



# CITY OF MORRO BAY PUBLIC WORKS ADVISORY BOARD AGENDA

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*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.*

**Wednesday, April 19, 2017  
Veterans Memorial Building - 5:30 P.M.  
209 Surf Street, Morro Bay, CA**

Ric Deschler, Chair  
John Erwin

Steven Shively, Vice-Chair  
Janith Goldman  
Stewart Skiff

Christian Erlendson  
Christopher Parker

ESTABLISH QUORUM AND CALL TO ORDER  
MOMENT OF SILENCE/PLEDGE OF ALLEGIANCE  
ANNOUNCEMENTS  
PRESENTATIONS – None

## PUBLIC COMMENT PERIOD

Members of the audience wishing to address the Board on City business matters not on the agenda 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 city of residence for the record.
- 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.

## A. CONSENT CALENDAR

- A-1 Approval of Minutes of March 15, 2017 Meeting  
**Recommendation:** Approve minutes.

## B. BUSINESS ITEMS

- B-1 Directors Report – Informational summary of current Public Works Activities  
**Recommendation:** Information item, no action needed.
- B-2 Preliminary Findings from the Draft Sewer and Water Rates Study Update  
**Recommendation:** Review, consider, and provide comments on the presentation summarizing the preliminary findings from the Draft Sewer and Water Rate Study Update.

## C. POTENTIAL FUTURE AGENDA ITEMS

- Bike Needs
- ADA Compliance Improvements
- OneWater Planning
- Memorial Bench, Tree, and Bike Rack Program
- Adopt a Street/Park

#### D. ADJOURNMENT

Adjourn to the Public Works Advisory Board meeting at the Veteran's Memorial Building, 209 Surf Street, on May 17, 2017 at 5:30 p.m.

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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 772-6263 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 955 Shasta, City Hall at 595 Harbor, Mill's/ASAP at 495 Morro Bay Boulevard, or the Morro Bay Library at 695 Harbor, Morro Bay, CA 93442. Materials related to an item on this agenda submitted to the Board after publication of the agenda packet are available for inspection at the Public Works Department during normal business hours or at the scheduled meeting.

This agenda may be found on the Internet at: [www.morrobayca.gov/pwab](http://www.morrobayca.gov/pwab) 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.morrobayca.gov/notifyme](http://www.morrobayca.gov/notifyme) and follow the instructions.

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) 772-6263. Notification 24 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

MINUTES - PUBLIC WORKS ADVISORY BOARD (PWAB)  
REGULAR MEETING – MARCH 15, 2017  
VETERAN'S MEMORIAL HALL – 5:30P.M.

|                             |
|-----------------------------|
| AGENDA ITEM: <u>A-1</u>     |
| DATE: <u>April 19, 2017</u> |
| ACTION: _____               |

|          |  |   |
|----------|--|---|
| PRESENT: | Steve Shively<br>Ric Deschler<br>Chris Parker<br>Stewart Skiff<br>John Erwin | Vice Chair<br>Board Member<br>Board Member<br>Board Member<br>Board Member                    |
| ABSENT:  | Janith Goldman   | Board Member  |
| STAFF:   | Rob Livick<br>Janeen Burlingame<br>Joe Mueller<br>Gina Gregory               | Public Works Director<br>Management Analyst<br>Utilities Division Manager<br>Office Assistant |

ESTABLISH QUORUM, CALL TO ORDER AND MOMENT OF SILENCE

The meeting was called to order at 5:33 p.m.

A quorum was present and there was a moment of silence.

ANNOUNCEMENTS

<https://youtu.be/m20Of1KBUno?t=1m35s>

Chris Parker asked if Rob Livick could clear-up some of the Facebook postings on the paving from earlier today.

Rob Livick explained that this is the first leveling course of the micro surfacing and that the contractor did go up to the curb and gutter area. They must clean that up. The second layer (chip seal) can begin three days after the cure is sealed.

