



**CITY OF MORRO BAY
WATER RECLAMATION FACILITY
CITIZEN ADVISORY COMMITTEE (WRFCAC)
AGENDA**

The City of Morro Bay provides essential public services and infrastructure to maintain a safe, clean and healthy place for residents and visitors to live, work and play.

**April 4, 2017
3:00 P.M. to 5:00 P.M.
Morro Bay Veteran's Memorial Building
209 Surf Street, Morro Bay, CA**

John Diodati
Chairperson

Barbara Spagnola
Vice Chairperson

Paul Donnelly

Mary (Ginny) Garelick

Dale Guerra

Valerie Levulett

Richard Sadowski,
Planning Commission

Stephen Shively,
Public Works Advisory Board

ESTABLISH QUORUM AND CALL TO ORDER
MOMENT OF SILENCE/PLEDGE OF ALLEGIANCE
ANNOUNCEMENTS/PRESENTATIONS

PUBLIC COMMENT PERIOD

Members of the audience wishing to address the Board on City business matters other than scheduled items may do so at this time. To increase the effectiveness of the Public Comment Period, the following rules shall be followed:

- When recognized by the Chair, please come forward to the podium and state your name and address for the record. Board meetings are audio and video recorded and this information is voluntary and desired for the preparation of minutes.
- Comments are to be limited to three minutes.
- All remarks shall be addressed to the Board, as a whole, and not to any individual member thereof.
- The Board respectfully requests that you refrain from making slanderous, profane or personal remarks against any elected official, commission and/or staff.
- Please refrain from public displays or outbursts such as unsolicited applause, comments or cheering.
- Any disruptive activities that substantially interfere with the ability of the Board to carry out its meeting will not be permitted and offenders will be requested to leave the meeting.
- Your participation in Board meetings is welcome and your courtesy will be appreciated.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Public Works Department at (805) 772-6262. Notification 24 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

A. CONSENT CALENDAR

A-1 Approval of minutes from the Water Reclamation Facility Citizen Advisory Committee meeting of March 7, 2017

Staff Recommendation: Approve minutes as submitted.

B. BUSINESS ITEMS

- B-1 WRFCAC Sub-Committee Updates and Recommendations
Finance, Environmental and Engineering Sub-Committees to present their analyses and findings to the entire committee.
Recommendation: Staff recommends WRFCAC receive and consider updates.
- B-2 Program Status Update
Recommendation: Staff recommends WRFCAC receive and file the status report of the WRF program.
- B-3 Master Water Reclamation Plan
Recommendation: Staff recommends WRFCAC review, consider, and provide comments on the presentation of the Draft Master Water Reclamation Plan

C. COMMITTEE MEMBER CLOSING COMMENTS

D. ADJOURNMENT

Adjourn to the regular Water Reclamation Facility Citizen Advisory Committee meeting at the Morro Bay Veteran's Memorial Building, 209 Surf Street, on May 2, 2017, at 3:00 p.m.

This agenda is subject to amendment up to 72 hours prior to the date and time set for the meeting. Please refer to the agenda posted at the Public Works Department, 955 Shasta Avenue, for any revisions or call the department at 772-6262 for further information.

Materials related to an item on this agenda are available for public inspection during normal business hours in the Public Works Department, at Mill's/ASAP, 495 Morro Bay Boulevard, or the Morro Bay Library, 695 Harbor, Morro Bay, CA 93442.

This agenda may be found on the Internet at: www.morrobayca.gov/wrfcac or you can subscribe to Notify Me for email notification when the Agenda is posted on the City's website. To subscribe, go to www.morrobay.ca.us/notifyme and follow the instructions.

Materials related to an item on this agenda submitted to the Committee after publication of the agenda packet are available for inspection at the Public Works Department during normal business hours or at the scheduled meeting.

MINUTES – WATER RECLAMATION FACILITY CITIZEN ADVISORY COMMITTEE (WRFCAC)
REGULAR MEETING – MARCH 7, 2017
VETERAN’S MEMORIAL BUILDING – 3:00 to 5:00 P.M.

