



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

June 4, 2019  
3:00 P.M. to 5:00 P.M.  
Morro Bay Veteran's Memorial Building  
209 Surf Street, Morro Bay, CA

Barbara Spagnola  
Vice Chair

Paul Donnelly

Doug Rogers

Valerie Levulett

Jesse Barron

Vacant

Steve Shively

Planning Commission

At Large

Public Works Advisory Board

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

**PUBLIC COMMENT PERIOD**

Members of the audience wishing to address the Board on City business matters not on the agenda may do so at this time. For those desiring to speak on items on the agenda, but unable to stay for the item, may also address the Board at this time.

Public comment is an opportunity for members of the public to provide input to the advisory body. To increase the effectiveness of the Public Comment Period, the City respectfully requests the following guidelines and expectations be followed:

- When recognized by the Chair, please come forward to the podium to speak. Though not required, it is helpful if you state your name, city of residence and whether you represent a business or group. Unless otherwise established by the Chair, comments are to be limited to three minutes.
- All remarks should be addressed to 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.
- The Board in turn agrees to abide by its best practices of civility and civil discourse according to Resolution No. 07-19.

**A. CONSENT CALENDAR**

A-1 Approval of minutes from the Water Reclamation Facility Citizen Advisory Committee regular meeting of May 1, 2018

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

- A-2 Approval of minutes from the Water Reclamation Facility Citizen Advisory Committee special meeting of June 12, 2018  
**Staff Recommendation:** Approve minutes as submitted.
- A-3 Approval of minutes from the Water Reclamation Facility Citizen Advisory Committee special meeting of June 25, 2018  
**Staff Recommendation:** Approve minutes as submitted.
- A-4 Approval of minutes from the Water Reclamation Facility Citizen Advisory Committee special meeting of May 9, 2019  
**Staff Recommendation:** Approve minutes as submitted.

## B. BUSINESS ITEMS

- B-1 Submission of the Concept Design Report for the Water Conveyance Facilities Project and Review of the Groundwater Modeling Technical Memorandum  
**Recommendation:** Staff recommends the Water Reclamation Facility Citizens Advisory Committee (WRFCAC) accept the Final Draft Concept Design Report from Water Works Engineers (WWE) and provide comments and input on the presentation for the Groundwater Modeling Technical Memorandum.

## C. ADJOURNMENT

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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 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/wrfcac](http://www.morrobayca.gov/wrfcac) or you can subscribe to Notify Me for email notification when the Agenda is posted on the City's website. To subscribe, go to [www.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) 772-6262. Notification 24 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

MINUTES – WATER RECLAMATION FACILITY CITIZEN ADVISORY COMMITTEE (WRFCAC)  
MEETING – May 01, 2018  
VETERAN’S MEMORIAL BUILDING – 3:00 to 5:00 P.M.

PRESENT: Valerie Levulett  
Richard Sadowski  
Barbara Spagnola – Vice Chairperson  
Steve Shively  
Paul Donnelly  
Doug Rogers

ABSENT: None

STAFF: Rob Livick Public Works Director  
Joe Mueller Utilities Division Manager  
Gina Gregory Office Assistant

ESTABLISH QUORUM AND CALL TO ORDER  
The meeting was called to order at 3:00 p.m. and a quorum was present.

MOMENT OF SILENCE/PLEDGE OF ALLEGIENCE

ANNOUNCEMENTS  
Vice-Chairperson Barbara Spagnola introduced Doug Rogers the newest member of the Water Reclamation Facility Citizens Advisory Committee.

Doug Rogers gave a brief introduction on himself.

Paul Donnelly gave a brief overview on the choice that the selection committee (Paul Donnelly, Steve Shively & Valerie Levulett) were part of and their recommendation for Project Manager.

PUBLIC COMMENT  
<https://youtu.be/rX0rALarWZc?t=2m53s>

The public comment period was opened.

Robert Davis thanked the Committee for the work they do and great value they give to the project and appreciate it.

The public comment period was closed.

