



CITY OF MORRO BAY PUBLIC WORKS ADVISORY BOARD A G E N D A

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.

Thursday, June 20, 2013
Veteran's Memorial Building - 6:00 P.M.
209 Surf Street, Morro Bay, CA

Matt Makowetski, Chair

Ron Burkhart
Janith Goldman
Marlys McPherson

Deborah Owen
Richard Rutherford
Stephen 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 Services' Administrative Technician at (805) 772-6291. 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 of April 18, 2013
Recommendation: Approve minutes.

A-2 Director's Report/Information Items
Recommendation: Receive and file.

B. OLD BUSINESS

- B-1 Review Urban Forest Management Plan (Continued from April 18, 2013)
Recommendation: Review plan, take public comment and provide comments to staff.

C. NEW BUSINESS

- C-1 Review of Information Presented to Council Regarding “History and Status of Water Rights Issues in the Chorro Valley” from the May 28, 2013 City Council Meeting
Recommendation: Review report, take public comment and provide comments to staff.

D. FUTURE AGENDA ITEMS

Staff anticipates the following items coming to the Board in the upcoming months:

- Joint Meeting with R&P Commission to discuss improvements to Centennial Parkway (August)
- Neighborhood Traffic Management (August)
- NEW Water Reclamation Facility (October)

E. ADJOURNMENT

Adjourn to the next regularly scheduled Public Works Advisory Board meeting at the Veteran’s Memorial Building, 209 Surf Street, on **Thursday, August 15, 2013 at 5:00 p.m.** (Note early meeting time)

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 Services Department, 955 Shasta Avenue, for any revisions or call the department at 772-6291 for further information.

Materials related to an item on this Agenda are available for public inspection during normal business hours in the Public Services Department, at Mill’s/ASAP, 495 Morro Bay Boulevard, or the Morro Bay Library, 695 Harbor, Morro Bay, CA 93442, or online at www.morro-bay.ca.us/pwab . 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 Services Department during normal business hours or at the scheduled meeting.

development. Most projects in the City are small in nature so they will be subject to the minimal requirements of the stormwater plan. Shively asked staff how the requirements will affect the installation of new curb and gutter in different areas of the City. Livick stated the new requirements do not control such measures but manage water on site.

Boardmember McPherson asked if the City has established a timeline for the WWTP project. Livick stated the City did develop a timeline and it was brought before Council last month. The staff report is now available online. The project should be completed in seven years; the first goal is to select a site and begin facilities planning by the end of this year.

Boardmember McPherson asked staff if there are any cost implications associated with the new requirements of the stormwater plan. Livick stated the City has additional monitoring and reporting requirements as a result of the updated plan.

Boardmember McPherson asked staff to discuss the results and frequency of the water quality sampling. Hanson stated the City tests for pathogens such as BacTs and E. Coli every other month for the Wasteload Allocation Attainment Plan and the results are published in the annual report for the Stormwater Plan. The results have been varied.

Chairperson Makowetski asked staff whether the Fire Station project is complete, as stated on page 1 of the Director's Report. Livick stated the project is mostly complete except for the paperwork which will be submitted to FEMA and USDA.

Chairperson Makowetski and staff discussed the status of the City's water conservation measures. Livick stated the current level of water conservation is serving the City's needs.

Chairperson Makowetski asked staff to clarify whether the brackish water reverse osmosis is different from the desalination plant brackish water. Livick explained the water is coming from the same facility which has two sets of treatment trains. Makowetski asked staff if the City anticipates using both the brackish water and the desalinated water simultaneously once the final permits are approved for the desalination plant. Livick stated the City would only use both in an emergency.

Chairperson Makowetski asked staff about the status of the lift station projects. Livick stated the lift stations are operating and, for all purposes, they are complete.

Chairperson Makowetski stated he was pleased with the City's Notify Me module as the City was responsive to his request.

OLD BUSINESS – None

NEW BUSINESS

C-1 Review Urban Forest Management Plan – Recommendation: Review plan and provide comments as necessary.

Hanson presented the Urban Forest Management Plan (UFMP) Background Report.

Boardmember Shively asked staff to clarify which trees were included in the inventory. Hanson confirmed only trees in the right of way of commercial and downtown districts were included in the inventory.

Chairperson Makowetski asked staff to clarify whether the City intends to include a section in the plan regarding protection of City trees. Hanson explained how the Municipal Code protects trees and when it allows for tree removal.

Chairperson Makowetski asked staff to clarify whether the UFMP precludes outside organizations from tree management. Staff confirmed that PG&E operates under State of California Public Resources Code that gives them certain authority to trim and remove vegetation if it is a certain distance away from power lines in order to protect their public utility. Livick suggested the Board add a section clarifying some of the ancillary regulations and how they relate to the UFMP.

Chairperson Makowetski stated he would like to see a goal added to the UFMP which explicitly acknowledges protection of the trees.

Boardmember Shively noted PG&E may have an easement with prior rights to the City right of way, in which case the UFMP would not be applicable to them. Livick confirmed the utility does not have prior right, but does have a franchise agreement with the City that allows them to operate. The Public Resource Code requires them to maintain certain vegetation clearances.

Hanson explained that if the ordinance is changed so that public trees in residential areas become private trees, it will become the responsibility of residents to remove those trees when necessary. Boardmember McPherson asked for clarification regarding how the City would enforce this proposed ordinance, and she expressed concern that residents would not properly maintain problem trees in the residential areas.

Boardmember McPherson and Hanson discussed the budget for tree maintenance and removal.

Livick noted most trees in residential areas were not planted by the City but by citizens and homeowners.

Boardmember Goldman asked staff if a permit is required to remove trees on private property. Staff clarified residents are allowed to remove up to two trees per year in residential districts. Livick explained a Coastal Development Permit is required to remove trees in commercial districts (fruit trees and diseased, dying, or dead trees are excluded).

Chairperson Makowetski expressed concern that it may become cumbersome for residents to assume responsibility of trees in residential areas. He asked staff to clarify why the City has decided to move in this direction. Hanson explained the City would like to be able to manage an area which reflects its available resources.

Boardmembers further expressed concern that there may be issues associated with asking residents to maintain trees in the right of way.

Boardmember Owen suggested implementing the proposed ordinance change over a period of time, making sure the public is educated about how to properly maintain the trees.

Livick stated the City will consider the Board's recommendations when revising the UFMP.

Budd presented the Tree Inventory.

Boardmember Shively asked for clarification regarding how the amount of stormwater held by the trees was calculated. Staff explained the value was calculated based on the type and diameter of the tree, given a perfect situation.

Chairperson Makowetski asked who the intended users are of the UFMP. Hanson stated the UFMP will primarily be used by the Public Services Department, Recreation and Parks Department, and the Volunteer Tree Committee. It could also be used by citizens to better understand which trees are appropriate in certain areas of the City.

Boardmember Shively confirmed with Hanson the software used to calculate the annual energy benefits was particular to Morro Bay.

Boardmember Goldman stated the public takes careful notice of the condition of the City's trees.

Boardmembers and staff discussed the next steps in the review process of the UFMP. Boardmember Burkhart stated he would like to more time to review the plan.