PRESENT: Barbara Spagnola
Valerie Levulett
Richard Sadowski
Mary (Ginny) Garelick
John Diodati
Steve Shively
Paul Donnelly

ABSENT: Dale Guerra

STAFF: Rob Livick Public Works Director
Mike Nunley WRF Program Manager
Gina Gregory Office Assistant

ESTABLISH QUORUM AND CALL TO ORDER
The meeting was called to order at 3:04 p.m. and a quorum was present.

MOMENT OF SILENCE/PLEDGE OF ALLEGIENCE
ANNOUNCEMENTS – None

PUBLIC COMMENT
<https://youtu.be/hYhgnglQLIA?t=59s>

The public comment period was opened.

Morro Bay resident Jeff Heller thanked the Committee Members for their many hours to serve the community by being on this committee and expressed concern about the cost of the project and where to find this information online. He said the design bid build delivery method is generally not used for water treatment facilities projects as you don’t know the full cost of the project until it is completed. He noted there is a conference at the end of March sponsored by the Design Build Industries Association in Minneapolis that is designed to help cities build a project and find out the costs earlier in the process.

Rob Livick addressed the cost of the project, referencing the City’s WRFCAC website, noting there is a one page fact sheet detailing a cost range of the project. He stated design build will be used for the Water Reclamation Facility and the design bid build delivery method will be used for design and construction of the lift station.

The public comment period was closed.

A. CONSENT AGENDA
<https://youtu.be/hYhgnglQLIA?t=6m50s>

The public comment period was opened, seeing none, the public comment period was closed.

MOTION: John Diodati moved to approve Item A-1. The motion was seconded by Steve Shively and carried 6-0-1 with Dale Guerra abstaining.

B. BUSINESS ITEMS

B-1 WRFCAC Sub-Committee Updates and Recommendations
<https://youtu.be/hYhgnglQLIA?t=7m31s>

Barbara Spagnola with the Finance Sub-Committee stated she had forwarded some questions to Mike Nunley and confirmed that those will be answered as he goes over his review.

Richard Sadowski mentioned that at the February 28 City Council meeting, there was discussion to have advocate help to get federal funding and why this Committee wasn't notified.

Rob Livick and Mike Nunley responded to Sadowski's comment.

Ginny Garelick with the Finance Sub-Committee stated she had attended the February 9 Cayucos Town Hall meeting and presented some highlights from that meeting. She also followed up on information she provided last month on the availability of loans for Water Infrastructure projects under the federal WIFIA program, asking whether anyone had a chance to attend the live webinar.

Mike Nunley responded that one of his staff members did participate in the webinar and will review to see if this is something that we should follow through with. He also asked a representative from Kestrel to participate and then to give a synopsis of what they know of the funding program.

John Diodati recommends that future updates and recommendations cease coming from individuals and that all recommendations be vetted through the Sub-Committees.

Dale Guerra with the Environmental Sub-Committee and Steve Shively with the Engineering Sub-Committee had no reports.

Discussion, comments and questions continued amongst committee members and staff.

The public comment period was opened; seeing none, the public comment period was closed.

B-2 Program Status Update

<https://youtu.be/hYhgngQLIA?t=35m43s>

Discussion, comments and questions continued amongst committee members, staff, and consultants.

The public comment period was opened.

Jeff Heller wanted to emphasize how important it is as a property owner and Morro Bay citizen to know the total cost of the project, when it will be done and how much will it cost individuals. Secondly, he would like to know why it will take the rest of the quarter to develop the construction cost estimate. He would like to see a line item for this amount referenced every time he sees the budget.

The public comment period was closed.

C. COMMITTEE MEMBER CLOSING COMMENTS

<https://youtu.be/hYhgngQLIA?t=1h20m12s>

Richard Sadowski is concerned with this project and need to take a look at it as a whole. He is concerned with potential points of failure and feels these have not been addressed and should be thinking those through conceptionally.

Barbara Spagnola asked that the consultant costs be rounded off to whole dollars. A possible discussion in future meetings could be on the change orders and how to keep control of those, noting that those are about 16.5% of the total cost. There seems to be a need for a summary and it should be communicated.

Mike Nunley addressed the change orders and what they were related to.

