

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF SEPTEMBER 6-7, 2012

Prepared on August 6, 2012

ITEM NUMBER: 12

**SUBJECT: STATUS OF THE LOS OSOS WATER RECYCLING FACILITY
CONSTRUCTION PROJECT, SAN LUIS OBISPO COUNTY**

SUMMARY

The purpose of this staff report is to provide the Central Coast Water Board and the public a status update on the current Los Osos Water Recycling Facility (LOWRF) construction activities. In addition, staff provides an update to the recent activities related to seawater intrusion. San Luis Obispo County Public Works staff has been invited to participate in the September 6 Water Board meeting.

DISCUSSION

Background

The Los Osos/Baywood Park area of San Luis Obispo County is located on the southern edge of Morro Bay National Estuary, approximately ten miles west of the City of San Luis Obispo. The community has a population of approximately 15,000 people, and contains about 5,000 individual lots. Throughout the community, on-site septic systems are used for treatment and disposal of wastewater.

The Central Coast Water Board adopted Resolution No. 83-13 in 1983, which amended the Water Quality Control Plan for the Central Coastal Basin (Basin Plan) and prohibited, effective November 1, 1988, discharges of waste from individual and community sewage systems within portions of the Los Osos/Baywood Park area. Constructing a community wastewater collection and treatment system is the most practical manner to comply with this prohibition.

Resolution No. 83-13 included a compliance schedule requiring the County to design and construct a community wastewater treatment facility. However, the project's progress was halted and subsequently the Los Osos community formed a community services district to take control of the wastewater project. The Los Osos CSD submitted its wastewater project for Central Coast Water Board staff review and approval. The Central Coast Water Board adopted waste discharge requirements for the project on February 7, 2003. The Los Osos CSD began construction in August 2005. In September 2005, a recall election replaced three CSD board members with new board members. The Los Osos CSD stopped construction and never built the project.

On September 20, 2006, the Governor signed Assembly Bill 2701 (AB 2701, Blakeslee) which allowed the County to undertake efforts necessary to design and construct a community wastewater treatment facility for the Los Osos/Baywood Park prohibition area. The County began the process of evaluating alternatives for the Los Osos Wastewater Plant community wastewater treatment system. The County certified a final EIR and adopted a coastal development permit on September 29, 2009. After appeal of the County permit, the Coastal Commission issued a final coastal development permit (CDP) on June 11, 2010.

Waste Discharge Requirements: On May 5, 2011, the Central Coast Water Board adopted Waste Discharge Requirements Order No. R3-2011-0001 (WDR) for discharges related to the LOWRF. The LOWRF is designed to discharge tertiary treated wastewater to the Broderson and Bayridge Estates leach fields as well as supply recycled water to urban and agricultural areas. A copy of the WDR and associated Monitoring and Reporting Program (MRP) can be found at the following internet links:

WDR:

http://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2011/2011_0001_wdr_order.pdf

MRP:

http://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2011/2011_0001_mrp_order.pdf

On April 27, 2012, Water Board staff required the County to begin baseline groundwater quality sampling within the 2012 calendar year (refer to Attachment 1).

Water Board Subcommittee

At its meeting on May 3, 2012, the Water Board appointed a subcommittee on Los Osos wastewater and groundwater management issues. The Water Board directed the subcommittee to gather information on the status of the project in the following three areas, which would be included in a Los Osos project update:

1. Recycled water, including the status of water reuse areas.
2. The role of a) recycled water from the wastewater treatment plant and b) conservation, in correcting seawater intrusion.
3. Construction dewatering issues.

The subcommittee, consisting of Dr. Jean-Pierre Wolff and Dr. Monica Hunter, met with staff twice and with County representatives. A list of questions the subcommittee sent to the County for response will be available publicly before September 6, 2012.

Water Recycling Facility Construction Update

The LOWRF will consist of three main components: wastewater collection; wastewater treatment, which includes biosolids processing and disposal; and effluent disposal and reuse.

Collection System Construction: In April 2012, the County Board of Supervisors approved plans and specifications for collection system areas A & D as well as collection system areas B & C and authorized advertising for bids on the construction contract. The bid window closed on May 10, 2012.

