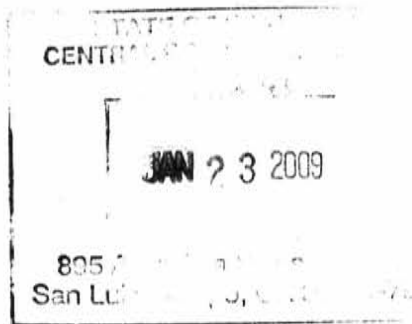


REQUEST FOR ACTION
REGARDING SEAWATER INTRUSION
IN THE LOS OSOS WATER BASIN

TO: Regional Water Quality Control Board
895 Aerovista Place
San Luis Obispo, California

FROM: Frank Ausilio
P.O. Box 7072
Los Osos, California
805-528-5679

Frank Ausilio



Cc: Other agencies & individuals

1/23/2009

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Request for Action
Regarding Seawater Intrusion in the Los Osos Water Basin

Request for Action

I am requesting that the Regional Water Quality Control Board exercise its full power and jurisdiction to protect the quality of the water in the Los Osos ground water basin from further degradation due to seawater intrusion. This action should be addressed to all water purveyors **and** well users, include a review of all available data, and utilize further enforcement actions that are available in order to stop seawater intrusion.

Introduction

The principal fresh water supply for the Los Osos community is located in the lower aquifer of the Los Osos ground water basin. This basin provides water for the entire community of Los Osos, those served by water purveyors and those served by private and agricultural wells. In the mid-1970s this ground water was recognized as being impacted by high seawater intrusion and nitrate concentrations from overlying land uses. A relatively low percentage of seawater intruding into fresh water (less than 5%) can have a significant adverse impact on the beneficial uses of fresh water. In 1983 the Central Coast Regional Water Quality Control Board (the Board) adopted a prohibition of all new and existing septic system discharges, in an area known as the Los Osos/Baywood Park prohibition zone, in order to deal with the high nitrate concentrations. *The Board did not and has not taken any action regarding seawater intrusion.*

Seawater Intrusion

A number of studies and reports have investigated the degree of seawater intrusion into the Los Osos Ground Water Basin and have reached various conclusions. In the 2005 Seawater Intrusion Assessment, Cleath & Associates concluded that “[u]pper aquifer leakage is the primary component of recharge to the lower aquifer” of the Los Osos ground water basin. The Cleath report estimated that the amount of seawater intrusion in the lower aquifer is 560 acre feet per year (AFY). This estimate was based on the average of analytical and model results. (pp. 76-77) In February 2007, the Resource Capacity Study of the Water Supply in the Los Osos Area reported that the water basin is being overdrafted by about 600 AFY from the lower aquifer, causing seawater intrusion. This estimate was originally reported in a 2003 Sea Water Intrusion Assessment completed by the Los Osos Community Services District. (p. 6 of the Resource Capacity Study) The Draft EIR states the current seawater intrusion is 460 AFY and that removing septic leakage from the upper aquifer could increase seawater intrusion by 90 more AFY, to a total of 550 AFY. (p.7-59) Also, in March 2007, the San Luis Obispo County Board of Supervisors certified a Level of Severity III for the water supply in the Los Osos area, due to seawater intrusion caused by overdraft of the water basin. *Whatever the actual number, the fresh water supply in Los Osos is shrinking, and we are overdrafting an increasing percentage of this fresh water supply every year, thereby degrading the water supply in the Los Osos water basin.*

Correct data regarding groundwater production is elusive, as various reports use

different figures. According to Appendix D of the Draft EIR, recent groundwater production estimates indicate that private domestic wells pump 80 AFY and agricultural and domestic wells within the Los Osos Creek valley pump 870 AFY. (p. 5.2-11) A Hydrogeology and Water Resources Report prepared in 1988 indicated that private domestic wells pumped 210 AFY in 1986 and agricultural pumpage was 970 AFY in 1986. (p. 31) The Sea Water Intrusion Assessment by Cleath & Associates from 2005 indicated that private domestic wells pumped an average of 200 AFY from 1985-2001 and agricultural pumpage averaged 950 AFY. The 950 AFY figure includes 70 AFY at Sea Pines Golf Course. (Table 2, p. 14) *It would seem that the Draft EIR has underestimated the production of private and agricultural wells. Additionally, since these data were compiled, additional development in the water basin has increased the AFY pumped by private domestic and agricultural wells. Although these well users are drawing fresh water from the basin, they have not been included in any action or solution regarding seawater intrusion.*