ADJOURNMENT

The meeting adjourned at 4:26 p.m. The next Regular Meeting will be held on April 4, 2017 at 3:00p.m. at the Veteran's Memorial Building located at 209 Surf Street, Morro Bay, CA.



AGENDA NO: B-2

MEETING DATE: April 4, 2017

Staff Report

DATE: March 29, 2017
TO: Water Reclamation Facility Citizens Advisory Committee
FROM: Mike Nunley, PE – Water Reclamation Facility (WRF) Program Manager
SUBJECT: WRF Program Update

RECOMMENDATION

Staff recommends WRFCAC receive and file the status report of the WRF program.

ALTERNATIVES

No alternatives are recommended.

FISCAL IMPACT

No additional fiscal impact is proposed within this update. All work is proceeding within the City's fiscal year budget for the Water Reclamation Facility.

DISCUSSION

With the denial of the permit for the WWTP project in its current location, the City has embarked on a process for a new WRF. This staff report provides the following:

- Review of what has occurred to date. See the list of major milestones or accomplishments since the last update to WRFCAC below. This summary is typically provided each month.
- Update on program schedule

Accomplishments and Milestones

The City's Program Management team and technical consultants performed the following tasks since the March program update:

- Received and reviewed administrative draft report summarizing modeling results from GSI Water Solutions, Inc.
- Completed Draft Master Water Reclamation Plan, published on the Project website and provided hard copies at various public facilities
- Presented Draft Master Water Reclamation Plan to City Council on March 28
- Coordinated with Bartle Wells Associates to provide information and review financing options for rate study
- Coordinated with Ferguson Group and Kestrel Consulting for review of EPA's Water Infrastructure Finance and Innovation Act (WIFIA) program loan opportunity
- Initiated development of WIFIA Letter of Interest (due April 10, 2017)
- Planned and attended review committee meeting for WRF Lift Station and Pipelines Design Engineering Services proposals
- Participated in conference call with Ferguson Group and US Bureau of Reclamation (USBR)

Prepared By: MN

Dept Review: RL

staff to discuss funding opportunities under the WaterSmart program, which can award grants for 25% of construction costs up to \$20M

- Began developing feasibility study to comply with USBR WaterSmart funding requirements

Program Schedule Update

FY 16/17 activities are primarily planning, permitting, and procurement of consultants for elements of the Phase I WRF. Specific objectives include completion of the Facility Master Plan, Master Reclamation Plan, initial review and procurement activities for the design-build team, preliminary design, technical studies and initial drafts of the Environmental Impact Report, and procurement of the State Revolving Fund Planning and Design Loan.

The anticipated schedule for significant milestones and Council decisions is summarized below and all critical path efforts are on schedule. There are no significant changes to the program schedule since the March 7 update.

Item	Date
Confirmation of WRF Budget	April 2017
Council Selection and Award for Phase I WRF Offsite Improvements (Lift Station and Pipelines)	April 2017
Initial Wastewater Rate Impact Review with WRFCAC/CFAC/PWAB and City Council	April 2017
Council to Authorize Mailing of Wastewater Rate Notice for Proposition 218 Process	May 2017
Proposition 218 Public Hearing on Wastewater Rates	June 2017
RFQ for Design/Construction of Phase I WRF Onsite Improvements	June 2017
Release of Public Draft EIR	August 2017
RFP for Design/Construction of Phase I WRF Onsite Improvements	October 2017
Certification of Final EIR (Critical Timeline for Grant Pursuit)	November 2017
Negotiation/Award of Contract for Phase I WRF Onsite Improvements	May 2018
Award of Contract for Construction of Phase I Offsite Improvements (Lift Station and Pipelines)	April 2019
Completion of Phase I WRF Improvements	May 2021

ATTACHMENT

1. Updated Program Schedule (as of March 1, 2017)



AGENDA NO: B-3

MEETING DATE: April 4, 2017

Staff Report

TO: Water Reclamation Facility Citizen Advisory Committee (WRFCAC)
DATE: March 29, 2017
FROM: Mike Nunley, PE – Water Reclamation Facility (WRF) Program Manager
SUBJECT: Draft Master Water Reclamation Plan Presentation

RECOMMENDATION

Staff recommends that WRFCAC review, consider, and provide comments on the presentation of the Draft Master Water Reclamation Plan.

