

Draft Rate Study Update



**City of Morro Bay
City Council
April 25, 2017**

Presentation Overview



- **How We Got Here**
- **Where We Have Been Headed**
- **Options Going Forward**
- **Water Independence**
- **Financing Alternatives**
- **Rate Impacts**

Presentation Overview



How We Got Here

Request of Council



- Receive the update on the Draft Rate Study
- Ask questions
- Provide input regarding project financing alternatives and rate implementation options
- Provide input on billing alternatives
- Provide input on next steps:
 - Alt 1: May 9 Prop 218 direction with Jun 27 Prop 218 Hearing
 - Alt 2: May 23 Prop 218 direction with Jul 11 Prop 218 Hearing
 - (Staff recommends Alt 2 to provide a full month for rate study to be examined in detail by boards / community)

WRF Project History



- **Jan 2003:** RWQCB sends letter to MB/CSD urging them to look to future and upgrade the plant so a 301(h) modified discharge permit would no longer be required.
- **Sept 2003:** MB/CSD reviews feasibility of EQ Basin and upgrades to trickling filter to negate the need for 301(h) permit.
- **Feb 2004:** RWQCB administratively extends 301(h) permit until renewal process

WRF Project History



- **December 2005:** MB/CSD and RWQCB execute "Settlement Agreement" with timeline to upgrade the WWTP in 9.5 years
- **April 2006:** MB/CSD faces pressure from NRDC, Surfrider, and other organizations to upgrade the WWTP by April 2014.
 - Facility Master Plan begins
- **June 2009:** Flood Hazard Analysis results in Council and District Board voting to move WWTP further south on current site
- **January 2013:** Coastal Development Permit denied by Coastal Commission – CMB begins considering new sites off the beach.

WRF Project Community Goals



- **Produce Tertiary Disinfected Wastewater**
 - *WRF designed accordingly*
- **Produce Reclaimed Wastewater Cost-Effectively**
 - *Master Reclamation Plan addresses this*
 - *Including reclamation as early as possible reduces long-term costs*
- **Allow for Onsite Composting**
 - *Onsite composting is not recommended, regional facility will be more cost-effective*

WRF Project Community Goals



- **Design for Energy Recovery**
 - *Considered in the FMP*
- **Design to Treat for Contaminants of Emerging Concern**
 - *Included in FMP treatment evaluation*
- **Allow for other Municipal Uses (at WRF)**
 - *Low priority goal – Considered in EIR*

WRF Project Community Goals



- **Ensure Compatibility with Neighboring Land Uses**
 - *Considered in siting study*
 - *FMP utilized for siting and architecture*
 - *EIR will analyze further*
- **Operational within 5 years**
 - *Project on schedule for WRF operation in 2021*
 - *Potential to construct recycled water project concurrently*

WRF Project History



- **Dec 2013:** Site Options Report 17 sites narrowed to 7; Council direction to compare the best sites (in both Morro and Chorro Valley)
- **May 2014:** Report recommends Morro Valley, but Chorro Valley also suitable; Council direction to compare WRF in MV to regional facility at CMC
- **Dec 2014:** Report determines CMC facility not desirable (very high cost; logistical challenges); Council focus remains on Morro Valley
- **April 2015:** CSD decides to pursue separate project

WRF Project History



- **Feb 2016:** Neighborhood concerns in Morro Valley lead to additional site analysis
- **May 2016:** South Bay Boulevard site determined to be most achievable in 5-year timeframe when balancing cost and other logistical issues
- **June 2016:** City Council selects South Bay Boulevard site for detailed studies, FMP site planning, and EIR analysis

WRF Project History



- **August 2016:** Completion of technical studies (biology, cultural, geotechnical, survey work)
- **August 2016:** EIR scoping meeting and Notice of Preparation
- **October 2016:** MOU with property owner for future purchase of SBB site executed

WRF Project History



- **November 2016: Draft Facility Master Plan** completed
- **March 2017: Draft Master Water Reclamation Plan** completed
- Draft FMP and MWRP provide basis for Program Cost Opinion
 - Review of project alternatives based on site selection and the Community Project Goals
 - Development of project components, space requirements, and cost opinions
 - *South Bay Boulevard Site + Community Project Goals = \$167M*