Boardmember Shively asked Boardmembers to restate their recommendations for this item:

- Burkhart stated the City would be overstepping its bounds by requiring citizens to maintain public trees due to potential liability issues.
- Makowetski stated he would like to include an additional goal which would protect existing trees against damage and abuse.

MOTION: Burkhart moved to continue Item C-1 to the next Public Works Advisory Board meeting on June 20, 2013.

The motion was seconded by Rutherford but did not carry, with Makowetski, Goldman, McPherson, and Owen dissenting. (3-4). Boardmembers decided to deliberate the item further.

Chairperson Makowetski stated he would like to include tree conservation under Goal 5 of the UFMP. He would also like to include language about protecting existing trees and property owners against damage and abuse. He stated he would like to eliminate the language which shifts responsibility of tree maintenance to the landowner.

Boardmember Shively asked what is required of residents to plant a tree in the City's right of way. Livick stated an encroachment permit is required to plant a tree in the right of way. Shively suggested enforcing encroachment permits so that the City doesn't allow trees it cannot maintain. Livick stated based on City's available resources, this is a difficult issue to enforce.

Boardmember McPherson asked how the City would enforce residential tree maintenance if this provision is adopted. Livick stated other cities have adopted similar measures and enforcement is usually complaint-driven, without an active tree enforcer. He discussed the possibility of establishing a tiered maintenance plan for commercial and residential trees.

McPherson expressed concern that some residents would not be able to afford to maintain trees in the right of way, which may eventually cause liability issues.

Boardmember Goldman asked for further clarification regarding tree planting procedures in the right of way as discussed in the Appendix of the UFMP. Hanson clarified many of the measures provided in the Appendix were derived from discussions with the Inland Urban Forest Council and CalFire, and they are general recommendations to be incorporated into the City's standards.

Boardmember Owen asked for clarification regarding how residents are expected to know that they are required to obtain a permit before planting a tree in the right of way. Livick explained property line information is available in title reports. He also stated the purpose of public hearings, which are televised and published online, is to inform the public and get their feedback.

Boardmember Shively asked how a private tree ordinance would be enforced in the City, especially with respect to defining property lines prior to planting trees. Livick stated the City would likely regulate the *removal* of trees as opposed to the *planting* of private trees. Shively stated there should be more control of what is put in the right of way.

Boardmembers and staff discussed the current process for responding to complaints from the public regarding problem trees. Livick stated public education may be beneficial for preventing the public from planting trees in the right of way without a permit.

MOTION: Burkhart moved to continue Item C-1 to the next Public Works Advisory Board meeting on June 20, 2013.

The motion was seconded by Rutherford and carried unanimously. (7-0).

Boardmember Shively asked staff to examine potential procedures for controlling unpermitted trees and provide alternatives to turning over responsibility to property owners. He asked that these matters be discussed at the next meeting.

Boardmember McPherson stated she would like to hear a legal opinion about the liability issues associated with this matter.

FUTURE AGENDA ITEMS

Boardmember Shively announced the City is accepting proposals from consultants for the first phase of the wastewater treatment plant upgrade project. He stated he will provide a verbal update on the project at the next PWAB meeting.

ADJOURNMENT

The meeting adjourned at 7:24 pm to the next scheduled meeting to be held at the Veteran's Memorial Hall on Thursday, June 20, 2013, at 6:00 pm.

PUBLIC WORKS ADVISORY BOARD
 City of Morro Bay, Department of Public Services
Director's Report / Information Items
 Prepared: 06/10/2013

AGENDA NO.: <u>A-2</u> DATE: <u>06/20/2013</u>

Category	Information Item	Staff Contact	Status
Transit	Morro Bay Transit and Trolley	Janeen Burlingame	<p>The Triennial Performance Audit has been completed and was submitted to the San Luis Obispo Council of Governments' (SLOCOG) Board for acceptance of the report and recommendations. The City was found to be in full compliance with the 11 applicable Transportation Development Act requirements and has implemented all prior audit recommendations.</p> <p>The North County Beach Shuttle began operating on June 7. The shuttle is designed to bring North County residents to beach areas in Morro Bay and Cayucos with 3 arrival/departure times 5 days a week (Tuesday-Saturday). The shuttle will run through August 24.</p> <p>The Summer Youth Ride Free program began June 1 and runs through August 31. K - 12th graders are able to ride all fixed route transit systems for free (with the exception of trolleys and dial-a-rides). The program is designed to engage youth in learning how to use transit and retain new youth riders once the summer program is over and the school year begins.</p>

Category	Information Item	Staff Contact	Status
Wastewater	NEW WRF MMRP	Bruce Keogh, Rob Livick	<p>The City has executed a contract with John F. Rickenbach to conduct preliminary planning activities on the siting of a NEW Water Reclamation Facility. The “Kick Off” Meeting with the consultant team and City staff is tentatively scheduled for June 20, 2013. This meeting will be followed with stakeholder interviews and a Public Meeting time and places TBD.</p> <p>Staff is working on developing Major Maintenance and Repair Plan to keep the treatment plant operating safely, efficiently and meeting all the discharge permit requirements for the next five or so years while the new plant site is being selected, permitted, designed and constructed. Staff has proposed a capital budget for FY 2013/2014 of approximately \$1.2 million, that includes: Chlorine Building Rehabilitation, Clean/Repair Digester #2, replace Headworks Screening and other smaller pump and valve replacement projects. For additional information regarding the MMRP see the latest staff report in the JPA June JPA agenda located at http://www.morro-bay.ca.us/ArchiveCenter/ViewFile/Item/1835.</p> <p>Current information on the status of the New Water Reclamation Facility (WRF) project can also be found on the City of Morro Bays website (www.morro-bay.ca.us/WRF).</p>
Other Capital Projects	Fire Station 53 Admin/Living Quarters Project	Rob Livick	No Change: Project is complete. Working on the final paperwork for FEMA and USDA.

Category	Information Item	Staff Contact	Status
Water	Resource Management, Operations	Rob Livick, Jamie James	<p>- <u>Mandatory Water Conservation Measures: (No Change)</u> Mandatory Water Conservation Measures are in effect. The community is currently at a Moderately Restricted Water Supply condition in accordance with Chapter 13 of the City of Morro Bay Municipal Code.</p> <p>- <u>State Water Project:</u> Department of Water Resources today decreased its water delivery estimate for calendar year 2013 from 40 to 35 percent of requested State Water Project water. That means that with the City's drought buffer (insurance) and water in storage in San Luis Reservoir, which is over 2 x our annual allocation, deliveries are adequate to ensure that Morro Bay will receive 100% of its entitlement.</p> <p>- <u>Potable Water Production:</u> Total potable annual water production for 2012 was 1204 acre feet with 4 acre feet of direct consumed groundwater, 70 acre feet of brackish reverse osmosis treated water, and 1130 acre feet of State Water.</p> <p>Total monthly water production for April 2013 was 28.9 million gallons with 28.1 million gallons of state water, 0.52 million gallons of direct well water and .26 million gallons of water treated at the Brackish Water Reverse Osmosis plant for an average production of 1 mgd.</p> <p>Total monthly water production for May was 36.9 million gallons with 35.1 million gallons of state water, 0.2 million gallons of water treated at the Brackish Water Reverse, 0.1 million gallons from direct well water plant for an average production of 1.2 mgd.</p> <p><u>Chorro Valley:</u> See Current Agenda Item</p> <p>- <u>Desal Plant Brackish Treatment System:</u> The newly installed BWRO treatment trains are being modified using funds from a California Department of Public Health grant. Specialty Construction has started work on the Maintenance and Operational components of the project, ie pump replacements and electrical work in order to have the facility operational by the state water shutdown These modifications will likely run through 2013.</p> <p>The California Coastal Commission Permit to operate the salt water wells and outfall expired in 1999. The City has applied to for a permit to make those facilities permanent.</p> <p>- <u>Water Rates:</u> The City will need to revise its water rate which was originally adopted in 1997 and has not been increased subsequently. Look to the City's website, an upcoming utility newsletter, PWAB discussion, and council meetings on this topic later in 2013.</p>