Ric Deschler attended a meeting that was presented at the Senior Center with Mike DeMilo of Integrated Waste Management on trash and recycling. He also attended a gathering with the Morro Bay Open Space Alliance along with Chevron Representatives. They toured the Chevron property.

PRESENTATIONS – None

ELECTION OF OFFICERS

<https://youtu.be/m20Of1KBUno?t=4m47s>

MOTION: Steve Shively nominated Ric Deschler as Chair. The motion was seconded by Chris Parker and carried unanimously 5-0.

MOTION: Ric Deschler nominated Steve Shively as Vice-Chair. The motion was seconded by Chris Parker and carried unanimously 5-0.

PUBLIC COMMENT PERIOD

<https://youtu.be/m20Of1KBUno?t=5m43s>

The public comment period was opened.

Rigmore Sizemore, resident of Morro Bay, has a concern with the trash containers that are in the public parking lot below the Surf Street bluff near 1190 Front Street. With the warm days coming close, she would like them to be covered and not hidden with colored plastic fences.

She also hoped that we got to enjoy the tourists, kids and residents as they enjoyed the sea otters and babies along the Embarcadero. Nature at its best.

The public comment was closed.

A. CONSENT AGENDA

<https://youtu.be/m20Of1KBUno?t=14m28s>

A-1 APPROVAL OF MINUTES OF FEBRUARY 15, 2017 MEETING

MOTION: Ric Deschler moved to approve Item A-1. The motion was seconded by Stewart Skiff and carried 4-0-1 with Steve Shively recusing himself.

B. BUSINESS ITEMS

B-1 Directors Report – Informational summary of current Public Works Activities

<https://youtu.be/m20Of1KBUno?t=15m6s>

Rob Livick presented the staff report.

The Board asked questions of staff and commented on the Director's Report.

B-2 Short Range Transit Plan RFP Review Committee

<https://youtu.be/m20Of1KBUno?t=45m47s>

Janeen Burlingame presented the staff report.

The Board asked questions of staff and commented on the Short-Range Transit Plan RFP.

MOTION: Chris Parker moved to appoint Stewart Skiff to sit on the RFP Review Committee. The motion was seconded by John Erwin and carried unanimously 5-0.

B-3 Public Works Advisory Board FY 17/18 Work Plan

<https://youtu.be/m20Of1KBUno?t=50m40s>

Rob Livick presented the staff report.

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

MOTION: Chris Parker moved the PWAB add traffic control out at the entrance of the rock with the concept of keeping it a more natural style of traffic control to the Work Plan. The motion was seconded by John Erwin and carried unanimously 5-0.

MOTION: John Erwin moved the PWAB put in a work line item for the schedule of the proposed street improvement tax measure to the Work Plan. The motion was seconded by Chris Parker and carried unanimously 5-0.

MOTION: Ric Deschler moved the PWAB add Garbage Recycling Education to the Work Plan. The motion was Chris Parker seconded. The motion carried unanimously 5-0.

ADJOURNMENT

The meeting adjourned at 6:58 P.M. to a regular Public Works Advisory Board meeting to be held on April 19, 2017 at 5:30 p.m. at the Veteran's Memorial Building, 209 Surf Street.



AGENDA NO: B-1

MEETING DATE: April 19, 2017

# Staff Report

**TO:** Public Works Advisory Board **DATE:** April 13, 2017  
**FROM:** Rob Livick, PE/PLS – Public Works Director/City Engineer  
**SUBJECT:** Director’s Report / Information Items

Please contact the individual staff members prior to the meeting, if possible, for more detailed information.

**Notify Me:** Sign up for Notify Me on the City’s Website [www.morrobayca.gov/notifyme](http://www.morrobayca.gov/notifyme) for notification of Council, Board’s and Commission’s agendas and minutes.

**Service Requests:** The City has a feature to the City’s website, Service Requests [www.morrobayca.gov/905/Service-Requests](http://www.morrobayca.gov/905/Service-Requests), or the mobile App “My Morro Bay” (Available on both Android and IOS operating systems) where citizens can report a concern to the City for predetermined issues without the need to phone the City during business hours (for example: reporting a pothole).