Presentation Overview



Where The City Has Been Headed
(Current Project – A Brief Review)

Existing WWTP



- WWTP is 62-Years Old
- Permit - expiring 301H waiver
- Dumps 1M gal/day of water into ocean
- Within 100-yr floodplain
- Situated in tsunami inundation zone
- Visible from designated Scenic Highway
- Contributes to upstream flooding
- Adjacent to:
 - High School
 - City Park
 - Coastal Campground
 - City Beach



WRF Project – Managed Retreat



- Conducting managed retreat from coast
- Mitigating climate change risk
- New site is 2.5 miles from the beach
- 30-acre site under contract
- 2000 feet from nearest residents
- Ranchland location preserves view shed



New Water Reclamation Facility



- Draft Facility Master Plan - Nov 2016
- Planned MBR w/ Advanced Treatment
 - Meets treatment goals
 - Produces highly treated water
- ~800 af/year of reusable water
- Substantial solar energy opportunities
- Water and wastewater collection and treatment systems integrated physically and operationally



Reclamation Overview



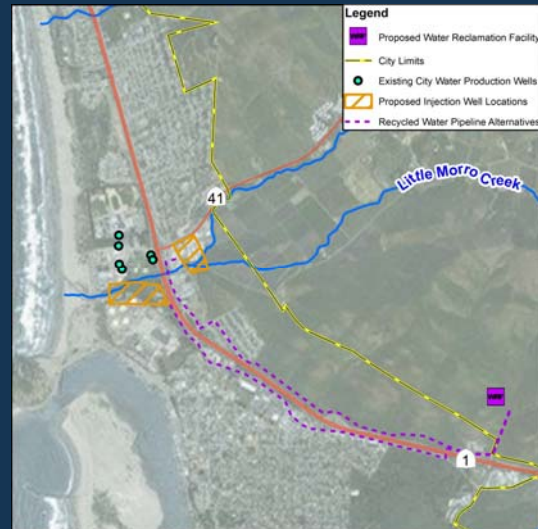
- Hydrogeology studies of Morro Valley Groundwater Basin complete
- Identified sub-basin within city limits
- Existing city wells located in this basin
- No other users in the sub-basin
- Aquifer will accept 800 af/year via groundwater injection, 4 or 5 wells
- Injection will mitigate existing high-nitrate concern with the aquifer
- Modeling confirmed extraction of 1200 af/year with no seawater intrusion



Recommended Project



- Demolition of existing WWTP
- New WRF at South Bay Boulevard site
- Raw Wastewater Pumping System and Pipelines
- Brine Discharge to Existing Ocean Outfall
- Recycled Water Pipelines to Injection Wells
- Injection Wells in Lower Morro Valley aquifer
- Location + Project Goals = \$167M
- Redevelopment of 26 beachfront acres



Presentation Overview



Options Going Forward

Options Going Forward



- Is there a better site?
 - Los Osos WRF?
 - Toro Creek?
- Alternative 0: No Recycled Water Project (MWRP)
- Alternative 3/4: Indirect Potable Reuse (MWRP)

Los Osos Water Recycling Facility



- No savings, no reuse opportunities
- Produces tertiary disinfected recycled water (oxidation ditches, cloth filters, UV disinfection)
- Sized for 1.2 MGD
- Would require 8 miles of pipeline
- Would require doubling plant size
- Would risk USDA financing (>10,000 pop.)

Moving the WWTP/WRF to the Los Osos site would essentially mean building a new, "Alternative 0" WWTP in Los Osos instead of at SBB at greater cost.

Toro Creek / CSD



CSD not interested in combined facility

- Moving forward, don't want to pause
- Would lose USDA financing opportunity (10K)

CSD may consider allowing a new MB facility at Toro Creek site

- Toro Creek site examined by MB – more costly
- Required new force main, brine discharge, etc

Moving the WWTP/WRF to a Toro Creek site would essentially mean building a new, "Alternative 0" WWTP at Toro instead of at SBB at greater cost.

