

TO: MARK HUTCHINSON

ALBARROW C.A.S.E.

DEIR LOWWP JAN 30 09

**RECEIVED**

**JAN 30 2009**

**COUNTY OF SAN LUIS OBISPO  
DEPARTMENT OF PUBLIC WORKS**

## DEIR COMMENTS CASE AL BARROW

1. A-2: Supplemental Notice of Preparation and Comments/Responses  
Need another SOP to evaluate new information not provided by SLO County for OPR.

### 2. Appendix B PD Data

Project data is flawed. The rough and fine screening assumptions upon which it is based are constructive fraud.

Professionals in the fields of Vacuum and LPS systems have consistently disagreed the SLO County Staff and the consultants have ignored this new information. The Airvac has repeatedly asked for a meeting with County staff and been denied. At a townhall meeting in November 2008 (available on DVD). Supervisor Patterson and Hill saw this new information as presented by the representatives who have many existing projects evidencing the viability of these less expensive and more protective technologies. The following are environmental impacts that are avoided by these technologies;

1. Vacuum: no INI (300K gpd for gravity) Reduced impacts more protective
2. Vacuum no leakage of sewage into the drinking water aquifer. CMOM show 5% to 8% leakage from gravity sewers Reduced impacts more protective. Attached studies show 16.5 to 49.1 percent exfiltration or leakage of raw sewage.
3. Vacuum no septic tank footprint on site, no electrical panel hookup onsite, no deep trenching avoiding those gravity impacts. Reduced impacts more protective
4. Vacuum can take advantage of gravity slope opportunity similar to gravity assist (a principle of vacuum engineering). Reduced impacts more protective
5. Low Pressure System: Vacuum no septic tank footprint on site.
6. HDD: Directional drilled to avoid bio, Cultural resources, existing infrastructure. Reduced impact more protective
7. No septage hauling/pumping can be installed in wet weather
8. Without industry input these USEPA approved systems have not been vetted adequately. Airvac and Eone and the like must submit reports on these technologies and their benefits along with existing projects. Why has this been ignored? The best project with least impacts should be part of this DEIR and the RFQ, which is not the case.
9. The environmental, economic, and community preferences information has been omitted by Carollo and SLO County staff as to alternatives. Vacuum and LPS need to be vetted here. As the more protective technologies. This new information must be evaluated according to CEQA. May 2007 Carollo said cost savings from alternatives vacuum and LPS will

- be insignificant. They say otherwise in fact a savings of 50% is expected and huge environmental protection from INI and exfiltration
10. Attachment, Forward collection comparisons: Here is a 14 point discussion of Step vs Gravity pointing out the many foibles of Gravity. Please address these concerns. How can gravity be preferred in 3 of 4 projects? It is a bold lie. And you have no basis for this judgement simply because the other side of the discussion was not vetted. This is an engineer that has both Gravity and Step experience.
  11. \$21,900,000 attachment: If Reverse Osmosis is required due to grab violations at Broderson the trucking cost, mileage and pollution need to be identified. Have you got those details?
  12. 2-40 bulletin 118 details show half of recharge was sewer leakage. And attachment 09-15-04-8ssr speaks to Petaluma WW system upgrade, which was done by Carollo a pond wetland in an area of high rainfall. They did not vet this or award winning 2008 Carnation WA in their screening. Sustainable and low energy solutions.
  13. 600r01034 attachment: pg 4 show where leakage in gravity collection systems are found... almost all joints to manholes lateral, trunks and mains. They leak a lot, what is your plan to fix them at what cost? It's time to be honest and transparent.
  14. ABAG attachment; this shows the loss of life and property in earthquake which is magnified by our liquefaction conditions. Please open it. The Northridge and the Loma Prieta quakes killed people and huge lost property recorded. If the bridges into town are damaged where will help come from? The South Bay Fire Department is our emergency services if that building collapses on the fire equipment, the com goes out or telephone service which is common in strong quakes what is your plan to recover? Broderson with its lamella underlay will cause liquefaction under the SBF and the Redfield woods housing development. Many people would need assistance, fires may start from ruptured gas mains and sewer service would not be restored without repairs, When must the county have a recovery plan? When would it be studied for adequacy?
  15. Biosolids Final Report, attachment: Not a popular proposal it is again in public review due by 2010. Project like ponds STEP that have no trucking for up to 40+ years are the Number one choice environmentally. The Cal Poly marine biology toxicology team has seen Nonylphenol disrupting the lifecycles of Goby and other MBNEP biology. It is a special status not allowed. Leakage of sewer effluent either from Broderson or collection system needs to be eliminated. Czmacd attachment: notes that federal funded project must comply with Coastal Zone Management law enforced by the CA Coastal Commission in permit applications. Leaking sewer in our potable water supply is not protective of coastal resource (water), and CZLUO attachment: Says protect archeo cultural resources, which gravity

sewers do not. These trenches are all on grid with exact slopes; unlike HDD small pipe installation they do not allow avoidance of graves and artifacts. How will you mitigate these impacts?