Staff can also add Service Requests for someone over the phone or in the office if they do not have access to a computer. Each category in Service Requests is assigned to the appropriate staff member to handle so citizens don’t have to figure out what department to contact for an issue they need to report on.

## **BICYCLE TRANSPORTATION**

Staff Contact: Rob Livick

Volunteers are still needed for the Pismo to Morro Bay stage of the Amgen Tour of California <http://amgentourofcalifornia.com/footer/volunteer%20> to help out.

Ride On!

## **CONSOLIDATED MAINTENANCE**

Staff Contact: Mike Wilcox

Staff has completed the installation of sewage grinder pump at the Rock Rest Room to eliminate back-ups and reduce maintenance time. The sewer lateral extends from the restroom all the way down to the Embarcadero near Coleman Park. At 1.28 gallons per flush, it didn’t always clear to the end. Now, when the new grinder pump turns on it pumps approximately 50 gallons before turning off, effectively keeping the lateral clean.

All six photovoltaic systems installed late last year have been approved by PG&E for operation and they are now fully operational.

If you have maintenance requests, please call 772-6261, use the smart phone app, myMorroBay, available for android and iPhone, or use the City’s Service Requests online system on our website [www.morrobayca.gov/905/Service-Requests](http://www.morrobayca.gov/905/Service-Requests). Upon receipt, the electronic requests will be reviewed and assigned to the appropriate staff for action. In the future, the City will be upgrading to a fully integrated maintenance work order system that will allow you to view the progress of your requests.

## **SIDEWALK REPAIR AND INSTALLATION**

Staff Contact: Rick Sauerwein

2016 CDBG ADA Accessibility project: County has completed review of specifications and environmental review and have directed us to proceed to with the Invitation to Bid while they complete execution of the sub-recipient agreement. The County Board of Supervisors already approved reallocation of prior year funding to provide up to \$236,418 in additional funding to fill gaps in our existing sidewalk network to improve ADA Accessibility.

## **STORM WATER**

Staff Contact: Damaris Hanson  
Mike Wilcox

The rainy season is upon us and this means that City Maintenance crews are making sure our storm drains are clear and are cleaning all high priority drains. Please remember that debris such as leaves and twigs can prevent water from flowing from gutters into storm drains and cause localized flooding. To prevent clogging of these drains, properly dispose of yard waste in green waste bins. The City would also like to remind citizens, if you see a clogged storm drain, and if it is safe, you may attempt to remove the debris with a garden rake. If there is a significant blockage, contact the Public Works Department, 805-772-6261. While the City does not own any creek property except for those areas that fall within City parks or in the public right of way such as bridges and roads that cross creeks; if a large tree or debris were to get stuck at a bridge that we maintain then we would remove it, otherwise any other downed trees or vegetation is the responsibility of the property owner. If a property owner wants to remove trees and debris from the portion of the creek that is on their property it is the property owners responsibility to acquire the required permit from California Department of Fish and Wildlife and any other necessary agency.

Storm Drain at 2560 Ironwood is scheduled for replacement/rehabilitation this month, weather permitting.

## **STREETS**

Staff contact: Rick Sauerwein  
Jarrod Whelan

Pavement Coatings Co. has been given the Notice to Proceed with the 2017 Street Preservation work and is scheduled to begin on Tuesday, March 14. Pavement Coatings Co. has outlined a 4-week timeline for completion, with the final week for striping.

Due to recent late season rain, the original schedule has been disrupted. The latest schedule update is attached.

The City Council has directed staff not to further develop new funding options for potential voter consideration in November 2017, but is an objective and a PWAB work plan item for FY 2017/2018 and voter consideration in November 2018.