No Recycled Water Project (Alt. 0)



- Discharge effluent through existing ocean outfall
- Secondary disinfected will meet requirements for ocean discharge
- Does not meet Community Goal for tertiary treatment
- No potential water supply benefit

Project Component	Cost Opinion
WRF Capital Costs	\$104.2M
Recycled Water Project Capital Cost	\$0
Subtotal Program Cost	\$104.2M
Construction Contingency	\$19.3M
Total Program Cost Opinion	\$124M

Note: Construction contingency is 25% of construction cost subtotal



No Recycled Water Project



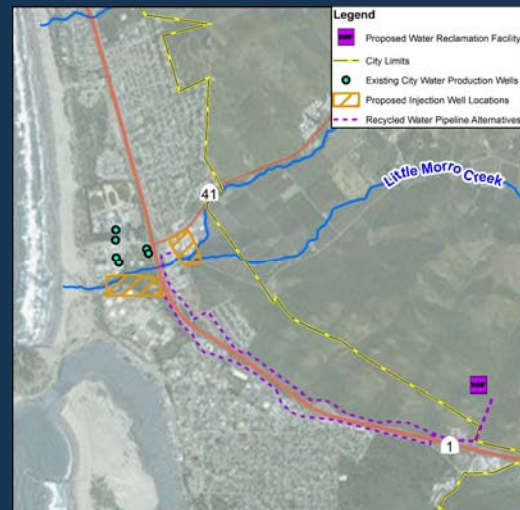
- Minimum project City could consider to meet discharge regulations
- Projected Rate Increase = \$57/month over approved rates
 - Single Family Residential
 - \$140 total maximum sewer rate
 - Existing approved sewer rate = \$83/month
- For future recycled water project
 - Filtration
 - Advanced treatment
 - Recycled water pump station and pipeline
- Grants not available, less competitive for loans

Indirect Potable Reuse



- Inject groundwater into the lower Morro Valley aquifer and recover at existing City wells
- Full advanced treatment (RO and advanced oxidation) required
- Potential water supply benefit: 943-1,119 AFY

Project Component	Cost Opinion
WRF Capital Costs	\$117.3M
Recycled Water Project Capital Cost	\$23.4M
Subtotal Program Cost	\$140.7M
Construction Contingency	\$26.3M
Total Program Cost Opinion	\$167M



Note: Construction contingency is 25% of construction cost subtotal

Indirect Potable Reuse



- \$34/Month over minimum project cost ("Alternative 0")
- Total projected rate increase \$91/month (\$57 sewer + \$34 water) for low-interest financing
 - Single Family Residential
 - Existing approved sewer rate = \$83/month
 - Existing approved water rate = \$67/month

Benefits of Water Independence



- Lowers the future cost of purchasing State Water
- Protects against rising costs of State Water
- Protects against loss of State Water due to natural disaster (earthquake)
- Improves drought tolerance