ALTERNATIVES

No alternatives are recommended.

FISCAL IMPACT

No additional fiscal impact is proposed within this update. All work is proceeding within the City's project budget for the Water Reclamation Facility (WRF) and is partially funded with a Proposition 1 Recycled Water Planning grant.

DISCUSSION

The Draft Master Water Reclamation Plan ("Draft MWRP") was released on March 21, 2017, was made available to the public on the City's WRF Project website, and hard copies will be available at various public facilities. A presentation of the Draft MWRP was provided to City Council on March 28 and will be provided today for your consideration.

Brief Summary of Draft MWRP

The Draft MWRP was developed to consider recycled water opportunities in light of the adopted Community goals for the new WRF, identify the feasible recycled water projects, and evaluate the potential projects. The MWRP pulled relevant information from previous reports, current hydrogeological studies and permitting evaluations; refreshed the recycled water market assessment through outreach to the community and potential users; and developed updated cost opinions for the feasible alternatives. The MWRP is partially funded through the State Water Resource Control Board Recycled Water Planning Grant Program and follows the State's suggested outline.

Major components of the MWRP include the following:

- Review of existing and future water demands, wastewater flows and loadings, and proposed WRF treatment technology to achieve recycled water suitable for project alternatives.
- Identification and investigation of recycled water opportunities in the community,

Prepared By: MN

Dept Review: RL

determination of treatment requirements for reuse, and assessment of potential user requirements

- Analysis of project alternatives, including quantitative and qualitative benefits, facilities needed for each project, and comparative preliminary cost estimates.
- Evaluation of recommended project for environmental considerations, and for potential legal and institutional issues.
- Construction financing plan.

Alternatives Analysis

An investigation of previously identified recycled water users and opportunities in the City and the surrounding area was conducted. New opportunities were investigated using aerial mapping and Geographic Information Systems (GIS) software, community outreach to determine potential reuse customers, preliminary pipeline alignments and design criteria, and stakeholder interviews. Evaluation criteria included pipeline hydraulics, capital and operating costs, treatment requirements, regulatory requirements, legal or institutional issues, likelihood that the project schedule would meet City Council goals, and the potential to provide a water supply benefit to the City.

Recycled water project alternatives considered included various methods of substituting recycled water for potable water where possible and repurposing recycled water to benefit the City’s water supply. Recycled water project alternatives were developed based on groupings of recycled water opportunities and water quality requirements. A total of twelve different reuse alternatives were identified, and seven were determined infeasible, as summarized in Table 1.

Table 1: Summary of Reuse Opportunities

Alternative	Evaluated Further	Comments
No Recycled Water Project	✓	No water supply benefit to the City Lowest treatment requirements of all alternatives
Urban Reuse	✓	Distribution system to urban irrigation opportunities within the City Limits would need to be constructed by the City Potential to offset City potable water demand and fertilizer costs Generally lower treatment requirements than agricultural irrigation
Agricultural Irrigation		Costly distribution system would need to be constructed by the City Does not increase City's potential water supply, only increases likelihood of withdrawing full allocation from Morro Valley Initial outreach indicated general unwillingness to participate Additional treatment for removal of salts necessary
Exchange of Recycled Water with Agricultural Users for Reduced Groundwater Pumping		Distribution system to Morro Valley would need to be constructed by the City Basin-wide groundwater management plan would be required to receive full benefit Does not increase City's potential water supply, only increases likelihood of withdrawing full allocation from Morro Valley Initial outreach indicated general unwillingness to participate

