

**Agency and Public Comments
for the
Los Osos Water Recycling Facility
Waste Discharge Requirements**

Agencies:

1. John Waddell, County of San Luis Obispo
2. Dan Gilmore, Los Osos Community Services District
3. Kurt Souza, California Department of Public Health
4. Patrick Vowell, Golden State Water Company

Public:

5. Shaunna Sullivan, Sullivan Law
6. Julie Tacker and Jeff Edwards
7. Al Barrow
8. Keith Wimer, Los Osos Sustainability Group
9. Piper Reilly
10. Lindee Owen
11. Angel Law, Frank P. Angel

Shaunna Sullivan
2238 Bayview Heights Drive, Suite C
Los Osos, CA 93402

March 11, 2011

Members of the Board
Regional Water Quality Control Board
c/o David LaCaro
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Via Facsimile: (805) 543-0397

*RE: Draft Order No. R3-2011-0001
Amended Comments, Inquiries and Objections to Draft Order and Staff Report
Pertaining to Los Osos Waste Water Discharge Facilities*

Dear Mr. LaCaro, Chairman Young and Members of the Board:

This objection is made by myself individually as a resident, business owner and property owner located within the Los Osos Prohibition Zone. I also make these comments as a citizen taxpayer concerned that the expense of this project as currently proposed will displace so many of my neighbors and will not be the green sustainable project that should be built with the amount of funds being assessed. I would like to make the following suggestions and comments addressing the staff report and draft order. I also have a number of inquiries which I would like to have addressed.

First, the Notice of this draft waste discharge requirement with its corresponding deadline to respond by March 11, 2011 was extremely difficult to find on the Central Coast Regional Water Quality Control Board's website. One would expect to find the notice in the public notices tab which is denoted as "Decisions Pending or Opportunities For Public Participation." However, the latest notice posted on that site is dated July 2, 2010 with public comments to expire on July 22, 2010. If you truly wish public comment it would be much more effective to have a website that provides notice of pending matters, not already determined matters, under the designated "Decisions Pending and Opportunities for Public Participation".

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I note that the Los Osos Wastewater Discharge Facility has now been renamed the "Los Osos Water Recycling Facility". I am glad that the need to recycle water has finally hit the radar with your board, especially since it has been since 1991 a water quality objective pursuant to Water Code §13241(f). Although you have recently renamed the plant as a recycling plant rather than a discharge facility, the recycling component is missing from the proposed project as well as from your discharge permit requirements. While the current project merely allows "an opportunity for urban and agricultural water reuse", the \$189 million project appears to only allow discharge to leach fields, urban landscape irrigation and agricultural irrigation. As stated in the Staff Report on page 2,

"Details of the Discharger's reuse program are not yet available; therefore, general reclamation requirements are included in this Order as guidance for development of that program and may be updated and/or revised to address reuse program specifics."

In fact, it appears that the recycling component will be yet another project, financed by another assessment or through water company charges and development and approval of a water management plan in Los Osos.

While "Water Board Staff recognizes that wastewater management in combination with groundwater basin management, conservation practices and water reuse constitutes a model for new wastewater projects within the Central Coast Region as well as the State", I submit this extremely expensive project will not be the model of this state, this country, or the world except as a model of a colossal waste of money for a dinosaur system. Attached is a copy of the USA Today article dated March 3, 2011 that was front news in Washington DC. Not only is the current proposed treatment system lacking a recycling component, it does not appear to include the reverse osmosis treatment that this article indicates will be the norm. This project's failure to fully cleanse the water also begs the question, does this facility fully treat the water for reuse as a municipal water supply? Is it more cost effective to take the nitrates out of the water to MCL limits at the time it is going to be reused as a municipal supply ?

I fail to see how this proposed project is the "model" for a green sustainable project. There is entirely too much emphasis on the claim of nitrate contamination necessitating this plan. I believe the RWQCB's desire for central control of water and waste treatment facilities rather than lowering the current unknown level of nitrates is the real motivation here.

I object to the last paragraph of page 5 and the table on page 6 with regard to the

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nitrate data to justify this project. The table includes apparent "cherry-picked" data dating back to various selected dates in 2006 indicating that 17 wells on those specified dates exceeded the maximum contaminant levels (MCL) of 10 mg/L as N. What the staff report fails to state is that the same table reflects 13 wells were at or below the required MCL. The staff report also fails to reflect information derived from the "Los Osos Nitrate Monitoring Program of April 2005" prepared for the Los Osos Community Services District by Cleath and Associates, which stated,

"Water quality results at network wells for April 2005 indicate a decline in shallow ground water salinity compared to the results obtained in October 2004". NO₃-N and TDS concentrations of water collected from network wells across the basin decreased an average of 0.6 mg/l and 42 mg/l respectively over the last quarter. The number of monitoring network wells with water quality in excess of the NO₃-N, drinking water standards, 10 mg/L has declined from 14 wells in October 2004 to 12 wells in April 2005.

Water quality trends are interpreted to indicate that general mill concentration in shallow ground water are close to equilibrium conditions under the current land uses and septic discharges, which have been relatively stable since the 1980's."

If the RWQCB believes that nitrates are the continuing problem and not decreasing as was indicated in the Los Osos CSD Nitrate Monitoring Program of 2005, why has there been no later testing beyond October 2006 as reflected in the chart? There certainly are a plethora of water monitoring wells in this community so why are they not being utilized to continue to monitor the nitrates? Please explain why we would not be better off by having the nitrates reduced to better than MCL standards at such time as water is reused, as opposed to the expense of treating it to these levels to place it back into the groundwater. Also, how will this project treat for emerging contaminants? Are there any regulations in place now for this?

Please also explain the sentence from page 5 of the Staff Report, "Surface waters will will-be further protected by the long term restoration of groundwater, which ultimately discharges to surface waters of Morro Bay and creeks tributary to Morro Bay. We simply do not have sewage flowing in our surface waters and streets as staff and the Board continue to claim. Please elaborate on the correlation between salt water intrusion , the ground water

and the surface waters. How will the surface waters of Morro Bay and its tributaries be affected by the restoration of the groundwater. Where will this discharge from groundwater to surface water be in this project? Although I am absolutely in favor of making sure our groundwater is clean and protected, I am not sure that a cost/benefit analysis supports the costs involved in this project focused on discharges into our water basin meeting drinking water standards without addressing return of the water supply for drinking water our water basin .

I request that the Staff Report be revised to accurately quote Resolution 83-13 that was adopted before recycling was mandated in 1991 as a water quality objective. The staff inaccurately states at Page 8 of its request, "In 1983, the Central Coast Water Board adopted Resolution 83-13, which prohibited discharges of waste from individual and community onsite wastewater treatment systems within the urbanized area of the Los Osos/Baywood Park (Prohibition Zone)."

Resolution No. 83-13 adopted in 1983 stated:

"Discharges of waste from individual and community sewage disposal systems are prohibited effective November 1, 1988 in the Los Osos/Baywood Park area, and more particularly described as 'Groundwater Prohibition Zone'. (A legal description is provided for the area prescribed by Regional Board)."

While the staff now attempts to rewrite the resolution to claim that 83-13 bars all community or individual onsite systems, the fact of the matter is Resolution 83-13 effectively barred all discharges of waste from individual and community sewage disposal systems including this project. As set forth in The Cease and Desist Orders based on 83-13 your Board issued in 2006 "Discharges from individual and community sewage disposal systems are prohibited effective November 1, 1988 in Los Osos/Baywood Park are depicted in the prohibition boundary map included as Attachment A of Resolution 83-13". There was no requirement that the discharges be waste discharges. If all discharges are prohibited, then clearly this project is also prohibited by Resolution 83-13. As stated in the testimony of the RWQCB staff during the January 22, 2007 hearing, the following questions and sworn testimony states:

"Mr. Packard: What the CDO requires, or what the basin plan prohibition talks about is a discharge prohibition. It doesn't even have the

word waste in it, according to the part that's cited in the order. So, that's what prohibited, is the discharge.

Ms. Sullivan: Is that true that your interpretation of discharge means that it prohibits a discharge whether it consists of discharge of waste or not?

Mr. Packard: That's my understanding of the prohibition, yes.

Ms. Sullivan: So what is discharge under your definition in the CDO, cessation of all discharge?

Mr. Thompson: It would be that the system is no longer hooked up to the waste system of the house.

Ms. Sullivan: Isn't it true that any communitywide disposal system would be built to discharge clean water to recharge the water basin?

Mr. Packard: Actually we don't have a design in front of us for a community waste system.

Ms. Sullivan: Isn't that your goal, to have a recharge of the basin?

