



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

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The City of Morro Bay is dedicated to the preservation and enhancement of the quality of life. The City shall be committed to this purpose and will provide a level of municipal service and safety consistent with and responsive to the needs of the public.

**Regular Meeting  
Wednesday, July 8, 2015  
Community Center Multi-Purpose Room - 3:00 P.M. to 5:00 P.M.  
1001 Kennedy Way, Morro Bay, CA**

John Diodati, Chairperson

Bill Woodson,  
Vice Chairperson

Dale Guerra

Barbara Spagnola

Mary (Ginny) Garelick

Paul Donnelly

Valerie Levulett

Planning Commission  
Member: Richard Sadowski

Public Works Advisory Board  
Member: Steven Shively

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 June 10, 2015

**Staff Recommendation:** Approve minutes as submitted.

- A-2 Water Reclamation Facility Project Update  
**Recommendation:** Receive update.

**B. OLD BUSINESS**

- 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:** Receive and consider updates.

**C. NEW BUSINESS**

- C-1 Review of Facility Master Plan (FMP) proposed Scope of Work, Fee Estimate and Schedule from Black and Veatch along with Staff's recommendation for Contract Award.  
**Recommendation: Review and provide recommendations to City Council**

**D. COMMITTEE MEMBER CLOSING COMMENTS**

**E. ADJOURNMENT**

Adjourn to the Water Reclamation Facility Citizen Advisory Committee meeting at the Community Center Multi-Purpose Room, 1001 Kennedy Way, on August 12, 2015, at 3:00 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 772-6262 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.morro-bay.ca.us/wrfcac](http://www.morro-bay.ca.us/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.morro-bay.ca.us/notifyme](http://www.morro-bay.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.



Finance, Environmental and Engineering Sub-Committees to present their analyses and findings to the entire committee.

Mary (Ginny) Garelick with the Finance Sub-Committee presented an update on funding and provided material to be included in the minutes.

The Environmental and Engineering Sub-Committees had no updates.

The public comment period was opened.

Bob Keller stated the Finance Report was very good. He spoke about other recycling plants in California and suggested the committee check them out and see how much money they received and how they obtained funding.

The public comment period closed.

#### C. NEW BUSINESS

##### C-1 APPOINT COMMITTEE MEMBERS TO:

- A. Request for Qualifications (RFQ) Water Reclamation Facility CEQA & NEPA Compliance Services Review Committee
- B. Request for Proposals (RFP) Water Reclamation Facility Project Management Services Review Committee

[https://youtu.be/DA1UTHPG\\_mk?t=31m42s](https://youtu.be/DA1UTHPG_mk?t=31m42s)

Valerie Levulett volunteered to be on the Request for Qualifications (RFQ) Water Reclamation Facility CEQA & NEPA Compliance Services Review Committee and Rob Livick nominated John Diodati.

##### MOTION:

Dale Guerra moved to appoint Valerie Levulett and John Diodati to be on the Request for Qualifications (RFQ) Water Reclamation Facility CEQA & NEPA Compliance Services Review Committee. The motion was seconded by Steve Shively and carried unanimously 8-0.

Bill Woodson, Barbara Spagnola and Mary (Ginny) Garelick volunteered to be on the Request for Proposals (RFP) Water Reclamation Facility Project Management Services Review Committee.

##### MOTION:

Steve Shively moved to appoint Bill Woodson, Barbara Spagnola and Mary (Ginny) Garelick to be on the Request for Proposals (RFP) Water Reclamation Facility Project Management Services Review Committee. The motion was seconded by Dale Guerra and carried unanimously 8-0.

#### D. COMMITTEE MEMBER CLOSING COMMENTS

[https://youtu.be/DA1UTHPG\\_mk?t=36m39s](https://youtu.be/DA1UTHPG_mk?t=36m39s)

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

#### ADJOURNMENT

The meeting adjourned at 3:40p.m.



AGENDA NO: A-2

MEETING DATE: July 08, 2015

## Staff Report

**DATE:** July 2, 2015

**TO:** Water Reclamation Facility Citizens Advisory Committee

**FROM:** Rob Livick, PE/PLS - Public Services Director/City Engineer

**SUBJECT:** Water Reclamation Facility (WRF) Project Update

### RECOMMENDATION

Staff recommends the WRFCAC receive and file the information regarding the current status and the proposed next steps regarding the development of a WRF project proposal for the Rancho Colina site.

### ALTERNATIVES

No alternatives are recommended.

### FISCAL IMPACT

The following is a summary of the existing contract with specialty consultants used to assist in the WRF site selection.

<b>Site Alternatives</b>	
JFR Consulting – Site Selection/Project Management Assistance	
Original Contract	\$117,256
Amendment #1	\$76,129
Amendment #2	\$91,336
Amendment #3	\$23,147
Amendment #4	\$44,279
Total Contract	<b>\$352,147</b>
Kestrel Consulting – Assessment Funding	
Contract Amount	\$20,530
Larry Walker and Associates – Permitting Constraints	
Original Contract	\$24,970
Amendment #1	\$5,100

Prepared By:    RL   

Dept Review:    RL   

City Manager Review:           

City Attorney Review:

Total Contract	<b>\$30,070</b>
Cleath-Harris Associates – Stream Flow Augmentation	
Contract Amount	\$7,500
Amendment #1	\$6,500
Amendment #2	\$4,000
Total Contract	<b>\$18,000</b>
Carollo Engineers – CMC Capacity, Siting Evaluation and Cost Estimate (Reimbursed by RWQCB using SEP Funds)	<\$87,361>
Total Contract	<b>\$87,361</b>
<b>Total Site Selection</b>	<b>\$420,727</b>
<b>Fatal Flaws</b>	
Kevin Merk Associates – Preliminary Bio Assessment	
Contract Amount	\$12,835
Fugro - Hydrogeological	
<i>Contract Amount</i>	\$38,600
Farwestern Archeological	
<i>Contract Amount</i>	\$12,000
Larry Walker Associates - Pretreatment (Salt) Assessment	
<i>Contract Amount</i>	\$23,640
<b>Total Fatal Flaws</b>	<b>\$87,075</b>
<b>FACILITIES MASTER PLAN</b>	
Black and Veatch	
Proposed Contract Amount	\$710,123
<b>Total Consultant Contract</b>	<b>\$1,217,925</b>

## **DISCUSSION**

Staff provides this report as a monthly update to the progress made to date on the new WRF project. With the denial of the permit for the WWTP project in its current location, the City has embarked on a process for a WRF. This staff report provides a review of what has occurred to date. See Attachment 1 for a brief review of dates, status and accomplishments on the WRF facility project. Note the shaded information has been added since your last review.