A. CONSENT CALENDAR  
<https://youtu.be/rX0rALarWZc?t=4m20s>

A-1 Approval of minutes from the Water Reclamation Facility Citizen Advisory Committee regular meeting of January 4, 2018

MOTION: Steve Shively moved to approve Item A-1. The motion was seconded by Vice Chairperson Barbara Spagnola and carried 6-0-0 unanimously.

A-2 Approval of minutes from the Water Reclamation Facility Citizen Advisory Committee special meeting of January 11, 2018

MOTION: Steve Shively moved to approve Item A-2. The motion was seconded by Vice Chairperson Barbara Spagnola and carried 6-0-0 unanimously.

B. BUSINESS ITEMS

B-1 WRF Draft Environmental Impact Report  
<https://youtu.be/rX0rALarWZc?t=5m44s>

Rob Livick introduced Dr. Jennifer Jacobus the prime author with Environmental Science Associates who presented the Draft EIR (Environmental Impact Report).

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

The public comment period was opened.

Bart Beckman questioned that if Toro Creek was not on the alternative sites due to the land not being for sale and now that Chevron is agreeing to sell, would it not be an acceptable sight for consideration?

The public comment period was closed.

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

Committee members and the general public will have an opportunity to follow up in writing any questions and comments, these are to be addressed to Rob Livick and received by May 18<sup>th</sup>, 2018.

C. COMMITTEE MEMBER CLOSING COMMENTS - None

ADJOURNMENT

The meeting adjourned at 4:19 p.m. The next Regular Meeting will be held on June 3, 2018 at 3:00p.m. at the Veteran's Memorial Building located at 209 Surf Street, Morro Bay, CA.

Recorded by:

Gina Gregory  
Office Assistant

MINUTES – WATER RECLAMATION FACILITY CITIZEN ADVISORY COMMITTEE (WRFCAC)  
SPECIAL MEETING – June 12, 2018  
VETERAN’S MEMORIAL BUILDING – 3:00 to 5:00 P.M.

PRESENT: Valerie Levulett  
Richard Sadowski  
Barbara Spagnola – Vice Chairperson  
Steve Shively  
Paul Donnelly  
Doug Rogers

ABSENT: None

STAFF:	Rob Livick	Public Works Director
	Joe Mueller	Utilities Division Manager
	John Rickenbach	WRF Deputy Program Manager
	Gina Gregory	Office Assistant

ESTABLISH QUORUM AND CALL TO ORDER  
The meeting was called to order at 3:36 p.m. and a quorum was present.

MOMENT OF SILENCE/PLEDGE OF ALLEGIENCE

ANNOUNCEMENTS  
Vice Chairperson Barbara Spagnola announced that there’s a special City Council meeting tomorrow evening, Wednesday June 13<sup>th</sup> beginning at 5:00pm. That will be a total update on the Water Reclamation Facility Project.

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

I. **DESIGN BUILD TEAM SELECTION RECOMMENDATION**  
[https://youtu.be/wf36K7G4t\\_o?t=2m17s](https://youtu.be/wf36K7G4t_o?t=2m17s)

Rob Livick introduced Eric Casares, Program Manager, with Carollo Engineers who presented the Recommendation for the Design Build Team Selection.

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

The public comment period was opened.

Marla Sadowski, said thank you for presenting the WRFCAC subcommittee. She questioned whether the subcommittee had an opportunity before this meeting to meet with and update the rest of the panel and staff. She asked questions of the subcommittee regarding their input and voiced her concern regarding building a stand-alone plant.

Barry Brannon stated Jeff Heller and he met with John Robertson and Harvey Packer with the Central Coast Water Board on June 5<sup>th</sup> where they discussed the Board’s concerns, the needs with the leaks for the mainline the City is facing, living up to our responsibilities as a City, about Cayucos going away, and outlined Plan B, noting that they stated we do not need to move to South Bay Boulevard and can do it where we are now with a Coastal Commission permit. He also stated that he will be meeting with the Coastal Commission shortly.