The County Board of Supervisors awarded the contract for construction of collection system areas A & D to ARB, Inc. on June 19, 2012. In addition, the County awarded the contract for construction of collection system areas B & C to W.A. Rasic Construction Company, Inc. on July 1, 2012. The following table presents major project milestones for the installation of the collection system.

Anticipated Milestone	Estimated Timeframe
Construction Bid Submittals	May – June 2012
Award Construction Contracts	June – July 2012
Begin Construction	July – August 2012
Construction Completion	December 2014

Dewatering – As part of collection system construction, the County anticipates the need to dewater excavations during pipe and lift station installation activities. Dewatering was considered in Appendix D of the draft EIR and found to have no significant impact on groundwater quality of quantity and that the coastal development permit (CDP) was issued without any specific restrictions on construction dewatering, except that the project must obtain and comply with an NPDES Construction Storm Water permit. Water Board staff approved the County's enrollment in the General Construction Storm Water NPDES Permit on May 21, 2012. Prior to the development of the dewatering plan, Water Board staff issued a letter to the County outlining the factors it needed to consider (refer to Attachment 2). A copy of the county dewatering plan can be found at the following internet link.

<http://www.slocounty.ca.gov/Assets/PW/Design+Division/300448.08.01.BC+-+Appendix+D.pdf>

This report has a preliminary recommendation to use a four-stage approach. The first stage is to use water for construction use (dust control, etc.) since no groundwater retention sites will be available when work starts. Stage two would continue to utilize construction use and would add the new Mid-Town retention site and the existing retention basin sites for groundwater disposal while the Broderson leachfield system and the recycled water pipeline from the treatment plant to the Broderson effluent disposal site are being constructed. During stage three, when the Broderson leachfield site and the recycled water pipeline have been constructed, both the Mid-Town retention site and the Broderson leachfield site will be operational and construction of the gravity collection system and pump stations and force mains can then proceed with the necessary dewatering. The intent would be to pump discharged groundwater to the Mid-Town and public retention basins for land disposal and Broderson for back-up. Discharge to the Mid-Town and existing public retention sites augmented with the Broderson leachfield site appears to be a viable and cost-effective means to dispose of the anticipated flows. Flow estimates range from approximately 620 to 1,300 gpm for one dewatering area, and 2,500 to 4,900 gpm for four concurrent areas throughout construction. Groundwater production in excess of 6,500 gpm would require a fourth stage involving agricultural reuse along Clark Valley Road. This would be necessary only if the groundwater production exceeds what could be disposed of with the combined capacity of the construction use plus Mid-Town and existing retention sites plus Broderson leachfield site. Treatment and disposal to the storm drains are a possible optional disposal method. Collection system contractors are responsible to develop and implement final dewatering plans.

Water Recycling Facility Construction: The LOWRF will include bar screens, secondary treatment (parallel oxidation ditches), secondary clarification, tertiary filtration, and ultraviolet

disinfection. The LOWRF will also include a septage receiving holding tank, which will only receive septage from existing septic systems in the service area. The LOWRF will be located two miles east of the community core and behind the Los Osos Valley Cemetery (formerly known as the Giacomazzi Property). The County is currently undergoing negotiations with the property owner to finalize the acquisition. The County held a meeting to adopt a resolution of necessity for the acquisition of the property on June 19, 2012. The following table presents major project milestone for the construction of the LOWRF.

Anticipated Milestone	Estimated Time frame
Construction Bid Advertisement	Early 2013
End of Construction Bid Submittals	Early 2013
Award Construction Contract	Mid 2013
Begin Construction	Late 2013
Complete Construction	Mid 2015

Recycled Water Management Plan

The County released its draft Recycled Water Management Plan on November 11, 2011, as required by Condition #5 of the CDP. The primary objective for the recycled water reuse is to mitigate seawater intrusion by offsetting pumping from the lower groundwater basin and to return recycled water to the basin through percolation. The draft Recycled Water Management Plan includes sections on the purpose and intent of the management plan; associated recycled water regulations and policies; recycled water parameters and compliance conditions; availability of the recycled water for reuse; projected groundwater basin benefits; infrastructure needs; as well as the selection process for initial agricultural reuse. Pursuant to the CDP, the County includes a discussion of its water conservation program, which details the County's analysis of water demand and the process for screening and selecting feasible conservation measures. The draft Recycled Water Management Plan also includes a discussion of a monitoring program that incorporates coordination with other Los Osos community monitoring programs, data collection frequency, and monitoring procedures for both groundwater monitoring and environmental monitoring. Finally, the draft Recycled Water Management Plan includes a reporting and adaptive management plan to better evaluate, readjust, and execute the management of recycled water reuse.