Mr. Packard: It could be a goal; it's not necessarily the primary goal.

Ms. Sullivan: Isn't one of the water quality objectives include – doesn't it include recycling of water as a primary objective of the Board? Or of the Regional Board?

Mr. Packard: It is Board policy to promote recycling of wastewater, yes.

Ms. Sullivan: Okay. So if a community-wide system goes in that recycles water and recharges the basin, won't that be a discharge that violates your order of ceasing all discharges.

Mr. Packard: If we were to have a system in front of us that we felt would be the system that's going to improve water quality we'll ask the Board to grant an exception.

Ms. Sullivan: So you will look at water quality? When determining whether there's a discharge or not?

Mr. Packard: From a community system, yes.

Ms. Sullivan: Doesn't 8313 prohibit any community or individual discharge?

Mr. Packard: Yes.

Ms. Sullivan: Okay, so but a community system would be okay to discharge, but an individual one will not? Is that what you're saying?

Mr. Packard: If the Board issues a permit for that community system we would ask the Board also to grant them an exception to the basin plan prohibition." (Pages 73 -75 of the hearing transcript.)

For staff to now twist the meaning of 83-13 as prohibiting discharges of waste from individual and community *onsite* wastewater treatment system as prohibited is dishonest and needs to be corrected. I suggest that 83-13 be rescinded as it has been misinterpreted, misapplied, misconstrued and simply fails to reflect this community's need to recycle and recharge its basin . This plant will obviously discharge into the basin, as it should, to prevent seawater intrusion. However, this will require that the Regional Board to actually recognize that the proposed project is also violative of 83-13 (as your own staff recognized) and therefore requires an exemption from 83-13. To now claim that this project "is intended to result in compliance with an onsite wastewater system prohibition set forth in Resolution No. 83-13" is absurd.

I also request that the staff and Board's order regarding the history be accurate and include the prior failures of prior proposed systems to recharge the basin.

The proposed WDR Order goes far beyond the prohibitions necessary to approve the exemption of this project from Resolution 83-13. Prohibition A1 broadly states "Discharge to areas other than disposal facilities shown on Attachment D of this Order or re-use sites approved by the Executor Officer is prohibited". Attachment "D" is an extremely poor black and white copy of a map entitled "Groundwater Monitoring Locations. It is not only indecipherable but apparently not applicable to this prohibition. If the intention was to

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prohibit what is set forth in attachment "B" entitled "Project Site and Disposal Areas, that black and white map also is indecipherable and clearly not indicative of all of the areas for disposal. And again, shouldn't the prohibition be as to "waste" discharge rather than any discharge?

With regard to A2 and A3 prohibiting any overflow, over-spray, or run-off, partially treated waste water is this the prohibition that would subject Los Osos to mandatory fines in the event of an accidental overflow or discharge?

With regard to the recycled water specifications on Table 5, why not include the MCL water nitrate limitations in that table? It would appear to be more important for human health and safety to use MCLs for recycled water rather than for discharge levels for discharge into the groundwater.

I request having the Board use colored maps that are readable and decipherable as Exhibits A-D. I also suggest that Attachment A actually reflect the area of the project. It is a little unclear to me whether that is the recommendations on Page 5 that the Order require the development and a strategy to develop and implement an on-site wastewater management plan for **unsewered** areas of the community. It also requires the development and implementation of salt and nitrate management plan. The cost of compliance with these orders apparently benefits areas outside the prohibition zone that have not yet been charged with the cost of this project.

"This facility will also include a septage receiving holding tank to meter septage into the wastewater treatment process. Can you explain the staff report statement on Page 2 that t The septage holding tank will be used only for sources within the Los Osos area that are not served by the wastewater treatment facility".

Will you provide further clarification of what this is and who will pay for it and who will benefit from it?

I remain concerned with the representation of the history does not reflect the historical fact that Los Osos has assessed itself or been encumbered with two assessments of over \$6,000, \$25,000 per household and the community approval of the most recent open-ended assessment of not less than \$194 a month to pay capital costs, O&M, and debt service for this facility. Another assessment district encumbering and charging the vacant lots is also anticipated to contribute to this project or requirements under it . Moreover, at least \$6

million of the limited "grant" funds will apparently go back into the SRF to reimburse the SRF and possibly another \$6 million plus to your agency as fines. How this 30 year old gravity flow without recycling components could possibly cost more than American Idol has generated in over nine seasons of charitable contributions to help world wide projects or generated by Elton John's charitable foundation for decades of AIDS research is incomprehensible. I submit our resources could be better spent (assuming arguendo, we had them to begin with).

I object to the environmental summary the water board need not make any specific findings pursuant to CEQA guidelines. Your agency has failed to comply with the requirements of *California Public Resource Code* § 21080.5 and 23 C.C.R. 3775(a) through 3782. While water basin plan amendments can constitute regulatory actions exempt from certain CEQA requirements, Water Board resolutions are not exempt from all CEQA requirements for environmental review and public participation. *City of Arcadia v. State Water Resources Control Board* (2006) 135 Cal.App.4th 1392, 1420. While a certified program may avoid completing the full environmental documents that CEQA would otherwise require, written environmental review documents must still be prepared and reviewed and certain CEQA requirements met. The CEQA violations by your agency in proceeding with these resolutions include, but are not limited to, the following:

Any environmental documentation denying there are any environmental impacts as a result of these onerous regulations and assessments, also fails to meet CEQA requirements. There is no analysis of the reasonably foreseeable environmental impacts of the methods of compliance or analysis of reasonably foreseeable mitigation measures, no analysis of foreseeable alternative means of compliance with the rules or regulations and the cursory checklist provided by staff ignores the temporary and permanent impacts of these regulations and bans on onsite systems and the impacts that will result by RWQCB taking on land-use decisions and adopting regulations without any specified criteria other than discretionary and arbitrary subjective determinations of the Executive Officer. I would rather have the current "subjective interpretation of imprecise language" than the complete unaccountable transfer of unbridled power to the Executive Officer to mandate and dictate all interpretations, rules and enforcement regarding recycling locations and standards. Also, Environmental justice and economic impacts on the community have not been properly addressed.

In issuing an exemption from Resolution 83-13, please insure this system is complete, sustainable and cost effective for return of our water.

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Nothing contained herein is intended to be, nor shall it be construed as, a waiver of any or all rights, claims or defenses against the RWQCB for these actions by me individually or in any representative capacity. This letter is not intended to be a complete statement of all claims and defenses I may present at the hearing or if this Board proceeds with adoption of these resolutions.

/s/

Shaunna Sullivan

California Regional Water Quality Control Board
Central Coast Region
895 Areo Vista Place, Suite 101
San Luis Obispo, CA 93401-7906

March 11, 2011

Subject: Draft Waste Discharge Requirements for the County of San Luis Obispo, Los Osos Water Recycling Facility, San Luis Obispo County Order No. R3-2011-0001.

Dear Mr. Briggs

Please accept this email attached letter as comments on the above referenced order.

1. The "Los Osos Water Recycling Facility" appears to be a misnomer based on the facts related to the project and its actual function. To date the Broderson and Bayridge locations are the only known sites where "recycled" water is intended to be discharged. The original concept was to use these sites during periods of wet weather. There is no established location for disposal of "recycled" water during the balance of the year. This means that these sites will be subject to receipt of treated effluent throughout the entire year.

There are no secured locations identified for treated wastewater reuse. The report dated February 9, 2011 vaguely references 25 agricultural users and 10 urban users. Without identified locations comments can not be focused specifically to the concerns associated with specificity. Consequently, our comments will be general in nature.

- a) The Los Osos Valley is the reverse scenario to the Monterey County Regional Water Pollution Control Authority project. Los Osos Valley farmers have water that is fairly high quality with no seawater intrusion issues as is the case in Monterey.
- b) Your proposed Order No. R3-2011-0006 raises questions about farmer's willingness to accept any water that has constituents that may be new to them. There is also the question of compliance with the order and how it will effect their overall operation. The already expensive LOWRF cannot pay for farmers to

take the water or facilitate their compliance with the order.

- c) Most importantly, the Los Osos Groundwater Basin is under serious threat of seawater intrusion; the ag reuse component of the project does little to nothing to offset groundwater pumping needed for domestic supplies. In other words, there is no plan to use water under agricultural properties for community supply purposes, often called "ag exchange."

Because the County was unable to provide any contracts or letter of intent from prospective recycled water recipients, on March 1, 2011 the CWSRF dropped a \$4.5 million grant component from the financing package. It is unclear if these funds will be available if and when the county has a viable reuse plan.