Benefits of Project



A Huge Project for a Small Community – to Address Huge Challenges

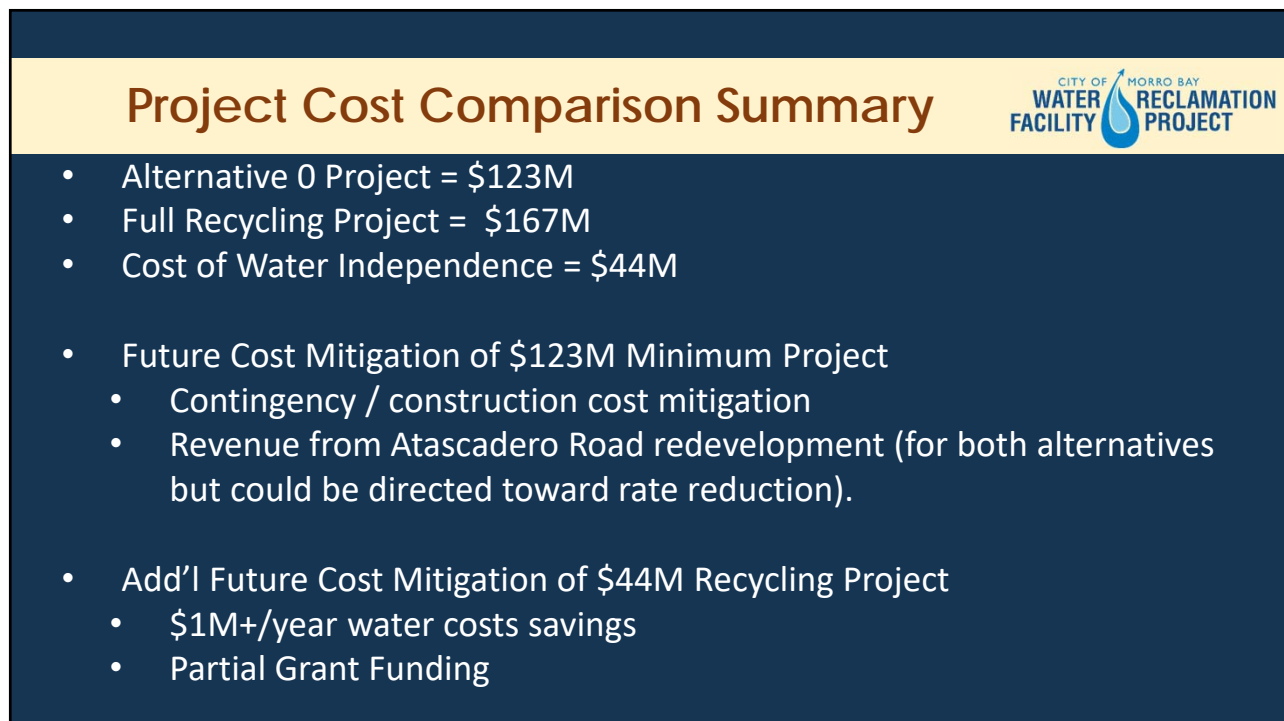
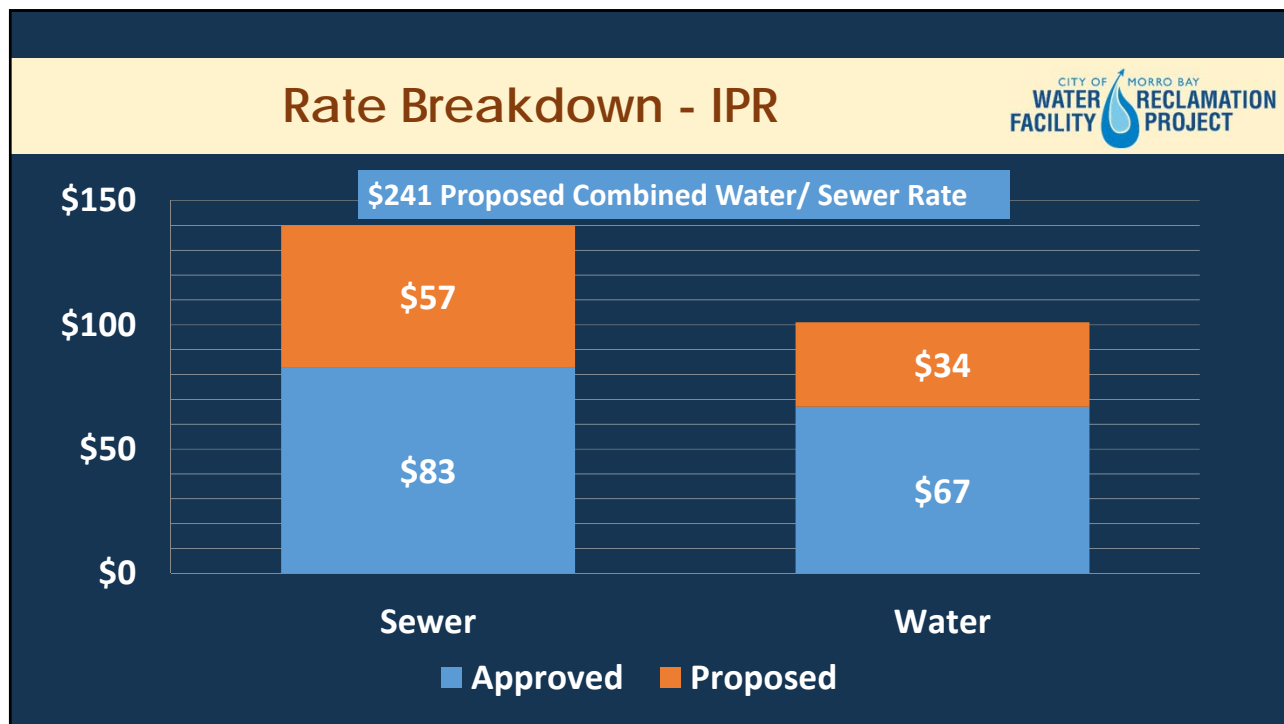
- Addressing expired 301H discharge waiver
- Responding seriously to the effects of *climate change*
- Mitigating environmental risks from *flooding and tsunami*
- *Reusing 800af/year of water* currently dumped into the ocean
- Mitigating *nitrate contamination* of existing aquifer
- Protecting existing aquifer from *seawater intrusion*
- Returning ~1300af/year of *State Water* for another user