## **ATTACHMENTS**

1. Timeline of WRF events January 2013 to present

WRF Project Timeline  
January 2013 - Present

Date	Action
July 14, 2015	Proposals due for Program Management Services
July 14, 2015	SOQ due for Environmental Review Services
July 14, 2015	City Council Meeting - Award of FMP Contract
July 8, 2015	WRFCAC Meeting - Recommendation for B&V as FMP consultant
July 1, 2015	New water and Wastewater Rates in effect
June 30, 2015	Staff Review of Black and Veatch Final Scope of Work
June 22, 2015	Discussions with Black and Veatch regarding Scope of Work
June 19, 2015	Pre Proposal Meeting for Project Management RFP
June 19, 2015	Pre SOQ Meeting for Environmental Review SOQ
June 18, 2015	The CSD BOD approved the FY 15/16 WWTP operating budget
June 17, 2015	Presentation to the Realtor group regarding project status
June 16, 2015	Prospective FMP consultant interviews -Carollo Engineers and Black and Veatch. Selection Committee unanimously recommends Black and Veatch
June 11, 2015	Joint Meeting with the Cayucos Sanitary District for Budget Approval and Audit results - Canceled
June 9, 2015	City Council adopted Resolution 31-15, approving the FY 15/16 Budget including wastewater
June 1, 2015	Meeting with WRFCAC subcommittee for initial review of FMP proposals
May 29, 2015	Released RFP for Environmental Review (CEQA/NEPA) for the new WRF
May 26, 2015	Public Hearing for Increases in Water and Sewer Rates held. Received 933/2707 required protests. City Council adopted resolution 30-15 setting new water and sewer rates for the next five years
May 12, 2015	City Council adopted Resolution 25-15 providing direction to staff.
May 12, 2015	Proposal received from Black and Veatch and Carollo responding to Facilities Master Plan RFP
May 7, 2015	Special WRFCAC Meeting to discuss recommendations to the City Council regarding moving forward with the project.
May 4, 2015	Morro Bay Staff issued an addendum to the WRF FMP RFP, eliminating the CSD from the review process and establishing a two party contract.
April 30, 2015	Joint Meeting of the CSD Board of Directors and Morro Bay City Council for continued discussion regarding the MOU for the New WRF. CSD Presented Resolution 2015-1 suspending participation with Morro Bay on a New WRF at the Rancho Colina Site
April 8, 2015	Rate Notices to be Mailed out to all City property owners and residents
April 8, 2015	WRFCAC Meeting to appoint members to WRF FMP review committee
March 24, 2015	City Council Approves Proposition 218 Notice for Water and Sewer Rate Adjustments and Schedules Public Hearing for May 26, 2015
March 19, 2015	Issued Contract to KMA for Preliminary Biological Assessment of Rancho Colina site and pipeline corridor.
March 19, 2015	Release RFP for WRF Facilities Master Planning
March 11, 2015	Joint Meeting of Morro Bay City Council and Cayucos Sanitary District Board of Directors in Cayucos
February 25, 2015	JFR Contract Amendment #4 for \$44,279.00 to assist with fatal flaw analysis
February 25, 2015	Facilities Master Plan RFP Completed for internal staff review
February 23, 2015	CSD Legal Council transmitted CSD DRAFT MOU to City
February 19, 2015	Letter from Ken Harris, RWQCB regarding the New WRF project and deadline for operations.
February 19, 2015	Public Works Advisory Board – Second Water and Sewer Rate Study Workshop
February 11, 2015	WRFCAC Meeting to review MOU for Now
February 11, 2015	Scheduled Joint Meeting of Morro Bay City Council and Cayucos Sanitary District Board of Directors in Cayucos was canceled

New items are indicated by shading.

WRF Project Timeline  
January 2013 - Present

Date	Action
February 5, 2015	Meeting between Morro Bay Council Subcommittee and Cayucos Sanitary District Board Sub Committee to Discuss the MOU for Now
January 29, 2015	Public Works Advisory Board – Water and Sewer Rate Study Workshop
January 26, 2015	Meeting with between Morro Bay and Cayucos Staff to discuss next steps and "MOU for Now"
January 26, 2015	Meeting with between Morro Bay Staff, JFR/MKN and City Council sub-committee to discuss next steps and "MOU for Now"
January 13, 2015	City Council to review "Next-Steps" and provide direction to Staff.
January 8, 2015	Staff presentation of the "Next-Steps" to the City Council and CSD Board
December 11, 2014	Staff presented to the City Council and the CSD Board of Directors the Final JFR report, including the CMC evaluation by Carollo Engineers. The csd Board of Directors concurred that based on the information presented that the Rancho Colina site appeared the most viable and cost effective.
December 9, 2014	City Council meets to review the Final JFR report, including the CMC evaluation by Carollo Engineers. The City Council expresses their preference for Rancho Colina as their preferred site for the New WRF. The cost estimates indicated that the CMC site was nearly double that of the Rancho Colina site.
December 8, 2014	Carollo Engineers releases their Technical Memorandum regarding CMC WWTP capacity and necessary facility expansion to accommodate increase flows from City and CSD.
December 8, 2014	Meeting between MBNEP and City staff to discuss concerns regarding the siting of the WRF at CMC and increased pollutant loads to Chorro Creek.
December 8, 2014	Meeting between City staff and the WRF Technical Committee (Irons/Smukler) to review the project status.
December 1, 2014	Tour of the existing CMC facility with representatives from CDCR, CSD and the City.
November 19, 2014	Conference call between CDCR, CSD and Morro Bay staff regarding the logistics of siting at the CMC location.
November 18, 2014	Meeting between City and California Coastal Coastal Commission staff regarding a variety of projects in Morro Bay including the WRF siting.
November 13, 2014	Staff presented to the City Council and the CSD Board of Directors the status of the CMC Capacity Analysis and also updated the CSD Board on the City Council meeting of November 12, 2014
November 12, 2014	The City Council reviewed the draft report from John Rickenbach Consulting regarding final site preference. As the result of the report being incomplete, without the Carollo CMC engineering analysis including comparable cost estimates, the City Council choose to delay their decision on final site preference until such time that the report is complete and the WRFAC has had a chance to review and make a recommendation.
November 5, 2014	The WRFAC met and reviewed the draft report from John Rickenbach Consulting regarding final site preference. As the result of the report being incomplete, without the Carollo CMC engineering analysis including comparable cost estimates, the WRFAC moved to recommend to City Council to delay their decision on final site preference until such time that the report is complete and the WRFAC has had a chance to review and make a recommendation to the City Council.
October 28, 2014	Cleath-Harris and Associates presented the Hydrogeological Technical Memoranda regarding the relative benefits of a Creek discharge in the Chorro Valley and In-Lieu recharge in the Morro Valley to the City Council at their regular meeting.
October 22, 2014	Meeting of the WRFAC where they reviewed the Hydrogeological Technical Memoranda by Cleath-Harris and Associates and toured the Rancho Colina site.

New items are indicated by shading.