Effluent

“How the LOWWP [Los Osos Waste Water Project] disposes and/or reuses the treated effluent is a key issue that will determine how well the LOWWP meets the project goals and objectives. No single effluent disposal or reuse option has sufficient capacity to dispose of all the project effluent and mitigate the potential project impact on seawater intrusion.” (Draft EIR p. 7-57) The plan is to dispose about 1/3 of the secondary-treated effluent (448 AFY) in a leachfield on the Broderson property which will recharge the upper aquifer to the same level as the current effluent from septic systems. The plan for the other 2/3 of the treated effluent (842 AFY at buildout) is to spray it on fields near the treatment facility. *Disposal of the effluent when the leachfield is being maintained and/or repaired is not clear in the Draft EIR. Also, the effect of temporary suspension of the effluent at the leachfield on seawater intrusion is not addressed.*

The Draft EIR states, “If 448 AFY is discharged to the Broderson leachfield, the resulting seawater intrusion benefit would be 100 AFY.” (p.7-60) The Detailed Proposed Project Descriptions portion of the Draft EIR states, “Groundwater modeling analysis has indicated that discharging 448 AFY through the Broderson leachfield could reduce seawater intrusion by 187 AFY.” (p. 3-45) Table 7-8 indicates that seawater intrusion mitigation at the Broderson leachfield would be 99 AFY. (p. 7-60) The Hopkins Report, included in Appendix D of the Draft EIR, stated, “With the initial proposed capacity it is anticipated that at least 100 AFY will percolate through the regional aquitard into the lower aquifer system. The remaining 348 AFY will be a component of annual recharge to the upper aquifer system.” (Appendix D, Preliminary Hydrogeological Impacts Study, p. 33) *The discrepancy between the various figures is not explained, nor does the Draft EIR address the increasing nature of the seawater intrusion due to continuing overdraft.*

The remainder of the treated effluent will be sprayed on fields near the treatment facility. The Draft EIR states, “...sprayfields are the only effluent disposal option that could handle the entire 1290 AFY of effluent. The Tonini sprayfield site... has a preliminary estimated capacity of more than 1150 AFY.... The disadvantage to sprayfields is that they

do not provide any seawater intrusion mitigation benefits.” (p. 7-63)

Conservation

Regarding seawater intrusion, the Draft EIR states, “Another important consideration of the Project involves water resource issues related to seawater intrusion that is contaminating the Los Osos groundwater basin. While the purpose of the LOWWP is to develop a community wastewater system, implementation measures for effluent disposal can enhance opportunities for the water purveyors to improve the local water resources.” (p.1-10) *It seems the county is planning to leave the improvement of local water resources to the water purveyors.* The Draft EIR discusses conservation measures that may be taken to reduce water consumption by 10% per capita over the 2006 average daily per capita wastewater generation rate. (p. 3-42) These measures are expected to conserve 160 AFY by the year 2020. In another location in the report, the reduction in per capita water demand is stated as 12% over the 2006 rate. (p. 7-58) *The discrepancy in these conservation rates is not explained.*

The Draft EIR also states that the Los Osos Wastewater Project will institute additional water conservation measures as needed to achieve the 10% goal. (pp. 2-13 & 3-42) *According to the Draft EIR, these measures will apply only in the Prohibition Zone.* In contrast to the Draft EIR, the Resource Capacity Study recommended the adoption of “an ordinance to institute water conservation requirements for parcels outside of water purveyor service areas that mirror the efforts undertaken by purveyors within their service areas.” (p. 3) *It is unclear if these measures will be implemented, as they are only recommendations to the Board of Supervisors.* In a “Report Back on the Resource Capacity Study for the Los Osos Water Supply, it was stated, “Lastly, no solution to these issues [seawater intrusion issues] can be pursued without consideration of the wastewater treatment project. The information needs of both overlap and can inform each other.” (p.2) *There is a difference of opinion among county departments regarding the county’s authority and the scope of the LOWWP to stop the overdraft that is causing seawater intrusion.*

On 2/13/04 the Los Osos Community Services District filed a complaint in Superior Court against Golden State Water Company, S&T Mutual Water Company, the County of San Luis, Sea Pines Golf Course, and unnamed Does (private domestic and agricultural well users) regarding the relative rights of the parties to use water resources from the Los Osos Water Basin. An Interlocutory Stipulated Judgment among the parties, in which they agreed to participate and cooperate in developing a plan for resource preservation and management within the basin, was filed on 8/5/08. This agreement did not include the well users, although the well users pump 1/3 (33%) of the total AFY pumped out of the basin. (Cleath, p.14) As of 9/24/07, there were 350 private domestic and agricultural wells in the water basin. (C. Rattigan, Public Health Department, email) Per an 8/31/07 email from Paul Sittig, Department of Planning & Building, additional wells may be added within the basin. *In order for the Basin Plan to be effective, **all** water users need to participate in the plans and solutions.*

Request for Action

The result of this continuing delay in dealing with the issue of seawater intrusion in the Los Osos ground water basin is the increasing loss of available fresh water for the community. To reiterate, I am requesting that the Regional Water Quality Control Board exercise its full power and jurisdiction to protect the quality of the water in the Los Osos ground water basin from further degradation due to seawater intrusion. This action should be addressed to all water purveyors **and** well users, include a review of all available data, and utilize further enforcement actions that are available in order to stop seawater intrusion.