Strategies for Cost Containment



- City pursuing grants (WaterSmart) – No grants without recycling
- City pursuing subsidized, low-cost financing (SRF/WIFIA)
- Value engineering through design & design-build process
- Design-build process yields expedited process & lower costs
- Reduction in contingency as project develops
- Revenue from WWTP site redevelopment
- City will re-evaluate finances each year and only implement rates as needed
- Savings in City State Water purchase cost of \$1M+/year



Input from PWAB and CFAC



- Needed time to review written report
 - Tentatively scheduled joint WRFCAC/CFAC
- Why is Cayucos 2 years ahead of us?
- Could additional costs for recycled water be offset by grants or user fees?
- Check Teeter Plan and confirm City receives 100% recovery under default
- 6-7% of income is greater than EPA Affordability Index
- Could you prepay to not include on tax role?

Input from PWAB and CFAC



- Why wasn't cost escalation included in the project opinions?
- Reconsider community goals because project is too expensive
- Some interest in pursuing full IPR
- Escalate rates earlier / more gradually to build cash & borrow less
- If we don't pursue recycled water can we still pursue grants?

Presentation Overview



Rate Study

Sewer Rate Background



- Sewer utility is a financially self-supporting enterprise
- Rates are the main source of revenue
- Rate impacts of new WRF will depend on:
 - a) Project alternative & cost - \$124M to \$167M (current \$)
 - b) Financing sources (SRF/WIFIA Loans vs. Bonds)
- Funding the new WRF will be a major financial challenge for residential & commercial customers (population 10,700)

Prior Rate Study



- Prior rate study completed in 2014/15
- City adopted 5 years of gradual rate increases
 - 2 years of increases already implemented, 3 years left
- Previously-adopted sewer rates assumed:
 - a) \$74.7 million new WRF project cost (no recycling)
 - b) 25% capital & operating cost-sharing with Cayucos SD
 - c) Low-rate SRF financing
- Additional rate increases needed

Draft Sewer Rate Study Update



- BWA developed updated financial & rate projections
- Based on 2016/17 Budget & slightly-conservative assumptions
- Assumes end of Cayucos 25% cost sharing starting after 2018/19
 - Most of shared costs for wastewater treatment are fixed costs
- Developed projections under a WRF & financing scenarios
 - min and max project cost scenarios, and
 - with low-rate SRF/WIFIA loans vs. standard bond financing