WRF Project Timeline  
January 2013 - Present

Date	Action
October 20, 2014	A conference call between Morro Bay, CSD, CMC, Regional Board and CDCR was held to discuss the viability and timing of a regional facility at CMC. At that meeting CDCR authorized the release of WWTP data to Carollo for their process modeling.
October 10, 2014	A project kick off meeting was held at the City's Public Services offices for the Carollo CMC work, City and CSD staff along with the City's consultants were in attendance.
October 9, 2014	Meeting between the Morro Bay City Council and the Cayucos Sanitary District Board of Directors Meeting in Cayucos. City Council directed, by motion, City staff to work cooperatively with Cayucos Sanitary District staff.
October 8, 2014	Meeting of the WRFCAC where they reviewed the LWA report regarding permitting constraints, Kestrel Consulting report regarding financing and grants and they formed three technical subcommittees.
October 2, 2014	Meeting of the Morro Bay City Council Technical/Executive Committee and the Cayucos Sanitary District Board of Directors in Morro Bay
September 30, 2014	The Public Services director executed a contract with Carollo Engineers for the study of capacity and expansion capability at the CMC site.
September 26, 2014	Meeting with Bartle Wells (Sewer and Water Rate Consultant) regarding hearing schedule and additional data needs
September 25, 2014	Received final scope and estimated fee (\$101,945) from Carollo Engineers for the evaluation of the CMC option, Carollo requested changes to the standard City contract which are being reviewed by the City Attorney
September 23, 2014	City Council Special Meeting reviewed the Report by Larry Walker and Associates regarding the Water Quality permitting implications at each of the two final proposed sites. Council also discussed the potential of joint City Council/WRFCAC meetings and status of the CMC evaluation
September 11, 2014	Joint meeting of the Morro Bay City Council and the Cayucos Sanitary District Board of Directors Meeting in Morro Bay.
September 10, 2014	First Meeting of the WRFCAC
August 12, 2014	City Council confirmed Citizen Appointments to the WRFCAC
July 16, 2014	Kick off meeting with Larry Walker Associates regarding discharge permit requirements for various disposal/reuse options for the new WRF project.
July 10, 2014	Meeting with Cayucos Sanitary District staff to discuss the scope of work for the proposed Carollo Engineers CMC capacity evaluation study.
July 9, 2014	City Council conducted interviews for positions on the WRF Citizens Advisory Committee (WRFCAC). City Council appointed seven members to the WRFCAC.
June 30, 2014	Staff met internally to gather preliminary information for Bartle Wells Rate Study. Staff will have all info to Bartle Wells by the end of July.
June 27, 2014	Kick off meeting with Kestrel Consulting to discuss funding strategies for the new WRF project.
June 27, 2014	Meeting with Cleath-Harris to review draft Chorro Creek discharge study and effect on City water supply. Authorized Cleath-Harris to perform a similar study for the Morro Valley.
June 25, 2014	Meeting with John Rickenbach and Mike Nunley to discuss project schedule for the WRF project
June 20, 2014	City executed a contract with Larry Walker Associates in the amount of \$24,970 to advise the City regarding discharge permit requirements for various disposal/reuse options for the new WRF project.
June 15, 2014	City executed a contract with Kestrel Consulting in the amount of \$20,530 to develop funding strategies for the new WRF project.

New items are indicated by shading.

WRF Project Timeline  
January 2013 - Present

Date	Action
June 14, 2014	Staff has met with a variety of alternative project delivery method firms to explore the requirements for this process, firm include: Carollo, CDMSmith; and Black and Veatch.
May 27, 2014	City Council adopted Resolution 34-14 that provides direction to staff regarding the "Rancho Colina" site, continuing parallel path discussion regarding the CMC site, and forming a Citizen's Advisory Committee.
May 23, 2014	Selected Bartle Wells as Water and Sewer Rate Study consultant. The estimated fee for the study is not to exceed \$67,440.
May 22, 2014	The City Clerk posted the notice of the formation of a new, limited term and scope, i.e. Water Reclamation Facility Citizen's Advisory Committee. Applications are due to the Clerk by Friday, June 13, 2014.
May 13, 2014	Council Approved New Water Reclamation Facility Project Report on Reclamation and Council Selection of a WRF Site and provided direction to staff to return to Council with a resolution that captured the motions made.
May 8, 2014	May JPA Meeting cancelled.
May 1, 2014	Scheduled site visit at Giannini site with WRF Subcommittee, JRF Consulting and Property Owner.
April 23, 2014	Meeting to review the "Rancho Colina" site with the Morro Bay and CSD Sub-Committees along with Water Board staff.
April 21, 2014	"Rancho Colina" site visit with staff and Council persons Leage and N. Johnson.
April 18, 2014	Letter sent to property owners of potential WRF sites, inviting a discussion regarding siting potential
April 11, 2014	"Rancho Colina" site visit with staff and Council person C. Johnson.
April 10, 2014	April JPA Meeting cancelled
March 21, 2014	Meeting between City of Morro Bay (Irons/Smukler) and CSD (Enns/Lloyd) Sub-Committees along with Morro Bay and CSD County and Water Board Staff to discuss overall project status and the CMC option.
March 20, 2014	WRF Sub-Committee meeting along with staff and property owner at the "Rancho Colina" Morro Valley site to get an overview of the potential for it as a project location.
March 10, 2014	March JPA Meeting cancelled.
March 6, 2014	Scheduled WRF Subcommittee meeting with staff to discuss grant opportunities and schedules.
February 28, 2014	Received a revised scope of work for a contract amendment received from Rickenbach recognizing the accelerated time schedule for the WRF. Estimated fees not to exceed \$76,129.
February 25, 2014	City Council received a status update on the New WRF and adopted Resolution 17-14 prescribing a 5-year time frame for the construction of the New WRF.
February 24, 2014	City Council Discussion of Eater and Sewer Rates at special Workshop and Council discussion and direction regarding City DRAFT MOU and CSD DRAFT MOU.
February 13, 2014	WRF Sub-Committee meeting to discuss the 5 year time schedule and grant opportunities.
February 13, 2014	February JPA Meeting held.
February 11, 2014	Mid-year Budget adjustment to include additional funding for WRF alternative site analyses. \$100,000 was approved.
January 31, 2014	Status report preparation assigned to Public Services Director.
January 29, 2014	Received proposal from Rickenbach for a contract amendment to perform due diligence on alternative WRF sites for final site selection. Estimated fees not to exceed \$63,806.

New items are indicated by shading.

WRF Project Timeline  
January 2013 - Present

Date	Action
January 23, 2014	Onsite staff meeting with property owner at Rancho Colina to tour a potential location.
January 23, 2014	Telephone discussion with City's Water Attorney regarding water rights to creek discharge of wastewater.
January 20, 2014	Received proposal from Cleath-Harris to study Chorro Creek discharge and effect on City water supply. Estimated fees not to exceed \$7,500.
January 16, 2014	January JPA Meeting canceled.
December 19, 2013	December JPA Meeting held – Verbal update by both CMB and CSD.
December 10, 2013	Presentation of Options Report to City Council.
November 19, 2013	Meeting with RWCQB Staff regarding project Status and Permit Renewal.
November 14, 2013	November 2013 JPA Meeting Cancelled.
November 12, 2013	Presentation of Options Report to City Council.
November 5, 2013	Second Public Workshop – Presentation of Options Report for Public Feedback.
November 4, 2013	Public Works Advisory Board – Options Report to Board for Public Feedback.
October 29, 2013	Release of Public Draft – Options Report.
October 21, 2013	Quarterly Coastal Commission/City of Morro Bay Meeting.
September 27, 2013	October 2013 JPA Meeting cancelled.
September 16, 2013	Biosolids and Treatment Options Workshop at MB Veteran's Hall.
September 12, 2013	September JPA Meeting held.