Table 1: Summary of Reuse Opportunities

Alternative	Evaluated Further	Comments
		Additional treatment for removal of salts necessary
Exchange of Recycled Water with Agricultural Users for Riparian Rights to Withdraw Groundwater		Distribution system to Morro Valley would need to be constructed by the City Complex legal issues surrounding Riparian Rights Initial outreach indicated general unwillingness to participate Additional treatment for removal of salts necessary
Exchange of Recycled Water with Agricultural Users for Pumped Groundwater Delivered to the City	✓	Distribution system to Morro Valley and return pipeline to water treatment facilities would need to be constructed by the City Initial outreach indicated agricultural users would only be interested if delivered water was less expensive than their current costs or higher quality Additional treatment for removal of salts necessary
Indirect Potable Reuse, Groundwater Replenishment Using Surface Application		Limited water supply benefit, especially during wet years City must acquire land for percolation ponds City must staff and maintain percolation ponds Higher treatment requirements than all alternatives but groundwater injection
Indirect Potable Reuse, Groundwater Replenishment Using Subsurface Application at the Narrows	✓	Injection wells in the Morro Valley Aquifer near the “Narrows” Pilot testing and additional modeling required for permitting and refined supply benefit estimates Highest mandated treatment requirements of all alternatives Highest potential water supply benefit
Indirect Potable Reuse, Groundwater Replenishment Using Subsurface Application at the Narrows Near Bike Path Adjacent to Lila Keiser Park	✓	Injection wells in the Morro Valley Aquifer near the bike path at Lila Keiser Park Pilot testing and additional modeling required for permitting and refined supply benefit estimates Highest mandated treatment requirements of all alternatives Highest potential water supply benefit
Groundwater Injection for Seawater Intrusion Barrier		City would likely need to install new injection wells Limited water supply benefit as majority of injected water lost to ocean Highest mandated treatment requirements of all alternatives

Table 1: Summary of Reuse Opportunities

Alternative	Evaluated Further	Comments
Streamflow Augmentation		Regulatory challenges in present and future Long term or permanent commitment to dedicated stream discharge Requires expansion of water treatment facilities to treat surface water Majority of streamflow in Chorro Creek goes to ocean with minimal percolation
Direct Potable Reuse		Not currently legal in California Future regulatory challenges

The following five recycled water project alternatives were evaluated based on the community goals for the project:

- Alternative 0: No Recycled Water Project
- Alternative 1: Urban Reuse
- Alternative 2: Agricultural Exchange
- Alternative 3: Indirect Potable Reuse – East
- Alternative 4: Indirection Potable Reuse – West

Evaluation criteria include capital cost, operating cost, neighborhood compatibility, reliability, and potential water supply benefit. The following main conclusions were made:

- The highest water supply benefit would be realized through indirect potable reuse (IPR) (Alternatives 3 and 4). Based on preliminary modeling, it appears Alternative 4 could support the majority, if not all, of the City’s current water demand with an estimated water supply benefit of over 1100 AFY. This could significantly reduce or eliminate reliance on imported water.
- The least expensive alternative is no recycled water project (Alternative 0), followed by urban reuse (Alternative 1). Alternative 0 provides no water supply benefit and Alternative 1 provides the least, an estimated 45.4 AFY water supply benefit.
- The capital costs for agricultural exchange (Alternative 2) and IPR (Alternatives 3 and 4) are similar, but IPR has significantly higher water supply benefit if a higher exchange rate is not possible for Alternative 2. Agricultural exchange relies on successful contract negotiations with landowners, adding some uncertainty.

Recommendations and Program Cost Estimates

Based on the analyses presented in the Draft MWRP, the recommended recycled water project is IPR, Alternative 3 or 4, with the main difference consisting of the general locations for injection and extraction wells. The IPR alternative best fulfills the community project goals of producing reclaimed water and provides the highest and most reliable potential water supply benefit. Supplementing the potable water supply with highly treated recycled water is the best allowable beneficial reuse, and will allow the City to reduce or eliminate reliance on imported water.

The City is planning to construct the new WRF within the next five years. If a recycled water project is pursued, then there could be significant savings realized by completing the construction at the

same time as the WRF. The estimated total program capital costs for Alternatives 0 through 4 are summarized in Table 2. The total program costs include the total cost for the WRF as presented in the Facility Master Plan, which includes additional estimated program costs including decommissioning of the existing WWTP, property acquisition for the WRF, permitting and environmental mitigation, construction management and estimated recycled water project costs as presented earlier in this section.

Alternative 0 (No Recycled Water Project) presents a WRF that produces secondary disinfected effluent which is discharged to the ocean for an estimated total program cost of approximately \$124 million. Alternatives 3 and 4, the recommended recycled water project, consists of a WRF and full IPR recycled water program for an estimated total cost of approximately \$167 million.