Category	Information Item	Staff Contact	Status
Streets/Sidewalks/ Storm Drain Maintenance	Local Street Maintenance Projects	Mike Wilcox, R&P	<p>Street, Sidewalk, Street Tree and Storm drain maintenance has shifted to the Recreation and Parks Maintenance Division as of July 1, 2010. If you have street, street tree or storm drain maintenance issues please call 772-6278 so that it can be added to the list of work.</p> <p>The City will still be patching potholes and the best way to notify the City regarding a pothole that needs attention is to use our E-Notify system (on the City's website www.morro-bay.ca.us, click on City Departments, then on Recreation and Parks to the E-Request Form or http://morro-bay.ca.us/erequest). Upon receipt, those E-Requests will be reviewed, cataloged and entered into our database. Finally, the repairs will be scheduled. In the future, the City will be adding to the website a list or "Street Maintenance Queue" so you will be able to monitor the progress and see when your pothole may be repaired.</p>
	Pavement Management Plan	Livick/Rands	The 2012 Street rehabilitation program is complete and accepted. Contact Barry Rands at 772-6215 for questions regarding this project.
	Morro Creek Bridge	Sauerwein/Rands	Wednesday staff selected the RRM Design Group to prepare environmental documents and design the Morro Creek Multi-use Trail and Bridge. Matt Makowetski, Chairman of the PWAB, and Ms. Geiska Velasquez, representing the Hwy 1 North Coast Scenic Byway for SLOCOG, participated with staff that included, Barry Rands, Rick Sauerwein and Kathleen Wold, on the Selection Board. The team includes Rincon Consultants as the environmental lead and Bengal Engineering will design the bridge. Mike Sherrod, the Project Manager is a Morro Bay resident with extensive experience in design of top quality bike trails along the CA coast and a very personal interest in the success of this project. RRM has over 4 decades of success working with the Coastal Commission.
Street Trees	Urban Forest Plan	Hanson	See Current Agenda

Category	Information Item	Staff Contact	Status
Misc			<p>Notify Me: Sign up for Notify Me on the City’s Website for notification of Council, Boards and Commissions information. Notify Me can be accessed from a link on the City’s Homepage.</p> <p>Let Us Know: The City has added a new feature to the website, Let Us Know, which is replacing the Citizen E-Request link on the City's Homepage.</p> <p>With Let Us Know, citizens can submit a compliment, request, or report a concern to the City for predetermined issues without the need to phone the City during business hours (for example: reporting a pothole).</p> <p>Staff can also add requests to Let Us Know for someone over the phone or in the office if they do not have access to a computer. Each category in Let Us Know is assigned to the appropriate staff member to handle so citizens don't have to figure out what department to contact for an issue they need to report on.</p>

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



AGENDA NO: B-1

MEETING DATE: June 20, 2013

Staff Report

TO: Public Works Advisory Board DATE: June 13, 2013

FROM: Rob Livick, PE/PLS – Public Services Director/City Engineer
Damaris Hanson – Engineering Technician IV

SUBJECT: Urban Forest Management Plan continued from April 18, 2013

RECOMMENDATION

That the Public Works Advisory Board review the Urban Forest Management Plan and provide recommendations to Planning Commission and City Council.

FISCAL IMPACT

No direct fiscal impact at this time other than staff time only in the preparation of the plan.

SUMMARY

The Public Works Advisory Board began discussion of this item at their April 18, 2013 meeting. After some general discussion it was decided by the Board to continue this item to give the Board more time to review the plan.

The Urban Forest Management Plan (UFMP) will guide the City toward a healthy, sustainable urban forest. As part of the plan, the trees in the commercial districts have been surveyed using a Geographic Positioning System (GPS) unit and incorporated into a Geographic Information System (GIS) mapping program. This enables the City to have a better idea of the health, age, species diversity, and the overall quality of the trees in this area. The UFMP will help to determine specific levels of funding needed for tree maintenance and tree planting over a multi-year period. The plan developed goals which provide objectives and actions in order to achieve these goals. The plan is a living document that will grow with the urban forest and evolve with new goals, objectives and actions as needed.

CONCLUSION

The urban forest is a dynamic natural system that is constantly changing. The UFMP establishes guiding principles and associated goals that result in specific strategies for address the needs of public trees. The residents and visitors of Morro Bay deserve a healthy urban forest that is conserved for future generations. Therefore sound guardianship of this unique and attractive community is necessary if the quality of life is to be maintained.

See April 18, 2013 item C-1 for the complete Urban Forest Management Plan and original staff report (<http://www.morro-bay.ca.us/ArchiveCenter/ViewFile/Item/1795>)



AGENDA NO: C-1

MEETING DATE: June 20, 2013

Staff Report

TO: Public Works Advisory Board DATE: June 13, 2013

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

SUBJECT: History and Status of Water Rights Issues in the Chorro Valley

RECOMMENDATION

That the Public Works Advisory Board reviews the attached report and provide comments for future City Council consideration

FISCAL IMPACT

None at this time.

SUMMARY

At their May 28, 2013 City Council Meeting, Council reviewed the staff report "History and Status of Water Rights Issues in the Chorro Valley". Council referred this item to the Public Works Advisory Board for additional opportunity for comments and review. When there is additional activity with the Stream Gage project, a report will be presented to the Board.

ATTACHMENT

1. City Council Staff Report 05282013 D-2



AGENDA NO: D-2
MEETING DATE: 5/28/13

Staff Report

TO: Honorable Mayor and City Council **DATE:** May 22, 2013

FROM: Rob Livick, PE/PLS – Public Services Director/City Engineer
Rick Sauerwein, PE – Engineering Division Manager
Robert Schultz – City Attorney

SUBJECT: History and Status of Water Rights Issues in the Chorro Valley

SUMMARY

This item was agenzized for the May 14, 2013 City Council meeting as Item D-5. It became apparent that there was not enough time to hear all the New Business items that evening; as such, it was decided to open up this agenda item for public comment for those in attendance and then continue this item to a future meeting.

Attached is the staff report from the May 14, 2013 meeting in its entirety.

Also attached is a memorandum to Council responding to an email the City received from Linda Stedjee on this agenda item.

CONCLUSION

Staff recommends that City Council review the staff report on the City's water history and our current ongoing practices related to the City's water rights and issues surrounding the Chorro Valley. After review, public comment and discussion, provide any further direction to Staff.