New items are indicated by shading.



AGENDA NO: C-1

MEETING DATE: July 8, 2015

# Staff Report

**DATE:** July 2, 2015  
**TO:** Water Reclamation Facility Citizens Advisory Committee  
**FROM:** Rob Livick, PE/PLS –Director of Public Works/City Engineer  
**SUBJECT:** Discussion and Recommendation to City Council – Facility Master Plan (FMP) Consultant

## **RECOMMENDATION**

Staff recommends the Water Reclamation Facility Citizens Advisory Committee (WRFCAC):

1. Receive the report and presentation
2. Review the recommendation from staff to award selection to Black and Veatch for the FMP
3. Review the proposed scope, budget, and schedule and provide any recommendations or comments to staff for revision
4. Provide recommendation to City Council to:
  - a. Select Black and Veatch; and
  - b. Authorize the Public Works Director to execute an agreement for the amount of \$781,135, including a 10-percent contingency.

## **ALTERNATIVE**

Continue the discussion of this item to a future meeting and provide direction to staff regarding any additional analysis that the WRFCAC requires.

## **BACKGROUND/DISCUSSION**

The Facility Master Plan (FMP) is a critical step in determining the necessary facilities and establishing a project budget for a new WRF that will meet the community's goals adopted by City Council. The FMP will provide the basis for a future solicitation for a design/construction team utilizing an alternative project delivery approach (design-build, for example). It is also on the critical path for completion of a new WRF within five years as directed by Council.

On March 19, 2015, the City of Morro Bay and Cayucos Sanitary District jointly released a Request for Proposal (RFP) for a Facility Master Plan for the new Water Reclamation Facility. This RFP was reviewed by the WRFCAC at the March 11, 2015, regular meeting and approved at a joint meeting of the City Council and the Cayucos Sanitary District Board of Directors ("CSD Board") for release on March 12, 2015.

Prepared By: RL

Dept Review: RL

City Manager Review: \_\_\_\_\_

City Attorney Review: \_\_\_\_\_

The following summarizes the timeline for the FMP selection process:

- The RFP was released on March 19, 2015.
- WRFCAC selected two members, Steve Shively and Paul Donnelly, on April 8, 2015 to serve on the selection committee.
- A mandatory preproposal meeting was sponsored by the City on April 15, 2015.
- The CSD Board adopted Resolution 2015-01 where they resolved to pursue their own project and suspend a partnership with the City in a new regional Water Reclamation Facility on April 30, 2015.
- Two proposals were received on June 12, 2015 from Carollo Engineers and Black & Veatch
- Interviews were held on June 1, 2015

Proposals and interviews by Carollo Engineers and Black & Veatch were evaluated based on the following criteria:

- Understanding of the scope of work
- Past performance and related experience of the firm
- Expertise of technical and professional team members assigned to the project
- Proposed project approach
- Recent experience in successfully performing similar services in the Coastal Zone
- Demonstrated ability to conform to City requirements

Both firms submitted thorough and responsive proposals demonstrating they were fully capable of performing the work. Black & Veatch was selected unanimously by the selection committee, which consisted of Rob Livick, Bruce Keogh, Rick Sauerwein, Steve Shively, and Paul Donnelly. Their project team offered a streamlined approach that would complete the Facility Master Plan in approximately 6 to 7 months from Notice to Proceed, whereas a duration of over 9 months had been anticipated in the program schedule.

City staff has spent the past few weeks negotiating a draft scope, budget, and schedule with Black & Veatch. These items are attached to this staff report. The primary areas of negotiation included the following:

- More visual simulations and an additional exhibit for the new WRF and the influent lift station
- Additional workshops and public meetings
- Additional tasks (“as-needed” allowance) to respond to information requests from the CEQA/Permitting team and the other Program Management team members
- Deletion of survey from scope of work since City team can perform this more cost-effectively
- Development of a sampling program at the existing WWTP that will improve knowledge base for detailed design

- Removal of analysis for future uses of existing WWTP site, beyond decommissioning and site preparation, since this is outside the scope of the WRF development
- Deletion of a staff workshop for headworks technologies since screening design will be integrated with liquid treatment process selection
- Additional operation & maintenance cost scenarios to cover a range of delivered quality and flow (ex. partial salt removal through reverse osmosis for a sensitive agricultural crop like avocados)
- Optional Tasks-
  - Development of a Technical Memorandum for receipt and processing of additional organic wastes to enhance energy production and/or provide a regional benefit
  - Development of a Technical Memorandum identifying costs and strategy for future direct potable reuse of treated effluent (including conceptual modifications to City Water Treatment Plant facilities)

The City typically develops professional services authorizations with a 10% contingency to cover additional, unforeseen services that may be required as a project proceeds. The base fee requested by Black & Veatch is \$710,123. With 10% contingency, the total authorization would be \$781,135.

The next steps in the FMP process include development of a draft contract between the City and Black & Veatch based on the City's standard agreement format; review of the draft scope & budget by City Council at the July 14<sup>th</sup> Council Meeting; determination by Council whether to proceed with Black & Veatch and authorize an agreement at that meeting; and issuance of a Notice to Proceed if appropriate.

### **CONCLUSION**

The selection committee recommends award of the contract for the Facility Master Plan to Black & Veatch based on the solicitation and review process that took place over the past 4 months. The selection and agreement will be reviewed and possibly approved by City Council at their July 14 meeting. It would be helpful to the City Council to receive comments and recommendations on the selection and the draft scope, schedule, and budget from WRFCAC for consideration.

### **ATTACHMENTS**

1. Draft Scope and Budget from Black & Veatch for the Facility Master Plan

**City of Morro Bay  
Water Reclamation Facility Master Plan**

**SCOPE OF SERVICES**

July 2, 2015

**GENERAL**

The City of Morro Bay (City) has identified a need for a new Water Reclamation Facility and wishes to master plan the site for a 30-year planning period. The City currently owns and operates a Wastewater Treatment Plant, and is in need of a new WRF due to the age and condition of the existing WWTP. The goal of the master planning efforts described herein is to provide a roadmap for a new facility that will be operational when the 2015 renewal of the existing WWTP discharge permit expires within the next 5 years.

This Water Reclamation Facility Master Plan (FMP) is being prepared as part of an overall program. The City has or will be retaining consultants to prepare other studies in parallel with preparation of the FMP. The City will retain a Program Manager to oversee and coordinate the efforts of the various consultants. It is assumed that the Program Manager will act as a single point of contact for the FMP effort.

**TASK GROUP 100 - PROJECT MANAGEMENT & MEETINGS**

Task 101 – Kick-off Meeting and Monthly Progress Meetings

A kick-off meeting will be held with the Consultant project team and City staff to review the scope of work, project schedule, and to confirm the overall goals of the project. At the kick-off meeting the consultant will provide a list of data/information needs to be collected for the completion of the project. Consultant will provide an overview of expected project issues, constraints, and will assist the City in further refining the concepts necessary for a comprehensive and complete master planning document within the committed timeframe.