1. Infrastructure to urban reuse sites was not considered as part of the project or permitted under the Coastal Development permit. No CEQA analysis was done and no funding has been allocated for such additions to the project.
 - a) Sea Pines Golf Resort, the largest turf area in the community, uses upper aquifer water for irrigation and was not considered as part of the project. The only infrastructure approved by the Coastal Commission was a trunk line to Broderon.
 - b) Urban reuse should be avoided altogether to allow for the alternative use of upper aquifer water, this use of non-potable upper aquifer water is cost effective.
 - c) Urban reuse on school turf sites additionally concerns our family; with well known common weather conditions in Los Osos, mainly summertime fog, there is little time for evaporation to take place until very late into the afternoon. One school uses their turf area as a retention basin; there is little need for irrigation.
2. The report often refers to reduction in groundwater levels due to the implementation of the LOWRF; in fact the Coastal

Development Permit prohibits drops in groundwater levels due to habitat concerns.

4. We request that the DWR prohibit any land application of sludge.
5. We further request that with any approval of DWR's that the 45 individual Cease and Discharge Order's immediately be rescinded.

In summary, let's be intellectually honest about what the project is and isn't. At this juncture the project will collect untreated wastewater, treat it and dump treated effluent at Broderson and Bayridge.

Sincerely,

Jeff Edwards and Julie Tacker
P.O. Box 6070
Los Osos, CA 93412
805-235-0873

From: al barrow <a.barrow@charter.net>
To: Harvey Packard <Hpackard@waterboards.ca.gov>, David LaCaro <DLaCaro@wate...>
CC: <abarrow@charter.net>, bob pickney <bob.pickney@adenus.com>
Date: 3/11/2011 4:09 PM
Subject: WRD LOWWP Comments
Attachments: List of Omissions; RE: Public document request final part; Final Guidance.pdf

Comments on

I am including all prior documents by reference by the SLO County from 1980 on, the LOCSD from inception 1999 and all comments on these documents in the public record.

October 15, 2009

To: Whom It May Concern

From: Robert Pickney P.E.

Chief Technical Officer

Adenus Group

849 Aviation Parkway

Smyrna Tennessee 37167

RE: Estimated Cost for a Decentralized Wastewater System for the Los Osos Wastewater Project

I have reviewed the available documents and engineering reports and summaries.

I estimate that the total construction cost per home to be between \$12,000 and \$15,000.

This estimate is based on the following information:

- a. Prevailing wage for the local area
- b. Typical geotechnical issues for the installation of subsurface piping for the area
- c. Similar projects we have designed, constructed and are operating in the Southeastern portion of the United States

Further, the environmental impacts of a conventional gravity system on the groundwater in the basin have been ignored in the engineering studies. All gravity collection systems develop leaks and breaks as the system ages. A study of nearby communities will show a continuous exfiltration of raw sewage into the ground water. Most communities collect less than 50% of the sewage generated. The other 50% or more leaks directly into the ground water and streams along the collection lines. A watertight collection system is by far the most critical environmental component to protect ground water and aquifers in the Los Osos area. A conventional gravity system can be constructed and tested to meet watertight standards. To my knowledge, no system comes close to meeting those standards five to ten years later, and break and leaks are very difficult to locate, and very expensive to build. I would challenge the designers proposing the conventional gravity system to identify a "model system" at least ten years old that is performing to the standard they suggest this conventional gravity system will perform. Low pressure watertight systems have a history of meeting the desired standard, and many systems can demonstrate this capability.

If more information is desired, I would be happy to discuss and provide additional information.

Sincerely,

Robert J. Pickney

Robert J. Pickney, P.E.

Technical Support

Al,

Thanks for the call, keep up the good work on getting affordable wastewater service to the Los Osos community. As I have told you before, I am available to testify and/or participate in the proceeding (legal or technical) to help get the right solution. Just let me know how I can help.
Thanks

Bob Pickney, P.E.
Adenus Group
www.adenus.com
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We have a dream, that as a community, we can live in our community in an affordable manner and be sustained with the resources we have. One resource we have, that many nearby communities have run out of, is water. The water that we have though is at

risk from two fronts; seawater intrusion caused from overdraft, and high nitrates, largely in part caused by on-site septic systems. As you know, the Regional Water Quality Control Board (RWQCB) has mandated that we clean up the nitrate problem, but the same Board, who is in charge of all surface and subsurface waters, has done nothing to control degradation of our drinking water from seawater intrusion. This is a huge problem because, in essence, we will be charged close to \$200 million to clean up a nitrate problem in our drinking water, that in the very near future, will be destroyed by salt water. The big difference is that nitrates can be removed from the water easily and economically whereas saltwater is irreversible. We want to do everything we can as citizens, the owners of our water, to save this precious resource and prevent having to pipe in expensive water from outside sources or to desalinate our water which is very expensive and has its own set of complicated issues.

The RWQCB has left the seawater intrusion problem in the hands of our water purveyors and the County of San Luis Obispo (County) which are now a part of the ISJ Working Group. The ISJ Working Group is working under the auspices of the Interlocutory Stipulated Judgment in the Los Osos Groundwater Basin (Basin) adjudication to draft and implement a Basin Management Plan (BMP). The County has been asked to come up with a BMP for the last 20 years that they have been aware of the seawater intrusion problem but have failed to do so. The courts have now demanded it through the Interlocutory Stipulated Judgment (ISJ). The ISJ Working Group hired the local hydrogeology firm Cleath-Harris Geologists, Inc. to study the basin and make recommendations on how to balance the basin and keep it sustainable. To summarize their conclusions, they determined that the lower aquifer (which most of the purveyors wells tap into) is being over drafted causing the seawater intrusion. The solution basically is to start pumping water from the upper aquifer (the one that is polluted with nitrates) and less from the lower aquifer (which is the only way to slow seawater intrusion). Plans are in place now to do essentially that. Golden State Water Company (GSWC) has applied for and has been granted permission to treat the upper aquifer water at the well head for nitrates which costs about \$0.60 per 1000 gallons treated. I am trying not to bog you down with too many details, but I am happy to provide you with any details or documents that you care to read.

The Los Osos wastewater treatment project (LOWWTP) that is looming over our heads right now has 2 objectives; comply with RWQCB directives to alleviate groundwater contamination, primarily nitrates, which have occurred at least partially because of the use of septic systems, implementation measures adopted for effluent disposal methods can also enhance opportunities for the water purveyors to improve the local water resources. The basis for determining if the proposed LOWWTP would indeed correct the nitrate problem was the Yates-Williams report titled ³Simulated Effects of a Proposed Sewer Project on Nitrate Concentrations in the Los Osos Valley Groundwater Basin² prepared on November 6, 2003 and was updated in 2005. To summarize the results, the Simulated Average Nitrogen Loads under Existing Conditions with 2000-2002 Hydrology data is 10.9 milligrams per liter (mg/l) which is only 0.9 mg/l over the standard of 10.0 mg/l. With the LOWWTP installed, the Simulated Average Nitrogen Loads are 8.3 ml/l. And guess what! This is the expected improvement to the nitrates in our groundwater after 30-years; a total of 2.6 ml/l improvement in 30 years. And guess what else, its only simulated, they can't state for sure its going to work. This is the bottom line of what the County is asking of us to pay for. I ask myself, where's the benefit for my \$250 per month for the rest of my life in this project.

Did I mention that according to the Yates-Williams report, 59% of the nitrates come from outside the Prohibition Zone? So these nitrates will continue to pollute the groundwater after the Project is installed.

What you really need to ask yourself is what is the benefit of the Project if the purveyors are already planning to and have received permits to pump the upper aquifer and treat for nitrates as they pump. You see, the basin can't wait 30 years to be fixed, it needs to be fixed starting yesterday. If they are going to clean the nitrates at the well head anyway and pay the elevated cost for the water, it seems that the added costs of the Project is a huge double whammy. I have worked closely with the Los Osos Sustainability Group which has been very concerned about this issue over the past 3 years and active in developing solutions to these problems. We hired Eugene Yates (the same guy that did the above mentioned basin study that the County used to justify the Project) twice at the tune of \$5,000 out of our own pockets to review the Cleath-Harris report and to make recommendations. To summarize his conclusions, he confirms that accelerating seawater intrusion into the basin is an ³extremely urgent² problem requiring urgent action, including 500 AFY of reduced pumping from the lower aquifer. Yates also recommended the review of a wide range of mitigation options to address changes in basin conditions, adding that the LOWWP, in conjunction with the increased pumping from the upper aquifer may induce seawater intrusion in the upper aquifer. In other words, you have to start pumping out of the upper aquifer to save the lower aquifer, but if you pump too much out of the upper aquifer, you can induce seawater intrusion in the upper aquifer as well. What needs to be set up is a monitoring system that can predict problems before they happen. This is why a Basin Management Plan (BMP) must be implemented immediately. The reason the County has slowed down the BMP is because they want the Project online first, because after the BMP comes out, you will see why we don't really need the Project. The BMP was promised by the County in January of 2010, and then it was delayed until January 2011, and now they are delaying it until May 2011.