Table 2: Comparison of Total Estimated Program Costs

	Alternative 0	Alternative 1	Alternative 2	Alternative 3	Alternative 4
	No Recycled Water Project (Secondary only)	Urban Reuse	Agricultural Exchange	IPR East	IPR West
WRF Capital Costs					
Estimated WRF Capital Construction Cost	\$79,350,000	\$89,710,000	\$89,710,000	\$89,710,000	\$89,710,000
Engineering/Design (WRF)	\$7,730,000	\$8,740,000	\$8,740,000	\$8,740,000	\$8,740,000
Procurement (4% WRF)	\$3,174,000	\$3,588,400	\$3,588,400	\$3,588,400	\$3,588,400
Project Admin & CM (12% WRF)	\$9,522,000	\$10,765,200	\$10,765,200	\$10,765,200	\$10,765,200
Permitting, monitoring, and mitigation (1% WRF)	\$793,500	\$897,100	\$897,100	\$897,100	\$897,100
Existing WWTP Demolition	\$3,300,000	\$3,300,000	\$3,300,000	\$3,300,000	\$3,300,000
Property Acquisition (WRF)	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Recycled Water Project Capital Costs					
Estimated Recycled Water Project Capital Construction Cost	\$0	\$8,940,000	\$18,440,000	\$17,820,000	\$18,110,000
Engineering/Admin (RW)	\$0	\$2,630,000	\$5,430,000	\$5,250,000	\$5,3230,000

Table 2: Comparison of Total Estimated Program Costs

	Alternative 0	Alternative 1	Alternative 2	Alternative 3	Alternative 4
	No Recycled Water Project (Secondary only)	Urban Reuse	Agricultural Exchange	IPR East	IPR West
Subtotal Program Capital Cost Opinion (rounded)	\$104,200,000	\$128,900,000	\$141,700,000	\$140,400,000	\$140,700,000
Construction Contingency	\$19,320,000	\$24,040,000	\$26,370,000	\$26,220,000	\$26,290,000
Total Program Capital Cost Opinion	\$123,520,000	\$152,940,000	\$167,570,000	\$166,620,000	\$166,990,000

Notes:

- 1) Estimated WRF Capital Construction Cost includes the WRF Project (lift station, pipelines, and treatment plant) without any recycled water components, based on costs presented in the Draft FMP, not including construction contingency or engineering/design, which are shown separately.
- 2) Cost assumptions for Alternative 0 are based on secondary treatment only, SBR option as described in **Section 7.3**. Alternative 0 does not fulfill the community project goals to produce tertiary disinfected wastewater or to produce reclaimed water.
- 3) WRF costs for Alternatives 1 – 4 assume the MBR option from the Draft FMP. Based on estimates in the Draft FMP, the total program capital cost opinion for Alternatives 1 – 4 would be approximately \$2M less with the SBR option.
- 4) Construction contingency consists of 25% of construction cost subtotal(s).

Next Steps

To further refine the project assumptions and costs, the recommended next steps are summarized as follows:

- Rate study update
- Consultation with Water Board Division of Drinking Water (DDW)
- Siting study for injection wells
- Pilot study for injection and extraction
- Groundwater modeling update (after/with pilot study)
- Assessment of groundwater treatment and blending options at existing Brackish Water Reverse Osmosis WTP
- Design of recycled water system, including advanced treatment, injection wells, pumps and pipelines

Rate Study and Public Outreach

Based on the community project goals and City Council’s direction over the past year, most recently confirmed at the February 21, 2017 Council Work Session, staff is preparing a Sewer Rate Study Update to evaluate rate impacts for the IPR project alternative recommended in the Draft MWRP.

The Rate Study Update will be presented at the April 25th City Council meeting, after first being presented to various City advisory boards (WRFCAC, CFAC and PWAB). Draft findings from the rate study will be presented as part of this discussion item, but will not be available for posting prior to the meeting.

A WRF Project Update mailer is currently being drafted to provide a project update to the community, summarize the main findings of the Draft MWRP, and advertise the WRF Project Update Information Forum planned for early June.