The Recycled Water Management Plan identifies four schools, the Los Osos community park, six areas of irrigated agriculture, the Sea Pines Golf Course, and the Los Osos Valley Cemetery for seasonal recycled water irrigation. The County currently has an agreement with the school district for reuse at four schools and will provide recycled water to its own facilities at the community park. The County has formalized agreements with owners of six agricultural parcels and is pursuing reuse agreements with the golf course and cemetery. As other potential users of recycled water in the basin are identified, either current or future development, the County has additional capacity to serve those demands.

The County submitted a draft Title 22 engineering report to the California Department of Public Health on May 16, 2012. The Water Board will also use the engineering report to develop reclamation requirements.

Septic System Decommissioning

On February 7, 2012, the County approved a consulting agreement with SLO Green Build for the development of a Septic System Decommissioning and Reuse Plan, which is a required

element of the CDP (Condition #2). According to the CDP, the County is to develop a decommissioning plan that identifies measures to be taken to appropriately decommission the existing septic systems within the community. In addition, the plan will evaluate possible on-site reuse alternatives, including filtration and percolation of storm water to the degree feasible and appropriate. SLO Green Build along with County staff have been working with Water Board staff to evaluate conversion opportunities for existing septic systems. County staff anticipates that the septic system decommissioning plan will be released in mid-2014.

Los Osos Groundwater Basin Management

Domestic water for the Los Osos community is produced by three main water purveyors: Golden State Water Company (GSWC), Los Osos Community Services District (LOCSD), and S and T Mutual Water Company (S&T). A smaller quantity of drinking and irrigation water comes from individual private wells, mostly in outlying rural areas. Under supervision of San Luis Obispo County Superior Court, the three main water purveyors and the county entered into an Interlocutory Stipulated Judgment (ISJ) on August 5, 2008. The ISJ allows for the parties to cooperatively assess, develop, and implement a plan to address water rights and use in the Los Osos Basin. The County's participation in the ISJ working group allows coordinated efforts between the construction of the wastewater project and water management in Los Osos.

The ISJ requires the parties to collaboratively develop a groundwater basin management plan (Los Osos Basin Plan). Although the Los Osos Basin Plan has not been publicly released, major elements of the plan are complete. The ISJ Working Group has not yet identified a public release date. As a result, Water Board staff sent a letter to the San Luis Obispo County Superior Court requesting that it expedite the Los Osos Basin Plan release (refer to Attachment 3).

Seawater Intrusion

The ISJ working group notified the public of its efforts through the May 5, 2010 Los Osos Groundwater Basin Plan Update. According to the May 2010 update, the seawater wedge has extended into the lower aquifer through "fingers" at a rate of 700 feet per year. These conclusions were based on data from 2005 through 2010. The May 2010 Los Osos Groundwater Basin Plan Update is available at the following website:

[http://www.losososcsd.org/Library/Document%20Library/groundwaterbasinupdate5-4-2010\[1\].pdf](http://www.losososcsd.org/Library/Document%20Library/groundwaterbasinupdate5-4-2010[1].pdf)

On October 6, 2011, Rob Miller (LOCSD contract engineer and ISJ Working Group representative) provided a status update on the ISJ Working Group's current activities (funding, draft basin plan development), actions to address seawater intrusion, and an overview of the April 2011 Water Demand Analysis and Water Conservation Evaluation (Maddaus Report) at a LOCSD meeting. The October 6, 2011 LOCSD meeting agenda, staff report, and minutes can be found at the following website.