I want to be clear that the CSC is not promoting that we don't need a project, we are promoting a project that actually provides a benefit to the basin and one that we can afford. We were never given a choice as to the type of project we wanted. The County made their mind up as to what they wanted and that is what they are handing to us. So much of this is politics, and I don't pretend to understand the politics and what goes on behind closed doors, but I can tell you this, that there have been a lot of closed doors, and they don't have our best interests in mind. Follow the money. The County gets 15% management fee for what ever project is decided on. 15% of \$200 million (\$30 million) is twice as much as \$100 million. It is estimated that it will only cost them 10% oversee the Project, so the rest goes into their coffers. The purveyors don't care what water they provide us, in fact the more it costs, the more profit they make because they work on a percent basis. If they have to import water or desalinate it, they will still sell us water and make money as they do it. Did you read the New Times this week? ³The CSD Board of Directors voted to raise its water rates in 2009. But after a heavy campaign encouraging residents to conserve water, they conserved too much. According to CSD General Manager Dan Gilmore, the CSD will almost certainly raise its water rates again.² Are you kidding me!!!?? We conserved too much? Do they have our water basin in their best interest or their pocket books? My friends, we need to to everything we can to protect our water, and I believe if managed correctly, we can have a sustainable water supply without the need from outside sources.

This brings up another major issue I have a problem with. The proposed treatment plant is being designed and sized for not only the current residents but also for undeveloped properties, and get this, for an additional 300 acre feet of water above and beyond that. This is growth-inducing. The County fully plans to build out this community as much as it can. Follow the money. Los Osos is a huge cash cow for the County. It is estimated that the County only spends 15% of the taxes it collects from Los Osos on improvements to Los Osos. We basically fund many of the County projects and they need us badly, especially in today's financial situation. The issue is that we clearly don't have enough water for growth. Yates told us that that we need to get a plan and start today if we want any chance of saving our water with just the existing population. Right now we are being asked to fund the portion of the project for the undeveloped properties at the tune of \$30/month until they all hook up. The County and the ISJ Group are already talking about importing water which tells me they are not that interested in preserving our basin and living within our means. They are interested in build out and the income that will provide them. It is clear to me that if we want this thing done right, we need to come together as a community and make this happen ourselves.

Citizens for a Sustainable Community has hired ANGEL LAW Law Offices of Frank P. Angel to look at our situation and ways we can turn this around. What Angel has found is that a lot of new information of substantial importance has come to light since the Final EIR was submitted. This requires that subsequent or supplemental environmental impact report (SEIR) be prepared, and that the information in that SEIR be considered. Such a course of action is mandated by the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (Guidelines). Please read the entire comment letter (attached) that they will be handing to the State Water Resources Control Board (SWRCB) tomorrow (Feb 29). Basically what is being asked of the SWRCB, is that before you accept funding for this project, consider all the facts that have come out after the original EIR, and consider them before making any final decision.

I am certain that it will not stop at \$250/month. This does not include cost for over-runs, and there will be over-runs. I have attached Attachment 27 which you should look at if you want a good idea of what you will be paying in the near future. When you look at estimated water rate increases and sewer charges it will probably be closer to \$500 plus per month. Another statement I hear a lot is ¹The longer we put this off., the more it is going to cost us.² This is not true. If we put the project the County took off the drawing board that they promised to give us in the first 218 vote, it would save us \$50-80 million and be better for the environment.. Also, think of how much money you have saved already by not having to pay for a sewer system for the last 20 plus years at a cost of \$100-\$150/month. That comes to \$24,000-\$36,000 if you have lived here that long. Plus every. The nitrate problem is going to be fixed at the well head and at the direction the County is going, we will run out of water in our basin before the 30 years are up that the real benefits from the Project might happen.

This is not necessarily the end of the fight either. If the Water Board does not agree that Supplemental EIR is required, we will then look at our options, and we might decide to file suit.

We do not have to be run over by this train that is headed our way. I truly believe that we can stop it, but I also believe that this is our last chance. As hard as I have worked on this project in trying to bring sense to the power that be, I have always known that the only way to be heard was going to be in the courts. Well, that day is at hand.

3. I include by reference Edo McGowan's comment letter March 1, 2011 SWRCB meeting on the constituents of wastewater effluent from treatment plants that is planned to be DISCHARGED into our drinking water aquifer supply and the local farmland and wetlands. No discharge permit should be allowed until all these issues are resolved. Our water supply is the reason for the sewer and building prohibition. If the sewer cannot be proven to resolve these concerns then a plan that does resolve them. It may be necessary to use AOT treatment <http://www.advancedoxidation.com/> to remove polyphenols and other endocrine disruptor chemicals that impair reproductive activities of wildlife around Los Osos and the Morro Bay Estuary.

<http://ceenve3.civeng.calpoly.edu/cota/enve436/toxicology.html> Cal Poly Professor Lars Tomanek http://www-csgc.ucsd.edu/RESEARCH/PROJPROF_PDF/RCONT-142PD-Tomanek.pdf did study on Goby EDC and <http://www.sarc.calpoly.edu/files/file/2010%20PDFs/A%20Schroeter.pdf>

The Water Factory One Project in Orange County CA used AOT to remove Dioxin-4 a pesticide carcinogen and we have these used in our water basin. The gravity sewer will leak raw sewage into our basin/aquifer and a plume into the Morro Bay Estuary over time. Raw sewage cannot be removed by wellhead treatment unlike nitrogen. Another reason not to allow this discharge permit. You say you have no authority over seawater intrusion but raw sewage cannot be allowed under anti-degradation state and federal law.

We have liquefaction conditions throughout the Prohibition Zone and are on a 6.8 Los Osos fault and 0 miles offshore is the Hosgri Fault 7.3 magnitude potential. Geo reports of 500 pages Fugro state these facts in the past and present sewer documents listed on the SLO County website [slo county lowwp](http://www.slocounty.ca.gov/PW/LOWWP/DOCS.htm) <http://www.slocounty.ca.gov/PW/LOWWP/DOCS.htm>.

A Subsequent EIR is required to address these issue.

Further new evidence shows that the PERS Application for the USDA RUS loan has false, misleading information and missing critical data on alternative collection system (Attached).

The affordability of wastewater project rates as shown in SWRCB study 2003-4 shows then around \$20.00 a month average for ratepayers. This one proposed in the SRF application is \$238.00 a month, an amount that will devastate many households. According to property management agencies renters would chose other areas. Low income seniors will also be impacted unnecessarily as affordable options are available to address groundwater pollution from leach fields. Septic Tanks that reduce solids by 80% are primary treatment facilities. Steve Paige makes the argument that you are requiring a "Taking" by removing these onsite treatment plants. Effluent collection systems avoid many impacts caused by deeper gravity sewers with lift stations and 400 manholes that are SSO potential in backflows, stoppages and high rainfall. We saw this all over the SLO County this winter when manholes overflowed. We also saw manhole overflows on the Monarch Grove gravity collection system for which CCWB fines were implemented.

In summary the proposed permit allows the most impactive of all solutions and creates a myriad of unintended side effects. The discharge proposed is a growing environmental impact on the Bay, The groundwater supply and the ability of the community to stay in their housing due to the exorbitant cost which are way above the USEPA's affordability guidelines.

<http://www.slocounty.ca.gov/PW/LOWWP/DOCS.htm>

As an affordable housing advocate let me remind you the the state guidelines for housing
"http://www.hcd.ca.gov/codes/shl/ms.html" and:

65580. The Legislature finds and declares as follows:

(a) The availability of housing is of vital statewide importance, and the early attainment of decent housing and a suitable living environment for every Californian, including farmworkers, is a priority of the highest order.

(b) The early attainment of this goal requires the cooperative participation of government and the private sector in an effort to expand housing opportunities and accommodate the housing needs of Californians of all economic levels.

(c) The provision of housing affordable to low- and moderate-income households requires the cooperation of all levels of government.

(d) Local and state governments have a responsibility to use the powers vested in them to facilitate the improvement and development of housing to make adequate provision for the housing needs of all economic segments of the community.