Prepared By: _____ Dept Review: _____
City Manager Review: _____
City Attorney Review: _____



CITY OF MORRO BAY
CITY ATTORNEY DEPARTMENT
955 SHASTA AVE. ♦ MORRO BAY, CA 93442
805-772-6568

MEMORANDUM

TO: CITY COUNCIL

FROM: ROB LIVICK, PE/PLS – PUBLIC SERVICES DIRECTOR/CITY ENGINEER
RICK SAUERWEIN, PE – ENGINEERING DIVISION MANAGER
ROBERT SCHULTZ – CITY ATTORNEY

SUBJECT: RESPONSE TO EMAIL FROM LINDA STEDJEE REGARDING THE HISTORY AND STATUS OF WATER RIGHTS ISSUES IN THE CHORRO VALLEY STAFF REPORT

DATE: MAY 23, 2013

In response to the City' Staff Report for the above reference subject, a citizen, Linda Stedjee sent three members of the Council an email. Attached is her email. Staff's response to the email is below in Bold type.

Ms. Stedjee states in her email:

“The staff report on the Chorro Valley water issues was certainly a heavily-sanitized version of the real story. Important details have been left out and/or glossed over to avoid revealing the truth.”

The intent of the City's Water Report was to provide a high level overview of the activities and issues in the Water Division related to the Chorro Valley. It was not an exhaustive discussion of each step in the process that has occurred. It would probably be impossible to create a complete and exhaustive record of everything that has happened concerning the City's water rights. Staff tried to balance providing adequate information to the Council and the Public without spending an inordinate amount of the time and effort. In addition, much of the information and issues are very technical.

Ms. Stedjee states in her email:

"During the State Water shut down in 2006, nitrate levels spiked in the Morro well field and led to health standard compliance issues, forcing the City to substantially reduce water use from the Morro wells. Nitrate issues have continued to plague Morro Valley and, together with diminished State Water Project deliveries during this period, the City has been forced to rely more heavily on the Chorro wells and the treatment of the contaminated Morro wells at its desalination facility to meet the City's water needs."

Nitrate levels in the Morro Basin are variable and have risen and fallen over time. The Morro Nitrate study indicates that nitrate levels spiked in 1962, 1966, 1977 and 1986, and 1997. The first exceedence of the mcl was in 2002 as indicated in Figure 4. Because the nitrate levels have historically fluctuated in the basin, as of 2002 there was no reason to doubt that they would not come back down again. The use of the Morro Basin had been greatly reduced from 1997 to 2002 (see figures in staff report that shows significant reductions from historical pumping) and Staff at that time believed that active pumping the Morro Basin would reduce the nitrate levels. In 2006, during the State Water shutdown, the levels spiked dramatically during operation of the Morro wells which led to the violation of the mcl. The Morro Basin Nitrate Study was reviewed and found to be compelling and accurate by the RWQCB. Staff is unaware of any Engineer, Hydrologist, regulatory agency or qualified expert that supports Ms. Stedjee's assertions that the Main Street trunk line is the source of nitrate contamination. Furthermore, Ms. Stedjee's theory does not provide any explanation for extremely high nitrate concentrations observed in private wells up stream. The possibility for exfiltration of sewage from the Main Street trunk line is minimal because the elevation of the sewer line is below the water table. This creates a pressure that causes groundwater to flow into the pipe, but prevents sewage in the pipe from flowing out under normal conditions.

Ms. Stedjee states in her email:

“What is not mentioned here is that the City NEVER installed the flow meters that were ordered to be in place in 1997 - and only began to work on this project when the SWRCB was alerted to the problem just a few years ago. The City just kept using the wells whenever it wanted without doing any monitoring to see if it was complying with decision 1633. This is a well-documented fact. Among the supporting documents are emails exchanged between SWRCB personnel and residents, and between SWRCB personnel and the City's lawyers - emails which I have.

What is also not mentioned is the fact that the whole problem came to light when the City, aided by a favored consultant, was conducting a so-called stream flow interference study on Chorro Creek when it was completely dry.

The documented objective was to get a waiver from the requirements of decision 1633. Clearly, well usage will not impact surface stream flow when there is no flow to be interfered with - which appears to many residents to be a trick by which the staff intended to get the waiver illegally.

When this bogus "test" was brought to the attention of the Council, it was stopped immediately. Despite the fact that the staff has paid the consultant tens of thousands of dollars for this, and a subsequent illegal attempt to perform this "study" (the second time, the proper permits were not obtained) no report has ever been produced. Taxpayers are out a great deal of money and got nothing for it but trouble - caused by the staff's unwillingness to abide by the law.”

One condition of the City's Water Permit required the installation of devices capable of continuous measurements of surface flow in Chorro Creek by January 1, 1997, one in the vicinity of Romero well field and the other in the vicinity of Ashurst well field. The Permit Term specified

that the devices shall be installed at a location sufficient to detect the full depletion effects of the City's diversions at each respective well field, but upstream of the depletion effects caused by nearby pumpers on surface flows in Chorro Creek, and that in the case of overlapping pumping effects, a compromise location shall be selected. The measuring devices and their locations were required to be approved by the Chief of the Division of Water Rights.

Finding appropriate locations for these devices proved difficult due to weather conditions, stream channel realignments, private property ownership along the Creek, and the sheer complexity of finding a location that meets the specifications of the Permit Term. The City documented this situation and its continued efforts in its annual Progress Reports submitted to the State. As reported in the City's 1996 Progress Report, high flows and flooding during the latter part of 1996 precluded the installation of the measuring devices, and the City continued to work to locate appropriate sites for the devices. Storm flows in Chorro Creek in the winter of 1997-1998 necessitated removal of any stream gauges and caused a halt to any further studies. Also in the winter of 1997-1998, as part of the Natural Resources Conservation Services Chorro Flats Passive Sediment Control Project, a bypass channel was constructed adjacent to Chorro Creek downstream from the Ashurst well field that resulted in a change of the primary stream channel. In 1998, the City again informed the Board that the devices could not be installed due to high flows and flooding. The City requested permission from the San Luis Coastal Resource Conservation District (RCD) to install stream gauges in 2001, but the City was unable to do so because of the instability of the stream channel. The City's hydrogeologic consultant determined in 2007 that the stream had finally stabilized to the point where a permanent stream gauge was feasible. In 2009, the City studied various locations for potential gauge installation and sought out landowners of property along Chorro Creek to obtain permission to install the gauges. Preliminary work began on the installation of a gauge in the vicinity of the Ashurst well field in 2009. For the Romero well field, determining an appropriate location for the installation of the stream gauge proved more difficult. As the City reported to the Division in 2009, the property owner of the parcel where the City had been performing monitoring activities downstream of the Romero well field denied access to the City. On April 27, 2010, the City requested the approval of the Chief of the Division of Water Rights of the proposed location for the Ashurst well field gauge and one of several proposed locations for the Romero well field gauge. The City met with and discussed these locations with Division staff on several occasions. On April 2, 2012, the City received final approval of the gauge locations from the Deputy Director as required by Term 17. In addition, on April 3, 2012, the Division provided draft amended permits to reflect certain new conditions related to the approved gauge locations. These amended permits were finalized and issued to the City on September 14, 2012.