Range of Project Costs



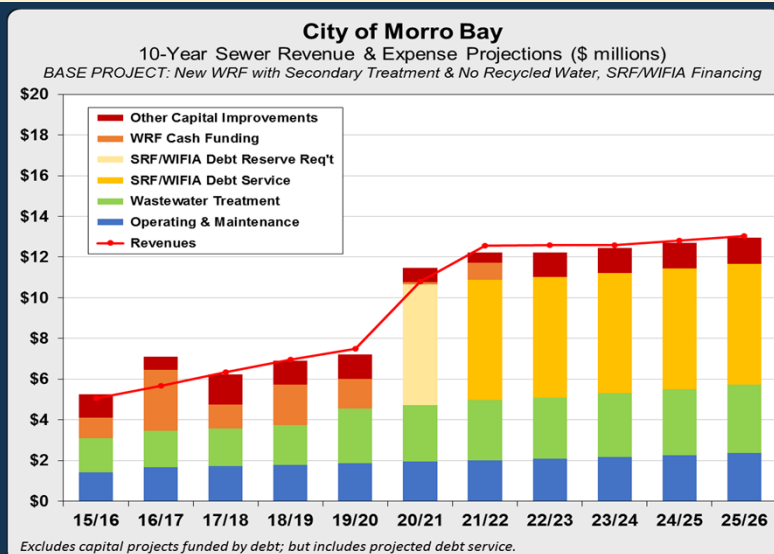
	New WRF Secondary Treatment No Recycling	New WRF Advanced Treatment With Recycling
Project Cost (Current \$)	\$123,600,000	\$167,000,000
Operating Costs (Current \$)		
Secondary Treatment	2,400,000	2,400,000
Advanced Treatment	<u>0</u>	<u>600,000</u>
Total Annual Costs	2,400,000	3,000,000
Project Cost (Escalated \$)	\$135,839,000	\$183,974,000
Operating Costs (Escalated \$)		
Secondary Treatment	2,782,000	2,782,000
Advanced Treatment	<u>0</u>	<u>696,000</u>
Total Annual Costs	2,782,000	3,478,000



Financial Projections A



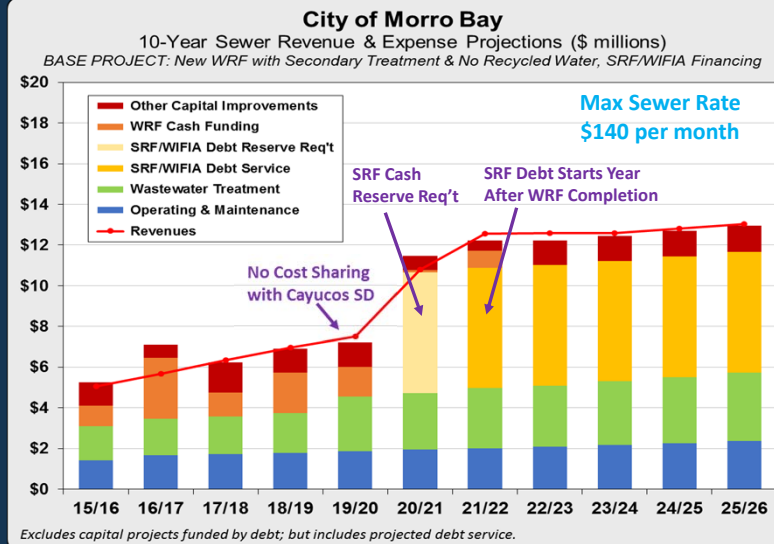
SCENARIO A
New WRF
Secondary Treatment
No Recycling
SRF/WIFIA Financing



Financial Projections A



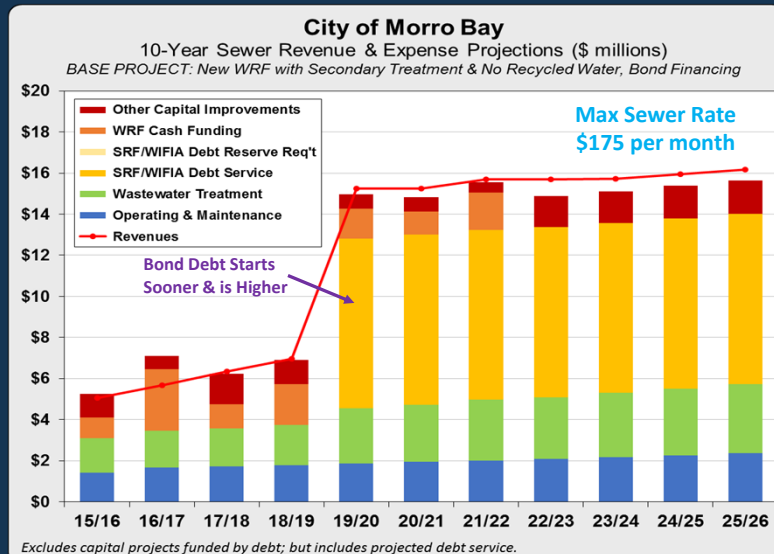
SCENARIO A
New WRF
Secondary Treatment
No Recycling
SRF/WIFIA Financing