Jeff Heller expressed concern about paying \$70 million dollars for a sewer plant only for 10,000 people and awarding the contract to Filanc/Black & Veatch team, noting he feels it violates California Law AB785 and we need more affordable construction options.

Carole Truesdale stated we need to first fix the leaky pipes and then find out exactly what the City needs.

Tina Metzger expressed concern about a contractor submitting cost analysis and not being able to bid on construction and feeling there could be a conflict of interest. She asked that without a certified EIR, how can we begin negotiations with Black/Veatch as recommended.

Kerrigan Mahan, Morro Bay resident, stated there is no business being at South Bay Boulevard, this is a dog and pony show and expressed concern over another 218 noting the project needs to be shut down.

The public comment period was closed.

Staff and Committee Members addressed some of the specific comments from the public.

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

**MOTION:** Valerie Levulett moved to recommend the City Council select Filanc/Black & Veatch as the preferred proposer for the WRF Onsite Improvements and provide direction to staff to begin negotiations. The motion was seconded by Steve Shively and carried 4-1-1 by roll call vote with Vice Chairperson Spagnola, Commissioner's Shively, Donnelly, Levulett, voting yes, Commissioner Sadowski voting no, and Commissioner Rogers abstaining.

#### ADJOURNMENT

The meeting adjourned at 4:56 p.m. The next regular meeting will be held on July 3, 2018 at 3:00p.m. at the Veteran's Memorial Building located at 209 Surf Street, Morro Bay, CA.

Recorded by:

Gina Gregory  
Office Assistant

MINUTES - WATER RECLAMATION FACILITY ADVISORY COMMITTEE (WRFCAC), CITIZENS OVERSIGHT/FIANCE ADVISORY COMMITTEE (CFAC), PUBLIC WORKS ADVISORY BOARD (PWAB)  
SPECIAL JOINT MEETING - June 25, 2018  
MORRO BAY COMMUNITY CENTER (AUDITORIUM) – 3:00 P.M.

AGENDA ITEM: <u>A-3</u>
DATE: <u>June 4, 2019</u>
ACTION: _____

WRFCAC

PRESENT:	Barbara Spagnola	Vice Chairperson
	Jesse Barron	Committee Member
	Paul Donnelly	Committee Member
	Valerie Levulett	Committee Member
	Doug Rogers	Committee Member

CFAC

PRESENT:	Barbara Spagnola	Chairperson
	Dawn Addis	Committee Member
	David Betonte	Committee Member
	John Erwin	Committee Member
	Walter Heath	Committee Member
	John Martin	Committee Member

PWAB

PRESENT:	Ric Deschler	Chairman
	John Erwin	Board Member
	Janith Goldman	Board Member
	Chris Parker	Board Member
	Stewart Skiff	Board Member

ABSENT:	Richard Sadowski	WRFCAC Member
	Steve Shively	WRFCAC and PWAB Vice Chairperson
	Doug Rogers	WRFCAC Member
	Bart Beckman	CFAC Member
	Christian Erlendson	PWAB Member

STAFF:	Scott Collins	City Manager
	Rob Livick	Public Works Director
	Jen Callaway	Finance Manager
	Joe Mueller	Utilities Division Manager
	Gina Gregory	Office Assistant

ESTABLISH QUORUM, CALL TO ORDER AND MOMENT OF SILENCE

The meeting was called to order at 5:31 p.m. A quorum of WRFCAC, CFAC, and PWAB was present.

I. Review of Proposed Water and Sewer Rate Increases

Scott Collins and Alex Handlers, Bartle Wells Associates, presented the staff report and proposed water and sewer rate increases.

Discussion, comments and questions continued amongst Committee members, staff, and consultant.

PUBLIC COMMENT

<https://youtu.be/aWiVO3arUlg?t=1h6m50s>

The public comment period was opened.

Eric Fore, Morro Bay citizen, expressed concern about the inequity of the inflation effect the City is enforcing on the community. He stated many of us cannot pass on the added expense and feels commercial interests and landlords will, causing residents to consider moving.