The City has conducted several studies to determine the relationship between pumping of the Ashurst well field and flows in Chorro Creek. The SWRCB decision 1633 left the City with the opportunity to demonstrate through these studies that a flow constraint on the Ashurst well field was inappropriate (Decision 1633 term 6). The 1.4 cfs target flow is extremely low and occurs intermittently generally speaking in the spring when flows are falling and again in the winter when the flows come back after the rainy season begins. Furthermore, flows in Chorro Creek are also highly variable diurnally. During the two most recent interference tests the City stopped one due to interference between the discharge from the well discharge point downstream and the upstream measuring point, in another the flows in the Creek were falling and the test was stopped

once flows at the measuring locations were consistently below 1.4cfs. Each of these tests provided the City valuable information that was used in negotiations with the SWRCB on the locations and future operations of the stream gauges.

Ms. Stedjee states in her email:

“What is glossed over here is that the failed septic systems at Roandoak, adjacent to the Ashurst well field, have been polluting the Chorro Basin aquifer for some time. This is not, and never has been a secret. A former City employee has state, in writing (yes, we have his letter) that the City staff knew full well for years that Ashurst wells were polluted with sewage, but said nothing - AND knowing that, they still continued delivering insufficiently-treated well water to Chorro Valley customers. This person has not worked for the City for many years, so it is clear that staff have known about the septic system contamination of Ashurst wells for a very long time. The City is extremely lucky not to have been sued over its blatant failure to safeguard the health of its water customers.

When this irresponsible and illegal drinking water quality law violation was discovered, the CDPH ordered the wells shut down. The City never apologized to the victims, even though there had been cases of giardia, and instead threatened to cut off their City water. This is certainly a very ugly chapter in the story of the Chorro Valley, but not untypical of the kind of behavior we have come to expect from City staff.”

In regard to the Chorro Nitrates, the CDPH issued its letter to the City after the City notified its Chorro customers, in advance of the State Water shutdown, that it would be operating its wells and that there was a risk in this circumstance of nitrate contamination. Calculated levels of nitrates never exceeded the limit based on frequent monitoring during that period, so there was no violation in 2007 or 2008. The Ashurst nitrate study has determined that the agricultural activity upstream of the well field is the source of contamination. While the septic systems on Chorro Creek road contribute to the nitrate loading of the basin, based on mass loading calculations in the report they were ruled out as the source of the overall nitrate contamination of the well field by the County Environmental Health Department, the lead agency responsible.

The water from the Chorro Wells receives chemical treatment prior to use which provides some protection against periodical bacteriological contamination that is known to occur. The fact that there is a risk to having customers connected to the Chorro well pumping line is not disputed and is the reason for the City working with those customers to disconnect them from the system.

Ms. Stedjee states in her email:

I find it fascinating - and very disturbing - that a resident had to alert the City to the existence of documents that could be of very great value, and that could mean that the City has wasted a huge amount of taxpayer money on unnecessary legal fees - all because the staff once again failed to perform due diligence. Surely, if a private citizen could find those documents, so could the City staff. That is their job.

If Ms. Stedjee is referring to the public comment made by Carrie Burton at the Council meeting and Staff's request for copies, Staff did not state it does not have copies of the documents. Staff requested the documents so it could review them and provide a response. Staff has requested the documents but has not received them from Ms. Burton. Staff can unequivocally state that Ms. Burton's claim at the Council Meeting that County Resolutions that transferred the County Water Districts property and water rights to the City upon incorporation supersede or circumvent the State Water Board, the Coastal Commission and Fish & Game and other agencies authority is without merit. As stated in the Staff report, the State Water Board issued a decision in 1982 and determined the waters of the Chorro basins to be subject to the Water Board's jurisdiction. It then ordered the City to prepare an Environmental Impact Report (EIR) to support its permit applications. If there was an argument of lack of jurisdiction to made and litigated by the City against the State Water Board, it would have had to be done at that time.

Rob Schultz - Re: Fwd: Serious problems with staff report on Chorro Valley water

From: Rob Schultz
To: Irons, Jamie; Livick, Rob; Sauerwein, Rick
Subject: Re: Fwd: Serious problems with staff report on Chorro Valley water
CC: Lueker, Andrea

From: "Linda Stedjee <lstedjee@charter.net>" <lstedjee@charter.net>
Date: May 16, 2013, 7:30:47 AM PDT
To: "Christine Johnson" <CJohnson@morro-bay.ca.us>, "Jamie Irons" <JIronso@morro-bay.ca.us>, "Noah Smukler" <NSmukler@morro-bay.ca.us>
Subject: Serious problems with staff report on Chorro Valley water

Hi,

The staff report on the Chorro Valley water issues was certainly a heavily-sanitized version of the real story. Important details have been left out and/or glossed over to avoid revealing the truth. Please consider the following:

1. The staff report says,

"During the State Water shut down in 2006, nitrate levels spiked in the Morro well field and led to health standard compliance issues, forcing the City to substantially reduce water use from the Morro wells. Nitrate issues have continued to plague Morro Valley and, together with diminished State Water Project deliveries during this period, the City has been forced to rely more heavily on the Chorro wells and the treatment of the contaminated Morro wells at its desalination facility to meet the City's water needs."

This glosses over the fact that nitrates actually began spiking in 2002 – NOT in 2006. City well tests clearly document this fact. The staff never said a word to Council or to the public, and illegally failed to list the actual highest nitrate level detected in the wells in City Consumer Confidence Reports until residents called them on it. They only reason the staff said anything in 2006 was that 2006 was the year when they delivered water with nitrate levels over the 45mcl maximum. The following table from a City-funded study shows that the nitrate spikes began in 2002.

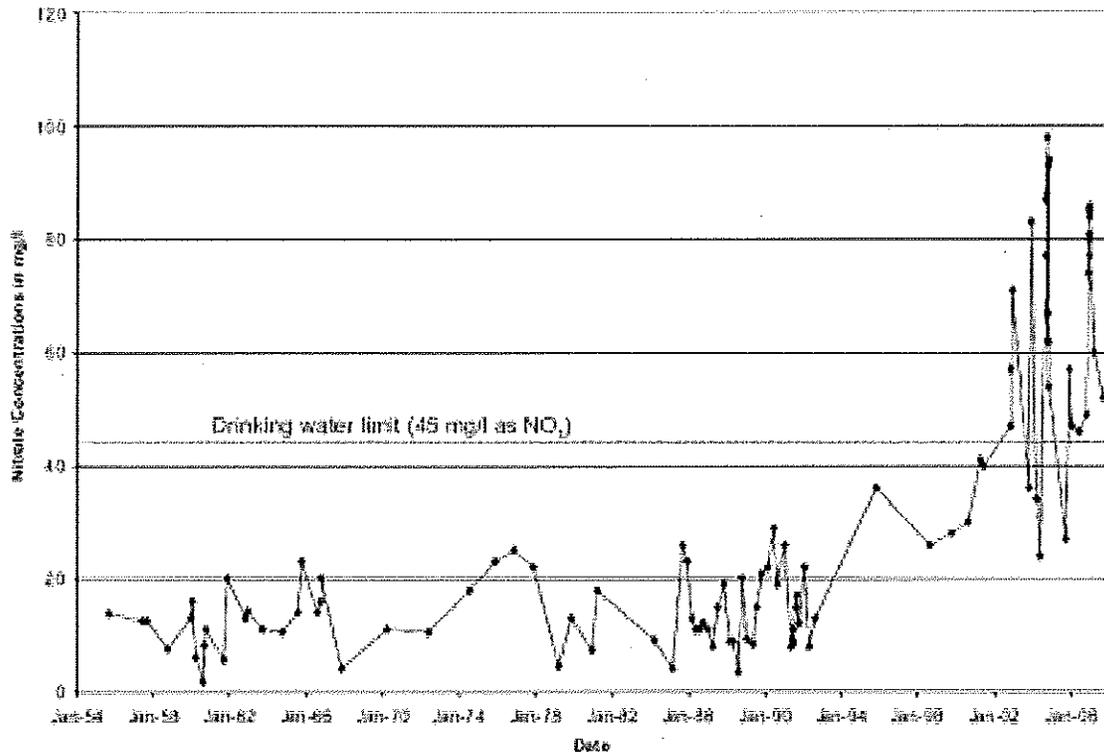


Figure 4
 Well MB-3
 Nitrate Concentrations
 Morro Basin Nitrate Study
 City of Morro Bay