## **TRANSIT – Morro Bay Transit**

Staff contact: Janeen Burlingame

Morro Bay Transit will be celebrating its 40<sup>th</sup> anniversary on May 2, 2107. At its April 25 meeting, the City Council will be issuing a proclamation declaring the week of May 1 to May 6, 2017 as “Morro Bay Transit Week” and encouraging all citizens to use Morro Bay Transit not only during Morro Bay Transit week, but whenever possible, including using other alternative modes of transportation such as regional public transit, ridesharing, bicycling and walking.

## **TRANSIT – Short Range Transit Plan**

Staff contact: Janeen Burlingame

A Request for Proposals (RFP) was issued on March 20 for consulting services to complete the City's Short Range Transit Plan for the deviated fixed route, Call-A-Ride, and trolley services. Proposals are due on April 17 and work is anticipated to start mid-June to early July.

### **TREES – Urban Forest Management**

Staff contact: Damaris Hanson  
Mike Wilcox

A reminder that bird nesting season started on February 1st and run through June. During nesting season, no public right of way trees will be trimmed or removed unless in the case of an emergency, and private trees cannot be removed during nesting season.

### **WATER – Chorro Stream Gauge**

Staff Contact: Rick Sauerwein  
Pamela Newman

NO CHANGE: The City's consultant, WSC, has coordinating National Marine Fisheries Service (NMFS) comments through the Army Corps of Engineers has determined that existing cultural studies provide sufficient data to finish our Section 106 Cultural Resource determination. Mitigated Negative Declaration has been completed, but the City's Planning Commission and County Permitting cannot proceed further until we can respond to NMFS concerns regarding fish passage and obtain property owner permission to install gage on San Luis Coastal Resource Conservation District property. This requires the approval from the USDA/NRCS who hold a conservation easement.

### **WATER – Nutmeg Tank Replacement**

Staff Contact: Rick Sauerwein  
Jarrod Whelan

NO CHANGE. A draft RFP for Engineering and Environmental support is under review. Mitigated Negative Declaration has been revised but County Permitting is on hold until a new RFP is drafted.

### **WATER – Operations**

Staff Contact: Rob Livick  
Joe Mueller  
Jamie James  
Damaris Hanson

On January 25, 2017 the State Department of Water Resources announced: for 2017 the allocation of state water was increased to 60-percent. Due to the City's drought buffer, we can expect 100-percent delivery from the SWP to the City of Morro Bay. During the month of March, the water staff completed various work orders:

- Exercised 36 valves
- Reset 34 meter boxes
- Flushed 66 dead-end lines and Hydrants
- Performed routine water quality monitoring of the distribution system (109 work orders) well meter readings, sounded well water levels, collected monthly water quality samples
- Performed meter re-reads, turn off notices, meter re-reads, high meter reads, turn off and turn on of water service.
- Attended a Bloodborne Pathogen and Emergency Preparedness trainings.

Upcoming Service Replacements and Projects include:

- Valve replacement at 3000 Ironwood, crews have begun the prep work and will complete the valve replacement April 17- 20 while Del Mar Elementary is on Spring Break.

### **WATER – Water Conservation**

Staff Contact: Damaris Hanson

For the Month of March water conservation was 23% lower compared to March 2013. On April 7<sup>th</sup> Governor Brown lifted the January 17, 2014 drought declaration for most of California, including San Luis Obispo County. State Water Resources Control Board will rescind the water supply stress test as well as mandatory conservation standards. The City will still be required to report monthly our water conservation report to the State Water Board.

City water conservation rebates available; Cash for grass, rain barrel, irrigation retrofit, SMART irrigation controller, toilet retrofit and Energy star washing machine. State rebates now available for removing grass (up to \$2 per sq. ft.) and replacing a toilet that flushed more than 1.6 gallons per flush (\$100).