Kerrigan Mayhan, Morro Bay citizen, stated the water recycling needs to be pulled from the project, the project is out of control, and needs to be scaled back, noting the numbers are way too big for a town of 10,000. He feels the City should look into PERC again. He had questions regarding the Prop 218 and the 5-year timeline, the WIFIA loan, and maximum guaranteed rate.

Carol Truesdale, Morro Bay resident, expressed concern about the City's other financial concerns that may require a sales tax measure, and urges the City to think about how it's the cost is going to affect every family.

Barry Brannon thanked everyone for all their time. He compared the rates of San Luis Obispo that were in the Tribune at \$108 per month and feels should be the target, noting \$191 in Morro Bay is too high.

Aaron Ochs, Save Morro Bay, stated the presentation was informative but noted there was a lot of speculation and guestimates going into the Prop 218 process and costs should be more certain especially in terms of payments. He expressed concern with the costs that seem to keep increasing, noting there needs to be a larger conversation focused on subsidizing some of the cost with grant funding.

Steve Stevens expressed concerned about open-ended questions about injection wells and others, noting we should respect the Blue Ribbon Committee's recommendation in terms of deferring this for a month to get questions answered. He said the 2015 City fact stated the City had adequate funding to proceed with for a viable project in that \$75 million range.

Sharon O'Leary, Community Resource Connections Office, stated they have had a lot of questions about the water and sewer costs, noting that looking at poverty maps developed by Cal Poly and the Food Bank Coalition that about 3500 people fit into one of the three categories of poverty and expressing concern that the PG&E CARE program is using the Federal level of poverty and does not address the other levels of poverty, the State level and United Way real cost measure. She expressed concern on having a one-month time frame for the Utilities Discount Program and offered to help with the applications, so it could be opened year-round.

The Public Comment period was closed.

Discussion, comments and questions continued amongst Committee members, staff, and consultant.

The meeting adjourned at 5:48 P.M.

Recorded by:

Gina Gregory  
Office Assistant



MINUTES – WATER RECLAMATION FACILITY CITIZEN ADVISORY COMMITTEE (WRFCAC)  
SPECIAL MEETING – May 9, 2019  
MORRO BAY COMMUNITY CENTER – 5:00 to 7:00 P.M.

PRESENT: Barbara Spagnola – Vice Chairperson  
Valerie Levulett  
Doug Rogers  
Jesse Barron  
Paul Donnelly

ABSENT: Steve Shively

STAFF:	Rob Livick	Public Works Director
	Joe Mueller	Utilities Division Manager
	Eric Casares	WRF Program Manager
	Janeen Burlingame	Management Analyst

ESTABLISH QUORUM AND CALL TO ORDER  
The meeting was called to order at 5:04 p.m. and a quorum was present.

MOMENT OF SILENCE/PLEDGE OF ALLEGIENCE  
ANNOUNCEMENTS

PUBLIC COMMENT  
<https://youtu.be/pAtGarUDyBs?t=106>

The public comment period was opened.

Larry Truesdale, Morro Bay resident, voiced his concern regarding the regularly scheduled WRFCAC meetings being cancelled and questioned whether questions from previous meetings have been addressed.

Jeff Heller, Morro Bay resident, questioned the proposed change orders, thought there was a fixed cost guarantee agreement and expressed concerns about the additional 2 million dollars asking if the 30% includes the plant and the pipelines. He expressed concern about the size of the packet and feels more time is needed to review.

Richard Sadowski, Morro Bay resident, expressed concern over the change orders at this stage of the project.

The public comment period was closed.

Vice-Chairperson Spagnola and staff responded to comments.

I APPROVAL OF MINUTES FROM THE WATER RECLAMATION FACILITY CITIZEN ADVISORY COMMITTEE AND PLANNING COMMISSION SPECIAL MEETING OF JULY 3, 2018  
<https://youtu.be/pAtGarUDyBs?t=818>

Paul Donnelly stated that on page 3 in the first motion, he is not a Commissioner and his last name needed to be corrected.