<http://www.losososcsd.org/cm/board/AgendaandMinutes/2011%20Agendas%20and%20Minutes.html>

Water Board staff released a memorandum to the public regarding an update on the Los Osos Groundwater Basin ISJ Working Group's Activities. The memorandum discussed the ISJ Working Group's goals that guide the group's decision making process, and current and future water purveyor activities that will help manage the basin and address seawater intrusion. A copy of staff's December 2011 memorandum can be found at the following website.

http://www.waterboards.ca.gov/centralcoast/water_issues/hot_topics/2011_12_09_%20isj_memo.pdf.pdf

Water Conservation

On April 5, 2011, the ISJ Working Group publicly released the 2011 Maddaus Report. The Maddaus Report analyzed various water conservation options for future funding and implementation. The report focused on five main conservation goals: 1) forecast future water demand under various water conservation scenarios, 2) estimate conservation costs and related water savings, 3) analyze individual conservation measures, 4) group conservation measures into defined programs, and 5) assess effectiveness of programs to meet the indoor use goal of 50 gallons per person per day. The report analyzed 31 conservation measures and specifically evaluated the water savings, associated costs, and cost-to-benefit ratios. Furthermore, the report identified five water conservation programs, which contained different combinations of the 31 different water conservation measures based on associated costs, water savings, and overall benefit. The report concluded that three programs did not meet the goal of 50 gallons per capita per day. However, the report recommended that a combination of elements from the other two programs might be implemented as both programs provide a favorable cost-to-benefit comparison and will meet the water saving goal of 50 gallons per capita per day. The selected water conservation program will have to align with the County's water conservation program pursuant to the coastal development permit, which will ultimately be approved by the California Coastal Commission.

PUBLIC NOTIFICATION

Staff released this staff report in draft form for public comment on June 14, 2012. Public comments were due by 5:00 p.m. on July 16, 2012. This version of the staff report reflects corrections and updates provided in comments received from the County and the public. All comments are attached for reference.

The following agencies and interested persons provided comments on or before the July 16, 2012 comment deadline:

- John Waddell, County of San Luis Obispo
- Susan Morrow, Los Osos Community Services District
- Vicki Milledge, Los Osos Community Advisory Council
- Los Osos Sustainability Group
- Linde Owen
- Julie Tacker and Jeff Edwards
- Richard Margetson

COMMENTS AND RESPONSES

Water Board staff reviewed and considered all agency and public comments and supporting attachments related to the staff report. The public comments submitted include common issues such as unmitigated impacts to the upper aquifer and Morro Bay due to the County's proposed dewatering operations, the potential for seawater intrusion in the upper aquifer as a result of the dewatering activities, the County's lack of remedial actions for potential inadequate dewatering disposal capacity at the Broderson and Midtown sites, the lack of seawater intrusion mitigation through disposal at the Broderson site, the lack of seawater intrusion mitigation through recycled water discharges at agriculture and urban areas, impacts to sensitive habitat (i.e.,

wetlands) due to the decommissioning of septic systems, inaccuracies on the County's water conservation program with respect the use of outdated water production information, the potential issues related to implementing a water conservation plan based on outdated information and using this information to forecast the volume of recycled water disposal to offset lower groundwater pumping, and the need for a basin-wide groundwater management plan to address seawater intrusion.

For the most part, the comments specifically addressed the County's Dewatering Plan, Recycled Water Management Plan, and the Water Conservation Plan. More specifically, the public comments questioned the values used to calculate disposal capacity, water conservation, and ultimately seawater intrusion mitigation. That being the case, Water Board staff believes that responses to these comments should be answered by the County as these documents were developed and released by the County. The public comments have been submitted to County staff in an effort to obtain clarification for the aforementioned issues.

ATTACHMENTS:

1. California Water Code Section 13267 Letter Requiring Technical/Monitoring report on Baseline Groundwater Quality; April 27, 2012.
2. Use and Disposal Plan for Construction Dewatering Letter; May, 27, 2011.
3. Central Coast Water Board Letter Requesting an Established Deadline for the Los Osos Basin Plan Release; May 31, 2012.
4. County of San Luis Obispo: Comments on Draft Staff Report Regarding the Status of the Los Osos Project – July 16, 2012
5. Los Osos Community Services District – Request For Comments On The Wastewater Project – July 13, 2012
6. Los Osos Community Advisory Council – Comments on Draft Staff Report – July 16, 2012
7. Los Osos Sustainability Group (Larry Raio) – Comments on Draft Staff Report – July 16, 2012 (revised July 19, 2012)
8. Linde Owen – Comments on Draft Staff Report – July 16, 2012
9. Richard Margetson – Comments on Draft Staff Report – July 16, 2012
10. Julie Tacker and Jeff Edwards – Comments on Draft Staff Report – July 3, 2012