Financial Projections A2



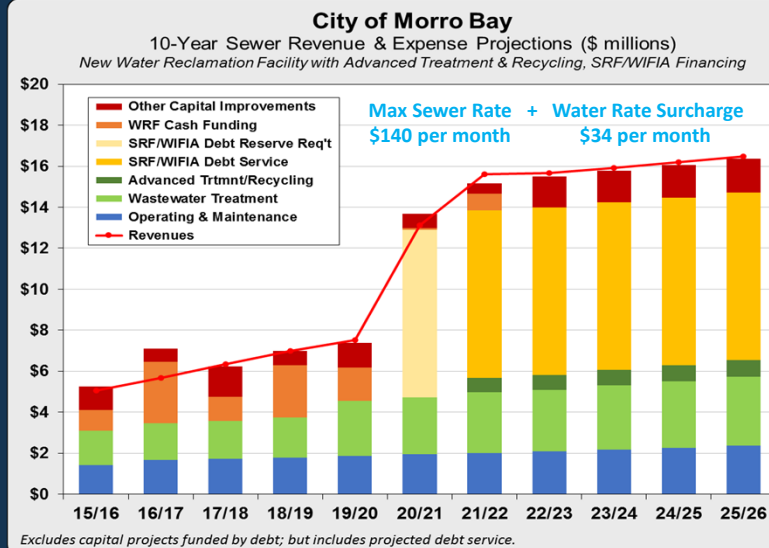
SCENARIO A2
New WRF
Secondary Treatment
No Recycling
Bond Financing



Financial Projections B



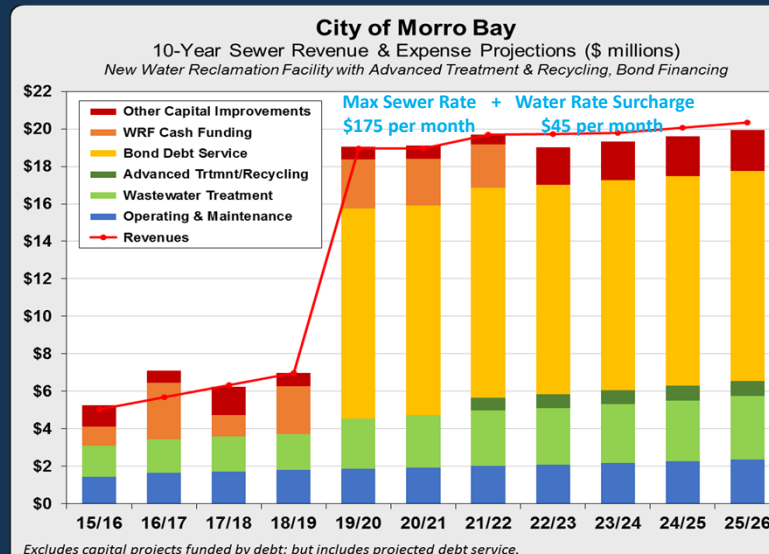
SCENARIO B
New WRF
Advanced Treatment
With Recycling
SRF/WIFIA Financing