MOTION: Paul Donnelly moved to approve Item A-1 as amended. The motion was seconded by Vice Chairperson Barbara Spagnola and carried 5-0-0 unanimously.

II APPROVAL OF MINUTES FROM THE WATER RECLAMATION FACILITY CITIZEN ADVISORY COMMITTEE SPECIAL MEETING OF DECEMBER 17, 2018  
<https://youtu.be/pAtGarUDyBs?t=917>

MOTION: Vice Chairperson Barbara Spagnola moved to approve Item A-1. The motion was seconded by Jesse Barron and carried 5-0-0 unanimously.

III. WRF PROJECT UPDATE  
<https://youtu.be/pAtGarUDyBs?t=965>

Eric Casares presented the staff report.

Discussion, comments and questions continued amongst Committee members, staff, and consultant.

IV. REVIEW OF BASIS OF DESIGN REPORT (BOOR) AND POTENTIAL CHANGE ORDERS (PCO)  
FOR THE WATER RECLAMATION FACILITY  
<https://youtu.be/pAtGarUDyBs?t=4206>

Eric Casares presented the staff report.

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

The public comment period was opened.

Carolyn Brinkman, Morro Bay resident, had questions on where to find the Hydrogeological Study on the website as well as a copy of the EIR addendum. She asked if any functions, facilities and staff had been added in the revised maintenance agreement and expressed concerns about the stormwater coming into the original pipes and asked if the additional piping would accommodate that. Ms. Brinkman also thanked the Committee for asking their critical questions.

Kathy Quigley asked if \$1.8 million change orders would be in addition to the \$2 million contingency Vice Chairperson Spagnola mentioned earlier.

Linda Donnelly asked if the change orders are for the design.

The public comment period was closed.

Vice-Chairperson Spagnola, Rob Livick and Eric Casares responded to comments.

Discussion, comments and questions continued amongst Committee members, staff, and consultant.

ADJOURNMENT

The meeting adjourned at 7:22 p.m. The next Scheduled meeting will be held on June 4, 2019 at 3:00p.m. at the Veteran's Memorial Building located at 209 Surf Street, Morro Bay, CA.

Recorded by:

Gina Gregory  
Office Assistant



AGENDA NO: B-1

MEETING DATE: June 04, 2019

## Staff Report

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

**DATE:** May 30, 2019

**FROM:** Rob Livick, PE/PLS – Public Works Director/City Engineer  
Eric Casares, PE – Water Reclamation Facility (WRF) Program Manager

**SUBJECT:** Submission of the Concept Design Report for the Water Conveyance Facilities Project and Review of the Groundwater Modeling Technical Memorandum

### **RECOMMENDATION**

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

1. Receive the Final Draft Concept Design Report from Water Works Engineers (WWE)
2. Provide comments and input on the presentation for the Groundwater Modeling Technical Memorandum.

### **ALTERNATIVES**

No alternatives are recommended.

### **FISCAL IMPACT**

No additional fiscal impact is proposed within this update. All work is proceeding within the City's Fiscal budget for the WRF Project.

### **DISCUSSION - CONVEYANCE FACILITIES CONCEPT DESIGN REPORT**

The WRF Project includes the construction of a new treatment facility with advanced treatment at the South Bay Boulevard site, conveyance facilities consisting of a lift station(s) and pipelines to connect the new treatment facility to the existing wastewater treatment plant (WWTP), and offsite recycled water facilities necessary to inject purified water into the Lower Morro Groundwater Basin (i.e., indirect potable reuse [IPR]).

