



SAN LUIS OBISPO COUNTY
DEPARTMENT OF PUBLIC WORKS

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August 21, 2013

Kenneth A. Harris Jr., Executive Officer
California Regional Water Quality Control Board, Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

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State of California
Central Coast Water Board

Subject: Response to August 7, 2013, Letter Regarding Review and Comment on Construction Dewatering Plans for Los Osos Wastewater Project Collection System

Dear Mr. Harris:

The purpose of this letter is to provide a response to your review and comment letter, dated August 7, 2013, regarding the dewatering operations for the Los Osos Wastewater Project Collection System. The discussion and responses in this letter are intended to supplement the information provided in the contractors' dewatering plans and explain how they meet the conditions of the water quality permits pertaining to construction dewatering for this project.

Background

The Los Osos Wastewater Project is being constructed to meet the Regional Board's requirements of Resolution 83-13 to eliminate septic system discharges and protect water quality in the Los Osos groundwater basin and surrounding surface waters. The necessity to dewater areas of shallow groundwater to facilitate the installation of the project is a long recognized temporary impact of the project. The dewatering operations, with disposal to surface waters, were included in the environmental analysis in the EIR and the associated Coastal Commission approval.

The impacts to both water supply and water quality were determined to be less than significant. Surface water discharges of uncontaminated groundwater from dewatering are executed under the Construction General Permit requirements to adequately protect water quality. It should be noted that disposal to surface waters was the only option planned in the contracts for the short-lived Los Osos CSD project, as well as, during project development, environmental review and permitting for the County project. The County identified land disposal as an additional option that would allow for cost effective disposal of water that meets groundwater quality requirements which, if not disposed to land, would require additional treatment prior to surface water discharge.

Current Status

Recently, the work has progressed into areas with shallow groundwater and the contractors have begun dewatering operations according to their submitted dewatering plans. The work in the Baywood Park area is being completed by the County's contractor, ARB, which is using the

water from dewatering operations for construction purposes and discharging the remainder to the Mid Town site for percolation. Other potential discharge options, including surface water discharge, are likely, and we recognize that the contractor must first submit those in an updated dewatering plan for approval.

The work in the Cuesta-by-the-Sea and Sunset Terrace areas is being completed by the County's contractor, W.A. Rasic. This contractor has submitted a dewatering plan with multiple options for discharges, including surface water, irrigation, and percolation. Currently, W.A. Rasic is using the water from dewatering operations for construction purposes and discharging the remainder to surface waters, with regular water quality monitoring which to date have met water quality objectives and have been submitted to your staff. The discharge options for irrigation and percolation are planned, but the pipelines required for pumping the water to those discharge locations are still under construction and therefore not feasible at this time. The contractor is currently working to complete the pipelines necessary to connect the dewatering areas to the land disposal locations for both irrigation and percolation so that these options may be feasible as the project progresses.

Water Supply Benefits

Provided that dewatering discharges to surface water meet water quality objectives, we believe that any questions related to the feasibility of land disposal versus surface water disposal are related to water supply. The environmental analysis and findings in the project EIR conclude that water supply impacts from the dewatering operations are temporary and not significant and that no mitigation measures are necessary. The dewatering operations pump shallow water from near the bay front that has already passed drinking water wells and would soon have seeped out of the groundwater basin into the bay if it were not pumped by the dewatering operation.

The water supply benefits of land disposal are most directly realized by disposal through construction uses (dust control and compaction), which reduces demand on the potable water supply to provide water for these important construction uses. Land disposal by percolation to areas such as Mid Town or Broderson are likely to have some secondary benefit to the water supply. However, the benefits are minimal and inconsequential to feasibility determinations.

Water discharged to Mid Town will have minimal benefit as it will remain in the shallow upper aquifer until it seeps to the bay, which is immediately down gradient. Water discharged to Broderson would potentially achieve the same sea water intrusion mitigation as the disposal of recycled water at Broderson, but the benefit would be temporary, for less than one year, and not significant compared to the ongoing mitigation provided by the completed project. Temporary water supply benefits from dewatering discharges, while good if feasible, are not a primary consideration for the construction and completion of the project.

Land Discharge Feasibility

We believe that the feasibility of land disposal should be considered from the perspective of the County's overall project and not divided between individual contractors. The County is working with all contractors to maximize land disposal for the overall project, regardless of the limited and temporary water supply benefits from dewatering discharges. As a result, the land disposal options that are currently feasible are being utilized extensively, especially construction uses to reduce demand on potable water supplies. Unfortunately, land disposal of all water from dewatering is not feasible.

Feasibility considerations during a construction project are dynamic and fast paced. After the hard requirements of the contract specifications and project permits, final options for dewatering must also involve cost and schedule considerations. The contractors consider all of the options outlined in the contract and also develop their own alternatives for considerations, such as irrigation at the Sea Pines Golf Course. The alternatives put forward in their dewatering plans and ultimately utilized are the most feasible, based on the specific constraints on each contractor. A summary of the many considerations which impact construction dewatering decisions was included in our letter on August 6, 2013, and is provided here for reference.