Financial Projections B2



SCENARIO B
New WRF
Advanced Treatment
With Recycling
Bond Financing



Summary of Rate Impacts



	SRF/WIFIA		Bonds	
	Base WRF	w/ Recycling	Base WRF	w/ Recycling
PROJECT COSTS (\$ MILLIONS)				
WRF Project Cost	\$124	\$167	\$124	\$167
With 3% Escalation	136	184	136	184
Recycling O&M (starts 2021/22)	-	0.7	-	0.7
PROJECTED MAXIMUM MONTHLY RATES				
SEWER				
Wastewater Operations & Ongoing Capital	\$73.52	\$73.52	\$82.05	\$82.05
New WRF Financing Cost Recovery	66.48	66.48	92.95	92.95
Subtotal	140.00	140.00	175.00	175.00
WATER				
Typical Single Family Water Bill (5 hcf, FY2019/20)	67.00	67.00	67.00	67.00
Max Single Family Water Rate Surcharge	-	34.00	-	45.00
Subtotal	67.00	101.00	67.00	112.00
COMBINED TOTAL MAX BILL	207.00	241.00	242.00	287.00

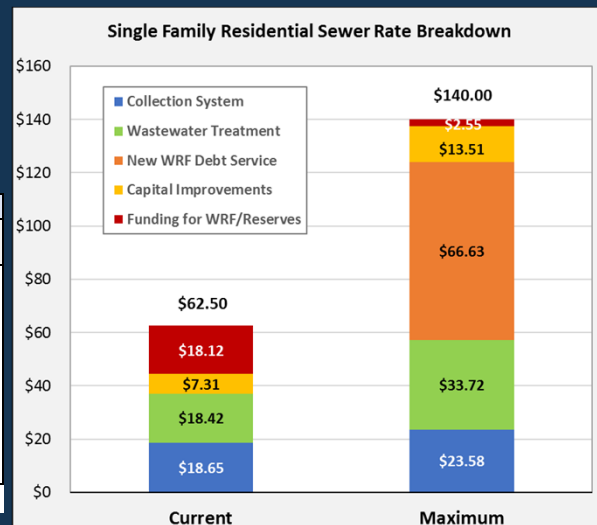
Sewer Rate Components



A) New WRF with Secondary Treatment & No Recycling SRF/WIFIA Financing

	2016/17	2022/23
	Current	First full year of new WRF operation
Sewer Collection System O&M	\$18.65	\$23.58
Wastewater Treatment O&M*	18.42	33.72
SRF/WIFIA Debt Service	0.00	66.63
Sewer Capital Improvements/Equipment	7.31	13.51
Funding Generated for New WRF/Reserves	18.12	2.55
Total	62.50	140.00

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



Sewer Rate Implementation



- Rates need to be adopted before financing can be obtained
- City can adopt a maximum rate
- Rates to be re-evaluated in future years
- City will only increase rates as needed to meet sewer enterprise revenue requirements

Options & Outstanding Issues



- Timing of future rate increases
 - Can defer implementation of future rate increases until after previously-adopted rates have been fully phased in
 - Option: Faster phase-in toward maximum rates
 - Advantage of Faster Phase-In Toward Max Rate:
Generates more cash funding for project, reduces debt financing & annual debt service, results in lower future rates
 - Disadvantage: Results in higher rate increases over next few years

Options & Outstanding Issues



- Bill recovery: City currently bills customers monthly
- Option: Can recover all or portion of sewer bills on prop tax rolls
 - Change in payment responsibility from tenants to property owners
 - County on Teeter Plan (100% payment regardless of delinquencies)
 - Cash flow consideration: tax payments to City would only occur twice per year
 - Potential need to maintain higher level of fund reserves
 - City would need to go through a noticing & public hearing process (similar to Prop 218) to authorize sewer bill collection via property tax rolls
 - Could be done concurrently with Prop 218 rate increase process...or in future

Options & Outstanding Issues



- Debt structuring options
 - Financial projections assume level annual debt service
 - WIFIA may allow for debt deferment for up to 5 years
 - Bonds can be structured with lower payments in early years
 - Advantage: Allows a more gradual phase-in of rate increases
 - Disadvantage: Results in higher debt service & higher rates in longer term
- Outstanding issue: Costs for recycled water component may need to be fully or partially recovered by water rates

Next Steps



- May 2 Joint CFAC / WRF Citizens Advisory Committee
- May 16 PWAB
- May 23 Council final review – direct Prop 218 process begin
- May 25 Mail Prop 218 Notices, begin 45-day waiting period
- July 11 Prop 218 Public Hearing



Questions and Comments