
Interest Earnings	39,000	78,000	91,000	92,000	94,000
Other (Excludes Penalties)	16,000	20,000	20,000	20,000	20,000
Subtotal	5,365,000	5,826,000	7,879,000	7,887,000	7,895,000
EXPENSES					
Operating & Maintenance	<u>Estimated</u>	<u>Projected</u>			
Water System Operations	1,591,000	2,130,000	2,215,000	2,304,000	2,396,000
State Water Project Payments	1,535,000	1,595,000	1,659,000	1,725,000	1,794,000
Recycled Water Operations	-	-	-	-	110,000
Subtotal	3,126,000	3,725,000	3,874,000	4,029,000	4,300,000
Debt Service					
SRF Planning Loan: Water Share	-	-	-	326,000	326,000
WRF WIFIA Loan: Water Share	-	-	-	-	-
WRF Revenue Bonds: Water Share	-	-	-	247,000	494,000
Share of CCWA 2016 Bonds (Thru Oct-2021)	665,000	670,000	670,000	670,000	670,000
Subtotal	665,000	670,000	670,000	1,243,000	1,490,000
Capital Improvements					
Water System Pay-Go CIP	250,000	1,000,000	1,000,000	1,300,000	1,800,000
Water Cash Contribution to WRF	0	300,000	2,200,000	1,200,000	900,000
Vehicle/Equipment Replacement	0	50,000	50,000	50,000	50,000
Subtotal	250,000	1,350,000	3,250,000	2,550,000	2,750,000
Total Expenses	4,041,000	5,745,000	7,794,000	7,822,000	8,540,000
Revenues Less Expenses	1,324,000	81,000	85,000	65,000	(645,000)
Ending Fund Reserves	4,456,000	4,537,000	4,622,000	4,687,000	4,042,000
CCWA Bond Debt Service Coverage	1.72	1.63	2.43	2.33	2.19
City Debt Service Coverage	3.37	3.14	5.98	3.10	2.41

Table 12A - City of Morro Bay - Water Cash Flow Projections Base Case Scenario

Years 6 - 10	Projected				
	2022/23	2023/24	2024/25	2025/26	2026/27
Fixed Monthly Residential Water Charge	\$32.00	\$32.00	\$32.00	\$33.00	\$34.00
Fixed Monthly Single Family WRF Surcharge	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00
Water Rate Adjustment %	0.0%	0.0%	0.0%	3.1%	3.0%
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Change in Water Sales	0.0%	0.0%	0.0%	0.0%	0.0%
Water Development Impact Fee	\$5,950	\$6,070	\$6,190	\$6,310	\$6,440
Interest Earnings Rate	2.0%	2.0%	2.0%	2.0%	2.0%
State Water Project Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Operating Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Beginning Fund Reserves	\$4,042,000	\$4,031,000	\$4,442,000	\$4,647,000	\$4,825,000
REVENUES					
Water Service Charges	6,104,000	6,110,000	6,116,000	6,313,000	6,510,000
Water WRF Facility Surcharges	1,654,000	1,654,000	1,654,000	1,654,000	1,654,000
Development Impact Fees	30,000	30,000	31,000	32,000	32,000
Interest Earnings	86,000	86,000	94,000	99,000	102,000
Other (Excludes Penalties)	20,000	20,000	20,000	20,000	20,000
Subtotal	7,894,000	7,900,000	7,915,000	8,118,000	8,318,000
EXPENSES					
Operating & Maintenance					
Water System Personnel	2,492,000	2,592,000	2,696,000	2,804,000	2,916,000
State Water Project Payments	1,866,000	1,941,000	2,019,000	2,100,000	2,184,000
Recycled Water Operations	220,000	229,000	238,000	248,000	258,000
Subtotal	4,578,000	4,762,000	4,953,000	5,152,000	5,358,000
Debt Service					
SRF Planning Loan: Water Share	326,000	326,000	326,000	326,000	326,000
WRF WIFIA Loan: Water Share	857,000	857,000	857,000	857,000	857,000
WRF Revenue Bonds: Water Share	494,000	494,000	494,000	494,000	494,000
Share of CCWA 2016 Bonds (Thru Oct-2021)	0	0	0	0	0
Subtotal	1,677,000	1,677,000	1,677,000	1,677,000	1,677,000
Capital Improvements					
Water System Pay-Go CIP	1,600,000	1,000,000	1,030,000	1,061,000	1,093,000
Water Cash Contribution to WRF	0	0	0	0	0
Vehicle/Equipment Replacement	50,000	50,000	50,000	50,000	50,000
Subtotal	1,650,000	1,050,000	1,080,000	1,111,000	1,143,000
Total Expenses	7,905,000	7,489,000	7,710,000	7,940,000	8,178,000
Revenues Less Expenses	(11,000)	411,000	205,000	178,000	140,000
Ending Fund Reserves	4,031,000	4,442,000	4,647,000	4,825,000	4,965,000
CCWA Bond Debt Service Coverage	-	-	-	-	-
Debt Service Coverage	1.98	1.87	1.77	1.77	1.77

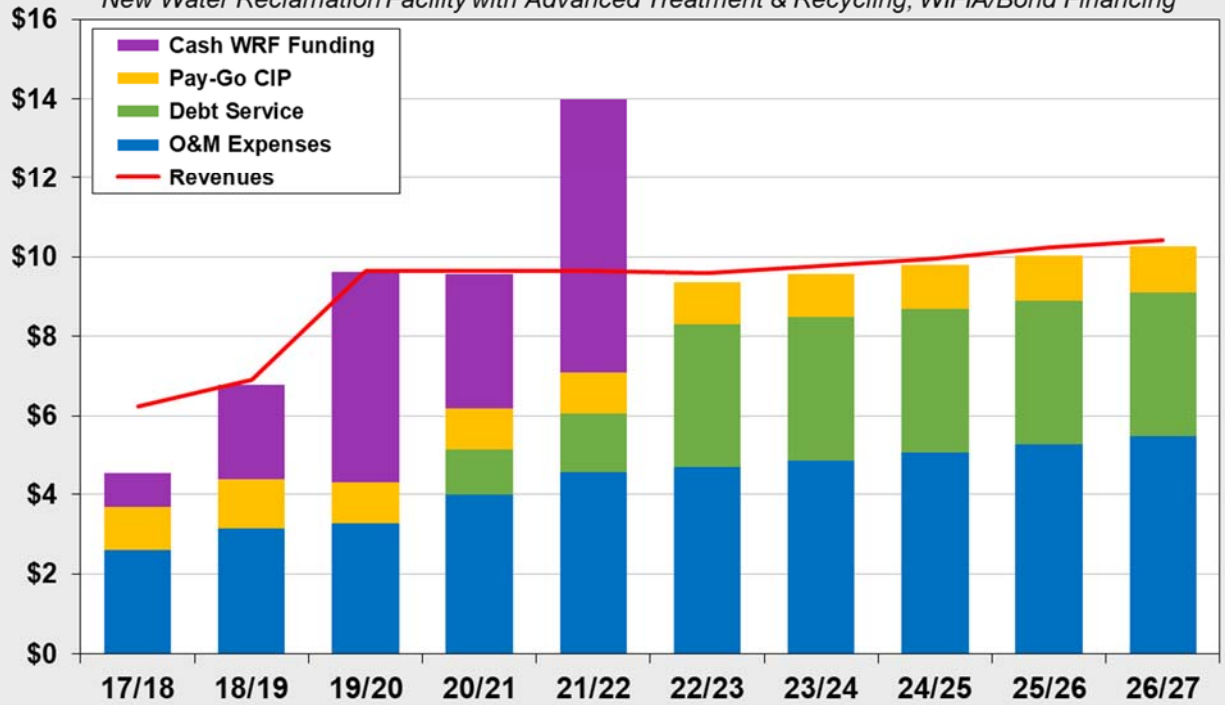
Base Case Scenario

SEWER

City of Morro Bay

10-Year Sewer Revenue & Expense Projections (\$ millions)

New Water Reclamation Facility with Advanced Treatment & Recycling, WIFIA/Bond Financing



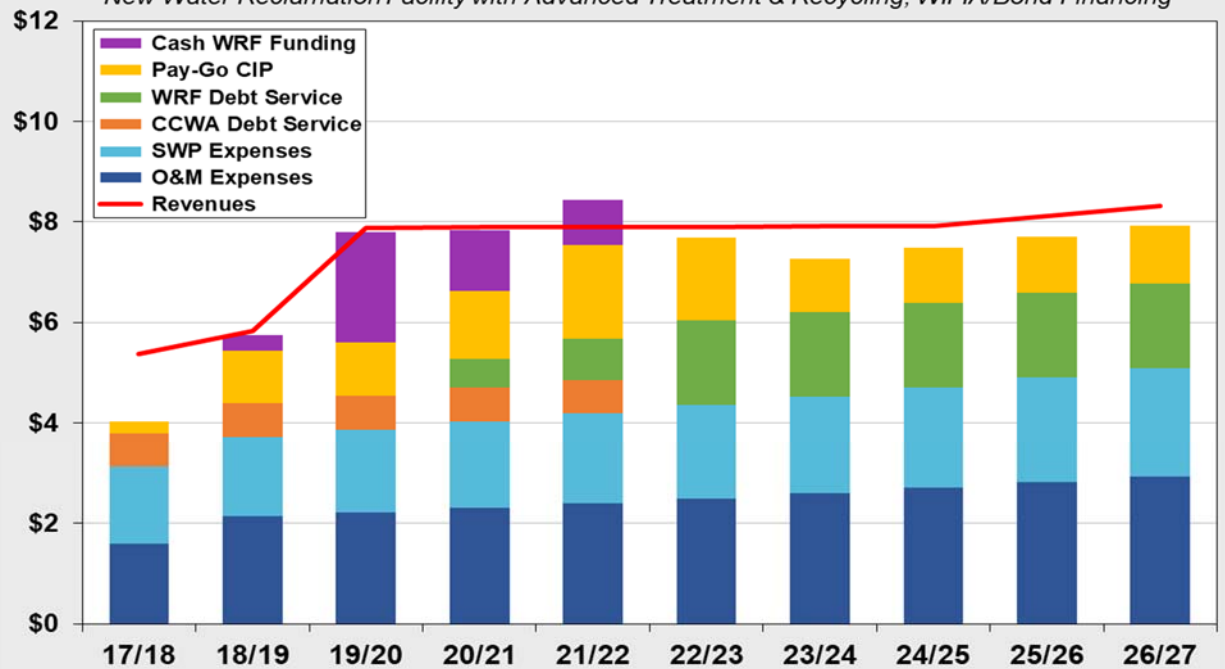
Excludes WRF Project Costs funded by debt.

WATER

City of Morro Bay

10-Year Water Revenue & Expense Projections (\$ millions)

New Water Reclamation Facility with Advanced Treatment & Recycling, WIFIA/Bond Financing



Excludes WRF Project Costs funded by debt.

Table 11B - City of Morro Bay - Sewer Cash Flow Projections

Phase-In Scenario

Years 1 - 5	Projected				
	2017/18	2018/19	2019/20	2020/21	2021/22
Monthly Single Family Sewer Charge	\$70.00	\$77.00	\$83.00	\$83.00	\$83.00
Monthly Single Family Surcharge			\$9.00	\$18.00	\$27.00
Beginning Sewer Accounts	5,346	5,351	5,356	5,361	5,366
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	-	0.1%	0.1%	0.1%	0.1%
Sewer Development Impact Fee	\$5,445	\$5,550	\$5,660	\$5,770	\$5,890
Interest Earnings Rate	1.25%	1.75%	2.0%	2.0%	2.0%
Cost Escalation			4.0%	4.0%	4.0%
Beginning Fund Reserves	\$6,402,000	\$8,112,000	\$8,251,000	\$8,379,000	\$8,480,000
REVENUES					
Sewer Service Charges	6,100,000	6,716,000	7,246,000	7,253,000	7,260,000
Sewer WRF Facility Surcharges	0	0	778,000	1,563,000	2,347,000
Development Impact Fees	30,000	28,000	28,000	29,000	29,000
Interest Earnings	80,000	142,000	165,000	168,000	170,000
Rental Income/Other (Excl Penalties)	25,000	30,000	30,000	30,000	30,000
Subtotal	6,235,000	6,916,000	8,247,000	9,043,000	9,836,000
<u>WRF Debt Financing</u>					
SRF Planning Loan		5,900,000	4,400,000		
WIFIA Loan			33,800,000	26,375,000	
Bond Proceeds				11,700,000	17,300,000
EXPENSES					
Operating & Maintenance	<u>Estimated</u>	<u>Projected</u>			
Sewer Collection	1,100,000	1,480,000	1,539,000	1,601,000	1,665,000
Wastewater Treatment Existing	2,000,000	2,210,000	2,298,000	2,390,000	1,247,000
Wastewater Treatment New WRF	-	-	-	-	1,500,000
Conveyance to New WRF	-	-	-	-	140,000
<i>Less Cayucos SD Reimbursements</i>	<i>(495,000)</i>	<i>(553,000)</i>	<i>(575,000)</i>	<i>0</i>	<i>0</i>
Subtotal	2,605,000	3,137,000	3,262,000	3,991,000	4,552,000
Debt Service					
SRF Planning Loan: Sewer Share	-	-	-	804,000	804,000
WRF WIFIA Loan: Sewer Share	-	-	-	-	-
WRF Revenue Bonds: Sewer Share	-	-	-	423,000	845,000
Subtotal	0	0	0	1,227,000	1,649,000
Capital Improvements					
Sewer Cash Contribution to WRF	840,000	2,390,000	3,607,000	2,274,000	6,598,000
Sewer System Pay-Go CIP	630,000	1,200,000	1,200,000	1,400,000	1,400,000
Vehicle/Equipment Replacement	450,000	50,000	50,000	50,000	50,000
Subtotal	1,920,000	3,640,000	4,857,000	3,724,000	8,048,000
Total Sewer Expenses	4,525,000	6,777,000	8,119,000	8,942,000	14,249,000
Revenues Less Expenses	1,710,000	139,000	128,000	101,000	(4,413,000)
Ending Fund Reserves	8,112,000	8,251,000	8,379,000	8,480,000	4,067,000
Debt Service Coverage	-	-	-	4.12	3.20

Table 11B - City of Morro Bay - Sewer Cash Flow Projections

Phase-In Scenario

Years 6 - 10	Projected				
	2022/23	2023/24	2024/25	2025/26	2026/27
Monthly Residential Sewer Charge	\$83.00	\$85.00	\$87.00	\$90.00	\$92.00
Monthly Single Family WRF Surcharge	\$27.00	\$27.00	\$27.00	\$27.00	\$27.00
Beginning Sewer Accounts	5,371	5,376	5,381	5,386	5,391
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Sewer Development Impact Fee	\$6,010	\$6,130	\$6,250	\$6,380	\$6,510
Interest Earnings Rate	2.0%	2.0%	2.0%	2.0%	2.0%
Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Beginning Fund Reserves	\$4,067,000	\$4,267,000	\$4,437,000	\$4,565,000	\$4,732,000
REVENUES					
Sewer Service Charges	7,267,000	7,449,000	7,631,000	7,901,000	8,084,000
Sewer WRF Facility Surcharges	2,347,000	2,347,000	2,347,000	2,347,000	2,347,000
Development Impact Fees	30,000	31,000	31,000	32,000	33,000
Interest Earnings	87,000	91,000	94,000	97,000	100,000
Rental Income/Penalties/Other	30,000	30,000	30,000	30,000	30,000
Subtotal	9,761,000	9,948,000	10,133,000	10,407,000	10,594,000
<u>WRF Debt Financing</u>					
SRF Planning Loan					
WIFIA Financing					
Bond Financing					
EXPENSES					
Operating & Maintenance					
Sewer Collection	1,732,000	1,801,000	1,873,000	1,948,000	2,026,000
Wastewater Treatment Existing	0	0	0	0	0
Wastewater Treatment New WRF	2,682,000	2,789,000	2,901,000	3,017,000	3,138,000
Conveyance to New WRF	277,000	288,000	300,000	312,000	324,000
<i>Less Cayucos SD Reimbursements</i>	0	0	0	0	0
Subtotal	4,691,000	4,878,000	5,074,000	5,277,000	5,488,000
Debt Service					
SRF Planning Loan	804,000	804,000	804,000	804,000	804,000
WIFIA Financing	2,171,000	2,171,000	2,171,000	2,171,000	2,171,000
Revenue Bonds (structured around SRF)	845,000	845,000	845,000	845,000	845,000
Subtotal	3,820,000	3,820,000	3,820,000	3,820,000	3,820,000
Capital Improvements					
Sewer Cash Contribution to WRF	0	0	0	0	0
Sewer System Pay-Go CIP	1,000,000	1,030,000	1,061,000	1,093,000	1,126,000
Vehicle/Equipment Replacement	50,000	50,000	50,000	50,000	50,000
Subtotal	1,050,000	1,080,000	1,111,000	1,143,000	1,176,000
Total Expenses	9,561,000	9,778,000	10,005,000	10,240,000	10,484,000
Revenues Less Expenses	200,000	170,000	128,000	167,000	110,000
Ending Fund Reserves	4,267,000	4,437,000	4,565,000	4,732,000	4,842,000
Debt Service Coverage	1.33	1.33	1.32	1.34	1.34