Cleath & Associates

As I have mentioned before, the sudden spikes in nitrates began upon completion of an extensive MTBE remediation at the corner of Main and Hwy 41 – right over the aquifer boundary. There is substantial evidence that the City's Morro Basin Nitrate Study is bunk, and that the real source of the nitrates is our own sewage, leaking from the dilapidated Main Street trunk line and traveling by gravity, just like the sewage that manages to stay in the line, to the area where the MTBE remediation was done. It is then sucked into the aquifer by the pumping action of the wells. Because the wells have primarily been used in November, the spikes occur in November. This is not rocket science, and many residents consider the City-funded study to be a blatant coverup. I have extensive documentation on this, which can be provided on request. Also, it is all going to be online, on one of my Web sites, within the next month. I will let you know when the site is up and ready for "prime time"

2. The staff report says,

"The City and Division of Water Rights staff have met on numerous occasions to discuss Mr. Jones' complaint and other matters related to the City's Chorro Creek water rights. The parties have discussed the City's compliance with various conditions of the Chorro water rights permits. The City and Division staff have agreed that the City would prepare and submit a report documenting the City's compliance with its Chorro and Morro water rights permits and a plan for actions to ensure continued compliance or corrective measures to bring the City into compliance with all permit conditions."

What is not mentioned here is that the City NEVER installed the flow meters that were ordered to be in place in 1997 - and only began to work on this project when the SWRCB was alerted to the problem just a few years ago. The City just kept using the wells whenever it wanted without doing any monitoring to see if it was complying with decision 1633. This is a well-documented fact. Among the supporting documents are emails exchanged between SWRCB personnel and residents, and between SWRCB personnel and the City's lawyers – emails which I have.

What is also not mentioned is the fact that the whole problem came to light when the City, aided by a favored consultant, was conducting a so-called stream flow interference study on Chorro Creek when it was completely dry. The documented objective was to get a waiver from the requirements of decision 1633. Clearly, well usage will not impact surface stream flow when there is no flow to be interfered with - which appears to many residents to be a trick by which the staff intended to get the waiver illegally.

When this bogus "test" was brought to the attention of the Council, it was stopped immediately. Despite the fact that the staff has paid the consultant tens of thousands of dollars for this, and a subsequent illegal attempt to perform this "study" (the second time, the proper permits were not obtained) no report has ever been produced. Taxpayers are out a great deal of money and got nothing for it but trouble - caused by the staff's unwillingness to abide by the law.

3. The staff report says,

"At the time that these connections were made, the water quality in the Chorro Groundwater Basin was considered safe for drinking and met the State and Federal regulations governing water quality. In the last few decades water quality has deteriorated in the basin while a number of new Federal regulations have come into effect governing water supplies.

Because of the degradation to the water quality and the changes in regulations, in December of 2008 the California Department of Public Health inactivated all of the wells in the Ashurst well field until a reliable method of providing treatment for nitrate removal or blending is in place. Therefore, the City no longer has the ability to both maintain the pumping of wells in the Chorro Groundwater Basin as well as provide water that meets all State and Federal standards to the nine customers in the Chorro basin."

What is glossed over here is that the failed septic systems at Roandoak, adjacent to the Ashurst well field, have been polluting the Chorro Basin aquifer for some time. This is not, and never has been a secret. A former City employee has stated, in writing (yes, we have his letter) that the City staff knew full well for years that Ashurst wells were polluted with sewage, but said nothing – AND knowing that, they still continued delivering insufficiently-treated well water to Chorro Valley customers. This person has not worked for the City for many years, so it is clear that staff have known about the septic system contamination of Ashurst wells for a very long time. The City is extremely lucky not to have been sued over its blatant failure to safeguard the health of its water customers. When this irresponsible and illegal drinking water quality law violation was discovered, the CDPH ordered the wells shut down. The City never apologized to the victims, even though there had been cases of giardia, and instead threatened to cut off their City water. This is certainly a very ugly chapter in the story of the Chorro Valley, but not untypical of the kind of behavior we have come to expect from City staff.

4. I find it fascinating - and very disturbing - that a resident had to alert the City to the existence of documents that could be of very great value, and that could mean that the City has wasted a huge amount of taxpayer money on unnecessary legal fees - all because the staff once again failed to perform due diligence. Surely, if a private citizen could find those documents, so could the City staff. That is their job.

Linda Stedjee



AGENDA NO: D-5

Meeting Date: May 14, 2013

Staff Report

TO: Honorable Mayor and City Council **DATE:** May 8, 2013

FROM: Rob Livick, PE/PLS – Public Services Director/City Engineer
Rick Sauerwein, PE – Engineering Division Manager
Robert Schultz - City Attorney

SUBJECT: History and Status of Water Rights Issues in the Chorro Valley

RECOMMENDATION

Staff recommends that City Council review the comprehensive staff report on the City’s water history and our current ongoing practices related to the City’s water rights and issues surrounding the Chorro Valley. After review, public comment and discussion provide any further direction to Staff.

ALTERNATIVES

- 1) Continue on the present course to preserve City water rights in the Chorro Valley by constructing a stream flow gauge in Chorro Creek, and replacing all existing City water service connections with private wells & single point of use reverse osmosis treatment to reduce nitrates;
- 2) Abandon City water rights to Chorro Valley well fields;
- 3) Evaluate other alternative strategies to provide a replacement water source for Chorro Valley residents.

FISCAL IMPACT

None at this time.

SUMMARY

The water supply for the City of Morro Bay has four main sources. In order of the quantity supplied, these sources are: the State Water Project, Chorro groundwater, Morro groundwater, and the Desalination Plant. Nitrate contamination of both the Chorro and Morro groundwater resources by

Prepared By: **RL /RS / RSchultz**

Dept Review: _____

City Manager Review: _____

City Attorney Review: _____

agricultural activities has greatly impacted our water supplies. During periods of reduced State Water Project deliveries, it is necessary to blend our other sources of water together in order to reduce nitrate levels in the distribution system. The Desalination Plant, which has recently been used to remove nitrates from the Morro groundwater, is undergoing a series of upgrades to improve the efficiency in treating brackish water and restore the ability to treat salt water.