### **WASTEWATER – Collections**

Staff Contact: Joe Mueller  
John Gunderlock

In March the wastewater collections staff:

- cleaned approximately 24,500 feet of sewer mainline.
- no mainline or lateral blockages / overflows where reported.
- downloaded flow data from four temporary flow meters installed in the collections system used to compile data for engineering and design.
- V&A Consulting installed 15 flow meters throughout the city to compile wastewater flow data for engineering and design.
- inspected newly-installed lateral connections to city mainlines.
- performed routine lift station maintenance.
- assisted at the treatment facility performing additional duties.
- conducted 5 source control inspections at various businesses.

### **WASTEWATER – Treatment**

Staff Contact: Joe Mueller  
John Gunderlock

#### **Operations**

- Flow for the month of March averaged 1.057 Million Gallons per Day (MGD) and totaled 32.778 MG.
- A total of 1.35 inches of rain was recorded at the treatment plant.
- Completed the required Laboratory QC study with 98.4 percent accuracy.
- Replaced a failed RAS sludge blower.
- Installed ultrasonic level indicator in the headworks chemical storage tank for accurate chemical use monitoring.

#### **Staff**

- Kyle Quaglino passed the Collections System Maintenance Grade I certification exam.
- Robert Victor obtained his Wastewater Treatment Operator-In-Training certification.
- Matt Michaels obtained his class B Drivers permit.
- Staff attended Traffic Control for Safe Work Zones / Defensive Driving Training.
- 

#### **Submitted Reports**

- February 2017 Monthly Monitoring Data (eSMR)
- February 2017 Discharge Monitoring Forms (eDMR)
- 2016 Annual Monitoring Report (eSMR)
- 2016 Annual Monitoring Report (eDMR)
- Renewed the Air Pollution Control District (APCD) permit for the Emergency Generator and Bypass Pumps.

## **WASTEWATER – NEW WRF**

Staff Contact: Rob Livick

Immediate next steps include:

| <b>Item</b>   | <b>Date</b>    |
|---|----------------|
| Public Release Draft Master Water Reclamation Plan  | March 21, 2017 |
| Confirmation of Phase I and Phase II WRF Budget   | April 2017     |
| Introduction of Proposed Sewer and Water Rates to CFAC/PWAB then City Council                   | April 2017     |
| Council Selection and Award for Phase I WRF Offsite Improvements (Lift Station and Pipelines)   | April 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       |

Additional and updated information on the WRF project is available on the City's website (<http://morrobaywrf.com/>).

### **Schedule**

Still on track for May 2021 delivery.

### **ATTACHMENTS**

1. Memorandum Regarding Placement of a No Right Turn on Red (R13A(CA)) or No Left Turn on Red (R13B(CA)) Sign on the signal at the intersection of Main Street and Quintana Road
2. Schedule for Pavement Preservation Program dated 13 April 2017

10 APRIL 2017

To: File  
From: Rob Livick  
Subject: Placement of a No Right Turn on Red (R13A(CA)) or No Left Turn on Red (R13B(CA)) Sign on the signal at the intersection of Main Street and Quintana Road

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Based on a citizen request, the Public Works Department installed a No Right Turn on Red sign was placed on the northwesterly signal arm restricting turning movements from Quintana onto Northbound Main. After further research, it was determined that the requirements of the California MUTCD 2014 Edition (FHWA's MUTCD 2009 Edition, including Revisions 1 & 2, as amended for use in California) to install the sign were not met.

No Turn on Red (R10-11, R13A(CA) or R13B(CA)) sign should be considered when an engineering study finds that one or more of the following conditions exists:

- A. Inadequate sight distance to vehicles approaching from the left (or right, if applicable);
- B. Geometrics or operational characteristics of the intersection that might result in unexpected conflicts;
- C. An exclusive pedestrian phase;
- D. An unacceptable number of pedestrian conflicts with right-turn-on-red maneuvers, especially involving children, older pedestrians, or persons with disabilities;
- E. ~~More than three right turn on red accidents reported in a 12-month period for the particular approach; or~~
- F. The skew angle of the intersecting roadways creates difficulty for drivers to see traffic approaching from their left.