Table 12B - City of Morro Bay - Water Cash Flow Projections

Phase-In Scenario

Years 1 - 5	Projected				
	2017/18	2018/19	2019/20	2020/21	2021/22
Fixed Monthly Water Charge	\$28.00	\$30.00	\$32.00	\$32.00	\$32.00
Fixed Monthly Single Family WRF Surcharge			\$8.00	\$12.00	\$17.00
Water Rate Adjustment %		7.1%	6.7%	0.0%	0.0%
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Change in Water Sales		0.0%	0.0%	0.0%	0.0%
Water Development Impact Fee	\$5,392	\$5,500	\$5,610	\$5,720	\$5,830
Interest Earnings Rate	1.25%	1.75%	2.0%	2.0%	2.0%
State Water Project Cost Escalation			4.0%	4.0%	4.0%
Operating Cost Escalation			4.0%	4.0%	4.0%
Beginning Fund Reserves	\$3,132,000	\$4,456,000	\$4,637,000	\$4,797,000	\$4,924,000
REVENUES	<u>Estimated</u>	<u>Projected</u>			
Water Service Charges	5,280,000	5,700,000	6,086,000	6,092,000	6,098,000
Water WRF Facility Surcharges	0	0	827,000	1,240,000	1,757,000
Development Impact Fees	30,000	28,000	28,000	29,000	29,000
Interest Earnings	39,000	78,000	93,000	96,000	98,000
Other (Excludes Penalties)	16,000	20,000	20,000	20,000	20,000
Subtotal	5,365,000	5,826,000	7,054,000	7,477,000	8,002,000
EXPENSES					
Operating & Maintenance	<u>Estimated</u>	<u>Projected</u>			
Water System Operations	1,591,000	2,130,000	2,215,000	2,304,000	2,396,000
State Water Project Payments	1,535,000	1,595,000	1,659,000	1,725,000	1,794,000
Recycled Water Operations	-	-	-	-	110,000
Subtotal	3,126,000	3,725,000	3,874,000	4,029,000	4,300,000
Debt Service					
SRF Planning Loan: Water Share	-	-	-	326,000	326,000
WRF WIFIA Loan: Water Share	-	-	-	-	-
WRF Revenue Bonds: Water Share	-	-	-	275,000	551,000
Share of CCWA 2016 Bonds (Thru Oct-2021)	665,000	670,000	670,000	670,000	670,000
Subtotal	665,000	670,000	670,000	1,271,000	1,547,000
Capital Improvements					
Water System Pay-Go CIP	250,000	1,000,000	1,000,000	1,300,000	1,800,000
Water Cash Contribution to WRF	0	200,000	1,300,000	700,000	1,200,000
Vehicle/Equipment Replacement	0	50,000	50,000	50,000	50,000
Subtotal	250,000	1,250,000	2,350,000	2,050,000	3,050,000
Total Expenses	4,041,000	5,645,000	6,894,000	7,350,000	8,897,000
Revenues Less Expenses	1,324,000	181,000	160,000	127,000	(895,000)
Ending Fund Reserves	4,456,000	4,637,000	4,797,000	4,924,000	4,029,000
CCWA Bond Debt Service Coverage	1.72	1.63	2.08	2.16	2.23
City Debt Service Coverage	3.37	3.14	4.75	2.71	2.39

Table 12B - City of Morro Bay - Water Cash Flow Projections

Phase-In Scenario

Years 6 - 10	Projected				
	2022/23	2023/24	2024/25	2025/26	2026/27
Fixed Monthly Residential Water Charge	\$32.00	\$32.00	\$32.00	\$33.00	\$34.00
Fixed Monthly Single Family WRF Surcharge	\$17.00	\$17.00	\$17.00	\$17.00	\$17.00
Water Rate Adjustment %	0.0%	0.0%	0.0%	3.1%	3.0%
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Change in Water Sales	0.0%	0.0%	0.0%	0.0%	0.0%
Water Development Impact Fee	\$5,950	\$6,070	\$6,190	\$6,310	\$6,440
Interest Earnings Rate	2.0%	2.0%	2.0%	2.0%	2.0%
State Water Project Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Operating Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Beginning Fund Reserves	\$4,029,000	\$4,041,000	\$4,475,000	\$4,704,000	\$4,906,000
REVENUES					
Water Service Charges	6,104,000	6,110,000	6,116,000	6,313,000	6,510,000
Water WRF Facility Surcharges	1,757,000	1,757,000	1,757,000	1,757,000	1,757,000
Development Impact Fees	30,000	30,000	31,000	32,000	32,000
Interest Earnings	86,000	86,000	95,000	100,000	104,000
Other (Excludes Penalties)	20,000	20,000	20,000	20,000	20,000
Subtotal	7,997,000	8,003,000	8,019,000	8,222,000	8,423,000
EXPENSES					
Operating & Maintenance					
Water System Operations	2,492,000	2,592,000	2,696,000	2,804,000	2,916,000
State Water Project Payments	1,866,000	1,941,000	2,019,000	2,100,000	2,184,000
Recycled Water Operations	220,000	229,000	238,000	248,000	258,000
Subtotal	4,578,000	4,762,000	4,953,000	5,152,000	5,358,000
Debt Service					
SRF Planning Loan: Water Share	326,000	326,000	326,000	326,000	326,000
WRF WIFIA Loan: Water Share	880,000	880,000	880,000	880,000	880,000
WRF Revenue Bonds: Water Share	551,000	551,000	551,000	551,000	551,000
Share of CCWA 2016 Bonds (Thru Oct-2021)	0	0	0	0	0
Subtotal	1,757,000	1,757,000	1,757,000	1,757,000	1,757,000
Capital Improvements					
Water System Pay-Go CIP	1,600,000	1,000,000	1,030,000	1,061,000	1,093,000
Water Cash Contribution to WRF	0	0	0	0	0
Vehicle/Equipment Replacement	50,000	50,000	50,000	50,000	50,000
Subtotal	1,650,000	1,050,000	1,080,000	1,111,000	1,143,000
Total Expenses	7,985,000	7,569,000	7,790,000	8,020,000	8,258,000
Revenues Less Expenses	12,000	434,000	229,000	202,000	165,000
Ending Fund Reserves	4,041,000	4,475,000	4,704,000	4,906,000	5,071,000
CCWA Bond Debt Service Coverage	-	-	-	-	-
Debt Service Coverage	1.95	1.84	1.75	1.75	1.74

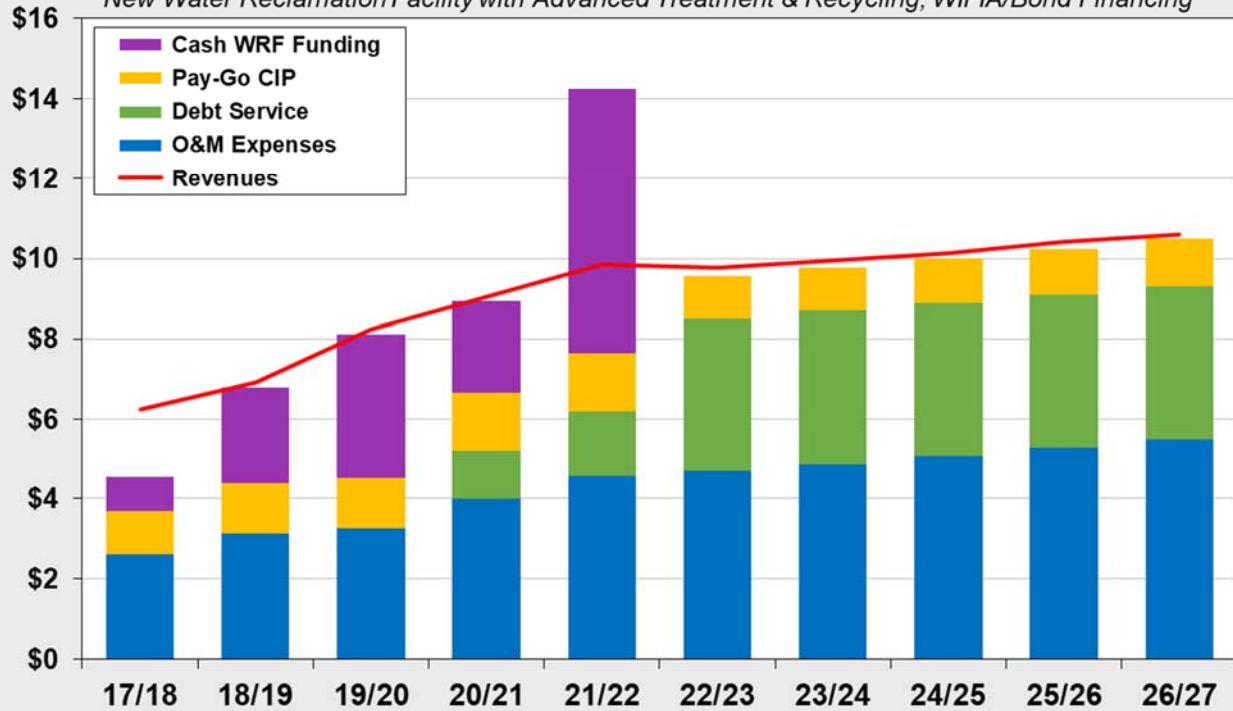
Phase-In Scenario

SEWER

City of Morro Bay

10-Year Sewer Revenue & Expense Projections (\$ millions)

New Water Reclamation Facility with Advanced Treatment & Recycling, WIFIA/Bond Financing



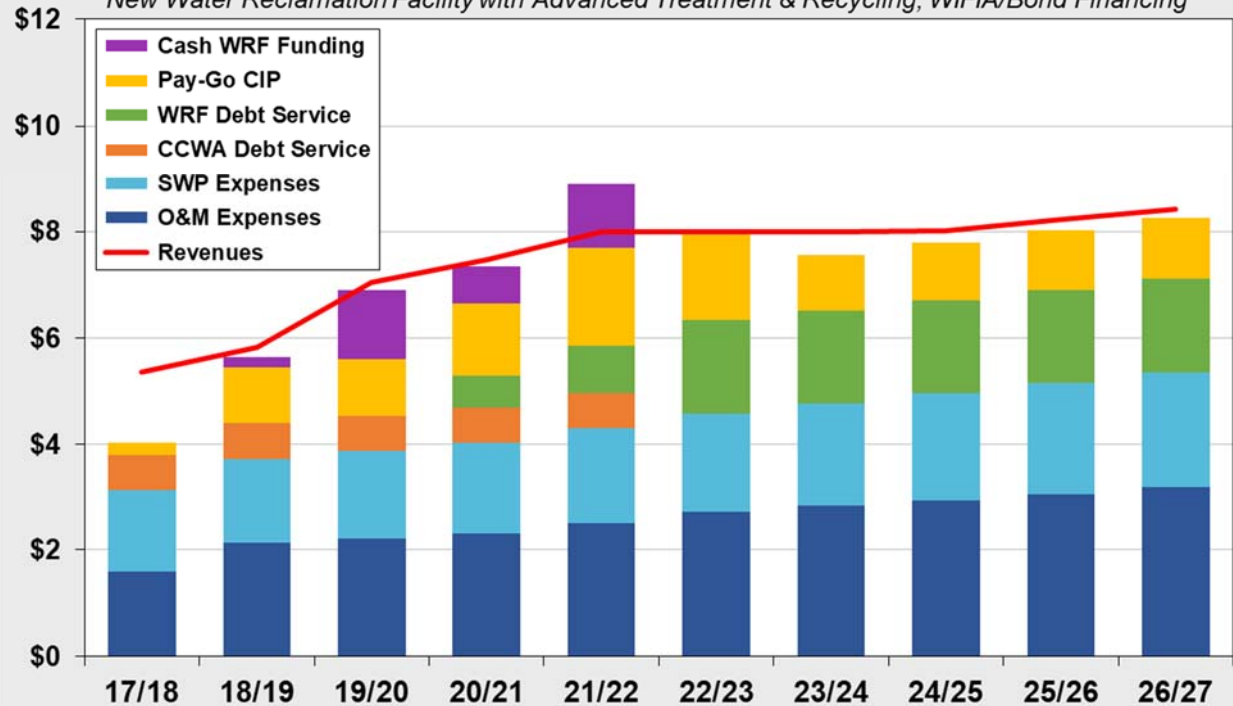
Excludes WRF Project Costs funded by debt.

WATER

City of Morro Bay

10-Year Water Revenue & Expense Projections (\$ millions)

New Water Reclamation Facility with Advanced Treatment & Recycling, WIFIA/Bond Financing



Excludes WRF Project Costs funded by debt.

13. Debt Service Coverage

Tables 13A and 13B show projected debt service coverage independently for the sewer and water utilities as well as combined coverage for both utilities under the Base Case and Phase-In Scenarios. Debt service coverage is calculated based on Net Revenues – defined as total revenues less operating and maintenance expenses – divided by annual debt service. Additional funding generated after paying debt service is available to help fund the City’s water and sewer CIP projects.

Table 13A – Base Case: Debt Service Coverage

	2022/23	2023/24	2024/25	2025/26	2026/27
SEWER					
Net Revenues	\$4,895,000	\$4,896,000	\$4,886,000	\$4,957,000	\$4,934,000
Debt Service	3,616,000	3,616,000	3,616,000	3,616,000	3,616,000
Debt Service Coverage	1.35	1.35	1.35	1.37	1.36
Add'l Funding Generated	1,279,000	1,280,000	1,270,000	1,341,000	1,318,000
WATER					
Net Revenues	\$3,316,000	\$3,138,000	\$2,962,000	\$2,966,000	\$2,960,000
Debt Service	1,677,000	1,677,000	1,677,000	1,677,000	1,677,000
Debt Service Coverage	1.98	1.87	1.77	1.77	1.77
Add'l Funding Generated	1,639,000	1,461,000	1,285,000	1,289,000	1,283,000
COMBINED					
Net Revenues	\$8,211,000	\$8,034,000	\$7,848,000	\$7,923,000	\$7,894,000
Debt Service	5,293,000	5,293,000	5,293,000	5,293,000	5,293,000
Debt Service Coverage	1.55	1.52	1.48	1.50	1.49
Add'l Funding Generated	2,918,000	2,741,000	2,555,000	2,630,000	2,601,000

Table 13B – Phase-In: Debt Service Coverage

	2022/23	2023/24	2024/25	2025/26	2026/27
SEWER					
Net Revenues	\$5,070,000	\$5,070,000	\$5,059,000	\$5,130,000	\$5,106,000
Debt Service	3,820,000	3,820,000	3,820,000	3,820,000	3,820,000
Debt Service Coverage	1.33	1.33	1.32	1.34	1.34
Add'l Funding Generated	1,250,000	1,250,000	1,239,000	1,310,000	1,286,000
WATER					
Net Revenues	\$3,419,000	\$3,241,000	\$3,066,000	\$3,070,000	\$3,065,000
Debt Service	1,757,000	1,757,000	1,757,000	1,757,000	1,757,000
Debt Service Coverage	1.95	1.84	1.75	1.75	1.74
Add'l Funding Generated	1,662,000	1,484,000	1,309,000	1,313,000	1,308,000
COMBINED					
Net Revenues	\$8,489,000	\$8,311,000	\$8,125,000	\$8,200,000	\$8,171,000
Debt Service	5,577,000	5,577,000	5,577,000	5,577,000	5,577,000
Debt Service Coverage	1.52	1.49	1.46	1.47	1.47
Add'l Funding Generated	2,912,000	2,734,000	2,548,000	2,623,000	2,594,000

14. Sewer WRF Facility Surcharges

Tables 14A and 14B show proposed sewer WRF Facility Surcharges under the Base Case and Phase-In Scenarios. These surcharges would be levied as separate surcharges in addition to the City's previously-adopted sewer rates. The surcharges maintain the same rate structure as the City's existing sewer rates. Residential surcharges are fixed monthly surcharges and Non-Residential surcharges are volumetric rates applied to monthly water use – with higher charges for customer classes with higher wastewater strength -- subject to a minimum charge as shown.

Table 14A – Base Case: Proposed Monthly Sewer WRF Facility Surcharges

	2018/19	2019/20	2020/21	2021/22	2022/23
RESIDENTIAL					
<i>Charge per residential dwelling unit</i>					
Single Family		\$25.00	\$25.00	\$25.00	\$25.00
Multi-Family/Condo		20.00	20.00	20.00	20.00
NON-RESIDENTIAL					
<i>Rate per hcf of metered water use</i>					
Class A - Low Strength		\$3.43	\$3.43	\$3.43	\$3.43
Class B - Domestic Strength		4.10	4.10	4.10	4.10
Class C - Moderate Strength		4.77	4.77	4.77	4.77
Class D - Mod-High Strength		5.43	5.43	5.43	5.43
Class E - High Strength		6.77	6.77	6.77	6.77
<i>Minimum Monthly Charge</i>		20.00	20.00	20.00	20.00

Table 14B – Phase-In: Proposed Monthly Sewer WRF Facility Surcharges

	2018/19	2019/20	2020/21	2021/22	2022/23
RESIDENTIAL					
<i>Charge per residential dwelling unit</i>					
Single Family		\$9.00	\$18.00	\$27.00	\$27.00
Multi-Family/Condo		7.20	14.40	21.60	21.60
NON-RESIDENTIAL					
<i>Rate per hcf of metered water use</i>					
Class A - Low Strength		\$1.24	\$2.47	\$3.71	\$3.71
Class B - Domestic Strength		1.48	2.95	4.43	4.43
Class C - Moderate Strength		1.72	3.43	5.15	5.15
Class D - Mod-High Strength		1.96	3.91	5.87	5.87
Class E - High Strength		2.44	4.87	7.31	7.31
<i>Minimum Monthly Charge</i>		7.20	14.40	21.60	21.60

15. Water WRF Facility Surcharges

Tables 15A and 15B show proposed water WRF Facility Surcharges under the Base Case and Phase-In Scenarios. Again, these surcharges would be levied in addition to the City's previously-adopted water rates. Residential surcharges are fixed monthly surcharges and Non-Residential surcharges are volumetric rates applied to monthly water use, subject to a minimum charge as shown. The rates for each customer class are designed to recover a proportionate share of revenues based on each class' proportionate share of water use, based on the most recent year of annual water use data available from May 2017 through April 2018.