The City has produced water from the Chorro groundwater basin to meet water demands. Our groundwater permits require that stream flows be above 1.4cfs when extractions occur. Currently, the City is measuring creek flows biweekly. Our permit conditions require continuous flow monitoring, which has not yet been installed.

In 2009, the City was informed of a complaint filed by Jones to the Division of Water Rights staff at the SWRCB. The complaint alleged that the City had not complied with the requirements imposed in the City's water rights permit for Chorro Creek. Since then the City has contracted with outside legal counsel to help Staff as it continually works on the water rights issues and the complaint in the Chorro Valley.

Pursuant to past Council direction, Staff has met with several property owners in the Chorro Valley and is discussing what facilities property owners will need in order to be disconnected from the City's water system.

BACKGROUND

Morro Bay incorporated as a general law city in 1964. Prior to incorporation, two waterworks districts under the auspices of San Luis Obispo County served the community. The sole historic source of potable water for the community was groundwater derived from three well fields in two small coastal valleys: the Morro well field in the Morro valley and the Romero and Ashurst well fields in the Chorro valley.

In 1972, the City of Morro Bay filed two applications for permits to appropriate water from two well fields (Romero and Ashurst) in the Chorro Creek underflow. The applications sought to formalize the City's rights to appropriate water from the Chorro underflows based upon the City's historic use of that water.

State Water Board hearings on the City of Morro Bay's 1972 applications took place five years later in 1977. The State Water Board took no further action until it issued a decision in 1982 and determined the waters of the Chorro basins to be "underflow" subject to the board's jurisdiction. It then ordered the City to prepare an Environmental Impact Report (EIR) to support its permit applications.

Pursuant to the State Water Board's 1982 decision, the City prepared an EIR pursuant to the requirements of the California Environmental Quality Act. The EIR included significant analysis of surface-groundwater interaction in the Chorro and Morro well fields, and concluded that groundwater extraction from the Chorro and Morro wells would have no environmental impact. The State Water Board conducted additional hearings in 1987 and again in 1995.

On July 20, 1995, the Board issued a final decision on the applications (Decision No. 1633).

Therein, the Board approved the City’s applications and issued permits for 1,142.5 acre feet per year (afy) from the Chorro Basin wells (Well Nos. 8, 9, 9A, 10, 10A, 11A, 12 and 16). The Board’s Order contained numerous conditions, including certain conditions that the Board recognized would have significant impacts on the City’s ability to rely on the Chorro wells. These conditions have been problematic for the City. Those conditions and the City’s current operations are the subject of the Jones complaint and are detailed further in this report.

In September 1997, as contemplated in the City’s water right permits, the City began receiving deliveries of 1,313 afy of water from the State Water Project (SWP). Since 1997, the City has utilized State Water as its primary source of water, except during periods of State Water Project maintenance operations. As the chart below indicates, the City’s highest annual use during this period was 49 afy, until significant reduction in State Water availability in 2005.

In 2005, the annual water production in the Chorro Valley increased significantly due to diminished State Water Project deliveries and limited production from the Morro Valley.

During the State Water shut down in 2006, nitrate levels spiked in the Morro well field and led to health standard compliance issues, forcing the City to substantially reduce water use from the Morro wells. Nitrate issues have continued to plague Morro Valley and, together with diminished State Water Project deliveries during this period, the City has been forced to rely more heavily on the Chorro wells and the treatment of the contaminated Morro wells at its desalination facility to meet the City’s water needs.

Year	Chorro Basin (ac-ft)	Morro Basin (ac-ft)	R/O Plant (ac-ft)	State Water (ac-ft)	Total (ac-ft) ¹
1997	986	249	0	301	1536
1998	38	0	0	1287	1326
1999	34	0	0	1359	1393
2000	4	0	0	1396	1400
2001	12	0	0	1398	1410
2002	1	32	47	1373	1454
2003	3	29	13	1384	1429
2004	49	213	20	1206	1487
2005	204	151	0	1008	1362
2006	257	79	25	1010	1371
2007	276	35	19	1116	1446
2008	184	52	28	1175	1439
2009	235	80	66	1069	1450
2010	86	391	258	873	1609
2011	18	101	84	1144	1347
2012	1	109	70	1130	1310

In summary, from 1997 to 2006, during the period after the City began receiving deliveries from the

¹ The total water is overstated in the years that included R/O plant operation since the feed water for the R/O comes from the Morro Wells. In 2012 the conversion from Million gallons to ac-ft was corrected.

SWP and before the Morro wells were significantly impacted by nitrate contamination, the City substantially reduced diversions from the Chorro wells. Since 2006, reduced deliveries from the SWP and the nitrate contamination of the Morro wells have forced the City back to more significant use of the Chorro wells. More recently, treatment of the brackish Morro wells and conservation have been used to reduce the demand on Chorro wells, while still meeting demands. The City's varied usage history over the past ten years aptly demonstrates precisely the reason why each of the City's water sources is so important in providing a redundant and reliable water supply for the citizens of the City of Morro Bay.

Jones Complaint

On October 1, 2009 the City was informed of Mr. Jones' complaint by letter from the Division of Water Rights staff at the SWRCB. The complaint alleged that the City has not complied with SWRCB Decision 1633 and requirements imposed in the City's water right permits for Chorro Creek (Permit Nos. 20866, 20867, and 20868).

The complaint alleges injury to fish and wildlife and public trust resources, as follows, "For the protection of fish and wildlife habitat and other public trust resources in Chorro Creek and Morro Bay, surface flow needs to be 1.4 cfs per DFG biologist Charles Marshall to protect endangered steelhead trout as stated in Decision 1633." Mr. Jones proposed that the complaint could be resolved as follows: "Comply with Decision 1633. Install continuous flow meters below Ashurst and Romero well fields. Cease all pumping until flow meters are in place to comply with minimum flow requirements."

The City and Division of Water Rights staff have met on numerous occasions to discuss Mr. Jones' complaint and other matters related to the City's Chorro Creek water rights. The parties have discussed the City's compliance with various conditions of the Chorro water rights permits. The City and Division staff have agreed that the City would prepare and submit a report documenting the City's compliance with its Chorro and Morro water rights permits and a plan for actions to ensure continued compliance or corrective measures to bring the City into compliance with all permit conditions.

On October 25, 2012 the City received approval of its Flow Bypass Compliance Plan from the Division of Water Rights. This plan outlines the conditions and constraints under which the City agrees to operate the Chorro Wells until completion of its stream gauge projects and full compliance with all of the terms and conditions of the revised permits have been met.

For the first half of 2013, City staff has worked with Division of Water Rights staff to prepare, review, and revise a Petition for Extension of Time for the Chorro Well Permits. This time extension will give the City the ability to complete all of the compliance activities and take full beneficial use of the Chorro well water.

Chorro Valley Customers

From time to time since the incorporation of the City, water meters and water services have been provided to customers outside of the City limits. Currently, the City has water service at nine locations outside of the City limits. Some of these connections were made following the procedure outlined in the municipal code with a designation by Council, while others were made in order to

secure access or water for the City. There are others that have no available records pertaining to their connection.