(e) The Legislature recognizes that in carrying out this responsibility, each local government also has the responsibility to consider economic, environmental, and fiscal factors and community goals set forth in the general plan and to cooperate with other local governments and the state in addressing regional housing need. So please consider the impacts to us all and deny the permit that staff recommends and avoid litigation. Thank You, Al Barrow Coalition for Low Income Housing ad Citizens for Affordable and Safe Environment www.clh.net

March 11, 2011

Central Coast Regional Water Quality Control Board

Subject: Request to deny issuance of the Waste Discharge Requirement permit for the Los Osos Wastewater Project (LOWWP) and to circulate a subsequent environmental impact report (SEIR) for the project

Dear Board Members:

I request that your Board does not issue a Waste Discharge Requirement (WDR permit) for Los Osos Wastewater Project (LOWWP) at this time, and that you circulate an SEIR for the project, in cooperation with other responsible agencies. The proposed project is one of the least cost-effective alternatives possible, and has several severe unmitigated adverse environmental impacts. Further, the critical seawater intrusion problem in the basin, which came to light in May of 2010, constitutes substantial new information and results in substantial new adverse impacts that must be fully reviewed and addressed prior to final project selection and permitting. An SEIR is essential to address these critical issues, in order to avoid an environmental, social, and economic disaster in the Los Osos area.

Of major concern to the Los Osos Sustainability Group (LOSG) is that the proposed "reuse/disposal" program does not mitigate for the project. The program fails to provide a means for groundwater flows to be restored to wetlands and creeks, it fails to provide a way to mitigate for seawater intrusion as Broderson leach fields are being tested—or if they fail to perform as planned—and it fails to account for uncertainties (e.g., related to basin modeling and accelerating seawater intrusion). Further, the recycling program for the project has not been developed and may not be feasible. Nevertheless, the "reuse/disposal" program as proposed is the main mitigation for the project's impacts on the groundwater basin (e.g., seawater intrusion) and high-value sensitive habitat (e.g., Willow and Los Osos Creeks). Also, the cumulative adverse impacts of the project, in combination with the purveyor management plan under development, have not been addressed or mitigated, nor have severe socio-economic impacts and related environmental impacts resulting from the project's extremely high costs. Unmitigated impacts and future, unfunded project costs will add to the project's adverse impacts, and the results could be catastrophic. CEQA requires these adverse impacts to be addressed, and feasible options and alternatives that minimize impacts to be implemented. Further, the Federal Clean Water Act (e.g., 33 USC § 1292) requires the most cost-effective project to be funded. The proposed project is the least cost-effective and far less environmentally protective than other options. Thus, it violates the Clean Water Act and CEQA.

~~The proposed project could easily make the extremely urgent seawater intrusion problem worse and jeopardize the area's sole source of water. It could also harm very high-value~~

environmentally sensitive habitat, including federally-listed endangered steelhead habitat (Los Osos Creek), and it is likely to cause disastrous effects on the community and economy of Los Osos.

The Los Osos Sustainability Group has presented these concerns with substantive support several times to the Regional Board. While we remain very concerned about pending and threatened Water Board enforcement actions, we believe it is necessary to point out the project's flaws and risks to prevent an environmental, social, and economic disaster. Chief among our concerns is that the project will deplete a very large sum of public funding necessary to establish a sustainable water basin, leaving the community without adequate funds to maintain, develop, and protect this finite irreplaceable resource in the future. Technical reports have concluded that alternative sources of water are unlikely for technical and financial reasons. Therefore, an affordable project, which establishes a sustainable basin, is vital to the survival and health of environmental, social, and economic resources in the area.

Because a limited amount of money is available to establish resource sustainability, it must be spent wisely. As proposed, the project's adverse impacts and tremendous risks to the environment, community of Los Osos, and scarce public funding are not justified by its modest, long-term and uncertain benefits. Basically, it can do much more harm than good. Its stated environmental objective is to "alleviate contamination—primarily nitrates" but the EIR states that nitrate levels in the upper aquifer average 10 mg/l (drinking water standards) now, and the project will reduce nitrates only 1.7 mg/l over 30 years. A water quality test in 2005 concluded nitrates were "close to equilibrium conditions under the current land uses and septic system discharges." Moreover, the project EIR does not include improvements to Morro Bay National Estuary and environmentally sensitive habitat as objectives, and the project can have adverse impacts on this vital habitat. Concerns about the potential for surfacing septic system effluent or seeps to the estuary threatening resources and human health can be addressed with a much smaller decentralized project, integrated with septic system and storm water management plans. Further, purveyors are planning to treat upper aquifer water for nitrates before delivery. This management option achieves two important goals of a wastewater project: 1) it increases the beneficial use of the upper aquifer and 2) it allows less pumping from the lower aquifer to reduce seawater intrusion. Well-head treatment of nitrates in Los Osos is more cost-effective than treating nitrates with a wastewater project. Property owners should not have to pay twice for treating the water nor should they have to pay for the most costly option. Well-head treatment can also address other contaminants, including emerging contaminants. This option, possibly in combination with a decentralized project, must be reviewed in an SEIR, in order to identify the most cost-effective project.

The project's stated goal in the EIR is to eliminate septic systems, but this comes at an extremely high cost with considerable risk to the environment, community, and financial resources. Therefore, the LOSG is requesting that the "zero discharge" prohibition, implemented by the Regional Water Board to eliminate septic systems, is waived, suspended, or amended, as may be appropriate, to allow for an SEIR. The prohibition has resulted in an inherently flawed environmental review process because it effectively precluded serious consideration of viable project alternatives, including a mix of on-site and cluster systems (approved by EPA and USDA). Alternatives using on-site systems can minimize costs and environmental impacts, including construction impacts and energy use/GHG impacts, overflow and earthquake-related impacts, and impacts on groundwater flows. A septic system prohibition will continue to prevent serious consideration of on-site options and whether a project that eliminates all septic systems in the prohibition zone does more harm than good. The costly central gravity wastewater treatment alternative chosen by the Board of Supervisors fails to mitigate the loss of flows to the groundwater basin from the existing septic systems.

I am incorporating by reference the other submittals and comments to your Board and the State Water Resources Control Board, including all earlier submittals and comments, that provide grounds for an SEIR. Once again, I request that your Board circulates an SEIR for the LOWWP. Alternative projects that do much more to establish the sustainability of the Los Osos basin with much less risk to resources and funding are possible—and they are essential to avoid an environmental, social, and economic disaster in the Los Osos area.

Sincerely,

A handwritten signature in black ink, appearing to read "Keith Wimer", written over a horizontal line.

Keith Wimer

Los Osos Sustainability Group (LOSG)

From: Piper Reilly <getgreenlo@gmail.com>
To: Harvey Packard <Hpackard@waterboards.ca.gov>, David LaCaro <DLaCaro@wate...
Date: 3/11/2011 4:34 PM
Subject: Re: exfiltration, I/I

Gentlemen,

It seems we are finally at a juncture where you should, "have the luxury", (your words), to respond. Please accept last years e-mail correspondence as my comments as to why you should not permit the LOWWP.

Besides the argument you will find below, I would like to include the fact that lift stations are proposed to be built on the edge of the protected Marine Reserve and this past winters storms which caused spills county wide should be an ample example of why gravity collection should not be allowed to continue.

Along with the spill problem please note what happened in San Fransisco recently, (
<http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2011/02/28/BAVP1HUSUD.DTL>
) , where despite massive amounts of money being spent on repairs, the gravity sewer system there is not working because of flows. Conservation has made this old fashioned technology no longer work properly. As you know we have a serious problem w/ salt water intrusion in Los Osos. As it stands now the slope of the proposed gravity system may be inadequate with "normal" flows. Once conservation is enacted flows will not be adequate to scour the system. To fore go conservation should not be an option with the salt water intrusion issue looming and the scarcity of potable water in general.

Gravity collection is far more problematic and hazardous than low pressure collection. If your aim is protection of water resources and surrounding water ways then you can not permit the LOWWP in its current incarnation. I have a letter from you Harvey, to the County, stating that they needed to look at options already studied. This would be gravity and low pressure. The County's engineer report from 2007 upon which the 218 vote for the LOWWP was based, promised a comparison of STEP and Gravity through the design build process. This did not happen and you are now being asked to allow a project which has a very high probability of discharge. This is wrong.

With over twenty thousand joints, in these Baywood fine sands, on multiple fault lines, leakage is probable even with proper maintenance. Such leakage would be hard to detect and harder to find the exact location of no less reach when the depths of these large diameter pipes can be more than 20 feet. In that regard, it has yet to be determined how much water would be lost in the installation process and its effect upon salt water intrusion.

Non of these issues would be present if a low pressure system were to be installed. Please see below e-mail for more details on these points.