Attachments

Exhibit A - Email from C. Rattigan

Exhibit B - Email from P. Sittig

Exhibit C - LOCSO Water Data

Exhibit D - Memo to M. Zimmer

Exhibit E - Index of /central coast water_issues/programs/los_osos/docs

Disk 1:

Draft EIR County of San Luis Obispo Los Osos Wastewater Project

Disk 2:

Hydrogeology and Water Resources of the Los Osos Valley Ground-Water Basin -
U.S. Geological Survey

Interlocutory Stipulated Judgment 9/5/08

Resource Capacity Study for Los Osos Water Supply 3/27/07

Report Back on the Resource Capacity Study for Los Osos Water supply 7/24/07

Sea Water Intrusion Assessment and Lower Aquifer Source Investigation of the
Los Osos Valley Ground Water Basin (Cleath & Associates 2005)

Subj: Fw: Approx. number of wells in Los Osos
 Date: 9/24/07 4:15:20 PM Pacific Daylight Time
 From: crattigan@co.slo.ca.us
 To: fjaunion@aol.com
 Sent from the Internet ([Details](#))

By the way the records started showing up in our database in the early 1960's but there are very few records until the early 1970's.

Cindy

..... Forwarded by Cindy Rattigan/PH/COSLO on 09/24/2007 04:14 PM

Cindy Rattigan/PH/COSLO

To fjaunion@aol.com

cc

Subject Approx. number of wells in Los Osos

09/24/2007 04:07 PM

Hi Frank.

I went ahead and ran two reports. One out of our current database, then one out of our older database. I then deleted any duplicate records that I could visibly find, and the temporary monitoring wells.

The number I came up with of domestic water wells is: 350. This will include irrigation, livestock, ag, etc... but not temporary monitoring wells.

I hope this helps.

Cindy

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Subj: **Potential for Additional Wells in Los Osos**
Date: 8/31/07 9:59:29 AM Pacific Daylight Time
From: psittig@co.slo.ca.us
To: fjaunion@aol.com
Sent from the Internet ([Details](#))

Hello Frank,

We talked at the front counter yesterday, August 30th, about the possibility of adding personal wells within Los Osos. I first told you that the limit would be for properties of at least 2.5 acres in the Residential Suburban land use category (Coastal Zone Land Use Ordinance 23.04.027b).

After you had left, I talked with another planner who works primarily in the Coastal Zone of the County, and she told me of the section in Title 19 (Building and Construction ordinance for the County) that prohibits wells to be used for Single Family Dwellings within the service boundary of a community water system (19.20.236b). There is a small area of Residential Suburban beyond the Urban Reserve Line, which might be the limit to the community water systems of Los Osos (but I don't know the water purveyors limits, you should ask them for maps). To the north of Los Osos Valley Road, there are 9 parcels larger than 2.5 acres, accessed from the end of Lariat and Sombrero Drives. The 1 acre parcels in front would be too small to have both on-site septic and on-site wells, unless there was some agreement or tests to say otherwise.

There is section of 7 Residential Rural lots, ranging from 4.5 to 5.5 acres in size, just south of LOVR and to the west of Clark Valley Road, and an additional 4 lots that are each just over 1 acre in size. There is nothing in the CZLUO that defines the lot size requirement for Residential Rural lots in relation to any on-site wells and septic systems, but I believe that the actual size limit is 5 acres, so many of these parcels would seem to be nonconforming. It appears that the rest of the land adjacent to Los Osos is defined as Agriculture or Open Space, with some Public Facility lots here and there.

If you'd still like the pictures, I'll work on compiling them for you by Monday.