Table 15A – Base Case: Proposed Monthly Water WRF Facility Surcharges

	2018/19	2019/20	2020/21	2021/22	2022/23
RESIDENTIAL					
<i>Charge per residential dwelling unit</i>					
Single Family		\$16.00	\$16.00	\$16.00	\$16.00
Multi-Family/Condo		12.80	12.80	12.80	12.80
NON-RESIDENTIAL					
<i>Rate per hcf of metered water use</i>					
Surcharge on all water use		\$3.64	\$3.64	\$3.64	\$3.64
<i>Minimum Monthly Charge</i>		12.80	12.80	12.80	12.80

Table 15B – Phase-In: Proposed Monthly Water WRF Facility Surcharges

	2018/19	2019/20	2020/21	2021/22	2022/23
RESIDENTIAL					
<i>Charge per residential dwelling unit</i>					
Single Family		\$8.00	\$12.00	\$17.00	\$17.00
Multi-Family/Condo		6.40	9.60	13.60	13.60
NON-RESIDENTIAL					
<i>Rate per hcf of metered water use</i>					
Surcharge on all water use		\$1.82	\$2.73	\$3.87	\$3.87
<i>Minimum Monthly Charge</i>		6.40	9.60	13.60	13.60

16. Previously-Adopted Water & Sewer Rates

In 2015, the City adopted 5-years of water and sewer rate increases. As of July 1, 2018, the City will have implemented 4 of the 5 years of previously-adopted rate increases. The final rate increase – scheduled to become effective July 1, 2019 – equates to a roughly 7.5% increase for a typical single family home with 5 hcf monthly water use. The adopted rates substantially strengthened the financial condition of the City’s water and sewer utilities but do not provide adequate funding to support each utility’s share of costs for the new WRF.

In particular, the previously-adopted sewer rates were designed to help support funding for approximately \$56 of project costs. This amount was based on a) Morro Bay funding 75% of a \$75 million wastewater treatment plant, b) Cayucos funding the other 25% of facility costs, c) no funding provided for recycled water facilities, and d) an assumption of full availability of low-interest-rate SRF financing for all debt financing needs. The additional water and sewer WRF Facility Surcharges are needed to provide adequate funding for each utility’s share of debt service for the WRF project.

Based on the financial projections, if the WRF Facility Surcharges are adopted, then no additional water or sewer rate increases – above those previously adopted – would likely need to be implemented over at least the next 5 years. However, the City should periodically evaluate its utility rates in future years to ensure future rates continue to recover the cost of providing service and each utility continues to meet its future financial obligations.

Table 16 – Adopted Monthly Water Rates (Excluding Proposed Surcharges)

		2018/19	2019/20	2020/21	2021/22	2022/23
		Adopted	Adopted	No Change Projected		
Fixed Monthly Charge		\$30.00	\$32.00	\$32.00	\$32.00	\$32.00
Water Quantity Charges						
<i>Billed per 100 cubic feet of metered water use (\$/hcf)</i>						
<u>Tier</u>	<u>Use in Tier</u>					
Tier 1	0 - 3 hcf	\$5.50	\$6.00	\$6.00	\$6.00	\$6.00
Tier 2	4 - 10 hcf	8.00	8.50	8.50	8.50	8.50
Tier 3	11- 50 hcf	10.50	11.00	11.00	11.00	11.00
Tier 4	>50 hcf	13.50	14.00	14.00	14.00	14.00

Table 17 – Adopted Monthly Sewer Rates (Excluding Proposed Surcharges)

	2018/19	2019/20	2020/21	2021/22	2022/23
	Adopted	Adopted	No Change Projected		
RESIDENTIAL					
<i>Charge per residential dwelling unit</i>					
Single Family	\$77.00	\$83.00	\$83.00	\$83.00	\$83.00
Multi-Family/Condo	61.60	66.40	66.40	66.40	66.40
NON-RESIDENTIAL					
<i>Rate per hcf of metered water use</i>					
Class A - Low Strength	\$10.57	\$11.40	\$11.40	\$11.40	\$11.40
Class B - Domestic Strength	12.67	13.61	13.61	13.61	13.61
Class C - Moderate Strength	14.89	15.82	15.82	15.82	15.82
Class D - Mod-High Strength	17.13	18.03	18.03	18.03	18.03
Class E - High Strength	21.36	22.46	22.46	22.46	22.46
<i>Minimum Monthly Charge</i>	61.60	66.40	66.40	66.40	66.40

17. Single Family Residential Bill Impacts

The following charts and tables show the total combined billing impacts – with full implementation of previously-adopted water and sewer rates and the proposed WRF Surcharges – on single family homes at different levels of monthly water use under the Base Case Scenario.

Base Case Scenario

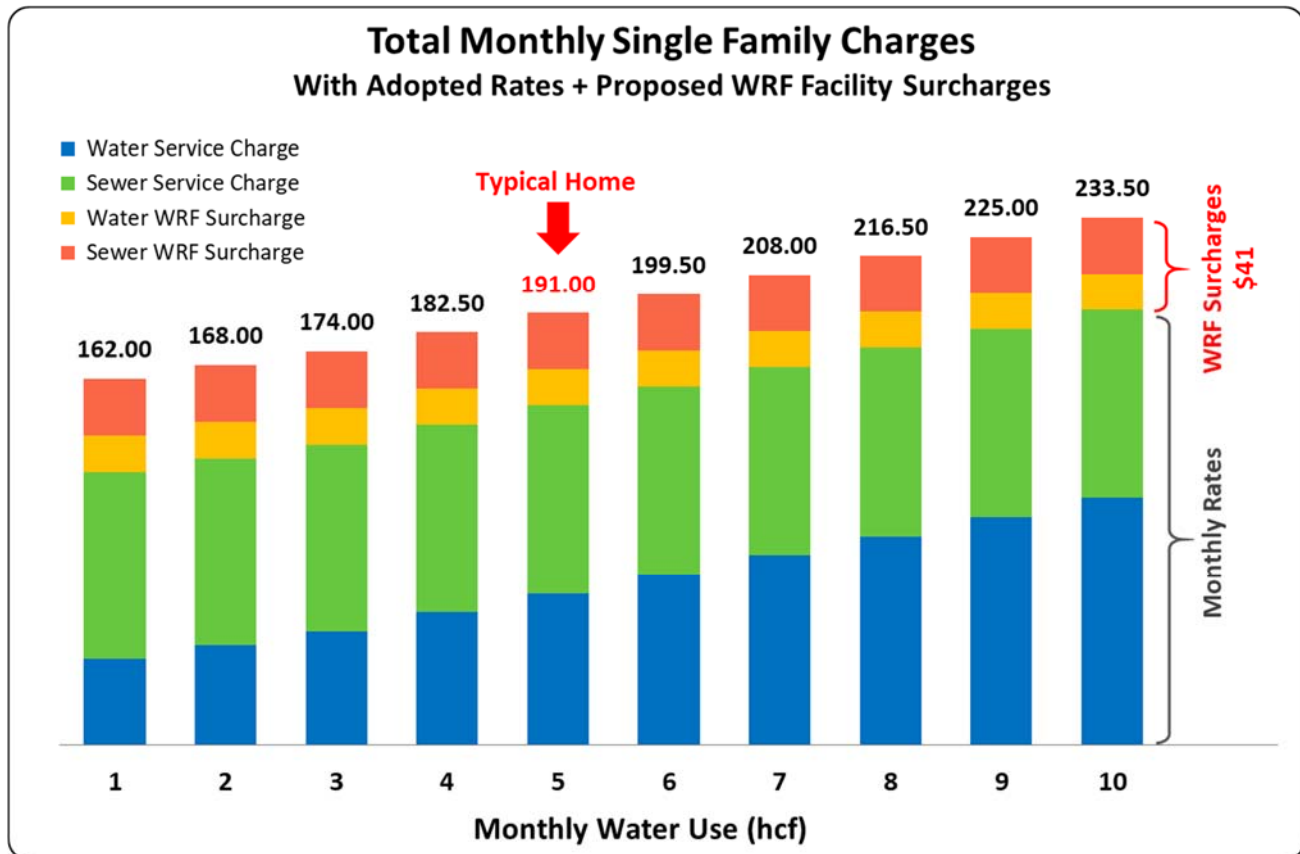


Table 18A – Base Case: Total Combined Bill with Adopted Rates + Proposed WRF Surcharges

Single Family Home at Different Levels of Use

	Monthly Water Use (hcf)									
	1	2	3	4	5	6	7	8	9	10
Water Service Charge	\$38.00	\$44.00	\$50.00	\$58.50	\$67.00	\$75.50	\$84.00	\$92.50	\$101.00	\$109.50
Sewer Service Charge	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00	83.00
Subtotal	121.00	127.00	133.00	141.50	150.00	158.50	167.00	175.50	184.00	192.50
Water WRF Surcharge	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Sewer WRF Surcharge	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Subtotal	41.00	41.00	41.00	41.00	41.00	41.00	41.00	41.00	41.00	41.00
Combined Total	162.00	168.00	174.00	182.50	191.00	199.50	208.00	216.50	225.00	233.50

The following charts and tables show the total combined billing impacts – with full implementation of previously-adopted water and sewer rates and the proposed WRF Facility Surcharges – on single family homes at different levels of monthly water use under the Phase-In Scenario.

Phase-In Scenario

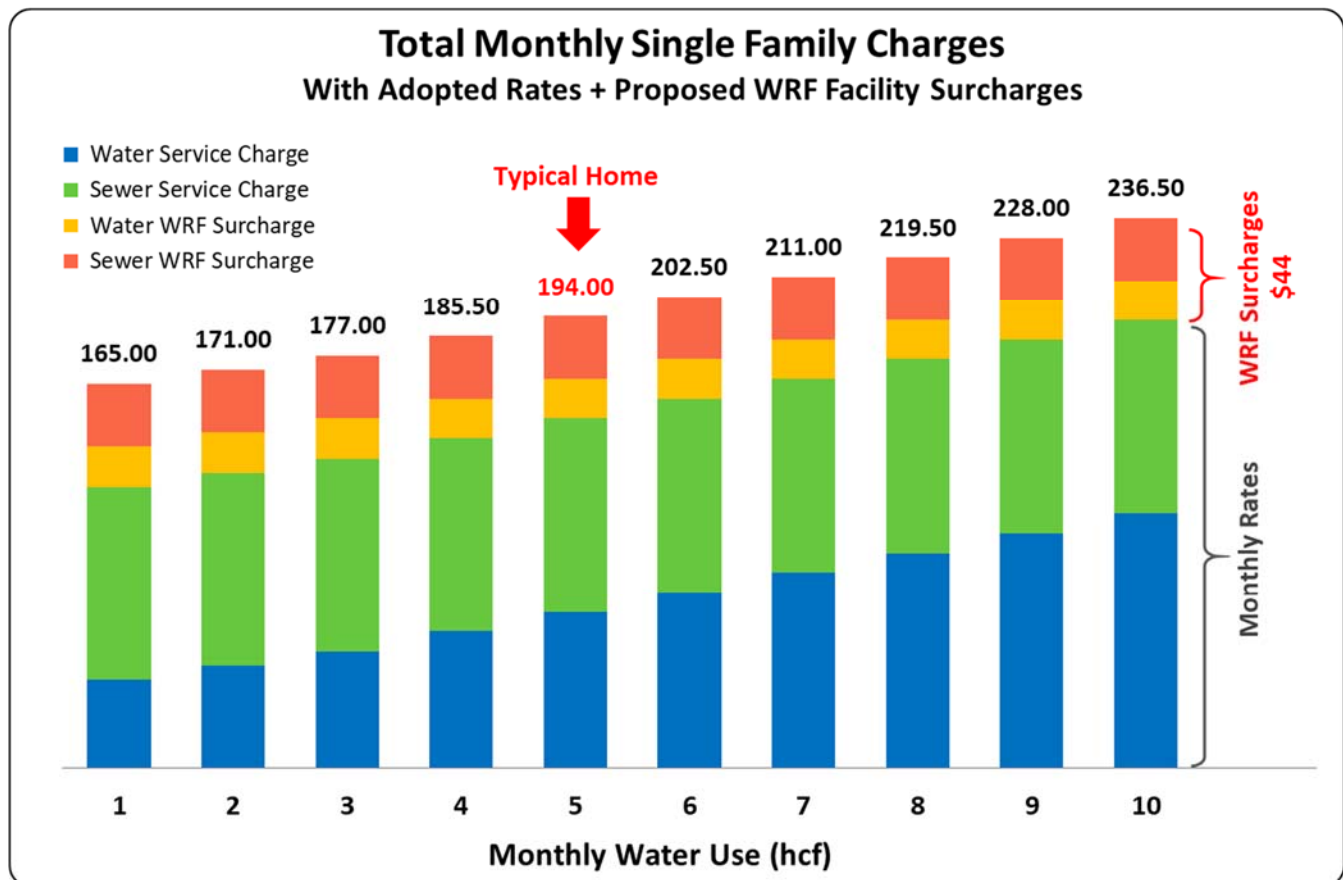


Table 18B – Phase In: Total Combined Bill with Adopted Rates + Proposed WRF Surcharges

Single Family Home at Different Levels of Use

	Monthly Water Use (hcf)									
	1	2	3	4	5	6	7	8	9	10
Water Service Charge	\$38.00	\$44.00	\$50.00	\$58.50	\$67.00	\$75.50	\$84.00	\$92.50	\$101.00	\$109.50
Sewer Service Charge	<u>83.00</u>	<u>83.00</u>	<u>83.00</u>	<u>83.00</u>	<u>83.00</u>	<u>83.00</u>	<u>83.00</u>	<u>83.00</u>	<u>83.00</u>	<u>83.00</u>
Subtotal	121.00	127.00	133.00	141.50	150.00	158.50	167.00	175.50	184.00	192.50
Water WRF Surcharge	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00	17.00
Sewer WRF Surcharge	<u>27.00</u>	<u>27.00</u>	<u>27.00</u>	<u>27.00</u>	<u>27.00</u>	<u>27.00</u>	<u>27.00</u>	<u>27.00</u>	<u>27.00</u>	<u>27.00</u>
Subtotal	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00
Combined Total	165.00	171.00	177.00	185.50	194.00	202.50	211.00	219.50	228.00	236.50

18. Commercial/Non-Residential Bill Impacts

The following tables show the total combined impacts – with full implementation of previously-adopted utility rates and the proposed WRF Surcharges – on a range of commercial accounts.

Table 19A – Base Case: Total Combined Utility Bill for Sample Commercial Accounts

	2018/19	Projected			
		2019/20	2020/21	2021/22	2022/23
Med-Small Commercial Office (4 hcf monthly water use, Domestic Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$61.60	\$66.40	\$66.40	\$66.40	\$66.40
Water Monthly Charge	54.50	58.50	58.50	58.50	58.50
Subtotal Monthly Bill	116.10	124.90	124.90	124.90	124.90
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	20.00	20.00	20.00	20.00
Water WRF Project Debt Funding	-	14.56	14.56	14.56	14.56
Subtotal Monthly Bill		34.56	34.56	34.56	34.56
Total Monthly Charges	116.10	159.46	159.46	159.46	159.46

Moderate Commercial Office (10 hcf monthly water use, Domestic Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$126.70	\$136.10	\$136.10	\$136.10	\$136.10
Water Monthly Charge	102.50	109.50	109.50	109.50	109.50
Subtotal Monthly Bill	229.20	245.60	245.60	245.60	245.60
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	40.99	40.99	40.99	40.99
Water WRF Project Debt Funding	-	36.39	36.39	36.39	36.39
Subtotal Monthly Bill		77.38	77.38	77.38	77.38
Total Monthly Charges	229.20	322.98	322.98	322.98	322.98

Restaurant (20 hcf monthly use, High Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$427.20	\$449.20	\$449.20	\$449.20	\$449.20
Water Monthly Charge	207.50	214.50	214.50	214.50	214.50
Subtotal Monthly Bill	634.70	663.70	663.70	663.70	663.70
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	135.30	135.30	135.30	135.30
Water WRF Project Debt Funding	-	72.78	72.78	72.78	72.78
Subtotal Monthly Bill		208.08	208.08	208.08	208.08
Total Monthly Charges	634.70	871.78	871.78	871.78	871.78

Table 20A – Base Case: Total Combined Utility Bill for Large Commercial Accounts

	2018/19	Projected			
		2019/20	2020/21	2021/22	2022/23
Larger Commercial Building (50 hcf monthly water use, Domestic Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$633.50	\$680.50	\$680.50	\$680.50	\$680.50
Water Monthly Charge	<u>522.50</u>	<u>529.50</u>	<u>529.50</u>	<u>529.50</u>	<u>529.50</u>
Subtotal Monthly Bill	1,156.00	1,210.00	1,210.00	1,210.00	1,210.00
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	204.97	204.97	204.97	204.97
Water WRF Project Debt Funding	-	<u>181.94</u>	<u>181.94</u>	<u>181.94</u>	<u>181.94</u>
Subtotal Monthly Bill		386.91	386.91	386.91	386.91
Total Monthly Charges	1,156.00	1,596.91	1,596.91	1,596.91	1,596.91

Motel (50 hcf monthly water use, Moderate Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$744.50	\$791.00	\$791.00	\$791.00	\$791.00
Water Monthly Charge	<u>522.50</u>	<u>549.50</u>	<u>549.50</u>	<u>549.50</u>	<u>549.50</u>
Subtotal Monthly Bill	1,267.00	1,340.50	1,340.50	1,340.50	1,340.50
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	238.25	238.25	238.25	238.25
Water WRF Project Debt Funding	-	<u>181.94</u>	<u>181.94</u>	<u>181.94</u>	<u>181.94</u>
Subtotal Monthly Bill		420.19	420.19	420.19	420.19
Total Monthly Charges	1,267.00	1,760.69	1,760.69	1,760.69	1,760.69

Large Hotel with Restaurant (250 hcf monthly water use, Mod-High Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$4,282.50	\$4,507.50	\$4,507.50	\$4,507.50	\$4,507.50
Water Monthly Charge	<u>3,222.50</u>	<u>3,449.50</u>	<u>3,449.50</u>	<u>3,449.50</u>	<u>3,449.50</u>
Subtotal Monthly Bill	7,505.00	7,957.00	7,957.00	7,957.00	7,957.00
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	1,357.68	1,357.68	1,357.68	1,357.68
Water WRF Project Debt Funding	-	<u>909.71</u>	<u>909.71</u>	<u>909.71</u>	<u>909.71</u>
Subtotal Monthly Bill		2,267.39	2,267.39	2,267.39	2,267.39
Total Monthly Charges	7,505.00	10,224.39	10,224.39	10,224.39	10,224.39

The following tables show the impacts by fiscal year under the Phase In Scenario.