If nitrates are such a big issue then I do not understand why composting toilets have not been allowed. As you know Harvey, from my many e-mails, I would have gladly installed composting toilets years ago. This accompanied with conservation and grey water could have worked to solve both our salt water intrusion and nitrate issues. Your Board did not act then when it had the opportunity to help this community, please do not fail us again by allowing a gravity mega sewer into our fragile town.

Piper Reilly
691 Woodland Drive
Los Osos, CA

On Thu, May 6, 2010 at 6:26 PM, Piper Reilly <getgreenlo@gmail.com> wrote:

> Harvey,

>

> This is truly unfortunate to hear since it is your agency who started this
> process. Your phrasing of not having the "luxury to respond" is quite
> interesting. The County will not respond and as you know we are about to
> come before the Coastal Commission. When do you expect your Board will
> address these highly problematic issues surrounding the degradation of our
> potable water supply and the further damage the LOWWP could create?

>

> As you know, your Board has charged me w/ a crime you have not proven and
> you will not let me disprove. I hope you understand the type of stress this
> has caused especially when I face funding a system which may not only not
> work, it may do harm, and is the most expensive system proposed by the
> County to be built by a company who is under investigation in three states
> for a variety of serious issues.

>

> Piper

>

>

>

> On Thu, May 6, 2010 at 3:37 PM, Harvey Packard <
> Hpackard@waterboards.ca.gov> wrote:

>

>> Piper, if we had unlimited time and resources, we would love to hash
>> this all out with you. But we don't have that luxury. I apologize, but we
>> can't respond to your email with any specificity. I will commit to holding
>> on to your questions and making sure we consider them when we eventually
>> start our permitting process.

>>

>> Thanks,

>>

>> Harvey Packard, Section Manager and Enforcement Coordinator
>> Central Coast Regional Water Quality Control Board
>> 895 Aerovista Place, Suite 101
>> San Luis Obispo, CA 93401
>> Phone: (805) 542-4639
>> Fax: (805) 788-3558

>>

>>

>> >>> On 5/5/2010 at 8:51 AM, Piper Reilly <getgreenlo@gmail.com> wrote:

>>

>>

>> Dear David,

>>

>> I always seem to preface my letters to you the same way; Sorry for the
>> delay, life got in the way. Actually the stress from the LOWWP has caused my
>> blood pressure to go up to unhealthy levels and I was ordered bed rest.

>>

>> To follow up on the exfiltration, infiltration and inflow issue in our

>> March e-mail exchange, the following is a quote from section 3.1 of the Flow and Loading Tech Memo:

>>

>> "Gravity sewers utilize bell and spigot joint construction. Properly installed bell-and-spigot sewers will be watertight at first, and then may slowly lose their integrity as the surrounding soils shift, compressing the pipes, and compromising their seals at the joints."

>>

>> The Fine Screening Analysis (page 1-6) states that a "viable project" could not result in an increase in the groundwater balance deficit, maintaining the existing basin balance (i.e. level 1) was considered the minimum viable project."

>>

>> This would lead to conclude that the Fine Screening Analysis eliminates a bell and spigot joint gravity sewer technology as a viable option because if the seal is compromised at the joints I/I would have the potential to occur. As we have discussed previously, and the Fine Screening Report and FEIR state, the newly constructed gravity collection system can expect 300,000 gallons per day of wet weather infiltration and inflow (Table 1.2 page 1-10 FSR).

>>

>> This number represents I/I volume for new construction and does not account for settling and aging resulting in additional infiltration and inflow. Over the life cycle of the system, I/I risk is high and will never get better only worse. This also does not include inflow from manholes nor I&I from on-site laterals. Over the systems life cycle, the gravity sewer collection system will pump an un-quantified number of acre feet per year of groundwater out of Los Osos' shallow aquifer and through the treatment plant.

>>

>> The FSR defines this as a groundwater balance deficit and therefore does not meet the criterion used in the FSR to be a "viable project." The gravity sewer groundwater balance deficit is unaccounted for in the sea water mitigation study both in magnitude and in cost. De watering of the trenches during installations and those effects on sea water intrusion have also been ignored. In order for the Gravity system to viable, in our level three basin, the pipes would have to be fusion welded and that cost and those effects have never been accounted for.

>>

>> The following quote is from section 3.1 of the Flow and Loadings Tech Memo:

>>

>> "However, a treatment plant should be designed to accommodate a reasonably conservative level of inflow and infiltration (I/I)."

>>

>> I could not find the costs and impacts of sea/ground water infiltration into the gravity sewer line. Such infiltration will adversely impact beneficial reuse, sea water intrusion mitigation, and crop irrigation. These critical issues are of primary concern to the Coastal Commission in their upcoming de novo hearing on the LOWWP.

>>

>> Sea water contains approximately 35,000 mg/L Total Dissolved Solids including approximately 18,000 mg/L of Chlorides. It is documented that nitrifying and denitrifying bacteria are inhibited with increased concentrations of chlorides. (From EPA Guidance Manual for Preventing Interference at POTW's, Table 2-1.) A high tide during low flow

>> conditions could easily produce conditions toxic to both nitrifiers and
>> de-nitrifiers. High chloride effluent would also limit the beneficial reuse
>> of treated effluent for crop irrigation. (Asano, T., F. L. Burton, H.
>> Leverenz, R. Tsuchihashi, and G. Tchobanoglous (2007) Water Reuse: Issues,
>> Technologies, and Applications, McGraw-Hill, New York.).

>>
>> In order to reuse the high chloride/total dissolved solids gravity sewer
>> effluent beneficially, Reverse Osmosis would be needed to remove the
>> chloride and other constituents of concern. This cost and its effects are
>> unaccounted for.

>>
>> The FSR does not quantify the possible gravity sewer exfiltration of raw
>> untreated wastewater into Los Osos' basin. This, potentially pathogenic,
>> carcinogenic, endocrine disrupting cocktail, will pollute the environment we
>> are trying to protect. Another problematic issue, which has been mostly
>> ignored, is that Los Osos, with its Baywood fine sand, is located in close
>> proximity to two major fault lines who pose a potential serious threat to
>> the integrity of the 20,000 unsealed joints in the proposed LOWWP. Unlike
>> low pressure systems, which monitor pressure via computers and locate leaks,
>> there is such efficient way to determine if and where a gravity system is
>> leaking.

>>
>> The long-term risk, or potential magnitude of I&I is not quantified in any
>> way. Given the goals and objectives for this project, it is inevitable that
>> Los Osos will eventually be looking at methods for mitigating the impacts of
>> I&I in the Los Osos water basin and potentially be subject to Water Board
>> fines. (Why should we mitigate for factors which can be avoided?) The
>> discussion of risks associated with I&I in a Gravity sewer should include
>> the potential for spills, sewer back-ups, changes in wastewater quality as
>> well as the possible costs for fixes should excessive I&I occur.

>>
>> Questions also arose, and have not been answered, about water conservation
>> numbers and the need to rework the slope of the Gravity system. Would there
>> would be adequate flow or would the LOWWP become a "black sewer"? It seems a
>> stagnant system may have been anticipated as the plans call for a central
>> sewage collection point and hazardous chemical mixing station at the
>> Tri-W/Mid-town site, just up hill from the protected Marine Reserve. This
>> aspect, (Tri-W/Midtown) and Broderson have high impacts and are unnecessary
>> with any system/plans. There are numerous, serious question regarding the
>> mitigation of these site. Again, why are we mitigating for impacts which
>> could easily be avoided?

>>
>> The following is a quote from section 6.0 of the Flow and Loadings Tech
>> Memo:

>>
>> "Inflow/infiltration (I/I) estimates for the collection system
>> alternatives were the main source of uncertainty in calculating the future
>> treatment facility influent flow volume. If a gravity collection system is
>> selected, only a system that was constructed of fusion-welded PVC piping
>> could be operated with as little I/I as the other types systems. However,
>> fusion welded PVC sewers are a fairly new technology with little long term
>> operating history, and can be significantly more costly to install than
>> traditional bell-and-spigot gravity sewers."

>>
>> This quote illustrates a double standard when comparing technology
>> options. On the record, at the Board of Supervisor's, Public Works stated

>> that the primary reason for not choosing an alternative technology was that
>> they were untested. This "new " Gravity system being proposed, recently
>> utilized by the City of Lathrop, dispels the assertion that modern
>> construction techniques and materials for Gravity systems have less I&I. Lathrop,
>> California is an example of a relatively new PVC gravity sewer system that
>> is experiencing extensive I&I and the effects are causing impacts in
>> treatment and capacity.