Project meetings are anticipated to be held at regular intervals throughout the master plan development. Meeting frequency and dates will be as agreed upon by all parties. Project meetings will be used to discuss the progress of the master planning efforts, critical decisions, and other topics as determined to be critical to completion of the work within the scheduled period.

The estimated level of effort assumes a total of eight (8) staff level meetings will be held over the project duration. It is assumed that these meetings will include other members of the Program consultant team when appropriate; unless otherwise stated elsewhere in this Scope of Services, no other formal progress meetings are planned. Up to four (4) of the progress meetings are assumed to be conference calls.

Task 102 – Progress Reports and Invoices

Consultant will prepare monthly progress reports identifying the time period covered, and the percentage of work accomplished by task. The progress report will be accompanied by a monthly invoice identifying the compensation requested for each progress period. A project schedule update will accompany each invoice, identifying task progress, and any adjustments required to the overall project completion schedule.

Consultant will maintain decision matrices to facilitate and track the decision making process. Separate decision logs will be maintained for each major deliverable milestone, technical memorandum, and the master plan report as a whole.

Task 103 – Public Meetings

Consultant will attend and prepare materials for public meetings throughout the project. Meetings with the Water Reclamation Facility Citizen’s Advisory Committee (WRFCAC) and other community advisory bodies, the Morro Bay City Council, and others as requested. Specific materials and requirements for each meeting will be determined as meetings are scheduled. Level of effort assumes up to eighteen (18) public meetings will be required. It is assumed that four (4) of the public meetings will be scheduled to coincide with the four (4) in-person progress meetings described in Task 101.

Task 104 – Public Forums (As-Needed)

In addition to the Public Meetings described in Task 104, the City is envisioning other public forums to potentially provide opportunities for input from the general public, contractors, or equipment suppliers that could be considered in the FMP or other parts of the Program. Since these Public Forums and Consultant’s participatory role in them is as yet undefined, a budgetary allowance of 100 hours is included for this task. Program Manager will be notified before 75% of the budget for this task is exceeded.

Task 105 – Support for Other Program Consultants (As-Needed)

From time to time, other members of the Program team will require technical information to support their efforts. In particular, it is anticipated that the CEQA consultant will request information to support their environmental impact analyses. Since the nature and extent of information that may be requested is currently undefined, a budgetary allowance of 100 hours is included for this task. Program Manager will be notified before 75% of the budget for this task is exceeded.

Task Group 100 deliverables are as follows:

1. Kick-off Meeting Minutes
2. Progress Reports and Invoices (Monthly)
3. Decision Matrices and Logs
4. Progress Meeting Minutes
5. Public Meeting Minutes

## **TASK GROUP 200 – PRELIMINARY INVESTIGATIONS AND SITE SURVEY**

### Task 201 – Preliminary Investigations

Consultant will obtain and review existing data pertinent to the evaluations and design of (1) the new WRF and (2) the decommissioning of the existing WWTP. Readily available data for use in the preliminary investigations shall be provided by the City.

Data to be provided to the Consultant shall include:

1. As-built utility maps for the project areas
2. Existing WWTP as-built drawings and reports
3. Field assessments of existing site conditions and constraints
4. Existing site survey and geotechnical data
5. Previous master plans and related studies
6. Historical wastewater characteristics and summary reports
7. Regional recycled water users and reuse trends (as available)
8. Regulatory discharge requirements and constraints
9. Other information available and deemed pertinent to the FMP
10. Data and reports from current on-going studies such as the hydrological study by the geotechnical engineer and funding consultant.

Consultant shall review and utilize the existing data and reports as an initial basis for the investigations associated with the FMP. Pertinent existing data and analysis shall be incorporated into the FMP.

A summary of existing documents and reports reviewed as part of the project development work will be prepared and included as an appendix to the FMP.

Task 202 – Site Survey

The City will obtain a detailed survey of the project area, including the WRF site, the pump station site, and the pipeline alignments. It is assumed that this survey will be suitable for use in detailed design, and that this survey will be available to support preparation of the FMP. Consultant will coordinate with the City to provide input into survey needs.

Task Group 200 deliverables will include:

1. Summary of existing documents reviewed

**TASK GROUP 300 – WRF SUPPORT FACILITIES**

Task 301 – Onsite Support Facilities

Consultant will develop a List of Support Facilities and will work with the City to determine specific requirements for each, where possible leveraging prior studies.

On-site support facilities are expected to include:

1. Operations, Office, and Maintenance Buildings
2. Corporation Yard and Storage
3. Site Solar Farm
4. Water Resources Education Center
5. Electrical Feed and Stand-by Power
6. Hazardous Materials Containment and Handling
7. Other Facilities as Desired by the City
8. Possible co-location of City WTP (Space consideration only for now)

Based on the List of Support Facilities, Consultant will prepare:

1. Up to two (2) potential site plans to arrange the facilities on the WRF site and determine preliminary space requirements.
2. Up to six (6) visual simulations for each of the two (2) site plan alternatives from viewpoints determined jointly with the City.
3. Information to preliminarily define potential architectural styles for the WRF.
4. Preliminary concepts for educational components.

Consultant will prepare for and attend an initial public workshop to receive public and City Council input on the concepts. Consultant will incorporate input and update the above listed information. Consultant will prepare for and attend a second workshop to present refined versions of the site plan and visual simulations.

Task 302 – Offsite Support Facilities

Consultant will collaborate with City to develop design criteria and concept level arrangement for new pump station. Consultant will identify up to six (6) potential pump station sites and will provide a qualitative analysis to screen the list down for detailed evaluation. Consultant will provide detailed evaluation of up to two (2) pump station site options. Consultant will provide up to four (4) visual simulations of each site option from viewpoints selected jointly with the City program team.

Consultant will evaluate options for offsite wastewater collection and conveyance to the new WRF. The required modifications to the existing collection system will be identified. Preliminary utility and record drawing information will be provided by City in the vicinity of the existing WWTP and SR-1 to support identification of opportunities and constraints for piping installation in this corridor relative to the top two pump station site options.

Recommendations will be documented in a technical memorandum.

Task 303 – Morro Bay WWTP Decommissioning

Consultant will evaluate the requirements for decommissioning of the existing Morro Bay WWTP and preparation of the site for a variety of potential future uses to be identified by the City. Consultant will determine what regulatory hurdles exist and will develop conceptual costs for the work. Consultant will identify equipment at the existing WWTP that could be used at the new WRF, and will evaluate whether it will be cost-effective to do so.

Consultant will summarize the recommendations in a technical memorandum.