All of the water service connections that are located within the Chorro Valley receive water from a single pumping line. When the City's wells in the Ashurst and Romero well fields are operating, water from these wells blend in the pumping line and is distributed to Chorro Valley customers prior to being transported to the King's tank to blend with water from other sources. When only one well from the Ashurst well field blends with the water from the Romero well it can still meet the nitrate standards, but when more than one Ashurst well is running, the blended water will likely exceed the nitrate limits. When the Chorro Valley wells are not operating, the customers outside of the city limits receive the same blend of water as all other customers within the City limits, which consistently meets drinking water standards.

At the time that these connections were made, the water quality in the Chorro Groundwater Basin was considered safe for drinking and met the State and Federal regulations governing water quality. In the last few decades water quality has deteriorated in the basin while a number of new Federal regulations have come into effect governing water supplies.

Because of the degradation to the water quality and the changes in regulations, in December of 2008 the California Department of Public Health inactivated all of the wells in the Ashurst well field until a reliable method of providing treatment for nitrate removal or blending is in place. Therefore, the City no longer has the ability to both maintain the pumping of wells in the Chorro Groundwater Basin as well as provide water that meets all State and Federal standards to the nine customers in the Chorro basin.

In order to both provide water to the customers outside the City limits and maintain the Chorro Groundwater resource for the benefit of the customers within the City limits, major modifications to the City's infrastructure would be required. These modifications would be needed to effectively deal with the nitrate contamination while also providing disinfection of the occasional bacteriological contamination events that impact the Chorro Groundwater Basin.

DISCUSSION

On September 28, 2009, January 11, 2010 and March 22, 2010, the City Council reviewed and analyzed the following alternatives to maintain sufficient water resources for the residents of the City from the Romero and Ashurst wells:

1. Water Treatment Plant Alternative: Providing point source treatment of the well water produced. This would require treatment at the Ashurst well field for nitrates through either ion exchange or reverse osmosis and disinfection facilities at both the Ashurst and Romero well sites. While the City currently has disinfection facilities in place, additional chlorine contact time will need to be provided through the addition of storage volume. The positive aspect of this project is that the water leaving the well sites would meet all applicable health and safety standards and would be safe to deliver to the customers in the Chorro Valley. The negative aspects of this project would be: difficult permitting through the County because of flood plain issues, the capital and ongoing maintenance costs of the project, and the need to add additional

staff to cover the operation of these facilities. Installation of sewer disposal facilities to the Ashurst well field or some other method to dispose of reject/brine effluent would be required. Capital costs are roughly estimated at \$200,000 at Romero, and \$800,000 at Ashurst excluding design/permitting/legal fees and estimating contingencies. The Water Departments annual operating expenses and staffing levels would also have to increase.

2. **New Pipeline Alternative:** Installation of potable distribution pipe main along Quintana Road, through existing easements, all the way out to the Romero well field. While not an ideal solution from a water quality standpoint (long dead end lines are difficult to flush), this is probably more technically feasible than option 1. The approximate length of this pipeline would be 2.7 miles. Costs to install potable water lines are approximately \$100 to \$150 per linear foot depending on the specific location and the restoration requirements. This leads to a total project cost excluding design/permitting/legal fees and estimating contingencies of \$1,400,000 to \$2,100,000. This option would have no projected impact to the Water Department's operating expenses and staffing levels.
3. **Nonpotable Water Agreements:** Continuing to provide water to customers outside of the City limits via non-potable water agreements. This alternative will not solve the potential problems of the Chorro Valley customers, as their water will still not meet the standards for potable water at times when the Chorro wells are running. This alternative effectively creates a dual water system of the City's distribution system, and complicates its operation. Dual water systems require higher levels of certification of all of our Water Department staff. These certifications are difficult to obtain and would likely increase City staffing costs. The City would also have to take measures to ensure that this non potable water is not used for drinking purposes in each and every customer's home in the Chorro Valley. The City, as a public water system, could not, at the time of these actions by the City Council, install home treatment devices. While these Point of Entry (POE) or Point of Use (POU) systems are capable of treating the water from the Chorro Valley to meet safe drinking water standards, they were not a legal solution for the City to implement. Subsequently, the California Department of Public Health adopted emergency regulations allowing the use of POE/POU treatment systems, although the City of Morro Bay cannot meet the necessary findings to take advantage of this potential approach.
4. **Disconnect Customers Outside of the City Limits Alternative:** Disconnect customers outside of the City limits from the pumping line. The benefit of removing water services from the pumping line is that blending and disinfection can occur within the pumping line prior to being introduced at the Kings tanks. This will enable a blended and disinfected product to be introduced at the Kings tanks and will protect the City from the liability of providing minimally treated well water to customers who currently are connected to a pumping line. This alternative can be pursued in conjunction with the second alternative (new potable water line) or individually by installing individual wells for each owner. Costs for this alternative are estimated to be \$350,000 excluding negotiation costs/staff time. This alternative is consistent with

section 13.14.040 of the municipal code which limits the City's liability to provide water outside of the City limits.

On September 28, 2009, Councilmember Smukler moved for the City Council to include the stakeholders of the National Estuary Program, San Luis Obispo County Regional Water Quality Control Board and State Water Quality Control Board with a notice of the City's conversations and existing situation, and that we elude to our intent for future discussions about Decision 1633 and collaborative actions to address the water quality issue in the Chorro Basin. The motion was seconded by Councilmember Winholtz and carried unanimously.

On January 11, 2010, Councilmember Winholtz moved the City Council direct staff to terminate the Agreement between Roandoak and the City of Morro Bay pursuant to Paragraph 9 of the Agreement which states it will terminate in 120 days; in addition, there will be no discontinuation of water service until a new agreement is reached. The motion was seconded by Councilmember Borchard and carried unanimously.

On March 22, 2010, Mayor Peters moved the City Council appoint Councilmember Borchard and Councilmember Winholtz to serve on the Chorro and Morro Valley Water Rights Ad-Hoc Committee. The motion was seconded by Councilmember Grantham and carried unanimously.

From January 2010 until October 2012, the City worked with Roandoak and the County of San Luis Obispo in the Chorro Basin to develop a permitting strategy and template for the removal of systems from the City's system. In general, the agreement requires that the City provide a well and POU treatment system in exchange for termination of City water service. This leaves the property with a well and a treatment system capable of meeting the needs of that property. The County also required that the City conduct annual water quality monitoring of those new wells. This robust process and the agreements developed on this first project will facilitate future well construction and system disconnections.

CONCLUSION

In conclusion, the City will continue to actively pursue compliance with all of the terms and conditions of SWRCB Decision 1633. It is important to note that when the Water Board made Decision 1633, it recognized that it was effectively eliminating or severely restricting the historic municipal water source from the City's water supply portfolio for the benefit of fish and wildlife resources in a seasonal creek.

In the time period between the advent of State Water in 1997 and the nitrate contamination episode in 2006, the City had largely reduced its reliance on the Chorro groundwater basin as was intended by SWRCB Decision 1633. The recent contamination from nitrates in the Morro watershed coupled with the interruptible nature of the State Water Project have necessitated the City's turning back to the Chorro Basin as a vital part of its water portfolio in order to protect the health and welfare of the residents of Morro Bay. Because the pollution in the Morro basin will not likely be abated any time soon, and State Water Project deliveries are an interruptible resource, the City is committed to taking the steps necessary to preserve the full beneficial use of the Chorro basin groundwater.