>>
>>

>> In regards to your comment that; "On a related note, Section 4, page 9 of
>> the November 7, 2008 Technical Memorandum discusses exfiltration as it
>> relates to the project alternatives. Furthermore, the EIR discusses the
>> potential for exfiltration as it relates to the project conditions (i.e.,
>> groundwater, soil, etc). The County refers to the December 2000, Robert
>> Amick Study "Exfiltration in Sewer Systems," EPA Document No.
>> EPA-600/R-01/034. This document explains that exfiltration rates in leaking
>> sewers are related to the relative depths of the sewer lines to the
>> groundwater table, with greater depth to groundwater leading to increased
>> exfiltration rates. The groundwater table in Los Osos varies by location.
>> Some areas have groundwater less than 5 feet deep."

>>

>> The Infiltration and Exfiltration comments contained in the 2008 memo are
>> contradictory. If, as this quote suggests, exfiltration is limited because
>> of high groundwater depth, then are the lines submerged? It is true that
>> groundwater hydrostatic pressure will mitigate exfiltration, but it will
>> also exacerbate infiltration. Either the lines are submerged or they are
>> not, an exception maybe pipes installed under the tidal influence that will
>> produce both conditions.

>>

>> The following is a quote taken from the conclusion of the same EPA (Amick,
>> 2000) report:

>>

>>

>> "Areas with significant portions of the system above, but in close
>> proximity to, the groundwater table are probably at greatest risk. There is
>> an increased risk in the relatively few areas with significant exfiltration
>> potential when there is, for example, a thin soil and fractured rock hydro
>> geologic setting which allows pathogens and other contaminants from the
>> sewage to reach the
>> ground water quickly and with minimal attenuation." Page 25.

>>

>> In the context of the Los Osos project Amick details the RISK to ground
>> water quality when a leaky technology is specified.

>>

>> The June 2006 LOCSD report entitled "Los Osos Upper Aquifer Water Quality
>> Characterization" included a table regarding the characterization of 5 test
>> wells that were utilized in the study. 3 out of 5 wells clearly show water
>> depths that are far below the depth of a gravity sewer system. This study
>> was done by Cleath & Associates, who was also the sub consultant for the
>> Fine Screening Analysis that was done by Carollo Engineering.

>>

>> It would appear reasonable to state that areas with high water tables have
>> less risk of exfiltration but are at high risk for excessive groundwater
>> infiltration. Conversely, it appears that there are areas with deep water
>> tables and sandy soils that appear at risk for impact from exfiltration. The
>> Memorandum and the Fine Screening Analysis seem to lose credibility through

>> contradictory findings.

>>

>> Regarding contradictory statements, I am also greatly concerned about the
>> contrarian statements made by the County in regards to use of the Tri-W/Mid
>> town and Broderson sites. Public Works has expressed varied opinion upon how
>> reuse could be delivered but no specific plan exists. Without a
>> comprehensive basin plan, including a strong conservation element and 100%
>> re-use, the basin will be lost.

>>

>> Despite decades of degradation to our aquifers by unaddressed sea water
>> intrusion, (threatening our only potable water supply), nitrogen has been a
>> focal point for the groundwater quality because potable use of the shallow
>> aquifer currently requires treatment to reduce nitrogen and/or the blending
>> of water from deeper aquifers with the intent of diluting the nitrogen
>> concentrations.

>>

>> The risk of discharging wastewater from a leaking Gravity system, with
>> high BOD, TSS, oils and greases and possibly chemicals or pathogenic
>> organisms, into this basin should not be dismissed without consideration as
>> any and all of these constituents will be detrimental to groundwater
>> quality. The discharge of these elements into the shallow aquifer can also
>> necessitate additional treatment or blending. Worse, the threat of chemical
>> contamination could compromise the use of the shallow aquifer for potable
>> water all together.

>>

>> As an example, Modesto Groundwater Pollution is listed on the EPA
>> Superfund Site with groundwater pollution caused by PCE exfiltration from a
>> Dry Cleaner discharging to a leaky gravity sewer. And similarly the incident
>> in Morro Bay of MTBE from a gas station infiltrating the Gravity collection
>> system and reaching the treatment facility.

>>

>> I appreciate your addressing these I/I and exfiltrations quandaries as the
>> Coastal Commission will soon be coming up.

>>

>> Sincerely,

>>

>> Piper

>>

>>

>

From: Linde Owen <lindeowen@sbcglobal.net>
To: <rbriggs@waterboards.ca.gov>
Date: 3/11/2011 5:12 PM
Subject: Fwd: Comment on Notice of Availability of Draft Waste Discharge Requirements for the County Of San Luis Obispo Los Osos sewer project

Begin forwarded message:

> From: Linde Owen <lindeowen@sbcglobal.net>
> Date: March 11, 2011 5:05:02 PM PST
> To: Lyris ListManager <lyris-noreply@swrcb18.waterboards.ca.gov>
> Subject: Comment on Notice of Availability of Draft Waste Discharge
> Requirements for the County Of San Luis Obispo Los Osos sewer project
>
> I am writing to claim that the proposed 'Purpose' of the currently
> designed wastewater treatment system fails to meet any of the 3
> listed purposes and will cause more harm than good to the supply and
> quality of the Los Osos groundwater basin.
>
> 1) addresses the current water quality issues
>
> The overwhelming pollution in the upper aquifer is currently salt
> water intrusion and not nitrates. Well-head treatment will be
> addressing nitrate removal and the overall basin reading for nitrate
> pollution are less than a mg over drinking standard. Hardly a
> nitrate emergency. We have not had nitrate testing for 5 years now,
> last testing showed little change over time. Also the current
> nitrate readings are only partially attributable to come from septic
> tank leachfield discharge. Other coastal communities have much
> higher nitrate concentration in spite of their sewers. In their case
> it is blamed on agriculture.
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> The proposed project is flawed in that it proposes to install a \$189
> million project, unaffordable for between 35 and 50% of the
> residents, that will NOT SHOW A REDUCTION in nitrates for at least
> 30 years (Roger Briggs/CCRWCQB).
>
> The damage from not addressing Salt Water Intrusion red flags is far
> more serious than minimally elevated nitrate pollution. This project
> was NOT DESIGNED to address SWI and puts our future supply at risk
> by letting water purveyors decide what actions will be taken rather
> than having the CCRWCQB address the crisis with their responsible
> oversight to our surface and ground waters.
>
> 2) allows an opportunity for urban & agricultural water reuse
>
> Removing 1 million gallons per day from current disposal through the
> soil column and attempting to replace it in 25 + recharge areas
> cannot mimic the current basin supply. If severe actions are not
> taken to halt overdrafting the lower drinking supply aquifer, there
> will be no clean source of water. The upper basin will also suffer
> changes by manipulating the historic disposal from individual septic
> systems. The expense of delivery to these 'proposed' disposal sites
> has not been confirmed or costed out. Salt Water Intrusion is not

- > adequately addressed.
- >
- > 3) provides a major step in water balance in the Los Osos
- > groundwater basin
- >
- > The urgency of addressing the Salt Water Intrusion pollution to our
- > lower aquifer is not adequately addressed. The removal and
- > replacement of the upper aquifer waters is risky and does not ensure
- > a safe future supply of water that will be our future treated
- > supply. I would rather drink treated nitrate water than be forced to
- > drink recycled sewer water.
- > This Basin has been mismanaged for too many years and one can only
- > look at the historic addition of 1140 homes approved by CCRWQCB, San
- > Luis Obispo County, and our County Health Dept. in the very
- > beginning of Resolution 83-13 between 1983 and 1988 when the
- > Prohibition went into affect.
- >
- > Resolution 83-12 defends my right to have a septic management
- > program. My septic tank is not part of this this draft order as it
- > is not condemned, only my disposal is.
- >
- > Thankyou for further reviewing this SLO County waste charge
- > requirement.
- >
- > Thankyou, Linde Owen
- >
- >
- > 1935 10thB, Los Osos
- >
- > 21 yr resident
- >
- >
- >
- >
- >
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- >
- >
- >> There is a basic incompatibility for conventional Gravity systems
- >> with the paradigm of water conservation, as well as a zero
- >> tolerance for sewer spills and overflows to protected waters.
- >
- >> A low pressure STEP system that reliably delivers the wastewater,
- >> does not surcharge manhole openings during storm activity, retains
- >> and digests the sludge onsite in STEP tanks, & works in a 21st
- >> century model of holistic sustainable systemic technology.
- >
- >> STEP costs less, allows source control (sequesters & concentrates
- >> toxic compounds for safe treatment & disposal at its source),
- >> avoids spills, cleanup, & costly FINES, as well as eliminating
- >> expensive pump stations. STEP/STEG technology lowers treatment
- >> costs overall, lowers maintenance and energy costs, and is much
- >> less complex to install.
- >>
- >> Only a rigged process would deliver a conventional Gravity system
- >> to Los Osos in 2011.