Table 19B – Phase In: Total Combined Utility Bill for Sample Commercial Accounts

		Projected			
	2018/19	2019/20	2020/21	2021/22	2022/23
Med-Small Commercial Office (4 hcf monthly water use, Domestic Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$61.60	\$66.40	\$66.40	\$66.40	\$66.40
Water Monthly Charge	54.50	58.50	58.50	58.50	58.50
Subtotal Monthly Bill	116.10	124.90	124.90	124.90	124.90
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	7.20	14.40	21.60	21.60
Water WRF Project Debt Funding	-	7.28	10.92	15.46	15.46
Subtotal Monthly Bill		14.48	25.32	37.06	37.06
Total Monthly Charges	116.10	139.38	150.22	161.96	161.96

Moderate Commercial Office (10 hcf monthly water use, Domestic Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$126.70	\$136.10	\$136.10	\$136.10	\$136.10
Water Monthly Charge	102.50	109.50	109.50	109.50	109.50
Subtotal Monthly Bill	229.20	245.60	245.60	245.60	245.60
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	14.76	29.52	44.27	44.27
Water WRF Project Debt Funding	-	18.19	27.29	38.66	38.66
Subtotal Monthly Bill		32.95	56.81	82.94	82.94
Total Monthly Charges	229.20	278.55	302.41	328.54	328.54

Restaurant (20 hcf monthly use, High Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$427.20	\$449.20	\$449.20	\$449.20	\$449.20
Water Monthly Charge	207.50	214.50	214.50	214.50	214.50
Subtotal Monthly Bill	634.70	663.70	663.70	663.70	663.70
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	48.71	97.42	146.13	146.13
Water WRF Project Debt Funding	-	36.39	54.58	77.32	77.32
Subtotal Monthly Bill		85.10	152.00	223.45	223.45
Total Monthly Charges	634.70	748.80	815.70	887.15	887.15

Table 20B – Phase In: Total Combined Utility Bill for Large Commercial Accounts

	2018/19	Projected			
		2019/20	2020/21	2021/22	2022/23
Larger Commercial Building (50 hcf monthly water use, Domestic Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$633.50	\$680.50	\$680.50	\$680.50	\$680.50
Water Monthly Charge	<u>522.50</u>	<u>529.50</u>	<u>529.50</u>	<u>529.50</u>	<u>529.50</u>
Subtotal Monthly Bill	1,156.00	1,210.00	1,210.00	1,210.00	1,210.00
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	73.79	147.58	221.37	221.37
Water WRF Project Debt Funding	-	<u>90.97</u>	<u>136.46</u>	<u>193.31</u>	<u>193.31</u>
Subtotal Monthly Bill		164.76	284.03	414.68	414.68
Total Monthly Charges	1,156.00	1,374.76	1,494.03	1,624.68	1,624.68

Motel (50 hcf monthly water use, Moderate Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$744.50	\$791.00	\$791.00	\$791.00	\$791.00
Water Monthly Charge	<u>522.50</u>	<u>549.50</u>	<u>549.50</u>	<u>549.50</u>	<u>549.50</u>
Subtotal Monthly Bill	1,267.00	1,340.50	1,340.50	1,340.50	1,340.50
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	85.77	171.54	257.31	257.31
Water WRF Project Debt Funding	-	<u>90.97</u>	<u>136.46</u>	<u>193.31</u>	<u>193.31</u>
Subtotal Monthly Bill		176.74	308.00	450.63	450.63
Total Monthly Charges	1,267.00	1,517.24	1,648.50	1,791.13	1,791.13

Large Hotel with Restaurant (250 hcf monthly water use, Mod-High Strength)					
Monthly Utility Bill					
Sewer Monthly Charge	\$4,282.50	\$4,507.50	\$4,507.50	\$4,507.50	\$4,507.50
Water Monthly Charge	<u>3,222.50</u>	<u>3,449.50</u>	<u>3,449.50</u>	<u>3,449.50</u>	<u>3,449.50</u>
Subtotal Monthly Bill	7,505.00	7,957.00	7,957.00	7,957.00	7,957.00
WRF Facility Surcharges					
Sewer WRF Project Debt Funding	-	488.77	977.53	1,466.30	1,466.30
Water WRF Project Debt Funding	-	<u>454.85</u>	<u>682.28</u>	<u>966.56</u>	<u>966.56</u>
Subtotal Monthly Bill		943.62	1,659.81	2,432.86	2,432.86
Total Monthly Charges	7,505.00	8,900.62	9,616.81	10,389.86	10,389.86

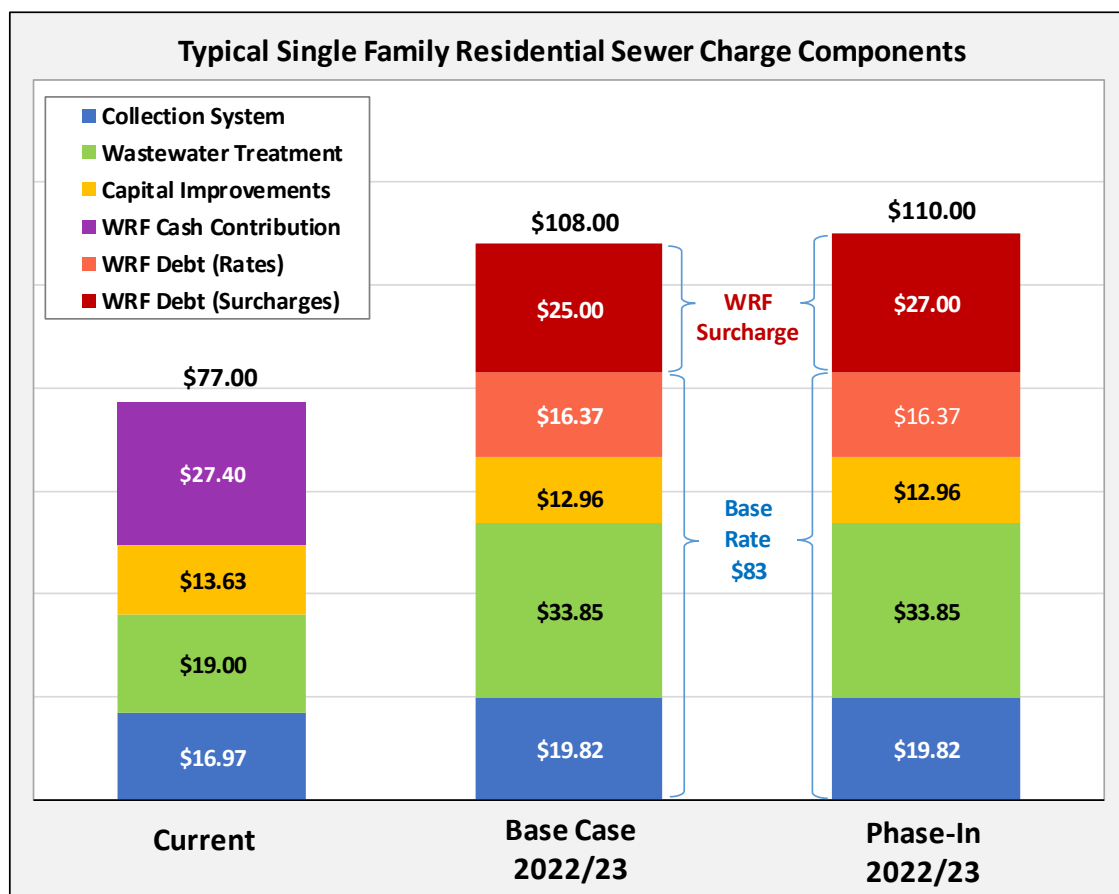
19. Sewer Rate & WRF Surcharge Cost Recovery

Table 21 shows an estimated breakdown of the cost components of monthly sewer charges for a typical single family home with 5 units (hcf) monthly water use. The table compares current charges vs. charges in 2022/23 with full implementation of adopted rates and the WRF Facility Surcharge.

Table 21 – Sewer Rate Components

	Current 2018/19	Base Case 2022/23	Phase-In 2022/23
Base Monthly Sewer Rate			
Sewer Collection System O&M	\$16.97	\$19.82	\$19.82
Wastewater Treatment O&M*	19.00	33.85	33.85
WRF Debt Service: Sewer Rates	0.00	16.37	16.37
Sewer CIP/Equipment/Other	13.63	12.96	12.96
WRF Cash Contribution	<u>27.40</u>	<u>0.00</u>	<u>0.00</u>
Subtotal Base Sewer Rate	77.00	83.00	83.00
WRF Surcharge (for WRF Debt Service)	0.00	25.00	27.00
Total	77.00	83.00	83.00

* Current year wastewater treatment O&M is net of 25% cost-sharing by Cayucos SD



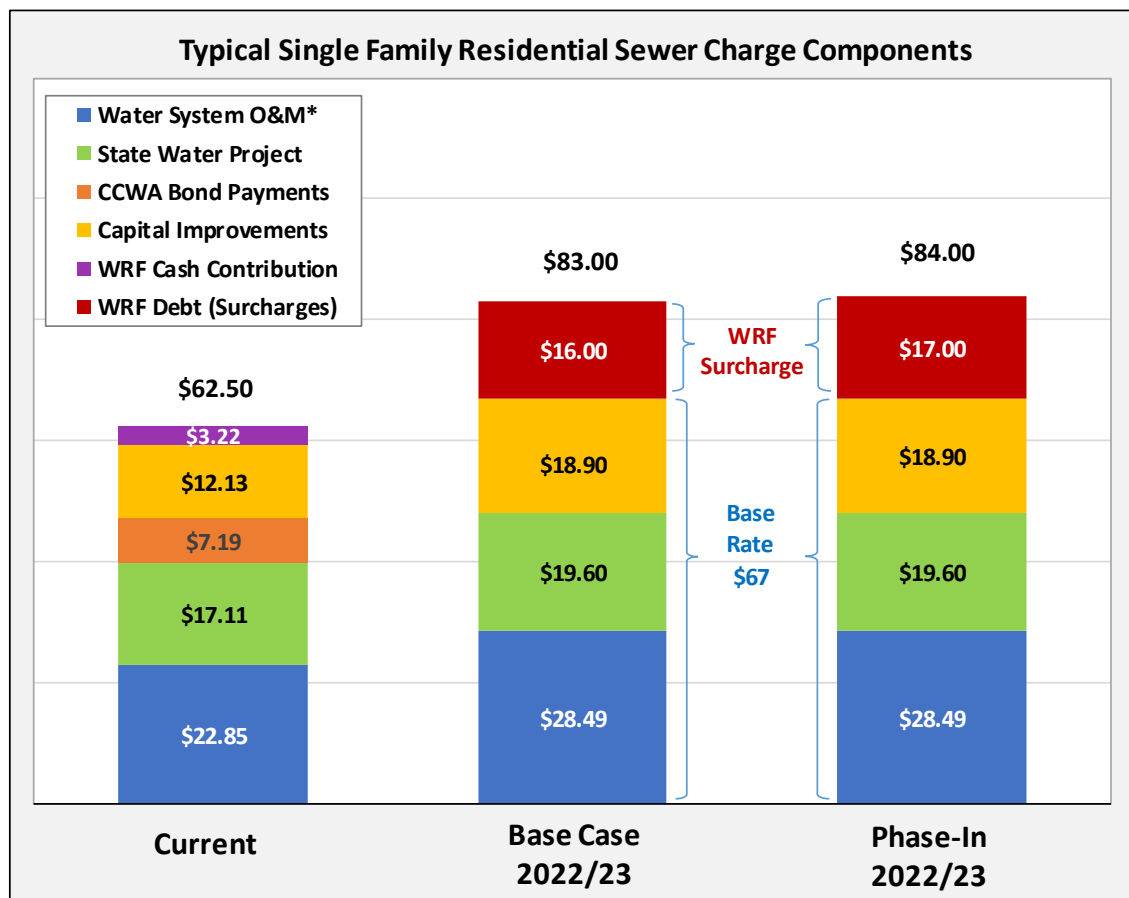
20. Water Rate & WRF Surcharge Cost Recovery

Table 22 shows an estimated breakdown of the cost components of monthly water charges for a typical single family home with 5 units (hcf) monthly water use. The table compares current charges vs. charges in 2022/23 with full implementation of adopted rates and the WRF Facility Surcharge.

Table 22 – Water Rate Components

	Current 2018/19	Base Case 2022/23	Phase-In 2022/23
Base Monthly Water Rate			
Water System O&M*	\$22.85	\$28.49	\$28.49
State Water Project Expenses	17.11	19.60	19.60
CCWA Bond Payments	7.19	0.00	0.00
Water CIP/Equipment/Other	12.13	18.90	18.90
WRF Cash Contribution	<u>3.22</u>	<u>0.00</u>	<u>0.00</u>
Subtotal Water Rate	62.50	67.00	67.00
WRF Surcharge (for WRF Debt Service)	0.00	16.00	17.00
Total	62.50	83.00	84.00

* Water System O&M in 2022/23 includes recycled water operating expenses of \$220,000.



21. Billing Options for WRF Facility Surcharges

The City currently bills customers monthly via a combined utility bill for water and sewer service. The City is considering two methods of bill collection for recovering the WRF Facility Surcharges, including:

- **Monthly Billing** - Add the WRF Facility Surcharges as a new line-item in the monthly bills.
- **Property Tax Rolls** - Recover the proposed WRF Facility Surcharges on the property tax rolls.

The WRF Facility Surcharges would be the same under both alternatives; only the method of billing and collection would vary. For a single family home, adding the surcharges to the property tax rolls, would result in two payments of roughly \$250 that would be added to the semi-annual property tax assessments. Table 23 shows the timing of payments for WRF Facility Surcharges under the Base Case and Phase-In Scenarios with full implementation of the surcharges. Non-residential customers could be billed on the property tax rolls based on usage from the immediately-prior 12-month period.

Table 23 – Example of Single Family WRF Surcharges Collected with Property Taxes

	Annual Total	December Installment 1	April Installment 2
WRF Facility Surcharges			
Base Case Scenario	\$492.00	\$246.00	\$246.00
Phase-In Scenario	528.00	264.00	264.00

While there are some administrative differences for billing and collecting the WRF Facility Surcharges under the two billing options, the main difference is who will bear the financial burden of paying the surcharges: ratepayers or property owners. Note that many ratepayers are also property owners and would be the same people paying the same surcharges regardless of billing method. However, the City does serve a number of tenants who currently pay utility bills for their rental units.

Some potential pros, cons, and issues related to collecting the WRF Facility Surcharges on the property tax rolls include:

- In many (but not all) cases, property owners own substantial equity in their homes, whereas many renters do not have such equity and/or may not be able to afford to purchase a home. Hence billing the WRF Facility Surcharges via the property tax rolls would put the burden on a group that generally has more financial asset than renters. At the same time, there are number of homeowners who – although they may have substantial equity in their home – are also living on fixed incomes.

- The new WRF facility benefits homeowners by preserving property value with access to safe and reliable wastewater service.
- Adding the WRF Facility Surcharges to the combined monthly water and sewer bill could potentially result in an uptick in delinquencies. However, delinquencies can be ultimately recovered by placing a lien on the property, which results in the charge being put back on the property tax rolls in case of extreme delinquency.
- San Luis Obispo County is on the Teeter Plan and pays agencies for 100% of assessments or charges placed on the property tax rolls for collection, regardless of actual delinquencies. The County has indicated that if delinquencies exceed 3%, then the County retains the authority to end the Teeter Plan practice and instead provide only actual amounts collected. However, the County has never done this in the past.
- The cost of placing the surcharges on the property tax rolls currently costs \$2 per parcel and is roughly estimated to cost a total of about \$11,000 per year.
- Placing the surcharges on the tax roll would require the City Council to pass a Resolution adopting a schedule of charges to be levied on all affected properties by Assessor's Parcel Number (APN) each year. If the Resolution was not adopted, the charges could not be assessed on the property tax rolls. However, this does not mean that the City could not recover the charge, it would simply change the method of collection and would require the City to add the surcharges to the monthly bills instead.
- Regardless of the billing approach, the City would be under legal covenant to adopt rates and charges as needed to repay debt service, meet debt service coverage requirements, and meet other legal obligations.
- Collecting sewer charges on the property tax rolls would also result in a change in timing of receiving revenues. The County generally sends agencies payments twice per year (in December and April) based on actual tax collections. Subsequently, at the end of the fiscal year, the County does a true-up and would send the City the remainder of amounts billed on the tax rolls regardless of delinquencies. The County subsequently deals with the delinquencies and keeps any funds recovered from the delinquent properties including any penalties.
- If the City opted to collect the WRF Facility Surcharges on the property tax rolls, due to the change in timing of revenues, the City may need to strategically determine the payment dates for future debt service payments to ensure the debt payments are due after the City receives payment from the County in December and April.