Task Group 300 deliverables will include:

1. Technical Memorandum – Onsite Support Facilities Requirements
2. Technical Memorandum – Offsite Support Facilities Requirements
3. Technical Memorandum – Morro Bay WWTP Decommissioning

**TASK GROUP 400 – WASTE CHARACTERISTICS, FLOW AND LOAD PROJECTIONS**

Task 401 – Influent Waste Characterization

City will provide most recent and historical wastewater data and Consultant will analyze the information to develop a waste strength for the new WRF. Consultant will compare the results of the waste characterization analysis with previous work and planning studies provided by the City to confirm the design characteristics for the new WRF are in line

with previous estimates. Consultant will prepare a recommended sampling program to be implemented by City to support future project phases. It is assumed that information gathered by the sampling program concurrently with preparation of the FMP will not impact the analyses or conclusions of the FMP.

Task 402 – Flow and Loading Projections

Based on data gathered under Task 201, Consultant will establish a long-term growth trend for flows and loads at the new WRF over the 30-year planning period identified by the City. Design flows and loadings will be developed based on average dry weather daily flow, peak month dry weather flow, peak month wet weather flow, peak day wet weather flow, and peak hour wet weather flow. To address potential impacts of water conservation on future potential flows and loads, City will provide recent water usage data, and information about the City's current conservation programs, and future conservation programs.

Task 403 – Effluent Discharge Requirements

Consultant shall summarize effluent discharge quality requirements for varying types of discharges/treatment scenarios. Regional effluent quality trends will be reviewed and guidelines developed for current and future regulations that may dictate the level of treatment required at the new WRF. It is assumed that analyses will proceed based on information available at the time of project initiation and with concurrence of City. It is assumed that analyses may be refined one time to incorporate more detailed information currently being evaluated by other Program consultants.

Effluent quality regulations and requirements will be summarized in a technical memorandum.

Task Group 400 deliverables will include:

1. Technical Memorandum – Influent Waste Characterization, Sampling Program, and Flow Projections
2. Technical Memorandum – Effluent Discharge Requirements

## **TASK GROUP 500 - DEVELOPMENT & EVALUATION OF TREATMENT ALTERNATIVES**

### Task 501 – Liquid Treatment Technology Alternatives

Consultant will evaluate liquid treatment process alternatives based on the following scenarios:

1. Full tertiary treatment for 30-year future flows
2. Full Title 22 (unrestricted irrigation reuse) treatment for 30-year future flows
3. Reuse options as follows:
  - a. Groundwater recharge per State of California requirements and anticipated salt management plan limits, using 100 percent of the WRF effluent.
  - b. Irrigation during dry weather of avocado orchards to a level of treatment consistent with similar systems (Escondido), using 100 percent of the WRF effluent; with ocean discharge of 100 percent of the WRF effluent during wet weather.
  - c. Irrigation during dry weather of avocado orchards to a level of treatment consistent with similar systems (Escondido), using 100 percent of the WRF effluent; with groundwater recharge per State of California requirements and anticipated salt management plan limits, using 100 percent of the WRF effluent during wet weather.

Holistic treatment train alternatives will be identified to meet the City's end use goals for use of the WRF effluent and to meet discharge regulations. A qualitative screening process will be used to reduce the number of holistic treatment train alternatives down to two for detailed evaluation: a conventional option, and an MBR option.

The two holistic treatment train alternatives will be evaluated based on a combination of capital costs, life-cycle costs, and non-economic factors such as reliability, operational staff preference, energy efficiency, ease of operation and maintenance, spatial requirements, and other factors determined through discussions with the City and execution of the Project. Consultant will prepare a visual exhibit (\*\*\*) that identifies the top-ranked process alternatives with the approximate capital cost (+/-) for each selection. This exhibit will be submitted in draft and final format for use in public workshops.

Individual unit processes will be evaluated to determine which options best fit the City's goals.

The conventional liquid treatment train alternatives qualitative analysis will consider the following unit processes:

*Subtask 501a – Headworks Technology Alternatives* – Consultant will provide an overview of available preliminary treatment equipment including but not limited to screens and grit removal. Consultant will hold a technology workshop with the City to assist in identifying the preferred technologies.

*Subtask 501b – Secondary Treatment Alternatives* – Consultant will provide an overview of available secondary treatment methods and will hold a technology workshop to identify the most viable options for the new WRF. Consultant will provide a process model for the preferred alternative identified during the evaluation.

*Subtask 501c – Tertiary Treatment and Disinfection Alternatives* – Consultant will provide an overview of available tertiary treatment and disinfection technologies. Consultant will hold a technology workshop with the City to assist in identifying the preferred technology.

*Subtask 501d – Advanced Treatment Alternatives* – Options for advanced treatment will be reviewed with the City for possible near-term or future implementation.

The MBR liquid treatment technology alternatives analysis will include the following:

*Subtask 501e – Headworks Technology Alternatives* – Consultant will provide an overview of additional screening equipment required for MBR treatment. Consultant will hold a technology workshop with the City to assist in identifying the preferred technology.

*Subtask 501f – MBR (Secondary/Tertiary) Treatment Alternatives* – MBR treatment provides simultaneous secondary and tertiary treatment. Consultant will provide an overview of available MBR technologies and will hold a technology workshop to identify the most viable options for the new WRF. Consultant will provide a process model for the preferred MBR technology identified during the evaluation.

*Subtask 501g – Disinfection* – Disinfection strategies will be the same as for the conventional treatment train, with the possible reduction in disinfection dosage. Consultant will hold a technology workshop with the City to assist in identifying disinfection technologies commensurate with MBR treatment.

*Subtask 501h – Advanced Treatment Alternatives* – Options for advanced treatment will be reviewed with the City for possible near-term or future implementation.

Task 502 – Future Potable Reuse Analysis

Consultant will build on the evaluations performed under task 501 to develop requirements for future potable reuse facilities. This scope of work assumes that MBR will be the preferred treatment technology, and will serve as the starting point for a potable reuse facility. Consultant will provide an overview of additional unit processes required including MF/RO and Advanced Oxidation (UV/Peroxide) and will summarize capital and O&M costs. Consultant will base facility sizing and treatment requirements based on current or anticipated State requirements and the City's goals for future potable reuse. For Indirect Potable Reuse options, it is assumed that the groundwater basin will be feasibly used as a natural barrier. This analysis will be limited to onsite facilities.

Task 503 – Biosolids Treatment & Disposal Alternatives

Consultant will evaluate options for treatment and disposal of biosolids including an analysis of composting and onsite energy generation and recovery. Consultant will generally investigate projected regional land use trends, land availability, and hauling costs. Consultant will evaluate current and future regulatory trends and will make recommendations of viable treatment alternatives for further consideration by the City. Consultant will develop capital and life-cycle costs to assist the City with making decisions.

Base solids treatment alternatives are expected to include an option to land fill biosolids and/or truck offsite to a composting facility (dewatering only), production of Class B biosolids (Thickening, Anaerobic Digestion, and Dewatering), or production of Class A Exceptional Quality (EQ) biosolids. The solids analysis will be captured in a technical memorandum and will include the following:

*Subtask 503a – Sludge Digestion Alternatives* – Consultant will provide an overview of available digestion technologies and methods.

*Subtask 503b – Sludge Thickening Alternatives* – Consultant will provide an overview of available sludge thickening technologies.

*Subtask 503c – Dewatering Technology Alternatives* – Consultant will provide an overview of available sludge dewatering technologies.