In November 2018, WWE submitted an internal working draft of the Concept Design Report (CDR) for the Conveyance Facilities Project. The overall objectives of the Concept Design Report include identifying, developing, assessing, and recommending the following:

- Siting, design criteria, and project constraints for the WRF lift station(s)
- Alignment, design criteria, and project constraints for the offsite pipelines (sewer forcemains, brine/effluent line, and communication conduit), as well as the IPR line

On December 17, 2018, WWE presented the alignment and pump station alternatives developed as part of the CDR to WRFCAC. These alternatives included:

- Pipeline alignments
  - West Alignment
  - East Alignment
  - Embarcadero Alignment
  - Hills Alignment (Little Morro Creek)

Prepared By: EC/RL

Dept Review: RL

- Hills Alignment (Radcliff St)
- Pump station alternatives:
  - Scenario 1: Single Pump Station (PS)
  - Scenario 2: Secondary Stormwater PS-B
  - Scenario 3: Full-Time PS-B

The recommendation from City staff was to move forward with the West Alignment and the inclusion of a second pump station that would be used at all times located on City property at Main Street and Highway 1 (i.e., Full-Time PS-B alternative).

Following the December 2018 WRFCAC meeting, City staff and the Program Manager made a similar presentation to City Council on January 22, 2019. At that meeting, the City Council agreed with staff's recommendation of the West Alignment and Full-Time PS-B. At City Council's request, the recommendation was brought back to them on February 13, 2019 so they could formally approve staff's recommendation.

Since the WRFCAC and City Council meetings held in late 2018/early 2019, WWE has continued to develop the final design for the recommended pipeline alignment and pump station configuration approved by the City Council. Per the contract with WWE, they have been working to prepare the 60 percent design submittal and update the CDR originally submitted to staff in November 2018. Per the latest schedule from WWE, the 60 percent design submittal will be submitted to City staff on August 30, 2019. Few changes have been made to the internal draft CDR since it was originally reviewed by City staff and the presentations were made to WRFCAC and the City Council. These changes include:

- Modifications to the included design and construction schedule
  - Due to the issues with access to the Vistra and PG&E properties (noted in the WRF Project Quarterly Report for March 2019 and the Monthly Report for April 2019), which have delayed completion of the topographic surveying and geotechnical investigations, the schedule for substantial completion of the construction of the Conveyance Facilities project has been delayed to November 2021. The previous schedule provided with the CDR and reflected in the current WRF Project Baseline Schedule is September 2021.

The Final Draft CDR has been attached to this report. The Final CDR will be submitted to the City by WWE concurrent with the submission of the 60 percent design submittal. WWE will then complete the 90 percent design submittal, 100 percent design submittal, and final design submittal before the project can go to bid. Key dates for the Conveyance Facilities Project include:

Milestone	Date
60 Percent Design Submittal	August 30, 2019
90 Percent Design Submittal	December 20, 2019
100 Percent Design Submittal	February 28, 2020
Final Design Submittal	April 22, 2020
Bid Advertisement	May 06, 2020
Bid Opening	June 17, 2020
Contractor Notice to Proceed	July 22, 2020
Construction Substantial Completion	November 26, 2021

**DISCUSSION - GROUNDWATER MODELING TECHNICAL MEMORANDUM**

In September 2018, the City awarded a contract for hydrogeological services to GSI Water Solutions (GSI). GSI had previously provided hydrogeological services for the WRF Project in 2017 with completion of a screening-level groundwater flow model of the Lower Morro

Groundwater Basin, which assessed the feasibility of using injection and subsequent recovery of recycled water (indirect potable reuse) to augment the City's water supply. That work was documented in the May 16, 2017, report titled Lower Morro Valley Basin Screening-Level Groundwater Modeling for Injection Feasibility. Two possible injection and extraction well layouts were evaluated. The analysis from the report concluded:

- It is likely feasible for the aquifer to accept the recycled water available for injection;
- A minimum of four injection wells would likely be needed to achieve the desired recycled water injection capacity;
- Depending on the injection well locations, up to approximately 1,200 acre-feet-per year (AFY) of groundwater could potentially be produced for potable water supply without the model indicating seawater intrusion would occur (the City currently uses between 900 and 1000 AFY of potable water); and
- The 2-month minimum subsurface recycled water response retention time required under Title 22 will likely be met.