Based on the failure to meet the requirements or "warrants" the subject sign was removed on 12 April 2017, thus complying with the City policy of not installing unwarranted traffic control devices.

C: Jody Cox, Joe Pannone, Dana Swanson, Mike Wilcox, PWAB



## PAVEMENT PRESERVATION CONSOLIDATED SCHEDULE

| Street Name  | From        | To          | Micro Seal Layer<br>(Last Layer) Date<br>(7:30am-5:30pm) |
|--|-------------|-------------|--|
| <b>PLEASE NOTE: ALL PAVING SHCEDULES ARE SUBJECT TO WEATHER &amp; MAY BE ADJUSTED AS NEEDED</b>      |             |             |  |
| <i>(Please adhere to the "No Parking" Notice. All work will be done from 7:30am to 5:30pm only.)</i> |             |             |  |
| AVALON   | MAIN ST     | LAUREL      | April 19, Wednesday                                      |
| BALI   | SANDALWOOD  | NORTH END   | April 19, Wednesday                                      |
| BIRCH AVE  | SAN JOAQUIN | ELENA       | April 19, Wednesday                                      |
| BOLTON DRIVE   | RADCLIFF ST | DOWNING     | April 19, Wednesday                                      |
| CONEJO   | KOA         | LAUREL      | April 14, Friday   |
| ELENA ST.  | GREENWOOD   | KOA         | April 18, Tuesday  |
| ELM AVE  | SAN JACINTO | ELENA       | April 18, Tuesday  |
| GREENWOOD  | ELENA ST    | AVALON      | April 18, Tuesday  |
| HILL ST  | MAIN ST     | SUNSET CT   | April 14, Friday   |
| HILLVIEW ST.   | BAYVIEW AVE | SUNSET AVE  | April 14, Friday   |
| KOA  | CONEJO      | LAUREL      | April 18, Tuesday  |
| KOA  | CONEJO      | NORTH END   | April 14, Friday   |
| LAUREL   | NORTH END   | CONEJO      | April 14, Friday   |
| MAPLE  | NORTH END   | CUESTA      | April 18, Tuesday  |
| MINDORO  | BEACHCOMBER | END         | April 19, Wednesday                                      |
| PONDEROSA  | IRONWOOD    | END         | April 14, Friday   |
| SIENNA   | BEACHCOMBER | TERRA ST    | April 19, Wednesday                                      |
| SUNSET AVE   | HILL ST     | HILLVIEW ST | April 14, Friday   |



**AGENDA NO: B-2**

**MEETING DATE: April 19, 2017**

# Staff Report

**TO: Public Works Advisory Board                      DATE: April 13, 2017**  
**FROM: Rob Livick, PE/PLS – Public Works Director/City Engineer**  
**SUBJECT: Preliminary Findings from the Draft Sewer and Water Rate Study Update**

**RECOMMENDATION**

Staff recommends that the Board receive and provide comment on the presentation summarizing the preliminary findings from the Draft Sewer and Water Rate Study Update.

**DISCUSSION**

With the denial of the permit for the wastewater treatment plant (WWTP) project in its current location in January 2013, the City has embarked on a process for a new Water Reclamation Facility (WRF). The City went through a series of planning and siting studies, with extensive community outreach, resulting in the development of community project goals, and selection of the South Bay Boulevard site in June 2016 for detailed studies, site planning and EIR analysis.

The City recently completed two main planning documents for the WRF project and the environmental impact review is currently underway. The Draft Water Reclamation Facility Master Plan (Draft FMP) was prepared by Black & Veatch and completed in November 2016. The Draft FMP provides a roadmap and budget for a new, cost-effective WRF that meets the community project goals. During community workshops, WRF Citizen Advisory Committee meetings, and City Council meetings, the City received input and direction that informed the FMP.

The Draft Master Water Reclamation Plan (Draft MWRP), paid in part by a grant from the State Water Resources Control Board, was prepared by MKN & Associates and completed in March 2017. The Draft MWRP was developed to assess recycled water opportunities and projects in light of the new WRF project.