Thanks, and have a good weekend -
Paul Sittig
Planner - Coastal Team

County of San Luis Obispo
Department of Planning & Building
976 Osos Street, Room 300
San Luis Obispo, CA 93408
(805) 781-4374
psittig@co.slo.ca.us

Exhibit C

LOCSD Water Data - as billed

Month	Water Usage Data in Million Gallons			
	FY 04-05	FY 05-06	FY 06-07	FY 07-08
Jul	28.3195	40.5430	21.6037	21.5157
Aug	38.6291	33.4399	33.0928	28.5309
Sep	33.5557	24.4971	24.6219	22.0733
Oct	36.7755	32.9448	32.1841	28.8990
Nov	21.0962	20.7438	21.3309	20.7211
Dec	21.7554	25.2537	27.3160	25.7029
Jan	15.4998	14.8606	15.7443	14.6467
Feb	20.2610	21.1223	22.0158	19.2402
Mar	14.6201	15.9176	15.0925	13.7879
Apr	18.2248	17.3015	21.5073	22.1587
May	17.5486	14.5826	25.5281	19.5740
Jun	31.6309	27.7037	30.0541	27.1762
TOTALS	297.9166	288.9106	290.0915	264.0266

Month	Water Revenue Data			
	FY 04-05	FY 05-06	FY 06-07	FY 07-08
Jul	\$83,081.24	\$103,887.75	\$89,829.09	\$127,895.73
Aug	\$147,713.60	\$137,129.15	\$135,105.35	\$189,818.01
Sep	\$93,618.40	\$101,881.61	\$101,709.12	\$135,457.67
Oct	\$141,119.85	\$135,261.27	\$132,826.00	\$175,420.26
Nov	\$81,993.64	\$86,426.15	\$87,484.63	\$118,521.34
Dec	\$85,956.36	\$105,148.01	\$111,673.17	\$155,921.14
Jan	\$60,758.25	\$61,835.06	\$65,287.83	\$88,878.69
Feb	\$79,994.85	\$86,082.23	\$100,302.37	\$114,071.57
Mar	\$57,708.51	\$65,357.04	\$75,062.30	\$82,209.70
Apr	\$71,166.53	\$71,427.21	\$107,455.12	\$128,023.56
May	\$68,862.46	\$61,000.12	\$91,062.36	\$107,930.91
Jun	\$123,561.65	\$113,729.49	\$166,727.69	\$164,562.53
TOTAL	\$1,095,535.34	\$1,129,165.09	\$1,264,525.03	\$1,588,711.11

*Consumption is billed for a two month period - every month. Every month, half of the service area is billed. Meters are read on or about the 10th of each month. Revenue is based on gallons billed and unpaid balances forwarded - not cash received.

USD Billed
 1140.945 MGs
 Ave. 385.379
 = 875,350 G
 (14F = 385,350 G)
 Billed vs. Paid

Exhibit D

MEMO

DATE: 01/02/09

TO: Mark Zimmer
Operations Superintendent
Golden State Water Company

FROM: Frank Ausilio
764 Highland Dr.
Los Osos, CA 93402



I am writing per your request that I put my previous verbal request in writing.

I am requesting information regarding the number of gallons of water, or the number of acre feet of water, that Golden State billed to Los Osos customers for the years 2005 through 2008.

This information will be used for my response to the Draft Environmental Impact Report for the Los Osos Wastewater Project and for public comment to the Regional Water Quality Control Board.

Thank you for your assistance.

Exhibit E

Index

of/centralcoast/water_issues/programs/los_osos/docs/master_docs

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- 1979 10 geohydrology_wq.pdf
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- 1984 01 19 res_84-13_000.pdf
- 1986 05 sewer_planning_study.pdf
- 1987 08 staff_report_wq_data.pdf
- 1988 usgs.pdf
- 1993 01 29 memo_re_bp_and_los_osos_sewer_project.pdf
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- 1995 02 03 memo_ucdavis.pdf
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- 1995 06 27 letter_public_health_to_moylan.pdf
- 1995 07 26 task_g.pdf
- 1995 12 assessment_of_nitrate_contamination.pdf
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- 1998 10 02 letter_re_severity_of_sewage_issues_briggs_to_co_health.pdf
- 1998 1st_qtr_baywood_gw_study.pdf
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- 2001 03 01 finale_ir.pdf
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- 2003 02 07 order_no_r3_2003_0007.pdf
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- 2003 05 los_osos_nitrate_mp_feb-mar2003.pdf
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- 2004 04 07 los_osos_nitrate_mp_dec2003-jan2004.pdf
- 2004 08 los_osos_nitrate_mp_june2004.pdf
- 2004 12 los_osos_nitrate_mp_october2004.pdf
- 2004_fall_ed5_faq5_000.pdf
- 2004_fall_ed6_faq6_000.pdf

- 2005_05_los_osos_nitrate_mp_march2004.pdf
- 2005_06_20_los_osos_nitrate_mp.pdf
- 2005_07_17_sea_water_intrusion_assessment.pdf
- 2005_10_los_osos_water_quality_impacts_and_status_of_sewer_project.pdf
- 2005_12_los_osos_nitrate_mp_october2005.pdf
- 2006_02_07_los_osos_csd_request_for_proposals.pdf
- 2006_02_09_letter_okun_to_all_cdo_residents.pdf
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