- a. Proximity to established percolation or storm water infiltration areas, including Mid-Town, Broderson, and community drainage facilities.
- b. Infiltration capacity of established percolation or storm water infiltration areas, including Mid-Town, Broderson, and community drainage facilities.
- c. Cost considerations of installing pipeline infrastructure and pumping costs to infiltration areas versus surface water disposal locations.
- d. Contractual, practical, and cost considerations of shared disposal facilities among contractors.
- e. Environmental impacts on sensitive resource areas from establishing temporary pipelines and disposal infrastructure and saturating soils for extended periods.
- f. Project delays that may be required for temporary easements, agreements, or additional regulatory approvals.
- g. Construction schedule impacts that limit discharge minimization options by reducing the ability to stage dewatering operations or require additional dewatering during the rainy season.
- h. Contingencies for halting discharges at a specific location due to water quality or environmental conditions. For example, surface water discharge options must be utilized during the rainy season because storm drainage capacity cannot be limited by dewatering discharges.

The County is available to work with your staff to understand the dynamics of the construction process which result in the contractors' utilization of specific discharge alternatives that they consider feasible and include in their dewatering plans. The contracts require that contractors prioritize land discharges, but we hope your staff will recognize that these options are not always feasible and surface water discharges are also necessary.

Land Discharge Options

Land discharge options are being utilized wherever feasible. Construction uses for dust control and compaction are occurring on an ongoing basis. This has practically eliminated the need for purchase of potable water for construction uses, which was necessary earlier in the construction process.

Mid Town: Percolation by discharge at the Mid Town site began in July, as the County's contractor, ARB, increased the dewatering operations. The Mid Town site is a modified natural drainage course that is designed to function as a retention basin with areas designed to spread and percolate water as it flows across the site. In the first month of operations, more than 10 million gallons of water was discharged at the Mid Town site for percolation. The drainage course continues through the site to the northwest corner where it joins the existing Ravenna drainage, which is a sandy swale that continues north of the Mid Town site. Water discharged to the Mid Town site from the dewatering operations has been percolating into the ground as it flows and spreads on the site. Recently, the waters have flowed into the Ravenna drainage

where they percolate into the ground within a few hundred feet. This additional percolation in the Ravenna drainage is not resulting in erosion or surface water discharges and the County is working with the property owners to address any concerns that they may have, if any.

Broderson: A land disposal option that is not currently being utilized is percolation at the Broderson site. The Broderson infiltration area and much of the pipeline infrastructure needed to deliver water to the site has been completed. Broderson is identified as a disposal option in the dewatering plan submitted by the County's contractor W.A. Rasic, and they are currently working to complete the remaining pipelines that will connect to Broderson. After the pipelines are installed, the contractor will be able to discharge to land at the Broderson site. The contractor's timing and level of use of Broderson is dependent on multiple factors, including cost and schedule considerations.

Irrigation: Land discharge through irrigation is another option that was considered by the County prior to construction. While it is not likely feasible to convey water to the agricultural areas east of the community, irrigation at the Sea Pines Golf Course is provided as option 3 in W.A. Rasic's submitted dewatering plan. Water from dewatering operations would be conveyed through the recycled water pipelines to the irrigation reservoir at the golf course. Use of this option is dependent on the same pipelines that are being constructed to connect to the Broderson site and would depend on similar feasibility considerations.

Others: Additional land discharge options not currently presented in the contractor's dewatering plans may be developed by the contractors. This may include small public or private detention basins. However, these would have limited capacity and may require third party agreements. The Bayridge Estates leachfields are not a feasible option, despite being planned for percolation of recycled water, because they are still serving an active neighborhood septic system.

Surface Water Discharge Options

Discharges to surface waters are occurring under the Construction General Permit from dewatering operations at the Solano and Lupine pump stations, which are provided in option 1 of W.A. Rasic's submitted dewatering plan. Monitoring and reporting requirements have been established to protect water quality, with water quality limits set to meet specific water quality objectives for the receiving waters. Testing was conducted prior to any discharges to confirm that the water met the water quality limits and the testing is ongoing with a requirement for monthly reporting. Best Management Practices are also incorporated to prevent erosion and sediment discharge. New or additional surface water discharges are likely to be developed for use during the rainy season, especially as an alternative to discharge to the Mid Town site. Discharges to facilities that convey storm flows, including the Mid Town site, are not allowed during rain events. Discharges to the Broderson percolation area and to surface waters through temporary facilities that do not convey storm water are the currently submitted options that are feasible during rain events.

Conclusion

The County is working with its contractors to utilize discharge options that provide the greatest benefit to the community and protection of water quality while continuing to make timely progress in completing the collection system phase of the project and ultimately eliminating septic tank discharges. The dewatering discharges must comply with the applicable provisions of either the Construction General Permit or the General Waiver. The contractors' dewatering

plans are submitted, reviewed and approved in accordance with our contract documents, which include the water quality requirements provided by the Regional Board staff. Water quality results are reported monthly to your staff.

We will continue to work with you to address concerns and answer questions throughout the project. Please do not hesitate to contact John Waddell at (805) 788-2713 with any additional questions or to request a meeting.

Sincerely,



DAVE FLYNN
Deputy Director of Public Works

c: John Waddell, Los Osos Wastewater Project Manager
David LaCaro, Regional Water Board staff

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