GSI's current work, which began in the fall of 2018, includes the first two (2) of a total of three (3) phases required to complete the final design of the injection wells that will inject purified water into the Lower Morro Groundwater Basin (i.e., IPR). These include:

- Phase 1 (Groundwater Modeling of Lower Morro Groundwater Basin)
  - Investigate pumping of the City's full permitted allotment of 581 AFY without contribution of recycled water
  - Analysis of possible groundwater nitrate levels under different injection scenarios
  - Analysis of potential changes in groundwater chemistry due to potential salt water intrusion
- Phase 2 (Pilot Injection Testing)
  - Prepare test well design and permitting
  - Evaluate two potential injection well locations and recommend preferred area for testing
  - Secure permitting for injection testing
  - Conduct pilot injection testing
  - Update groundwater model
  - Perform travel time analysis and clogging analysis
  - Perform seawater intrusion monitoring
  - Perform groundwater level monitoring

Phase 3 of the hydrogeological work (not yet contracted) includes development of the design criteria for the full-scale injection wells.

GSI completed the Phase 1 analysis in April 2019 (attached Draft Groundwater Modeling Technical Memorandum). On May 10, 2019, the report was uploaded to the City's website under the "Hot Topics" section for review by the WRFCAC and community (<http://www.morrobayca.gov/DocumentCenter/View/13251/Draft-Phase-1-Hydrogeology-Report--4-19-19-Draft?bidId>).

City staff and the Program Manager had originally planned to present the Technical Memorandum to WRFCAC in May 2019. However, due to the schedule impacts associated with the timely consideration of the potential change orders (PCOs) for the WRF by WRFCAC in May 2019, the decision was made to move this topic to June 2019.

A summary of the objectives for the Technical Memorandum include:

- An evaluation of the ability of the City to pump their full groundwater allotment of 581 AFY without inducing sea water intrusion from the coast;
- An evaluation of the impact of injection into the aquifer proposed as part of the IPR project on the concentrations of nitrates that migrate from upgradient to the groundwater in City wells; and
- An evaluation of the impact on the water quality in City wells from the injection into the aquifer proposed as part of the IPR project on the concentrations of total dissolved solids (TDS) that migrate from the coast.

Based on the analysis, the Technical Memorandum concludes:

- Sustained pumping of the Lower Morro Groundwater Basin at the City's permitted allotment in the absence of injection (IPR) would make the City wells susceptible to degradation of water quality due to sea water intrusion
- Groundwater injection results in significant reductions in nitrate concentrations at the Highway 1 well field (below the primary drinking water maximum contaminant level [MCL])
- Sustained pumping of the Lower Morro Groundwater Basin at the City's permitted allotment with injection (IPR) would prevent sea water intrusion

The City currently treats the limited amount of groundwater that is utilized on an annual basis during periods of high demand (in excess of imported water capacity) or during periods when imported water from the State Water Project (SWP) is not available. Water extracted from the City's Morro well field is treated at the City's existing water treatment plant (WTP) consisting of a brackish water reverse osmosis (BWRO) process used to remove nitrates. Based on the results present in GSI technical memorandum, it can be inferred that implementation of IPR for the Lower Morro Groundwater Basin would eliminate the need for the continued treatment of groundwater following completion of the WRF Project. Water extracted by the City wells would be pumped directly into the potable water distribution system.

**ATTACHMENT LINKS (No Hard Copies will be Printed)**

1. [Final Draft Concept Design Report for the Conveyance Facilities Project \(WWE, May 2019\)](#)
  - a. Appendix A: [West Align](#)
  - b. Appendix B: [Right of Way Map](#)
  - c. Appendix C: [Preliminary Geotechnical Report](#)
  - d. Appendix D: [Preliminary Offsite Pipeline Alignment Figures](#)
  - e. Appendix E: [Offsite Pipelines Costs](#)
  - f. Appendix F: [Pump Station Costs](#)
2. [Groundwater Modeling Technical Memorandum \(GSI, April 2019\)](#)