STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

SUPPLEMENTAL SHEET FOR REGULAR MEETING OF May 8, 2009
Prepared on April 30, 2009

ITEM NUMBER: 15

SUBJECT: Status of the Los Osos Wastewater Project and Water Balance in the Los Osos Groundwater Basin, San Luis Obispo County

SUMMARY

Central Coast Regional Water Quality Control Board (Water Board) staff is providing these responses to follow-up questions from individual Water Board members submitted after their reviewing the initial staff report. Staff's responses follow the questions.

FOLLOW-UP QUESTIONS AND STAFF RESPONSES

Question 1: "Can we ask the County or can our staff place on Attachments 1 and 2 the following: a) the drinking water wells, b) on attachment 1 the seawater intrusion boundaries for the different aquifers, and c) on both 1 and 2, the sea water intrusion boundaries of 15 years ago and for the normal state?"

Staff Response 1: Attached are two figures from the report *Seawater Intrusion Assessment and Lower Source Investigation of the Los Osos Valley Groundwater Basin, Cleath and Associates, October 2005.* Attachment 1 to this supplemental sheet identifies groundwater production wells in the Los Osos groundwater basin. Attachment 1 also shows average production rates in acre-feet per year for both domestic and agricultural use. Attachment 2 shows the estimated extent of the chloride concentrations in the Lower Aquifer D of the Los Osos groundwater basin. Chloride concentrations in groundwater at the sandspit are 18,500 milligrams per liter (mg/L). Chloride concentrations in freshwater in the Los Osos groundwater basin are 60 mg/L. An increase of chloride in fresh water indicates a transition zone between fresh water and seawater. This figure illustrates a line close to the middle of town delineating an average chloride concentration of 250 mg/L[1], which represents the leading edge of the seawater transition zone. This figure also shows the estimated extent of seawater intrusion from 1985 and 2005.

Question 2: Board members requested some clarification regarding Attachment 2 of the staff report, specifically, whether Morro Bay is identified at the left vertical axis.

Staff Response 2: Morro Bay is located at the left vertical axis identified in Attachment 2 of the staff report. Attachment 3 to this supplemental sheet includes the lines representing the locations of the two cross-sections presented in the initial staff report.

[1] This value corresponds to the maximum recommended chloride concentration for drinking water (Cleath and Associates, October 2005).

Question 3: "In time, is stormwater recharge expected to off set the loss of the 631 af to the perched aquifer, the 30 af to the creek valley aquifer, and the 606 af to the upper aquifer? Aren't these losses from the cessation of the septic tank discharges representative of the maximum amount of stormwater recharge that we can expect? (see also second to last paragraph on p. 5 - isn't there only so much stormwater that can be recharged?)."

Staff Response 3: Studies of expected stormwater recharge rates after the removal of the septic systems discharges have not been conducted. Water Board staff understands that the removal of septic system discharges will increase the potential for stormwater recharge in the Los Osos groundwater basin after high groundwater levels have receded. However, further evaluations will be needed to determine if stormwater recharged to the perched, lower and creek aquifers will offset current discharges from the anticipated abandonment of septic systems.

Question 4: Have municipal and domestic beneficial uses in zones D and E been impacted yet?

Staff Response 4: There is currently no evidence that the lower aquifers (zones D and E) have been degraded by nitrate from the use of septic systems. Attachments 1 and 2 to this supplemental sheet show the estimated extent of seawater intrusion into the lower aquifer.

Question 5: "Under Water Conservation - where does the 160 af per year savings target come from?"

Staff Response 5: The 160 acre-feet per year of water savings was noted in Cleath and Associates' August 7, 2008 *Basin Hydrologic Budget Memorandum* (Appendix D of the EIR). According to staff's conversations with county staff, this water conservation value was derived from the Los Osos Urban Water Management Plan. Derivation of this water conservation value may be better explained by the County or water purveyors during the May 8, 2009 Water Board meeting.

Question 6: "The ISJ is a vehicle for the Water Board to exert the little direct authority it has to address seawater intrusion. Have we asked the parties/the court to insert a salt and nutrient management plan for LO groundwater under our authority? If no, do we plan on doing so? If yes, describe in more detail."

Staff Response 6: The ISJ is a Superior Court order that includes the County and the local Los Osos water purveyors. The Water Board is not a party to the ISJ and therefore has no authority to address seawater intrusion through the ISJ. However, the recently adopted State Water Board Recycled Water Policy (which has not yet been approved by the Office of Administrative Law) will require the water purveyors and the County to develop a salt and nutrient management plan within the Los Osos groundwater basin.

Staff anticipates that the waste discharge requirements that the Board will eventually consider will include provisions for salt and nutrient management. These provisions should be consistent with the State Water Board's Recycled Water Policy. That Policy states:

> "The State Water Board recognizes that, pursuant to the letter dated December 19, 2008 and attached to the Resolution adopting this Policy, the local water and wastewater entities, together with local salt/nutrient contributing stakeholders, will fund locally driven and controlled, collaborative processes open to all stakeholders that will

prepare salt and nutrient management plans for each basin/sub-basin in California, including compliance with CEQA and participation by Regional Water Board staff."

Question 7: "Can you attach Jeff Edwards' letter to the board that was presented to the board on this issue at the Watsonville meeting? I'd like to review it now that I have the county's information."

Staff Response 7: Mr. Jeff Edwards' letter is included as Attachment 4 to this supplemental sheet.

Question 8: "How many af of reusable water will the WWTP produce each year? In the beginning of operation how many af of reusable water will be used for recharge in the LO basin and how many will be discharged outside the basin? Does the county have plans, at some time, to use all af for recharge within the LO basin?"

Staff Response 8: The County's project as currently proposed does not include a recharge component. All effluent will be either spray irrigated at the Tonini property or disposed of at Broderson property leach fields. According to the EIR, the wastewater project will dispose of approximately 1,290 acre-feet per year generated by the build-out population. The EIR discusses the disposal of approximately 448 acre-feet per year at the Broderson property and approximately 842 acre-feet per year at the Tonini property.

Recent developments in the permitting process indicate that the County might consider tertiary treatment for this project. Tertiary treatment would allow water reuse opportunities in Los Osos.

ADDITIONAL PUBLIC COMMENTS SUBMITTED TO THE WATER BOARD

At the request of the respective authors, the Executive Officer has sent electronic copies of the following items to the Water Board:

1. *Request for Action Regarding Seawater Intrusion in the Los Osos Basin*, January 23, 2009, and various other background documents, Frank Ausilio
2. *Achieving a Sustainable Los Osos Valley Water Basin*, Keith Wimer, February 2009.
3. *Viewpoint: County Should Rethink Its Choice For Sewer Site*, Morgan Rafferty and Jackie Crabb, March 12, 2009
4. Comments on the Los Osos Wastewater Project DEIR, California Coastal Commission, March 25, 2009

ATTACHMENTS

1. Groundwater Production Los Osos Valley Groundwater Basin, October 2005
2. Chloride Concentrations Lower Aquifer Zone D, October 2005
3. Cross Section Location Map, DEIR November 14, 2008, DEIR
4. Mr. Jeff Edwards' letter to the Water Board, February 5, 2009.