The analyses and recommendations in both the Draft FMP and the Draft MWRP were driven by the Community Project Goals, summarized in Table 1.

| <b>Table 1: WRF Project Community Goals</b>   |  |  |
|---|--|--|
| <b>Community Goal</b>                         | <b>Applicability for WRF</b>                       | <b>Applicability for Recycled Water</b>  |
| Produce tertiary disinfected recycled water   | WRF project is to be designed accordingly          | Allows for multitude of recycled water uses and provides basis for advanced treatment  |
| Produce reclaimed wastewater cost-effectively | Draft FMP considered costs in treatment evaluation | Project alternative assessment will include capital and operating costs and consider total amount of recycled water produced |

**Prepared By:    RL       Dept Review:   RL**

| <b>Table 1: WRF Project Community Goals</b>                 |   |  |
|---|---|--|
| <b>Community Goal</b>                                       | <b>Applicability for WRF</b>  | <b>Applicability for Recycled Water</b>  |
| Allow for onsite composting                                 | Reviewed as part of Draft FMP. Onsite composting is not recommended, regional facility composting will be more cost effective and more compatible for neighbors | Not Applicable   |
| Design for energy recovery                                  | Draft FMP considered energy recovery for WRF  | Project alternatives analysis will consider energy usage                                       |
| Design to treat for contaminants of emerging concern (CECs) | Draft FMP included consideration in treatment evaluation  | Advanced treatment would provide additional treatment for CECs                                 |
| Allow for other municipal uses                              | Draft FMP considered for WRF site planning  | Not Applicable   |
| Ensure compatibility with neighboring land uses             | Draft FMP considered for WRF site planning  | Consideration for major infrastructure siting  |
| Operational WRF within five years                           | WRF project is on schedule  | Project alternatives analysis will consider potential challenges that could delay the project. |

**Draft MWRP Alternatives Analysis**

The Draft MWRP identified the following feasible project alternatives:

- Alternative 0: No Recycled Water Project
- Alternative 1: Urban Reuse
- Alternative 2: Agricultural Exchanges
- Alternatives 3 & 4: Indirect Potable Reuse (varying only by general injection well location)

The recycled water project alternatives were evaluated based on the criteria developed out of the community project goals. Evaluation criteria included 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, and 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.

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**

|   | <b>Alternative 0</b>                                 | <b>Alternative 1</b> | <b>Alternative 2</b>         | <b>Alternative 3</b> | <b>Alternative 4</b> |
|---|--|----------------------|------------------------------|----------------------|----------------------|
|   | <b>No Recycled Water Project</b><br>(Secondary only) | <b>Urban Reuse</b>   | <b>Agricultural Exchange</b> | <b>IPR East</b>      | <b>IPR West</b>      |
| 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         |
| <b>Total Program Capital Cost Opinion</b>       | <b>\$123,520,000</b>                                 | <b>\$152,940,000</b> | <b>\$167,570,000</b>         | <b>\$166,620,000</b> | <b>\$166,990,000</b> |

Notes:

- 1) Subtotal Program Capital Cost Opinion includes the WRF Project (lift station, pipelines, and treatment plant); engineering and design; procurement; project administration and construction management; permitting, environmental monitoring and mitigation; demolition of the existing WWTP; property acquisition for the WRF; and recycled water project components as applicable (advanced treatment, operational storage, pump station, pipeline, and injection wells).
- 2) Cost assumptions for Alternative 0 are based on secondary treatment only, SBR option from the Draft FMP. 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 and filtration option.
- 4) Construction contingency consists of 25% of construction cost subtotal(s).