In order to recover the WRF Facility Surcharges via the property tax rolls, the City would need to follow the process identified in the California Health and Safety Code Section 5470 – 5474, attached as an appendix to this report. The process is similar to the Proposition 218 process required for increasing utility rates and could be done concurrently when the City goes through the Proposition 218 rate increase process for potential water and sewer rate increases.

Appendix A

Water & Sewer Capital Improvement Plans



City of Morro Bay
One Water Morro Bay
POTABLE WATER CAPITAL IMPROVEMENT PLAN SUMMARY

DRAFT - WORK IN PROGRESS (June 21, 2018)

Pump Station	Existing Size/Type	Proposed Size/Type	Proposed Amount	CIP Cost Estimate ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾ (\$)	Existing User Cost (\$)	Future User Cost (\$)	CIP Phasing (\$)						
							Near-Term						Long-Term
							2019	2020	2021	2022	2023	2024-2028	2029-2040
Capacity Improvements				\$ 20,991,000	\$ 20,873,000	\$ 118,000	\$ 904,000	\$ 927,000	\$ 1,224,000	\$ 1,697,000	\$ 1,326,000	\$ 4,327,000	\$ 7,851,000
Fire Flow Improvements	Diameter (in)	Diameter (in)	Length (ft)	\$ 12,342,000	\$ 12,342,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,502,000	\$ 7,105,000
PWFF-1	Pipeline along Quintana Road	8	10	3,000	\$ 1,094,000	\$ 1,094,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWFF-2	Pipeline along Quintana Road	8	16	3,300	\$ 1,641,000	\$ 1,641,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWFF-3A	Pipeline along Main Street	8	12	1,650	\$ 615,000	\$ 615,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 615,000	\$ -
PWFF-3B	Pipeline along Main Street	8	10	600	\$ 219,000	\$ 219,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 219,000	\$ -
PWFF-4	Pipeline along Ridgeway Street	6	10	830	\$ 303,000	\$ 303,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 303,000	\$ -
PWFF-5A	Pipeline along Highway 41 and Main Street	--	8	270	\$ 78,000	\$ 78,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 78,000	\$ -
PWFF-5B	Pipeline along Highway 41 and Main Street	6	8	870	\$ 252,000	\$ 252,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 252,000	\$ -
PWFF-5C	Pipeline along Highway 41 and Main Street	6	10	950	\$ 346,000	\$ 346,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 346,000	\$ -
PWFF-6A	Pipeline along Highway 41 and Main Street	--	8/20	270	\$ 211,000	\$ 211,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 211,000	\$ -
PWFF-6B	PRV from Upper Kings Zone to Elena Zone	--	8	--	\$ 312,000	\$ 312,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 312,000	\$ -
PWFF-7	Pipeline along Juniper Avenue	6	8	570	\$ 166,000	\$ 166,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 166,000	\$ -
PWFF-8A	Pipeline along San Joaquin Street	--	8	240	\$ 70,000	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 70,000
PWFF-8B	Pipeline along San Joaquin Street	6	8	230	\$ 66,000	\$ 66,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 66,000
PWFF-8C	Pipeline along San Joaquin Street	--	8	100	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,000
PWFF-8D	Pipeline along San Joaquin Street	--	10	970	\$ 353,000	\$ 353,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 353,000
PWFF-8E	PRV on San Joaquin Street	--	8	--	\$ 312,000	\$ 312,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 312,000
PWFF-9A	Pipeline along Greenwood Avenue and San Jacinto Street	6	10	640	\$ 234,000	\$ 234,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 234,000
PWFF-9B	Pipeline along Greenwood Avenue and San Jacinto Street	--	10	850	\$ 310,000	\$ 310,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 310,000
PWFF-10	Pipeline along Sequoia Street	8	10	540	\$ 197,000	\$ 197,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 197,000
PWFF-11	Pipeline along Las Vegas Street and Main Street	6	8	1,610	\$ 467,000	\$ 467,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 467,000
PWFF-12	Pipeline along Highway 41 and Hill Street	--	8	1,290	\$ 375,000	\$ 375,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 375,000
PWFF-13	Pipeline along Ponderosa Street	6	8	910	\$ 264,000	\$ 264,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 264,000
PWFF-14	Pipeline along Mimosa Street	6	8	580	\$ 169,000	\$ 169,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 169,000
PWFF-15A	Pipeline along Surf Street	6	8	640	\$ 186,000	\$ 186,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 186,000
PWFF-15B	Pipeline along Surf Street	--	8	420	\$ 123,000	\$ 123,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 123,000
PWFF-16	Pipeline along Piney Way and Alta Court	6	8	910	\$ 264,000	\$ 264,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 264,000
PWFF-17	Pipeline from Kings Avenue to Arbutus Avenue	--	8	1,050	\$ 305,000	\$ 305,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 305,000
PWFF-18	Pipeline along Bolton Drive	6	8	700	\$ 204,000	\$ 204,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 204,000
PWFF-19	Pipeline along Norwich Avenue	--	8	220	\$ 65,000	\$ 65,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 65,000
PWFF-20	Pipeline along Blanca Street and Tuscan Avenue	6	8	450	\$ 131,000	\$ 131,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 131,000
PWFF-21	Pipeline along Toro Lane	6	8	800	\$ 232,000	\$ 232,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 232,000
PWFF-22	Pipeline along Sequoia Court and Ironwood Avenue	6	8	385	\$ 111,000	\$ 111,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 111,000
PWFF-23	Pipeline along Paula Street	--	8	200	\$ 58,000	\$ 58,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 58,000
PWFF-24	Pipeline along Reno Court	6	8	450	\$ 131,000	\$ 131,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 131,000
PWFF-25	Pipeline along Errol Street	4	8	545	\$ 157,000	\$ 157,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 157,000
PWFF-26	Pipeline along Napa Avenue	6	8	210	\$ 61,000	\$ 61,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 61,000
PWFF-27A	Pipeline along Marina Street	2	8	220	\$ 65,000	\$ 65,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 65,000
PWFF-27B	Pipeline along Marina Street	--	8	115	\$ 33,000	\$ 33,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 33,000
PWFF-28	Pipeline along Driftwood Street	--	8	370	\$ 108,000	\$ 108,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 108,000
PWFF-29	Pipeline along South Street	--	8	300	\$ 88,000	\$ 88,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 88,000
PWFF-30	Pipeline along Piney Lane	6	8	370	\$ 108,000	\$ 108,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 108,000



City of Morro Bay
One Water Morro Bay
POTABLE WATER CAPITAL IMPROVEMENT PLAN SUMMARY

DRAFT - WORK IN PROGRESS (June 21, 2018)

Pump Station		Existing Size/Type	Proposed Size/Type	Proposed Amount	CIP Cost Estimate ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾ (\$)	Existing User Cost (\$)	Future User Cost (\$)	CIP Phasing (\$)						
								Near-Term						Long-Term
								2019	2020	2021	2022	2023	2024-2028	2029-2040
PWFF-31	PRV on Avalon Street and Ironwood Avenue	--	8	--	\$ 312,000	\$ 312,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 312,000
PWFF-32	PRV on Highway 41 and Ironwood Avenue	--	8	--	\$ 312,000	\$ 312,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 312,000
PWFF-33	PRV on Dunes Street and Shasta Avenue	--	8	--	\$ 312,000	\$ 312,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 312,000
PWFF-34	PRV on Main Street and Quintana Place	--	8	--	\$ 312,000	\$ 312,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 312,000
PWFF-35	Pipeline along Sunset Road	6	8	--	\$ 580,000	\$ 580,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 580,000
Transssmission & Distribution Main		Diameter (in)	Diameter (in)	Length (ft)	\$ 2,658,000	\$ 2,558,000	\$ 100,000	\$ 904,000	\$ 595,000	\$ -	\$ 371,000	\$ -	\$ 788,000	\$ -
PWP-1	Fill line for Blanca Tanks	4	8	2,210	\$ 750,000	\$ 735,000	\$ 15,000	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWP-2	Fill line for Nutmeg Tank	4	8	1,280	\$ 371,000	\$ 364,000	\$ 7,000	\$ -	\$ -	\$ -	\$ 371,000	\$ -	\$ -	\$ -
PWP-3	Fill line for Elena Tanks	--	10	1,730	\$ 788,000	\$ 725,000	\$ 63,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 788,000	\$ -
PWP-4	Parallel pipeline on Juniper Avenue	--	8	2,050	\$ 595,000	\$ 583,000	\$ 12,000	\$ -	\$ 595,000	\$ -	\$ -	\$ -	\$ -	\$ -
PWP-5	Pipeline on Sequoia Street	--	8	530	\$ 154,000	\$ 151,000	\$ 3,000	\$ 154,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pump Station		Capacity (mgd)	Capacity (mgd)	Length (ft)	\$ 1,326,000	\$ 1,314,000	\$ 12,000	\$ -	\$ -	\$ 580,000	\$ -	\$ -	\$ -	\$ 746,000
PWPS-1	Elena Booster Pump Station Upgrade	0.44	0.50	--	\$ 580,000	\$ 568,000	\$ 12,000	\$ -	\$ -	\$ 580,000	\$ -	\$ -	\$ -	\$ -
PWPS-2	Kings Booster Pump Station Upgrade	--	2.16	--	\$ 746,000	\$ 746,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 746,000
Storage Reservoir		Capacity (MG)	Capacity (MG)	Length (ft)	\$ 4,353,000	\$ 4,353,000	\$ -	\$ -	\$ 332,000	\$ 332,000	\$ 1,326,000	\$ 1,326,000	\$ 1,037,000	\$ -
PWS-1	Nutmeg Tank Upgrade	0.14	1	--	\$ 3,316,000	\$ 3,316,000	\$ -	\$ -	\$ 332,000	\$ 332,000	\$ 1,326,000	\$ 1,326,000	\$ -	\$ -
PWS-2	Elena Tank Upgrade	0.12	0.15	--	\$ 1,037,000	\$ 1,037,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,037,000	\$ -
PRV Station		Diameter (in)	Diameter (in)	Length (ft)	\$ 312,000	\$ 306,000	\$ 6,000	\$ -	\$ -	\$ 312,000	\$ -	\$ -	\$ -	\$ -
PWV-1	PRV on Juniper Avenue	--	8	--	\$ 312,000	\$ 306,000	\$ 6,000	\$ -	\$ -	\$ 312,000	\$ -	\$ -	\$ -	\$ -
Rehabilitation and Replacement Projects					\$ 2,200,000	\$ 2,200,000	\$ -	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000	\$ 1,200,000
PWRR-1	Pipeline R&R Program	1-16	> 6	--	\$ 2,200,000	\$ 2,200,000	\$ -	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000	\$ 1,200,000
Other Projects					\$ 2,895,000	\$ 2,895,000	\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ 2,535,000
PWO-1	Water Master Plan Update	--	--	--	\$ 600,000	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ 300,000
PWO-2	Re-Skin Desalination Plant Building	--	--	--	\$ 60,000	\$ 60,000	\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PWO-3	Control Upgrades at Desalination Plant	--	--	--	\$ 1,472,000	\$ 1,472,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,472,000
PWO-4	Add Screening at Desalination Plant	--	--	--	\$ 17,000	\$ 17,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,000
PWO-5	Chlorination Upgrades	--	--	--	\$ 746,000	\$ 746,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 746,000
PWO-6	Desalination Plant Relocation	--			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CIP Total					\$ 26,086,000	\$ 25,968,000	\$ 118,000	\$ 1,064,000	\$ 1,027,000	\$ 1,324,000	\$ 1,797,000	\$ 1,576,000	\$ 4,977,000	\$ 11,586,000
Annual Cost					N/A	N/A	N/A	\$ 1,064,000	\$ 1,027,000	\$ 1,324,000	\$ 1,797,000	\$ 1,576,000	\$ 995,400	\$ 965,500

- Notes:
- (1) ENR 20 City Average Construction Cost Index for February 2018 is 10,889.
 - (2) Estimated Construction Cost includes a 30% contingency of the baseline construction cost.
 - (3) Total project costs includes a 10% markup for engineering, a 10% markup for construction management and a 7.5% markup for project administration of the estimated construction cost.
 - (4) Total Mark-Up is 65.8% of the baseline construction costs.





City of Morro Bay
One Water Morro Bay
WASTEWATER COLLECTION SYSTEM CAPITAL IMPROVEMENT PLAN SUMMARY

DRAFT - WORK IN PROGRESS (June 21, 2018)

Project	Existing Size/Type	Proposed Size/Type	Proposed Amount	CIP Cost Estimate ⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾ (\$)	Existing User Cost (\$)	Future User Cost (\$)	CIP Phasing (\$)							
							Near-Term						Long-Term	
							2019	2020	2021	2022	2023	2024-2028	2029-2040	
Capacity Related Improvements				\$ 6,513,000	\$ 6,149,000	\$ 364,000	\$ 530,000	\$ -	\$ 1,371,000	\$ 587,000	\$ -	\$ 2,506,000	\$ 1,519,000	
Gravity Mains	Diameter (in)	Diameter (in)	Length (ft)	\$ 4,994,000	\$ 4,630,000	\$ 364,000	\$ 530,000	\$ -	\$ 1,371,000	\$ 587,000	\$ -	\$ 2,506,000	\$ -	
WWGM-1 Gravity Main along Atascadero Road	18	27	1,000	\$ 530,000	\$ 463,000	\$ 67,000	\$ 530,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
WWGM-2 Gravity Main along Main Street	15	24	2,900	\$ 1,371,000	\$ 1,194,000	\$ 177,000	\$ -	\$ -	\$ 1,371,000	\$ -	\$ -	\$ -	\$ -	
WWGM-3 Gravity Main along Main Street	12	18	1,600	\$ 544,000	\$ 544,000	\$ -	\$ -	\$ -	\$ -	\$ 544,000	\$ -	\$ -	\$ -	
WWGM-4A Gravity Main along San Joaquin Street	6	12	150	\$ 43,000	\$ 41,000	\$ 2,000	\$ -	\$ -	\$ -	\$ 43,000	\$ -	\$ -	\$ -	
WWGM-4B Gravity Main along Alder Avenue, and San Jacinto Street	6	10	1,200	\$ 328,000	\$ 301,000	\$ 27,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 328,000	\$ -	
WWGM-5 Gravity Main along Greenwood Avenue	6	12	1,850	\$ 537,000	\$ 537,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 537,000	\$ -	
WWGM-6 Gravity Main along Coral Avenue	10	12	1,900	\$ 552,000	\$ 552,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 552,000	\$ -	
WWGM-7 Gravity Main along Sienna Street	6	10	250	\$ 68,000	\$ 68,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 68,000	\$ -	
WWGM-8A Gravity Main along Main Street	10 & 12	15	2,600	\$ 819,000	\$ 728,000	\$ 91,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 819,000	\$ -	
WWGM-8B Gravity Main along Main Street	8 & 10	12	400	\$ 116,000	\$ 116,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 116,000	\$ -	
WWGM-9 Gravity Main under Highway 41	6	8/20	110	\$ 86,000	\$ 86,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 86,000	\$ -	
Lift Stations	Capacity (mgd)	Capacity (mgd)		\$ 1,439,000	\$ 1,439,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,439,000	
WWLS-1 Lift Station 1 Replacement	0.98	1.65	N/A	\$ 1,439,000	\$ 1,439,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,439,000	
Force Main	Diameter (in)	Diameter (in)	Length (ft)	\$ 80,000	\$ 80,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 80,000	
WWFM-1 Lift Station 1 Force Main	6	8	300	\$ 80,000	\$ 80,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 80,000	
Rehabilitation and Replacement Projects				\$ 10,818,000	\$ 10,818,000	\$ -	\$ 249,000	\$ 945,000	\$ -	\$ 602,000	\$ 602,000	\$ 3,010,000	\$ 5,410,000	
Gravity Mains	Diameter (in)	Diameter (in)	Length (ft)	\$ 8,298,000	\$ 8,298,000	\$ -	\$ -	\$ 680,000	\$ -	\$ 602,000	\$ 602,000	\$ 3,010,000	\$ 3,404,000	
WWRR-1A Gravity Main Beachcomber Drive	12	12	570	\$ 166,000	\$ 166,000	\$ -	\$ -	\$ 166,000	\$ -	\$ -	\$ -	\$ -	\$ -	
WWRR-1B Gravity Main Beachcomber Drive	10	10	960	\$ 262,000	\$ 262,000	\$ -	\$ -	\$ 262,000	\$ -	\$ -	\$ -	\$ -	\$ -	
WWRR-1C Gravity Main Beachcomber Drive	8	8	950	\$ 252,000	\$ 252,000	\$ -	\$ -	\$ 252,000	\$ -	\$ -	\$ -	\$ -	\$ -	
WWRR-2 Pipe R&R Program Upstream of LS-1	6-12	8-12	27,000	\$ 5,418,000	\$ 5,418,000	\$ -	\$ -	\$ -	\$ -	\$ 602,000	\$ 602,000	\$ 3,010,000	\$ 1,204,000	
WWRR-3 I/I Reduction Projects	4-18	> 6	Varies	\$ 2,200,000	\$ 2,200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,200,000	
Structures	Type	Type	Quantity	\$ 2,520,000	\$ 2,520,000	\$ -	\$ 249,000	\$ 265,000	\$ -	\$ -	\$ -	\$ -	\$ 2,006,000	
WWRR-4 Cap Replacement Upstream of LS-1	Cap	Manhole	31	\$ 514,000	\$ 514,000	\$ -	\$ 249,000	\$ 265,000	\$ -	\$ -	\$ -	\$ -	\$ -	
WWRR-5 Cap Replacement Program	Cap	Manhole	121	\$ 2,006,000	\$ 2,006,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,006,000	
Other Projects				\$ 840,000	\$ 840,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 210,000	\$ 210,000	\$ 420,000	
WVO-1 Sewer Master Plan Update	--	--	--	\$ 600,000	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ 300,000	
WVO-2 Flow Monitoring Program	--	4 weeks	15 FM	\$ 240,000	\$ 240,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,000	\$ 60,000	\$ 120,000	
CIP Total				\$ 18,171,000	\$ 17,807,000	\$ 364,000	\$ 779,000	\$ 945,000	\$ 1,371,000	\$ 1,189,000	\$ 812,000	\$ 5,726,000	\$ 7,349,000	
Annual Cost				N/A	N/A	N/A	\$ 779,000	\$ 945,000	\$ 1,371,000	\$ 1,189,000	\$ 812,000	\$ 1,145,000	\$ 612,000	

Notes:

- (1) ENR 20 City Average Construction Cost Index for February 2018 is 10,889.
(2) Estimated Construction Cost includes a 30% contingency of the baseline construction cost.
(3) Total project costs includes a 10% markup for engineering, a 10% markup for construction management and a 7.5% markup for project administration of the estimated construction cost.
(4) Total Mark-Up is 65.8% of the baseline construction costs.