*Subtask 503d – Sludge Disposal Alternatives* – Consultant will provide an overview of available disposal methods and options for reuse.

Task 504 – Workshop

Consultant will conduct a workshop to present the findings from the preceding tasks. Review comments and decisions will be documented and incorporated into the final FMP, as appropriate.

Task 505 – Cost Estimating

Consultant will evaluate the capital and O&M costs of the options developed under Task 501. O&M costs will be inclusive of power, chemicals, staffing and certification costs, and other costs as appropriate. I&C and SCADA requirements will be used in development of the O&M costs.

Basic cost scenarios are expected to include the base treatment options and sub-alternatives depending on the final recycled water quantities and the determined disposal sites (groundwater recharge, irrigation, ocean disposal, etc.).

This scope of work assumes the following O&M estimates will be provided:

1. Full Tertiary Treatment
2. Full Title 22 Treatment
3. 100% Groundwater Recharge
4. Dry Weather Avocado Production and Wet Weather Ocean Disposal
5. Dry Weather Avocado Production and Wet Weather Recharge
6. Additional O&M Costs for Potable Reuse
7. Two (2) Intermediate Operating Scenarios (i.e. 50% RO, 25% RO, etc.) as mutually agreed upon by Black & Veatch and the City

Capital cost estimates will be to a conceptual level (AACE Class 4 (-15% to +50%).

Task Group 500 deliverables will include:

1. Technical Memorandum – Liquid Treatment and Disposal Alternatives
2. Technical Memorandum – Solids Treatment and Disposal Alternatives
3. Visual Simulations of Facilities

## **TASK GROUP 600 - WATER RECLAMATION FACILITY MASTER PLAN**

### Task 601 – Draft Facility Master Plan

Consultant will use information gathered in Tasks 200 through 500 as well as the hydrogeological and salinity control studies to prepare a draft master plan report for review and comment by the City. This draft report will document and include that data and findings of geotechnical engineering analysis regarding soils results and recharge benefits to develop an integrated WRF FMP. Ten (10) printed copies plus an electronic copy of the draft Master Plan will be delivered to the City for review at the 33 percent, 67 percent, and 90 percent completion stages.

### Task 602 – Draft FMP Review Workshops

Consultant will conduct a review workshop for each of the draft 33 percent, 67 percent, and 90 percent draft FMP submittals. Review comments and decisions will be documented and incorporated into the revised FMP, as appropriate.

Each review workshop will be scheduled to coincide with the monthly progress review meetings.

### Task 603 – Final Facility Master Plan

Consultant will incorporate any comments received from the City and will prepare the final Master Plan Report. Consultant will provide twenty-five (25) bound copies, and an electronic copy of the final master plan report.

Task Group 600 deliverables will include the following:

1. Ten printed copies plus an electronic copy of the draft FMP (each submittal)
2. Twenty five (25) printed copies of the final FMP (for public review)
3. Twenty five (25) printed copies of the final FMP with the public review draft and final documents including an Executive Summary
4. An electric copy of the FMP

**TASK GROUP 700 - OPTIONAL TASKS:**

Task 701 – Potable Reuse Strategy and Offsite Facility Requirements

The State of California currently allows Indirect Potable Reuse. In the future, the State may develop standards and regulations to allow Direct Potable Reuse.

In either case, this task will conceptually identify and evaluate potential strategies to potable reuse. Consultant will identify both onsite and offsite facilities needed to implement IPR or DPR and will provide preliminary sizing and cost estimates for the facilities.

Task 702 – Organic Waste Treatment Feasibility Study

Consultant will evaluate the facilities and systems required to add processing of fats-oil-grease (FOG), septage, recreational vehicle waste, and other green waste at the plant site in order to enhance energy production, provide revenue, or add a new regional benefit to the facility. The benefits, risks, space requirement, and operational impacts of each waste source will be discussed and presented at a public workshop (to be led by the Program Manager). Based on public input, the capital cost, lifecycle cost, potential benefits, space needs, and required facilities will be developed at a conceptual level for the two most feasible alternatives. It is assumed that the City will provide data regarding potential sources of materials, quantities, and constituents for use in developing sizing and cost analyses.

DRAFT

**PRELIMINARY SCHEDULE**

The table below provides a preliminary schedule for delivery of work product deliverables identified in the Scope of Services, and for provision of information by the City to support development of those deliverables. Consultant will coordinate closely with the City and will keep the City apprised of schedule status during the course of the project.

<b>Deliverable</b>	<b>Responsible</b>	<b>Calendar Days from NTP</b>
Background & Support Documentation to Date	City	3
Historical and Current WW Flow and Constituent Loading Data	City	8
201.1 – TM – Summary of Reviewed Documents	B&V	56
401.1/402.1 – TM – Influent Waste Characterization, Sampling Program, Flow Projections	B&V	65
403.1 – TM - Initial Working Effluent Discharge Requirements	B&V	65
Additional Studies to Refine Effluent Discharge Quantities and Requirements	City	72
303.1 – TM – Morro Bay WWTP Decommissioning	B&V	72
Survey Data	City	90
301.1 – TM – Onsite Support Facilities Requirements	B&V	93
403.2 – TM – Final Working Effluent Discharge Requirements	B&V	99
302.1 – TM – Offsite Support Facilities Evaluation	B&V	100
503.1 – TM – Biosolids Treatment Evaluation	B&V	107
501.1 – TM – Liquid Treatment Evaluation	B&V	121
502.1 – TM – Future Potable Reuse Evaluation	B&V	121
302.2 – Offsite Support Facilities (PS) Visual Simulations	B&V	142
301.2 – WRF Visual Simulations	B&V	163
600 – Final Facility Master Plan	B&V	187