**Sewer and Water Rate Study Update**

The City has contracted with Bartle Wells Associates to perform the Sewer and Water Rate Study Update to assess potential impacts to the sewer and water rates from the WRF Project and financing alternatives. Preliminary findings from the assessment will be summarized in a presentation. The current adopted average water and sewer rates for a single family residential dwelling unit are

summarized in Table 3. Table 4 shows the preliminary projected 2020/21 sewer and water impact for the recommended WRF Project Alternative (Alternative 3/4) and the “no recycled water project” alternative (Alternative 0). The future rate impact is shown as a total projected increase in sewer and water charges, as the split between the water and sewer funds is still being developed.

| <b>Table 3: Existing Adopted Monthly Water and Sewer Rates</b>  |                    |                    |                    |                    |
|---|--------------------|--------------------|--------------------|--------------------|
|   | Current<br>2016/17 | Adopted<br>2017/18 | Adopted<br>2018/19 | Adopted<br>2019/20 |
| Sewer<br>Charge per<br>SFR  | \$62.50            | \$70.00            | \$77.00            | \$83.00            |
| Water<br>Charge per<br>FR   | \$52.00            | \$58.00            | \$62.50            | \$67.00            |
| SFR = single-family residential dwelling unit.<br>Water charge assumes average water use of 5 hundred cubic feet. |                    |                    |                    |                    |

| <b>Table 4: Preliminary Projected 2020/21 Increase<br/>for WRF Project Alternatives</b>   |  |  |
|---|--|--|
|   | Alternative 0 – No<br>Recycled Water Project<br>(Secondary only) | Alternative 3 or 4 –<br>Indirect potable Reuse |
| Projected Sewer and Water Charge<br>Increase per SFR for WRF  | \$62   | \$97 <sup>1</sup>                              |
| Assumes financing through low interest loans from SRF and/or WIFIA. If public financing is not available, sale of bonds would increase rate requirements.<br>The split between sewer and water funds will be determined as the rate study is finalized.<br>The amounts reflected in the table are increases over the adopted sewer and water rates for 2019/20. |  |  |

The rate increases identified above assume the entire budgeted amount is used, the full contingency amounts are used due to unforeseen project construction challenges, and that no construction grants are awarded for the project. Grants or reductions in project cost would result in actual monthly charges that are lower than the rates identified above. Approval of a rate increase through the Proposition 218 process does not mandate that a City keep rates at the amount identified in the public notification if grants are awarded or if actual costs are less than budgeted costs. The City always retains flexibility to implement rates that are lower than initially adopted pursuant to the Proposition 218 process, if costs come in lower than currently projected. Value engineering will be critical to managing and reducing costs as the project proceeds into design and construction.

**Potential Costs & Financial Benefits of Recycled Water**

Cost savings associated with discontinuing the purchase of some or all of the City’s current State Water contract is not included, but could result in savings of \$1M to \$1.5M per year. As shown above, the incremental cost of \$35 per month between the two alternatives (for both operations and capital) could be considered the cost for the City to rely entirely on local groundwater and recycled water supplies, with no requirement to import water to meet City demands.

<sup>1</sup> This increase will be apportioned to either the wastewater (sewer) or water rates as appropriate, ie the amount of the increase needed to treat wastewater to the minimum discharge requirements will be apportioned to the wastewater rate, while the amount of the rate used to fund an increase in water supply will be apportioned to the water rate.

A potential transition to 100% local water supply from groundwater & recycled water increases reliability of supply and could eliminate the City's future State Water contract costs. This transition of water supply may not save money in the near term, but over the longer-term State Water Project costs are expected to increase substantially due to the cost of the Bay Delta Conservation Plan, with potential construction of a peripheral canal or tunnels to divert water around the delta that could cost in the range of \$25 billion. We anticipate that the Department of Water Resources will enter into new water supply contracts with all State Water Contractors in order to secure financing for such a project. This could substantially increase the City's fixed costs for State Water contract supply. Additionally, having a locally available water supply may protect the City from naturally occurring events such as drought, earthquake and other events that may interrupt the flow of water along the State's series of reservoirs, pumping stations, canals and pipelines. The proposed transition to 100% local water supply could reduce long-term cost if the cost of State Water escalates, while adding certainty to the City's water supply.