Appendix B

Base Case Scenario Debt Financing Projections

Table B-1
City of Morro Bay
WIFIA Sources & Uses

Base Case Scenario

<u>Sources</u>		
WIFIA Loan		\$67,800,000
<u>Uses</u>		
WRF Project Funding ¹	49% of total project cost	\$60,175,000
Application/Credit Reimbursement Fee	estimated	300,000
Other Issuance Costs (est)	estimated	50,000
Accrued Interest During Construction ²	verify with WIFIA	3,911,000
Debt-Funded Reserve Fund	likely required	3,360,000
Contingency/Rounding		4,000
Total Uses		67,800,000
<hr/> <p>1 49% of Total WRF Project Cost 2 Assumes steady gradual drawdown of loan funds over 2 years, plus 1 year add'l accrued interest.</p>		

Table B-2
City of Morro Bay
Draft WIFIA Loan Repayment Schedule

WIFIA Loan Amount	\$67,800,000
Repayment Term	35 Years
Interest Rate	3.25%

Payment Number	Fiscal Year Ending	Principal	Interest	Total Debt Service	Principal Balance
1	2023	\$769,582	\$2,203,500	\$2,973,082	\$67,030,418
2	2024	794,593	2,178,489	2,973,082	66,235,824
3	2025	820,418	2,152,664	2,973,082	65,415,407
4	2026	847,081	2,126,001	2,973,082	64,568,325
5	2027	874,611	2,098,471	2,973,082	63,693,714
6	2028	903,036	2,070,046	2,973,082	62,790,678
7	2029	932,385	2,040,697	2,973,082	61,858,293
8	2030	962,688	2,010,395	2,973,082	60,895,605
9	2031	1,442,975	1,979,107	3,422,082	59,452,630
10	2032	1,489,872	1,932,210	3,422,082	57,962,758
11	2033	1,538,292	1,883,790	3,422,082	56,424,466
12	2034	1,588,287	1,833,795	3,422,082	54,836,179
13	2035	1,639,906	1,782,176	3,422,082	53,196,273
14	2036	1,693,203	1,728,879	3,422,082	51,503,069
15	2037	1,748,232	1,673,850	3,422,082	49,754,837
16	2038	1,805,050	1,617,032	3,422,082	47,949,787
17	2039	1,863,714	1,558,368	3,422,082	46,086,073
18	2040	1,924,285	1,497,797	3,422,082	44,161,788
19	2041	1,986,824	1,435,258	3,422,082	42,174,964
20	2042	2,051,396	1,370,686	3,422,082	40,123,568
21	2043	2,118,066	1,304,016	3,422,082	38,005,502
22	2044	2,186,903	1,235,179	3,422,082	35,818,599
23	2045	2,257,978	1,164,104	3,422,082	33,560,621
24	2046	2,331,362	1,090,720	3,422,082	31,229,259
25	2047	2,407,131	1,014,951	3,422,082	28,822,128
26	2048	2,485,363	936,719	3,422,082	26,336,765
27	2049	2,566,137	855,945	3,422,082	23,770,628
28	2050	2,649,537	772,545	3,422,082	21,121,091
29	2051	2,735,647	686,435	3,422,082	18,385,444
30	2052	2,824,555	597,527	3,422,082	15,560,889
31	2053	2,916,353	505,729	3,422,082	12,644,536
32	2054	3,011,135	410,947	3,422,082	9,633,401
33	2055	3,108,997	313,086	3,422,082	6,524,404
34	2056	3,210,039	212,043	3,422,082	3,314,365
35	2057	3,314,365	107,717	3,422,082	0
Total		67,800,000	48,380,874	116,180,874	1,420,842,286

Note: Debt repayment is partially reduced over first 8 years to result in roughly level annual debt service on total combined debt.

Table B-3
City of Morro Bay
Bond Debt Service Estimates

Base Case Scenario

		30-Year Bonds w/22-Year Amort
Funding Target		\$24,700,000
Issue Size		
Project Funding	<u>Estimates</u>	24,700,000
Underwriter's Discount	0.70%	177,300
Issuance Costs		200,000
Bond Insurance	0.40%	202,700
Reserve Surety Bond	2.25%	42,100
Rounding		1,600
Total		25,323,700
Financing Terms		
Repayment Term		30
Amortization Term (years)		22
Interest Rate ²	Planning Est.	4.70%
Annual Debt Service		
During 8-Year Interest-Only Period		1,190,000
During 22-Year Principal Amortization Period		1,871,000
Estimates shown for financial planning purposes, actual costs and rates may vary.		

Current Estimated Rates

WIFIA Rate (Est. 25-Year SLGS)

30-Year Bond Rate (est.)

SRF Rate

2017 CPI-U

June 7, 2018 Rates

3.05%

4.25%

1.80%

2.13%

Inflation Adjusted Rate

0.91%

2.08%

-0.32%

Table B-4
City of Morro Bay
Debt Service Amortization Schedules

Base Case Scenario

Fiscal Year Ending	SRF Planning Loan	WIFIA Loan	Revenue Bonds	Total Debt Service
Project \$	\$10,300,000	\$60,175,000	\$24,700,000	\$95,175,000
Term	10 Years	35 Years	30 Years	TIC
Avg Rate	1.70%	3.25%	4.70%	3.48%
2021	1,130,000		595,000	1,725,000
2022	1,130,000		1,190,000	2,320,000
2023	1,130,000	2,973,000	1,190,000	5,293,000
2024	1,130,000	2,973,000	1,190,000	5,293,000
2025	1,130,000	2,973,000	1,190,000	5,293,000
2026	1,130,000	2,973,000	1,190,000	5,293,000
2027	1,130,000	2,973,000	1,190,000	5,293,000
2028	1,130,000	2,973,000	1,190,000	5,293,000
2029	1,130,000	2,973,000	1,190,000	5,293,000
2030	1,130,000	2,973,000	1,190,000	5,293,000
2031		3,422,000	1,871,000	5,293,000
2032		3,422,000	1,871,000	5,293,000
2033		3,422,000	1,871,000	5,293,000
2034		3,422,000	1,871,000	5,293,000
2035		3,422,000	1,871,000	5,293,000
2036		3,422,000	1,871,000	5,293,000
2037		3,422,000	1,871,000	5,293,000
2038		3,422,000	1,871,000	5,293,000
2039		3,422,000	1,871,000	5,293,000
2040		3,422,000	1,871,000	5,293,000
2041		3,422,000	1,871,000	5,293,000
2042		3,422,000	1,871,000	5,293,000
2043		3,422,000	1,871,000	5,293,000
2044		3,422,000	1,871,000	5,293,000
2045		3,422,000	1,871,000	5,293,000
2046		3,422,000	1,871,000	5,293,000
2047		3,422,000	1,871,000	5,293,000
2048		3,422,000	1,871,000	5,293,000
2049		3,422,000	1,871,000	5,293,000
2050		3,422,000	1,871,000	5,293,000
2051		3,422,000	1,871,000	5,293,000
2052		3,422,000	1,871,000	5,293,000
2053		3,422,000		3,422,000
2054		3,422,000		3,422,000
2055		3,422,000		3,422,000
2056		3,422,000		3,422,000
2057		3,422,000		3,422,000

Table B-5
City of Morro Bay
Water Debt Service Allocation

Base Case Scenario

Fiscal Year Ending	SRF Planning Loan	WIFIA Loan	Revenue Bonds	Total Debt Service
Amount	\$10,300,000	\$60,175,000	\$24,700,000	\$95,175,000
Term	10 Years	35 Years	30 Years	
Avg Rate	1.70%	3.25%	4.70%	
Water %	28.8%	28.8%	41.5%	32.1%
Water \$	\$2,970,000	\$17,352,000	\$10,246,000	\$30,568,000
2021	326,000		247,000	573,000
2022	326,000		494,000	820,000
2023	326,000	857,000	494,000	1,677,000
2024	326,000	857,000	494,000	1,677,000
2025	326,000	857,000	494,000	1,677,000
2026	326,000	857,000	494,000	1,677,000
2027	326,000	857,000	494,000	1,677,000
2028	326,000	857,000	494,000	1,677,000
2029	326,000	857,000	494,000	1,677,000
2030	326,000	857,000	494,000	1,677,000
2031		987,000	776,000	1,763,000
2032		987,000	776,000	1,763,000
2033		987,000	776,000	1,763,000
2034		987,000	776,000	1,763,000
2035		987,000	776,000	1,763,000
2036		987,000	776,000	1,763,000
2037		987,000	776,000	1,763,000
2038		987,000	776,000	1,763,000
2039		987,000	776,000	1,763,000
2040		987,000	776,000	1,763,000
2041		987,000	776,000	1,763,000
2042		987,000	776,000	1,763,000
2043		987,000	776,000	1,763,000
2044		987,000	776,000	1,763,000
2045		987,000	776,000	1,763,000
2046		987,000	776,000	1,763,000
2047		987,000	776,000	1,763,000
2048		987,000	776,000	1,763,000
2049		987,000	776,000	1,763,000
2050		987,000	776,000	1,763,000
2051		987,000	776,000	1,763,000
2052		987,000	776,000	1,763,000
2053		987,000		987,000
2054		987,000		987,000
2055		987,000		987,000
2056		987,000		987,000
2057		987,000		987,000

Table B-6
City of Morro Bay
Sewer Debt Service Allocation

Base Case Scenario

Fiscal Year Ending	SRF Planning Loan	WIFIA Loan	Revenue Bonds	Total Debt Service
Amount	\$10,300,000	\$60,175,000	\$24,700,000	\$95,175,000
Term	10 Years	35 Years	30 Years	
Avg Rate	1.70%	3.25%	4.70%	
Sewer %	71.2%	71.2%	58.5%	67.9%
Sewer \$	\$7,330,000	\$42,823,000	\$14,454,000	\$64,607,000
2021	804,000		348,000	1,152,000
2022	804,000		696,000	1,500,000
2023	804,000	2,116,000	696,000	3,616,000
2024	804,000	2,116,000	696,000	3,616,000
2025	804,000	2,116,000	696,000	3,616,000
2026	804,000	2,116,000	696,000	3,616,000
2027	804,000	2,116,000	696,000	3,616,000
2028	804,000	2,116,000	696,000	3,616,000
2029	804,000	2,116,000	696,000	3,616,000
2030	804,000	2,116,000	696,000	3,616,000
2031		2,435,000	1,095,000	3,530,000
2032		2,435,000	1,095,000	3,530,000
2033		2,435,000	1,095,000	3,530,000
2034		2,435,000	1,095,000	3,530,000
2035		2,435,000	1,095,000	3,530,000
2036		2,435,000	1,095,000	3,530,000
2037		2,435,000	1,095,000	3,530,000
2038		2,435,000	1,095,000	3,530,000
2039		2,435,000	1,095,000	3,530,000
2040		2,435,000	1,095,000	3,530,000
2041		2,435,000	1,095,000	3,530,000
2042		2,435,000	1,095,000	3,530,000
2043		2,435,000	1,095,000	3,530,000
2044		2,435,000	1,095,000	3,530,000
2045		2,435,000	1,095,000	3,530,000
2046		2,435,000	1,095,000	3,530,000
2047		2,435,000	1,095,000	3,530,000
2048		2,435,000	1,095,000	3,530,000
2049		2,435,000	1,095,000	3,530,000
2050		2,435,000	1,095,000	3,530,000
2051		2,435,000	1,095,000	3,530,000
2052		2,435,000	1,095,000	3,530,000
2053		2,435,000		2,435,000
2054		2,435,000		2,435,000
2055		2,435,000		2,435,000
2056		2,435,000		2,435,000
2057		2,435,000		2,435,000

Appendix C

Phase In Scenario Debt Financing Projections

Table C-1
City of Morro Bay
WIFIA Sources & Uses

Phase In Scenario

Sources		
WIFIA Loan		\$67,800,000
Uses		
WRF Project Funding ¹	49% of total project cost	\$60,175,000
Application/Credit Reimbursement Fee	estimated	300,000
Other Issuance Costs (est)	estimated	50,000
Accrued Interest During Construction ²	verify with WIFIA	3,911,000
Debt-Funded Reserve Fund	likely	3,360,000
Contingency/Rounding		4,000
Total Uses		67,800,000
<hr/> 1 49% of Total WRF Project Cost 2 Assumes steady gradual drawdown of loan funds over 2 years, plus 1 year add'l accrued interest.		

Table C-2
City of Morro Bay
Draft WIFIA Loan Repayment Schedule

WIFIA Loan Amount	\$67,800,000
Repayment Term	35 Years
Interest Rate	3.25%

Payment Number	Fiscal Year Ending	Principal	Interest	Total Debt Service	Principal Balance
1	2023	\$847,366	\$2,203,500	\$3,050,866	\$66,952,634
2	2024	874,905	2,175,961	3,050,866	66,077,729
3	2025	903,339	2,147,526	3,050,866	65,174,390
4	2026	932,698	2,118,168	3,050,866	64,241,692
5	2027	963,011	2,087,855	3,050,866	63,278,681
6	2028	994,309	2,056,557	3,050,866	62,284,372
7	2029	1,026,624	2,024,242	3,050,866	61,257,749
8	2030	1,059,989	1,990,877	3,050,866	60,197,760
9	2031	1,426,439	1,956,427	3,382,866	58,771,321
10	2032	1,472,798	1,910,068	3,382,866	57,298,523
11	2033	1,520,664	1,862,202	3,382,866	55,777,859
12	2034	1,570,086	1,812,780	3,382,866	54,207,773
13	2035	1,621,114	1,761,753	3,382,866	52,586,660
14	2036	1,673,800	1,709,066	3,382,866	50,912,860
15	2037	1,728,198	1,654,668	3,382,866	49,184,662
16	2038	1,784,365	1,598,502	3,382,866	47,400,297
17	2039	1,842,356	1,540,510	3,382,866	45,557,941
18	2040	1,902,233	1,480,633	3,382,866	43,655,707
19	2041	1,964,056	1,418,810	3,382,866	41,691,652
20	2042	2,027,887	1,354,979	3,382,866	39,663,764
21	2043	2,093,794	1,289,072	3,382,866	37,569,971
22	2044	2,161,842	1,221,024	3,382,866	35,408,129
23	2045	2,232,102	1,150,764	3,382,866	33,176,027
24	2046	2,304,645	1,078,221	3,382,866	30,871,381
25	2047	2,379,546	1,003,320	3,382,866	28,491,835
26	2048	2,456,881	925,985	3,382,866	26,034,954
27	2049	2,536,730	846,136	3,382,866	23,498,223
28	2050	2,619,174	763,692	3,382,866	20,879,050
29	2051	2,704,297	678,569	3,382,866	18,174,753
30	2052	2,792,187	590,679	3,382,866	15,382,566
31	2053	2,882,933	499,933	3,382,866	12,499,633
32	2054	2,976,628	406,238	3,382,866	9,523,005
33	2055	3,073,368	309,498	3,382,866	6,449,637
34	2056	3,173,253	209,613	3,382,866	3,276,384
35	2057	3,276,384	106,482	3,382,866	0
Total		67,800,000	47,944,311	115,744,311	1,407,409,571

Note: Debt repayment is partially reduced over first 8 years to result in roughly level annual debt service on total combined debt.

Table C-3
City of Morro Bay
Bond Debt Service Estimates

Phase In Scenario

		30-Year Bonds w/22-Year Amort
Funding Target		\$29,000,000
Issue Size		
Project Funding	<u>Estimates</u>	29,000,000
Underwriter's Discount	0.70%	207,900
Issuance Costs		200,000
Bond Insurance	0.40%	237,700
Reserve Surety Bond	2.25%	49,400
Rounding		1,600
Total		29,696,600
Financing Terms		
Repayment Term		30
Amortization Term (years)		22
Interest Rate ²	Planning Est.	4.70%
Annual Debt Service		
During 8-Year Interest-Only Period		1,396,000
During 22-Year Principal Amortization Period		2,194,000
Estimates shown for financial planning purposes, actual costs and rates may vary.		