From: Roger Briggs
To: LaCaro, David; Packard, Harvey
Date: 3/14/2011 8:10 AM
Subject: Fwd: Revision of Comment on Notice of Availability of Draft Waste Discharge Requirements for the County Of San Luis Obispo Los Osos sewer project
Attachments: Roger Briggs9.vcf

Roger W. Briggs PE
Executive Officer
Central Coast Regional Water Quality Control Board
805-549-3140
fax 805-788-3511
rbriggs@waterboards.ca.gov
<http://www.waterboards.ca.gov/centralcoast/>

>>> Linde Owen <lindeowen@sbcglobal.net> 3/13/2011 1:12 AM >>>
Dear Board,

I appreciate that you accepted my 5 minute late submission of comment. Thankyou.

In my haste to meet the deadline I mis-stated my first comment: 'The overwhelming pollution in the upper aquifer is currently salt water intrusion and not nitrates.'
Please accept my correction as a revision, what I meant to state is:

"Currently the overwhelming pollution in the Los Osos Groundwater Basin is salt water intrusion, not nitrates".

Thankyou for correcting that sentence.

I hope you were able to view the San Francisco mess in the attachment. Funding a collection system that can't be flushed without using water is a disaster in the making. Why would you support design of a Gravity system that has to flush the system with the water that conservation saved?

We are an impaired basin but supporting and approving a system that will transition into putting untreated raw sewage into a Gravity pipe system that plugs up and will leak that raw sewage into our minorly polluted upper basin is irresponsible, if not criminal. We are in a major fault zone on sand. You might want to google Japan's affected sewer collection infrastructure after their March 11th earthquake.

Why would we allow such a danger to go unconsidered? The pressurized collection alternative (STEP/STEG also has no manholes and requires 1/3 the energy). The collection pipes are more resistant to earth activity, they are accessible for repair, 5 ft under in right of ways instead of up to 18 ft below our 42 miles of roadway. Spills rarely occur from septic tanks, an earthquake event would be far less damaging to the resources and 100% more repairable with a STEP system.

The cost disparity between 'dangerous' and 'less dangerous' collection is 50% less when you tally up the potential alternative's better solutions and long term affordability.

A 'better investment', hmmm. Board, you must live up to your job duty. You know what it is. Protect our waters.

Pricing a community out of its home with bad science involves a heartless component. Please don't be part of it. We expect excellence (and have been very patient).

If these comments can be added in at the end of my comment, I would be very appreciative.

Thank you for your patience

and I hope guts, to agree to a mediation that could address options to this extremely flawed project that the County is asking your blessing and approval on.

Always hopeful,

Linde Owen

21 yr Los Osos resident, 20 yrs doing local green community activism, homeowner.

Begin forwarded message:

From: Linde Owen <lindeowen@sbcglobal.net>
Date: March 11, 2011 5:12:20 PM PST
To: rbriggs@waterboards.ca.gov
Subject: Fwd: Comment on Notice of Availability of Draft Waste Discharge Requirements for the County Of San Luis Obispo Los Osos sewer project

Begin forwarded message:

From: Linde Owen <lindeowen@sbcglobal.net>
Date: March 11, 2011 5:05:02 PM PST
To: Lyris ListManager <lyris-noreply@swrcb18.waterboards.ca.gov>
Subject: Comment on Notice of Availability of Draft Waste Discharge Requirements for the County Of San Luis Obispo Los Osos sewer project

I am writing to claim that the proposed 'Purpose' of the currently designed wastewater treatment

system fails to meet any of the 3 listed purposes and will cause more harm than good to the supply and quality of the Los Osos groundwater basin.

1) addresses the current water quality issues

The overwhelming pollution in the upper aquifer is currently salt water intrusion and not nitrates. Well-head treatment will be addressing nitrate removal and the overall basin reading for nitrate pollution are less than a mg over drinking standard. Hardly a nitrate emergency. We have not had nitrate testing for 5 years now, last testing showed little change over time. Also the current nitrate readings are only partially attributable to come from septic tank leachfield discharge. Other coastal communities have much higher nitrate concentration in spite of their sewers. In their case it is blamed on agriculture.

The proposed project is flawed in that it proposes to install a \$189 million project, unaffordable for between 35 and 50% of the residents, that will NOT SHOW A REDUCTION in nitrates for at least 30 years (Roger Briggs/CCRWCQB).

The damage from not addressing Salt Water Intrusion red flags is far more serious than minimally elevated nitrate pollution. This project was NOT DESIGNED to address SWI and puts our future supply at risk by letting water purveyors decide what actions will be taken rather than having the CCRWCQB address the crisis with their responsible oversight to our surface and ground waters.

2) allows an opportunity for urban & agricultural water reuse

Removing 1 million gallons per day from current disposal through the soil column and attempting to replace it in 25 + recharge areas cannot mimic the current basin supply. If severe actions are not taken to halt overdrafting the lower drinking supply aquifer, there will be no clean source of water. The upper basin will also suffer changes by manipulating the historic disposal from individual septic systems. The expense of delivery to these 'proposed' disposal sites has not been confirmed or costed out. Salt Water Intrusion is not adequately addressed.

3) provides a major step in water balance in the Los Osos groundwater basin

The urgency of addressing the Salt Water Intrusion pollution to our lower aquifer is not adequately addressed. The removal and replacement of the upper aquifer waters is risky and does not ensure a safe future supply of water that will be our future treated supply. I would rather drink treated nitrate water than be forced to drink recycled sewer water.

This Basin has been mismanaged for too many years and one can only look at the historic addition of 1140 homes approved by CCRWCQB, San Luis Obispo County, and our County Health Dept. in the very beginning of Resolution 83-13 between 1983 and 1988 when the Prohibition went into affect.

Resolution 83-12 defends my right to have a septic management program. My septic tank is not part of this this draft order as it is not condemned, only my disposal is.

Thankyou for further reviewing this SLO County waste charge requirement.

Thankyou, Linde Owen

1935 10thB, Los Osos

21-yr resident

There is a basic incompatibility for conventional Gravity systems with the paradigm of water conservation, as well as a zero tolerance for sewer spills and overflows to protected waters.

A low pressure STEP system that reliably delivers the wastewater, does not surcharge manhole openings during storm activity, retains and digests the sludge onsite in STEP tanks, & works in a 21st century model of holistic sustainable systemic technology.

STEP costs less, allows source control (sequesters & concentrates toxic compounds for safe treatment & disposal at its source), avoids spills, cleanup, & costly FINES, as well as eliminating expensive pump stations. STEP/STEG technology lowers treatment costs overall, lowers maintenance and energy costs, and is much less complex to install.

Only a rigged process would deliver a conventional Gravity system to Los Osos in 2011.

From: "El-Hajj, Jeff" <JEIhajj@angellaw.com>
To: <dlacaro@waterboards.ca.gov>, <hpackard@waterboards.ca.gov>
CC: Frank Angel <fangel@angellaw.com>
Date: 3/11/2011 4:36 PM
Subject: Comments on Waste Discharge Requirements for the Los Osos Water Recycling Facility
(Draft Order No. R3-2011-0001 & Draft MRP Order No. R3-2011-0001)

Good afternoon Mr. LaCaro,

Per our phone conference on Monday, March 7, 2011, when you told me to direct comments your way regarding the draft waste discharge requirements for the Los Osos Water Recycling Facility for inclusion in the administrative record, below you will find hyperlinks to a comment letter with exhibits and an addendum to that comment letter with attachments that Angel Law submits on behalf of our clients, Citizens for a Sustainable Community. Due to the file size of the documents and the file size limitations imposed by email servers, we have uploaded them to YouSendIt. If you have any questions or encounter any problems downloading these two documents, please do not hesitate to contact me.

Some files have been sent to you via the YouSendIt
<<http://www.yousendit.com>> File Delivery Service.

Download the file - comment letter-CCRWQCB (with exhibits) 3-11-11.pdf;
Addendum and Attachments 3-11-11.pdf
<<https://www.yousendit.com/download/eUREeW56Y1MzeUx2Wmc9PQ>>

Your files will expire after 14 days or 500 downloads.

Best,

Jeff El-Hajj
Angel Law
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Santa Monica, CA 90405-5269
Tel: (310) 314-6433
Fax: (310) 314-6434
angellaw.com

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