**City of Morro Bay  
Water Reclamation Facility Master Plan  
FEE ESTIMATE**

Task Number & Description	HOURS															COST				
	Project Director Mari Garza-Bird	Project Manager Steve Foellmi	Technical Advisors Dr. Welch; Jim Clark; James	Collection & Conveyance Matt Thomas	WRF Brad Hemken	WW Reuse/Process Mark Steichen	Engineering Manager	Civil/Site	Electrical; Instrumentation & Control	QA/QC	Staff Engineer	CAD Operator	Cost Estimator	Admin/Clerical	Total Hours	B&V Labor	Project Expenses	Other Expenses	Subconsultant Costs (including markup)	Total Cost
<b>Task Group 100 - Project Management &amp; Meetings</b>																				
101 Kick-Off Meeting & Monthly Progress Meetings	18	32		16	16		16					28		82	208	\$33,980	\$1,820	\$100		\$35,900
102 Progress Reports and Invoices		8					12							24	44	\$6,640	\$385	\$75		\$7,100
103 Public Meetings	52	44		26	16							30		36	204	\$40,160	\$1,785	\$55		\$42,000
104 <i>Public Forums (As-Needed Allowance)</i>	24	24		24	24									4	100	\$23,420	\$875	\$105		\$24,400
105 <i>Support for Other Program Consultants/CEQA (As-Needed)</i>	2	8		8	8	8	16	16			10	20		4	100	\$17,710	\$875	\$45		\$18,630
<b>Subtotal Task Group 100</b>	<b>96</b>	<b>116</b>	<b>0</b>	<b>74</b>	<b>64</b>	<b>8</b>	<b>44</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>78</b>	<b>0</b>	<b>150</b>	<b>656</b>	<b>\$121,910</b>	<b>\$5,740</b>	<b>\$380</b>	<b>\$0</b>	<b>\$128,000</b>
<b>Task Group 200 - Preliminary Investigations &amp; Site Survey</b>																				
201 Preliminary Investigations	2	4		2	4	4	16		12		20			14	78	\$13,250	\$683	\$67		\$14,000
202 Site Survey							4				4	4			12	\$1,860	\$105	\$35	\$0	\$2,000
<b>Subtotal Task Group 200</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>20</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>24</b>	<b>4</b>	<b>0</b>	<b>14</b>	<b>90</b>	<b>\$15,110</b>	<b>\$788</b>	<b>\$102</b>	<b>\$0</b>	<b>\$16,000</b>
<b>Task Group 300 - WRF Support Facilities</b>																				
301 Onsite Support Facilities	2	4		4			24	42	16	4	36	16	8	8	164	\$26,610	\$1,435	\$95	\$12,600	\$40,740
Onsite Facilities - Site Planning and Visual Simulations	12	16			16		12	30		4	12	40		4	146	\$25,520	\$1,278	\$165	\$12,000	\$38,963
302 Offsite Support Facilities	2	4		24			36	56	24	4	36	24	12	8	230	\$38,650	\$2,013	\$92		\$40,755
Offsite Facilities - Site Planning and Visual Simulations	4	4		12			8	12		2	6	12			60	\$10,840	\$525		\$8,000	\$19,365
303 Morro Bay WWTP Decommissioning Evaluation		2		2	2		8	8		4	16		16	4	62	\$10,330	\$543	\$27		\$10,900
<b>Subtotal Task Group 300</b>	<b>20</b>	<b>30</b>	<b>0</b>	<b>42</b>	<b>18</b>	<b>0</b>	<b>88</b>	<b>148</b>	<b>40</b>	<b>18</b>	<b>106</b>	<b>92</b>	<b>36</b>	<b>24</b>	<b>662</b>	<b>\$111,950</b>	<b>\$5,793</b>	<b>\$379</b>	<b>\$32,600</b>	<b>\$150,700</b>
<b>Task Group 400 - Waste Characteristics, Flow and Load Projections</b>																				
401 Influent Waste Characterization		2	6		4	24	32			8	64			24	164	\$27,600	\$1,435	\$95		\$29,130
402 Flow and Load Projections	2	4	4	8	2		38	24		6	58	10		12	168	\$28,430	\$1,470		\$10,500	\$40,400
403 Effluent Discharge Quality Evaluations		2	4		6	32	26	16		4	24			20	134	\$23,320	\$1,173	\$107		\$24,600
<b>Subtotal Task Group 400</b>	<b>2</b>	<b>8</b>	<b>14</b>	<b>8</b>	<b>12</b>	<b>56</b>	<b>96</b>	<b>40</b>	<b>0</b>	<b>18</b>	<b>146</b>	<b>10</b>	<b>0</b>	<b>56</b>	<b>466</b>	<b>\$79,350</b>	<b>\$4,078</b>	<b>\$202</b>	<b>\$10,500</b>	<b>\$94,100</b>
<b>Task Group 500 - Development and Evaluation of Treatment Alternatives</b>																				
501 Liquid Treatment Technology Alternatives	4	4	8		24	24	54	12	38	8	48	64		32	320	\$53,020	\$2,800	\$16		\$55,836
502 Future Potable Reuse Analysis		4	2		8	16	16				32	12	16	4	110	\$18,850	\$963	\$47		\$19,860
503 Biosolids Treatment & Disposal Alternatives	4	4	8		4	4	40	20	26	4	40	34		20	208	\$34,110	\$1,820	\$92		\$36,022
504 Technology Workshop	8	8		4	8	8	14	12	8		22	16		14	122	\$20,890	\$1,068	\$42		\$22,000
505 Cost Estimating		2					10				26		84	10	134	\$20,740	\$1,173	\$87		\$22,000
<b>Subtotal Task Group 500</b>	<b>16</b>	<b>22</b>	<b>18</b>	<b>4</b>	<b>44</b>	<b>52</b>	<b>134</b>	<b>44</b>	<b>72</b>	<b>14</b>	<b>168</b>	<b>126</b>	<b>100</b>	<b>80</b>	<b>894</b>	<b>\$147,610</b>	<b>\$7,823</b>	<b>\$285</b>	<b>\$0</b>	<b>\$155,700</b>
<b>Task Group 600 - WR Facility Master Plan</b>																				
601 Draft Facility Master Plan	4	8		4	2	4	18	44	18	8	34	36	16	46	242	\$36,420	\$2,118	\$62	\$21,000	\$59,600
602 Draft FMP Review Workshops	4	6		4	6			20	12			20		20	92	\$14,260	\$805	\$35		\$15,100
603 Final Facility Master Plan	2	4		2	2		12	18	10		26	24	8	32	140	\$20,330	\$1,225	\$45		\$21,600
<b>Subtotal Task Group 600</b>	<b>10</b>	<b>18</b>	<b>0</b>	<b>10</b>	<b>10</b>	<b>4</b>	<b>30</b>	<b>82</b>	<b>40</b>	<b>8</b>	<b>60</b>	<b>80</b>	<b>24</b>	<b>98</b>	<b>474</b>	<b>\$71,010</b>	<b>\$4,148</b>	<b>\$142</b>	<b>\$21,000</b>	<b>\$96,300</b>
<b>Task Group 700 - Optional Tasks</b>																				
701 <i>Potable Reuse Strategy</i>	2	8	8		12	4	24	40		8	40	40	24	4	214	\$35,790	\$1,873	\$37	\$4,000	\$41,700
702 <i>Organic Waste Treatment Feasibility</i>	1	4			16	24	32				40	32		4	153	\$26,285	\$1,339			\$27,624
<b>Subtotal Task Group 700</b>	<b>3</b>	<b>12</b>	<b>8</b>	<b>0</b>	<b>28</b>	<b>28</b>	<b>56</b>	<b>40</b>	<b>0</b>	<b>8</b>	<b>80</b>	<b>72</b>	<b>24</b>	<b>8</b>	<b>367</b>	<b>\$62,075</b>	<b>\$3,211</b>	<b>\$37</b>	<b>\$4,000</b>	<b>\$69,323</b>
<b>Total</b>	<b>146</b>	<b>198</b>	<b>32</b>	<b>140</b>	<b>152</b>	<b>124</b>	<b>412</b>	<b>330</b>	<b>164</b>	<b>58</b>	<b>514</b>	<b>390</b>	<b>160</b>	<b>422</b>	<b>3,242</b>	<b>\$546,940</b>	<b>\$28,368</b>	<b>\$1,491</b>	<b>\$64,100</b>	<b>\$710,123</b>

NOTE: italics denotes new tasks added subsequent to proposal