Current Estimated Rates

WIFIA Rate (Est. 25-Year SLGS)

30-Year Bond Rate

SRF Rate

2017 CPI-U

June 7, 2018 Rates

3.05%

4.25%

1.80%

2.13%

Table C-4
City of Morro Bay
Debt Service Amortization Schedules

Phase In Scenario

Fiscal Year Ending	SRF Planning Loan	WIFIA Loan	Revenue Bonds	Total Debt Service
Project \$ Term Avg Rate	\$10,300,000 10 Years 1.70%	\$60,175,000 35 Years 3.25%	\$29,000,000 30 Years 4.70%	\$99,475,000
2021	1,130,000		698,000	1,828,000
2022	1,130,000		1,396,000	2,526,000
2023	1,130,000	3,051,000	1,396,000	5,577,000
2024	1,130,000	3,051,000	1,396,000	5,577,000
2025	1,130,000	3,051,000	1,396,000	5,577,000
2026	1,130,000	3,051,000	1,396,000	5,577,000
2027	1,130,000	3,051,000	1,396,000	5,577,000
2028	1,130,000	3,051,000	1,396,000	5,577,000
2029	1,130,000	3,051,000	1,396,000	5,577,000
2030	1,130,000	3,051,000	1,396,000	5,577,000
2031		3,383,000	2,194,000	5,577,000
2032		3,383,000	2,194,000	5,577,000
2033		3,383,000	2,194,000	5,577,000
2034		3,383,000	2,194,000	5,577,000
2035		3,383,000	2,194,000	5,577,000
2036		3,383,000	2,194,000	5,577,000
2037		3,383,000	2,194,000	5,577,000
2038		3,383,000	2,194,000	5,577,000
2039		3,383,000	2,194,000	5,577,000
2040		3,383,000	2,194,000	5,577,000
2041		3,383,000	2,194,000	5,577,000
2042		3,383,000	2,194,000	5,577,000
2043		3,383,000	2,194,000	5,577,000
2044		3,383,000	2,194,000	5,577,000
2045		3,383,000	2,194,000	5,577,000
2046		3,383,000	2,194,000	5,577,000
2047		3,383,000	2,194,000	5,577,000
2048		3,383,000	2,194,000	5,577,000
2049		3,383,000	2,194,000	5,577,000
2050		3,383,000	2,194,000	5,577,000
2051		3,383,000	2,194,000	5,577,000
2052		3,383,000	2,194,000	5,577,000
2053		3,383,000		3,383,000
2054		3,383,000		3,383,000
2055		3,383,000		3,383,000
2056		3,383,000		3,383,000
2057		3,383,000		3,383,000

Table C-5
City of Morro Bay
Water Debt Service Allocation

Phase In Scenario

Fiscal Year Ending	SRF Planning Loan	WIFIA Loan	Revenue Bonds	Total Debt Service
Amount	\$10,300,000	\$60,175,000	\$29,000,000	\$99,475,000
Term	10 Years	35 Years	30 Years	
Avg Rate	1.70%	3.25%	4.70%	
Water %	28.8%	28.8%	39.5%	31.9%
Water \$	\$2,970,000	\$17,352,000	\$11,446,000	\$31,768,000
2021	326,000		275,000	601,000
2022	326,000		551,000	877,000
2023	326,000	880,000	551,000	1,757,000
2024	326,000	880,000	551,000	1,757,000
2025	326,000	880,000	551,000	1,757,000
2026	326,000	880,000	551,000	1,757,000
2027	326,000	880,000	551,000	1,757,000
2028	326,000	880,000	551,000	1,757,000
2029	326,000	880,000	551,000	1,757,000
2030	326,000	880,000	551,000	1,757,000
2031		976,000	866,000	1,842,000
2032		976,000	866,000	1,842,000
2033		976,000	866,000	1,842,000
2034		976,000	866,000	1,842,000
2035		976,000	866,000	1,842,000
2036		976,000	866,000	1,842,000
2037		976,000	866,000	1,842,000
2038		976,000	866,000	1,842,000
2039		976,000	866,000	1,842,000
2040		976,000	866,000	1,842,000
2041		976,000	866,000	1,842,000
2042		976,000	866,000	1,842,000
2043		976,000	866,000	1,842,000
2044		976,000	866,000	1,842,000
2045		976,000	866,000	1,842,000
2046		976,000	866,000	1,842,000
2047		976,000	866,000	1,842,000
2048		976,000	866,000	1,842,000
2049		976,000	866,000	1,842,000
2050		976,000	866,000	1,842,000
2051		976,000	866,000	1,842,000
2052		976,000	866,000	1,842,000
2053		976,000		976,000
2054		976,000		976,000
2055		976,000		976,000
2056		976,000		976,000
2057		976,000		976,000

Table C-6
City of Morro Bay
Sewer Debt Service Allocation

Phase In Scenario

Fiscal Year Ending	SRF Planning Loan	WIFIA Loan	Revenue Bonds	Total Debt Service
Amount	\$10,300,000	\$60,175,000	\$29,000,000	\$99,475,000
Term	10 Years	35 Years	30 Years	
Avg Rate	1.70%	3.25%	4.70%	
Sewer %	71.2%	71.2%	60.5%	68.1%
Sewer \$	\$7,330,000	\$42,823,000	\$17,554,000	\$67,707,000
2021	804,000		423,000	1,227,000
2022	804,000		845,000	1,649,000
2023	804,000	2,171,000	845,000	3,820,000
2024	804,000	2,171,000	845,000	3,820,000
2025	804,000	2,171,000	845,000	3,820,000
2026	804,000	2,171,000	845,000	3,820,000
2027	804,000	2,171,000	845,000	3,820,000
2028	804,000	2,171,000	845,000	3,820,000
2029	804,000	2,171,000	845,000	3,820,000
2030	804,000	2,171,000	845,000	3,820,000
2031		2,407,000	1,328,000	3,735,000
2032		2,407,000	1,328,000	3,735,000
2033		2,407,000	1,328,000	3,735,000
2034		2,407,000	1,328,000	3,735,000
2035		2,407,000	1,328,000	3,735,000
2036		2,407,000	1,328,000	3,735,000
2037		2,407,000	1,328,000	3,735,000
2038		2,407,000	1,328,000	3,735,000
2039		2,407,000	1,328,000	3,735,000
2040		2,407,000	1,328,000	3,735,000
2041		2,407,000	1,328,000	3,735,000
2042		2,407,000	1,328,000	3,735,000
2043		2,407,000	1,328,000	3,735,000
2044		2,407,000	1,328,000	3,735,000
2045		2,407,000	1,328,000	3,735,000
2046		2,407,000	1,328,000	3,735,000
2047		2,407,000	1,328,000	3,735,000
2048		2,407,000	1,328,000	3,735,000
2049		2,407,000	1,328,000	3,735,000
2050		2,407,000	1,328,000	3,735,000
2051		2,407,000	1,328,000	3,735,000
2052		2,407,000	1,328,000	3,735,000
2053		2,407,000		2,407,000
2054		2,407,000		2,407,000
2055		2,407,000		2,407,000
2056		2,407,000		2,407,000
2057		2,407,000		2,407,000

Appendix D

Financial Projections with Additional State Revolving Fund Financing

Table D-1
City of Morro Bay
Water Reclamation Facility Projected Funding Sources

SRF Scenario

	Total	% of Ttl	Water	% of Source	Wastewater	% of Source
WRF Total Project Costs	\$122,807,000		\$35,412,000	28.8%	87,395,000	71.2%
Projected Funding Sources						
WIFIA Loan	60,175,000	49.0%	17,352,000	28.8%	42,823,000	71.2%
SRF Planning Loan	10,300,000	8.5%	2,970,000	28.8%	7,330,000	71.2%
SRF Loan	22,400,000	18.5%	10,146,000	45.3%	14,054,000	62.7%
Sewer New Cash Funding	18,369,000	15.2%	0	0.0%	18,369,000	100.0%
Water New Cash Funding	4,700,000	3.9%	4,700,000	100.0%	0	0.0%
Prior Cash Contributions	<u>5,063,000</u>	<u>4.2%</u>	<u>244,000</u>	<u>4.8%</u>	<u>4,819,000</u>	<u>95.2%</u>
Total	121,007,000	99.3%	35,412,000	29.3%	87,395,000	72.2%

Table D-2 City of Morro Bay - Sewer Cash Flow Projections					SRF Scenario
Years 1 - 5	Projected				
	2017/18	2018/19	2019/20	2020/21	2021/22
Monthly Single Family Sewer Charge	\$70.00	\$77.00	\$83.00	\$83.00	\$83.00
Monthly Single Family Surcharge			\$20.00	\$20.00	\$20.00
Beginning Sewer Accounts	5,346	5,351	5,356	5,361	5,366
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	-	0.1%	0.1%	0.1%	0.1%
Sewer Development Impact Fee	\$5,445	\$5,550	\$5,660	\$5,770	\$5,890
Interest Earnings Rate	1.25%	1.75%	2.0%	2.0%	2.0%
Cost Escalation			4.0%	4.0%	4.0%
Beginning Fund Reserves	\$6,402,000	\$8,112,000	\$8,251,000	\$8,438,000	\$8,541,000
REVENUES					
Sewer Service Charges	6,100,000	6,716,000	7,246,000	7,253,000	7,260,000
Sewer WRF Facility Surcharges	0	0	1,737,000	1,737,000	1,737,000
Development Impact Fees	30,000	28,000	28,000	29,000	29,000
Interest Earnings	80,000	142,000	165,000	169,000	171,000
Rental Income/Other (Excl Penalties)	25,000	30,000	30,000	30,000	30,000
Subtotal	6,235,000	6,916,000	9,206,000	9,218,000	9,227,000
<u>WRF Debt Financing</u>					
SRF Planning Loan		5,900,000	4,400,000		
WIFIA Loan			32,100,000	28,075,000	
SRF Loan				7,400,000	15,000,000
EXPENSES					
Operating & Maintenance	<u>Estimated</u>	<u>Projected</u>			
Sewer Collection	1,100,000	1,480,000	1,539,000	1,601,000	1,665,000
Wastewater Treatment Existing	2,000,000	2,210,000	2,298,000	2,390,000	1,247,000
Wastewater Treatment New WRF	-	-	-	-	1,500,000
Conveyance to New WRF	-	-	-	-	140,000
Less Cayucos SD Reimbursements	(495,000)	(553,000)	(575,000)	0	0
Subtotal	2,605,000	3,137,000	3,262,000	3,991,000	4,552,000
Debt Service					
WIFIA Loan	-	-	-	-	-
SRF Loan	-	-	-	-	-
Less Water Share of WRF Debt	-	-	-	-	-
Subtotal	0	0	0	0	0
Capital Improvements					
Sewer Cash Contribution to WRF	840,000	2,390,000	4,707,000	4,074,000	7,198,000
Sewer System Pay-Go CIP	630,000	1,200,000	1,000,000	1,000,000	1,000,000
Vehicle/Equipment Replacement	450,000	50,000	50,000	50,000	50,000
Subtotal	1,920,000	3,640,000	5,757,000	5,124,000	8,248,000
Total Sewer Expenses	4,525,000	6,777,000	9,019,000	9,115,000	12,800,000
Revenues Less Expenses	1,710,000	139,000	187,000	103,000	(3,573,000)
Transfer to SRF Debt Service Reserves					(854,000)
Ending Fund Reserves	8,112,000	8,251,000	8,438,000	8,541,000	4,114,000
SRF Debt Service Reserves	0	0	0	0	854,000
Debt Service Coverage	-	-	-	-	-
WRF Project Funding					
Debt Financing	0	5,900,000	36,500,000	35,475,000	15,000,000
Sewer Cash Contribution	840,000	2,390,000	4,707,000	4,074,000	7,198,000
Water Cash Contribution	0	200,000	1,900,000	1,500,000	1,100,000
Total	840,000	8,490,000	43,107,000	41,049,000	23,298,000

Table D-2 City of Morro Bay - Sewer Cash Flow Projections					SRF Scenario
Years 6 - 10	Projected				
	2022/23	2023/24	2024/25	2025/26	2026/27
Monthly Residential Sewer Charge	\$83.00	\$85.00	\$87.00	\$90.00	\$92.00
Monthly Single Family WRF Surcharge	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00
Beginning Sewer Accounts	5,371	5,376	5,381	5,386	5,391
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Sewer Development Impact Fee	\$6,010	\$6,130	\$6,250	\$6,380	\$6,510
Interest Earnings Rate	2.0%	2.0%	2.0%	2.0%	2.0%
Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Beginning Fund Reserves	\$4,114,000	\$4,342,000	\$4,540,000	\$4,697,000	\$4,894,000
REVENUES					
Sewer Service Charges	7,267,000	7,449,000	7,631,000	7,901,000	8,084,000
Sewer WRF Facility Surcharges	1,737,000	1,737,000	1,737,000	1,737,000	1,737,000
Development Impact Fees	30,000	31,000	31,000	32,000	33,000
Interest Earnings	88,000	92,000	96,000	100,000	104,000
Rental Income/Penalties/Other	30,000	30,000	30,000	30,000	30,000
Subtotal	9,152,000	9,339,000	9,525,000	9,800,000	9,988,000
<u>WRF Debt Financing</u>					
SRF Planning Loan					
WIFIA Financing					
SRF Loan					
EXPENSES					
Operating & Maintenance					
Sewer Collection	1,732,000	1,801,000	1,873,000	1,948,000	2,026,000
Wastewater Treatment Existing	0	0	0	0	0
Wastewater Treatment New WRF	2,682,000	2,789,000	2,901,000	3,017,000	3,138,000
Conveyance to New WRF	277,000	288,000	300,000	312,000	324,000
Less Cayucos SD Reimbursements	0	0	0	0	0
Subtotal	4,691,000	4,878,000	5,074,000	5,277,000	5,488,000
Debt Service					
WIFIA Loan	3,272,000	3,272,000	3,272,000	3,272,000	3,272,000
SRF Loan	1,561,000	1,561,000	1,561,000	1,561,000	1,561,000
Less Water Share of WRF Debt	(1,650,000)	(1,650,000)	(1,650,000)	(1,650,000)	(1,650,000)
Subtotal	3,183,000	3,183,000	3,183,000	3,183,000	3,183,000
Capital Improvements					
Sewer Cash Contribution to WRF	0	0	0	0	0
Sewer System Pay-Go CIP	1,000,000	1,030,000	1,061,000	1,093,000	1,126,000
Vehicle/Equipment Replacement	50,000	50,000	50,000	50,000	50,000
Subtotal	1,050,000	1,080,000	1,111,000	1,143,000	1,176,000
Total Expenses	8,924,000	9,141,000	9,368,000	9,603,000	9,847,000
Revenues Less Expenses	228,000	198,000	157,000	197,000	141,000
Transfer to SRF Reserve Req't					
Ending Fund Reserves	4,342,000	4,540,000	4,697,000	4,894,000	5,035,000
Ending SRF Debt Service Reserves	854,000	854,000	854,000	854,000	854,000
Debt Service Coverage	1.40	1.40	1.40	1.42	1.41
WRF Project Funding					
WRF Project: Debt Financed	0	0	0	0	0
WRF Project: Sewer Cash Contribution	0	0	0	0	0
WRF Project: Water Cash Contribution	0	0	0	0	0
Subtotal WRF Project	0	0	0	0	0

Table D-3 City of Morro Bay - Water Cash Flow Projections
SRF Scenario

Years 1 - 5	Projected				
	2017/18	2018/19	2019/20	2020/21	2021/22
Fixed Monthly Water Charge	\$28.00	\$30.00	\$32.00	\$32.00	\$32.00
Fixed Monthly Single Family WRF Surcharge			\$14.00	\$14.00	\$14.00
Water Rate Adjustment %		7.1%	6.7%	0.0%	0.0%
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Change in Water Sales		0.0%	0.0%	0.0%	0.0%
Water Development Impact Fee	\$5,392	\$5,500	\$5,610	\$5,720	\$5,830
Interest Earnings Rate	1.25%	1.75%	2.0%	2.0%	2.0%
State Water Project Cost Escalation			4.0%	4.0%	4.0%
Operating Cost Escalation			4.0%	4.0%	4.0%
Beginning Fund Reserves	\$3,132,000	\$4,456,000	\$4,637,000	\$4,817,000	\$4,952,000
REVENUES	<u>Estimated</u>	<u>Projected</u>			
Water Service Charges	5,280,000	5,700,000	6,086,000	6,092,000	6,098,000
Water WRF Facility Surcharges	0	0	1,447,000	1,447,000	1,447,000
Development Impact Fees	30,000	28,000	28,000	29,000	29,000
Interest Earnings	39,000	78,000	93,000	96,000	99,000
Other (Excludes Penalties)	16,000	20,000	20,000	20,000	20,000
Subtotal	5,365,000	5,826,000	7,674,000	7,684,000	7,693,000
EXPENSES					
Operating & Maintenance	<u>Estimated</u>	<u>Projected</u>			
Water System Operations	1,591,000	2,130,000	2,215,000	2,304,000	2,396,000
State Water Project Payments	1,535,000	1,595,000	1,659,000	1,725,000	1,794,000
Share of CCWA 2016 Bonds (Thru Oct-2021)	665,000	670,000	670,000	670,000	670,000
Recycled Water Operations	-	-	-	-	110,000
Subtotal	3,791,000	4,395,000	4,544,000	4,699,000	4,970,000
Debt Service					
WIFIA Loan: Water Share	-	-	-	-	-
SRF Loan: Water Share	-	-	-	0	0
Subtotal	0	0	0	0	0
Capital Improvements					
Water System Pay-Go CIP	250,000	1,000,000	1,000,000	1,300,000	1,800,000
Water Cash Contribution to WRF	0	200,000	1,900,000	1,500,000	1,100,000
Vehicle/Equipment Replacement	0	50,000	50,000	50,000	50,000
Subtotal	250,000	1,250,000	2,950,000	2,850,000	2,950,000
Total Expenses	4,041,000	5,645,000	7,494,000	7,549,000	7,920,000
Revenues Less Expenses	1,324,000	181,000	180,000	135,000	(227,000)
Transfer to SRF Debt Service Reserves					(707,000)
Ending Fund Reserves	4,456,000	4,637,000	4,817,000	4,952,000	4,018,000
SRF Debt Service Reserves	0	0	0	0	707,000
CCWA Bond Debt Service Coverage	1.72	1.63	2.34	2.25	2.11
City Debt Service Coverage	-	-	-	-	-

Table D-3 City of Morro Bay - Water Cash Flow Projections
SRF Scenario

Years 6 - 10	Projected				
	2022/23	2023/24	2024/25	2025/26	2026/27
Fixed Monthly Residential Water Charge	\$32.00	\$32.00	\$32.00	\$33.00	\$34.00
Fixed Monthly Single Family WRF Surcharge	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00
Water Rate Adjustment %	0.0%	0.0%	0.0%	3.1%	3.0%
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Change in Water Sales	0.0%	0.0%	0.0%	0.0%	0.0%
Water Development Impact Fee	\$5,950	\$6,070	\$6,190	\$6,310	\$6,440
Interest Earnings Rate	2.0%	2.0%	2.0%	2.0%	2.0%
State Water Project Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Operating Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Beginning Fund Reserves	\$4,018,000	\$3,827,000	\$4,054,000	\$4,072,000	\$4,058,000
REVENUES					
Water Service Charges	6,104,000	6,110,000	6,116,000	6,313,000	6,510,000
Water WRF Facility Surcharges	1,447,000	1,447,000	1,447,000	1,447,000	1,447,000
Development Impact Fees	30,000	30,000	31,000	32,000	32,000
Interest Earnings	86,000	82,000	87,000	87,000	87,000
Other (Excludes Penalties)	20,000	20,000	20,000	20,000	20,000
Subtotal	7,687,000	7,689,000	7,701,000	7,899,000	8,096,000
EXPENSES					
Operating & Maintenance					
Water System Personnel	2,492,000	2,592,000	2,696,000	2,804,000	2,916,000
State Water Project Payments	1,866,000	1,941,000	2,019,000	2,100,000	2,184,000
Share of CCWA 2016 Bonds (Thru Oct-2021)	0	0	0	0	0
Recycled Water Operations	220,000	229,000	238,000	248,000	258,000
Subtotal	4,578,000	4,762,000	4,953,000	5,152,000	5,358,000
Debt Service					
WRF WIFIA Loan: Water Share	943,000	943,000	943,000	943,000	943,000
SRF Loan: Water Share	707,000	707,000	707,000	707,000	707,000
Subtotal	1,650,000	1,650,000	1,650,000	1,650,000	1,650,000
Capital Improvements					
Water System Pay-Go CIP	1,600,000	1,000,000	1,030,000	1,061,000	1,093,000
Water Cash Contribution to WRF	0	0	0	0	0
Vehicle/Equipment Replacement	50,000	50,000	50,000	50,000	50,000
Subtotal	1,650,000	1,050,000	1,080,000	1,111,000	1,143,000
Total Expenses	7,878,000	7,462,000	7,683,000	7,913,000	8,151,000
Revenues Less Expenses	(191,000)	227,000	18,000	(14,000)	(55,000)
Transfer to SRF Reserve Req't					
Ending Fund Reserves	3,827,000	4,054,000	4,072,000	4,058,000	4,003,000
Ending SRF Debt Service Reserves	707,000	707,000	707,000	707,000	707,000
CCWA Bond Debt Service Coverage	-	-	-	-	-
Debt Service Coverage	1.88	1.77	1.67	1.66	1.66

Appendix E

Financial Projections with No Recycled Water

Table E-1
City of Morro Bay
Water Reclamation Facility Project Cost Estimate

No Recycled Water Scenario

	Construction Costs ¹	Soft Costs	Project Reserves ²	Total Cost
Projected Capital Costs				
<i>Includes permitting, design, procurement, construction, and management.</i>				
Water Reclamation Facility	\$55,970,000	\$7,675,000	\$2,799,000	\$66,444,000
Conveyance Facilities	21,086,000	2,820,000	2,343,000	26,249,000
General Program Implementation	<u>0</u>	<u>4,460,000</u>	<u>0</u>	<u>4,460,000</u>
Subtotal	77,056,000	14,955,000	5,142,000	97,153,000
Prior Project Expenditures	0	5,063,000		5,063,000
Total	77,056,000	20,018,000		102,216,000

Source: Carollo Engineers, WRF Program Revised Cost Estimates as of 6/20/18.

1 Construction costs Include estimated cost inflation to construction mid-point where applicable.

2 Project Reserves are placeholder estimates for additional project funding requirements (e.g. outside project scope) with funding subject to City control.

Table E-2
City of Morro Bay
Water Reclamation Facility Projected Funding Sources

No Recycled Water Scenario

	Total	% of Ttl	Water	% of Source	Wastewater	% of Source
WRF Total Project Costs	\$102,216,000		\$244,000	0.2%	101,972,000	99.8%
Projected Funding Sources						
WIFIA Loan	0	0.0%			0	100.0%
SRF Planning Loan	10,300,000	10.1%			10,300,000	100.0%
Revenue Bonds	73,800,000	72.2%			73,800,000	100.0%
Sewer New Cash Funding	13,053,000	12.8%			13,053,000	100.0%
Water New Cash Funding	0	0.0%			0	0.0%
Prior Cash Contributions	<u>5,063,000</u>	<u>5.0%</u>	<u>244,000</u>	<u>4.8%</u>	<u>4,819,000</u>	<u>95.2%</u>
Total	102,216,000	100.0%	244,000	0.2%	101,972,000	99.8%

Table E-3 City of Morro Bay - Sewer Cash Flow Projections
No Recycling

Years 1 - 5	Projected				
	2017/18	2018/19	2019/20	2020/21	2021/22
Monthly Single Family Sewer Charge	\$70.00	\$77.00	\$83.00	\$83.00	\$83.00
Monthly Single Family Surcharge			\$44.00	\$44.00	\$44.00
Beginning Sewer Accounts	5,346	5,351	5,356	5,361	5,366
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	-	0.1%	0.1%	0.1%	0.1%
Sewer Development Impact Fee	\$5,445	\$5,550	\$5,660	\$5,770	\$5,890
Interest Earnings Rate	1.25%	1.75%	2.0%	2.0%	2.0%
Cost Escalation			4.0%	4.0%	4.0%
Beginning Fund Reserves	\$6,402,000	\$8,112,000	\$8,231,000	\$8,346,000	\$8,464,000
REVENUES					
Sewer Service Charges	6,100,000	6,716,000	7,246,000	7,253,000	7,260,000
Sewer WRF Facility Surcharges	0	0	3,828,000	3,828,000	3,828,000
Development Impact Fees	30,000	28,000	28,000	29,000	29,000
Interest Earnings	80,000	142,000	165,000	167,000	169,000
Rental Income/Other (Excl Penalties)	25,000	30,000	30,000	30,000	30,000
Subtotal	6,235,000	6,916,000	11,297,000	11,307,000	11,316,000
<u>WRF Debt Financing</u>					
SRF Planning Loan		4,500,000	5,800,000		
WIFIA Loan			0	0	
Bond Proceeds			23,800,000	33,200,000	16,800,000
EXPENSES					
Operating & Maintenance	<u>Estimated</u>	<u>Projected</u>			
Sewer Collection	1,100,000	1,480,000	1,539,000	1,601,000	1,665,000
Wastewater Treatment Existing	2,000,000	2,210,000	2,298,000	2,390,000	1,247,000
Wastewater Treatment New WRF	-	-	-	-	1,500,000
Conveyance to New WRF	-	-	-	-	140,000
Less Cayucos SD Reimbursements	(495,000)	(553,000)	(575,000)	0	0
Subtotal	2,605,000	3,137,000	3,262,000	3,991,000	4,552,000
Debt Service					
SRF Planning Loan	-	-	-	1,130,000	1,130,000
WIFIA Loan	-	-	-	-	-
Revenue Bonds (structured around SRF)	-	-	2,082,000	4,164,000	4,164,000
Less Water Share of WRF Debt	-	-	-	0	0
Subtotal	0	0	2,082,000	5,294,000	5,294,000
Capital Improvements					
Sewer Cash Contribution to WRF	840,000	2,610,000	4,788,000	854,000	4,801,000
Sewer System Pay-Go CIP	630,000	1,000,000	1,000,000	1,000,000	1,000,000
Vehicle/Equipment Replacement	450,000	50,000	50,000	50,000	50,000
Subtotal	1,920,000	3,660,000	5,838,000	1,904,000	5,851,000
Total Expenses	4,525,000	6,797,000	11,182,000	11,189,000	15,697,000
Revenues Less Expenses	1,710,000	119,000	115,000	118,000	(4,381,000)
Ending Fund Reserves	8,112,000	8,231,000	8,346,000	8,464,000	4,083,000
Debt Service Coverage	-	-	3.86	1.38	1.28

Table E-3 City of Morro Bay - Sewer Cash Flow Projections
No Recycling

Years 6 - 10	Projected				
	2022/23	2023/24	2024/25	2025/26	2026/27
Monthly Residential Sewer Charge	\$83.00	\$85.00	\$87.00	\$90.00	\$92.00
Monthly Single Family WRF Surcharge	\$44.00	\$44.00	\$44.00	\$44.00	\$44.00
Beginning Sewer Accounts	5,371	5,376	5,381	5,386	5,391
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Sewer Development Impact Fee	\$6,010	\$6,130	\$6,250	\$6,380	\$6,510
Interest Earnings Rate	2.0%	2.0%	2.0%	2.0%	2.0%
Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Beginning Fund Reserves	\$4,083,000	\$4,290,000	\$4,467,000	\$4,603,000	\$4,778,000
REVENUES					
Sewer Service Charges	7,267,000	7,449,000	7,631,000	7,901,000	8,084,000
Sewer WRF Facility Surcharges	3,828,000	3,828,000	3,828,000	3,828,000	3,828,000
Development Impact Fees	30,000	31,000	31,000	32,000	33,000
Interest Earnings	87,000	91,000	95,000	98,000	101,000
Rental Income/Penalties/Other	30,000	30,000	30,000	30,000	30,000
Subtotal	11,242,000	11,429,000	11,615,000	11,889,000	12,076,000
<u>WRF Debt Financing</u>					
SRF Planning Loan					
WIFIA Financing					
Bond Financing					
EXPENSES					
Operating & Maintenance					
Sewer Collection	1,732,000	1,801,000	1,873,000	1,948,000	2,026,000
Wastewater Treatment Existing	0	0	0	0	0
Wastewater Treatment New WRF	2,682,000	2,789,000	2,901,000	3,017,000	3,138,000
Conveyance to New WRF	277,000	288,000	300,000	312,000	324,000
Less Cayucos SD Reimbursements	0	0	0	0	0
Subtotal	4,691,000	4,878,000	5,074,000	5,277,000	5,488,000
Debt Service					
SRF Planning Loan	1,130,000	1,130,000	1,130,000	1,130,000	1,130,000
WIFIA Financing	0	0	0	0	0
Revenue Bonds (structured around SRF)	4,164,000	4,164,000	4,164,000	4,164,000	4,164,000
Less Water Share of WRF Debt	0	0	0	0	0
Subtotal	5,294,000	5,294,000	5,294,000	5,294,000	5,294,000
Capital Improvements					
Sewer Cash Contribution to WRF	0	0	0	0	0
Sewer System Pay-Go CIP	1,000,000	1,030,000	1,061,000	1,093,000	1,126,000
Vehicle/Equipment Replacement	50,000	50,000	50,000	50,000	50,000
Subtotal	1,050,000	1,080,000	1,111,000	1,143,000	1,176,000
Total Expenses	11,035,000	11,252,000	11,479,000	11,714,000	11,958,000
Revenues Less Expenses	207,000	177,000	136,000	175,000	118,000
Ending Fund Reserves	4,290,000	4,467,000	4,603,000	4,778,000	4,896,000
Debt Service Coverage	1.24	1.24	1.24	1.25	1.24

Table E-4 City of Morro Bay - Water Cash Flow Projections
No Recycling

Years 1 - 5	Projected				
	2017/18	2018/19	2019/20	2020/21	2021/22
Fixed Monthly Water Charge	\$28.00	\$30.00	\$30.00	\$30.00	\$30.00
Fixed Monthly Single Family WRF Surcharge					
Water Rate Adjustment %		7.1%	0.0%	0.0%	0.0%
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Change in Water Sales		0.0%	0.0%	0.0%	0.0%
Water Development Impact Fee	\$5,392	\$5,500	\$5,610	\$5,720	\$5,830
Interest Earnings Rate	1.25%	1.75%	2.0%	2.0%	2.0%
State Water Project Cost Escalation			4.0%	4.0%	4.0%
Operating Cost Escalation			4.0%	4.0%	4.0%
Beginning Fund Reserves	\$3,132,000	\$4,456,000	\$4,837,000	\$5,093,000	\$4,905,000
REVENUES	<u>Estimated</u>	<u>Projected</u>			
Water Service Charges	5,280,000	5,700,000	5,705,000	5,710,000	5,715,000
Water WRF Facility Surcharges	0	0	0	0	0
Development Impact Fees	30,000	28,000	28,000	29,000	29,000
Interest Earnings	39,000	78,000	97,000	102,000	98,000
Other (Excludes Penalties)	16,000	20,000	20,000	20,000	20,000
Subtotal	5,365,000	5,826,000	5,850,000	5,861,000	5,862,000
EXPENSES					
Operating & Maintenance	<u>Estimated</u>	<u>Projected</u>			
Water System Operations	1,591,000	2,130,000	2,215,000	2,304,000	2,396,000
State Water Project Payments	1,535,000	1,595,000	1,659,000	1,725,000	1,794,000
Share of CCWA 2016 Bonds (Thru Oct-2021)	665,000	670,000	670,000	670,000	670,000
Recycled Water Operations	-	-	-	-	-
Subtotal	3,791,000	4,395,000	4,544,000	4,699,000	4,860,000
Debt Service					
SRF Planning Loan: Water Share	-	-	-	0	0
WRF WIFIA Loan: Water Share	-	-	-	-	-
WRF Revenue Bonds: Water Share	-	-	-	0	0
Subtotal	0	0	0	0	0
Capital Improvements					
Water System Pay-Go CIP	250,000	1,000,000	1,000,000	1,300,000	1,800,000
Water Cash Contribution to WRF	0	0	0	0	0
Vehicle/Equipment Replacement	0	50,000	50,000	50,000	50,000
Subtotal	250,000	1,050,000	1,050,000	1,350,000	1,850,000
Total Expenses	4,041,000	5,445,000	5,594,000	6,049,000	6,710,000
Revenues Less Expenses	1,324,000	381,000	256,000	(188,000)	(848,000)
Ending Fund Reserves	4,456,000	4,837,000	5,093,000	4,905,000	4,057,000
CCWA Bond Debt Service Coverage	1.72	1.63	1.56	1.49	1.41
City Debt Service Coverage	-	-	-	-	-

Table E-4 City of Morro Bay - Water Cash Flow Projections
No Recycling

Years 6 - 10	Projected				
	2022/23	2023/24	2024/25	2025/26	2026/27
Fixed Monthly Residential Water Charge	\$30.00	\$30.00	\$30.00	\$31.00	\$32.00
Fixed Monthly Single Family WRF Surcharge					
Water Rate Adjustment %	0.0%	0.0%	0.0%	3.3%	3.2%
Growth: Single Family Equivalents	5	5	5	5	5
Growth %	0.1%	0.1%	0.1%	0.1%	0.1%
Change in Water Sales	0.0%	0.0%	0.0%	0.0%	0.0%
Water Development Impact Fee	\$5,950	\$6,070	\$6,190	\$6,310	\$6,440
Interest Earnings Rate	2.0%	2.0%	2.0%	2.0%	2.0%
State Water Project Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Operating Cost Escalation	4.0%	4.0%	4.0%	4.0%	4.0%
Beginning Fund Reserves	\$4,057,000	\$3,906,000	\$4,182,000	\$4,257,000	\$4,311,000
REVENUES					
Water Service Charges	5,720,000	5,725,000	5,730,000	5,926,000	6,123,000
Water WRF Facility Surcharges	0	0	0	0	0
Development Impact Fees	30,000	30,000	31,000	32,000	32,000
Interest Earnings	87,000	84,000	89,000	91,000	92,000
Other (Excludes Penalties)	20,000	20,000	20,000	20,000	20,000
Subtotal	5,857,000	5,859,000	5,870,000	6,069,000	6,267,000
EXPENSES					
Operating & Maintenance					
Water System Operations	2,492,000	2,592,000	2,696,000	2,804,000	2,916,000
State Water Project Payments	1,866,000	1,941,000	2,019,000	2,100,000	2,184,000
Share of CCWA 2016 Bonds (Thru Oct-2021)	0	0	0	0	0
Recycled Water Operations	0	0	0	0	0
Subtotal	4,358,000	4,533,000	4,715,000	4,904,000	5,100,000
Debt Service					
SRF Planning Loan: Water Share	0	0	0	0	0
WRF WIFIA Loan: Water Share	0	0	0	0	0
WRF Revenue Bonds: Water Share	0	0	0	0	0
Subtotal	0	0	0	0	0
Capital Improvements					
Water System Pay-Go CIP	1,600,000	1,000,000	1,030,000	1,061,000	1,093,000
Water Cash Contribution to WRF	0	0	0	0	0
Vehicle/Equipment Replacement	50,000	50,000	50,000	50,000	50,000
Subtotal	1,650,000	1,050,000	1,080,000	1,111,000	1,143,000
Total Expenses	6,008,000	5,583,000	5,795,000	6,015,000	6,243,000
Revenues Less Expenses	(151,000)	276,000	75,000	54,000	24,000
Ending Fund Reserves	3,906,000	4,182,000	4,257,000	4,311,000	4,335,000
CCWA Bond Debt Service Coverage	-	-	-	-	-
Debt Service Coverage	-	-	-	-	-