16. DHS DWSAP attachment: The rules for new source water require an application of 120 pages detailing the new water source. When will this be available and who will fill out this application? Sewer effluent will have a high bar for treatment. Potable water supply mixed with EDC and emerging contaminants that no wastewater treatment removes, may require RO. How many truckload of brine for a one million gallon plant? Where will brine be treated Ventura? At what cost \$21 million a year? How much more water will be removed from our aquifer for this?
17. Soil Slippage attachment: Homes slide off of lots in liquefaction conditions as Berkeley reports. Damage to foundations, plumbing and wall how will the SLO County restore taxpayers/property owners for the losses caused by this foolish decision if such a quake should occur and the County has caused the liquefaction conditions? Lamella will cause the effluent to run under these homes and SBFDF.
18. Before development of empty lots proof of water supply and an HCP with a mitigation bank is required by Ca Coastal commission. Why would a second assessment pass (part of the capital sewer cost \$27 million) if we are in RMS Level 3? Why if there is no habitat mitigation bank taking is not allowed? Is the cart pulling the horse?
19. Assessment passed by threat of Notice of Violation from CCRWQCB up to \$5,000.00 fines and loss of use of your property. Coercion or encouragement?
20. Initiative petition, attachment: SECTION 1. PURPOSE "The purpose of this initiative measure is to establish standards and procedures for the location of sewer and wastewater treatment facilities to be constructed by the Los Osos Community Services District (the "District") both within and outside the District boundaries that would serve and be paid for by the people of the District. Such standards would serve to protect the people and the environment, including the groundwater, from health and environmental damage that may result from improper siting of such facilities." TRI W is slated for a lift station...that has to be put to a vote according to Measure B. Have you considered the gravity collection in that light? What impact might that have on the project.

Monowitz CCC permit, Attachment; the attorneys show that false or misleading information is grounds for denial of Coastal Development Permit.

Grounds for revocation of a permit shall be:

- Intentional inclusion of inaccurate, erroneous or incomplete information in connection with a coastal development permit application, where the commission finds that accurate and complete information would have caused the commission to require

additional or different conditions on a permit or deny an application.<sup>1</sup>

Stated differently, all that the Commission must find to revoke the Permit is (1) the Commission was presented with incomplete, inaccurate or erroneous information; (2) the inclusion of this information was intentional; and (3) complete or accurate information would have caused the Commission to have issued at least one condition in a different manner, or have denied the application.

- 2. The Incomplete Or Incorrect Information Need Only Have Related To The Permit Application.

B. The Information Must Have Been Intentionally Included.

The second prong is that the information was intentionally included.

1. 1. There Is No Required Showing Of Bad Faith.
2. 2. The Best Means To Determine Whether Information Was Intentionally Included Is To Determine How Often the Statements Were Made.

The County consultant Carollo has repeatedly stated unsupportable fact regarding costs and claims of the best most protective technology and that they all cost the same. How will you refute that?

21. Pipe Slopes 2 Attachment: Many pipe slopes in the MWH collection design are inadequate for 2' per second scouring speeds using the Manning formula. What will you do to make them functional? Vacuum truck daily pumping? The same slopes caused the Nipomo manholes to degrade by hydrogen sulfide and were replaced or repaired please give us the cost of R&R of decayed manholes due to inadequate slopes. To force fit gravity collection in this hilly environment the grade from South Bay to the Bay was designed at .05 or less many miles under the SLO County standards for gravity slopes. ( Standard Improvement Specifications and drawings) section 11-351.1611. 100 gallons per person is the flow with double peak flow, minimum velocity of 2 foot per second minimum flow. Please explain how this will be achieved, as the stated flows in the Carollo reports are less than 70 gpp. Please account for the diurnal flows (morning and evening). The design flow and the gradient seem a challenge to meet in hilly Los Osos/Baywood Park. A 1/8 of an inch slope is a conservative and standard for gravity collection. Why not err on the side of caution rather than end up like Nipomo with replacement and vacuum sewer costs? These problems do not exist in STEP and LPS collections and to far lesser degree in Vacuum collection. So why chose the antiquated technology best suited for flatter conditions? Design flows are minimal for a community that has to conserve water reducing flows, why? Isn't this a design to fail?

(D) The minimum gradient for 8-inch sewers should be no less than 0.4 percent

Regardless of pipe material.

(E) The minimum gradient for 6 inch sewers

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<sup>1</sup> Section 13105(b) provides the alternate ground for revocation of a permit: "Failure to comply with the notice provisions of Section 13054, where the views of the person(s) not notified were not otherwise made known to the commission and could have caused the commission to require additional or different conditions on a permit or deny an application."

should be no less than 0.6 percent, preferably 0.75 percent.

21. Re: Comments on fine screening, Attachment:

- Sewer plant O & M costs should be pegged through the life cycle of the loan period to the rate of energy related inflation. Will that be done?
- The sewer best option should be chosen by energy analysis. No detailed energy analysis has been done. I am really surprised at the lack of information and it's omissions. When will that be done?
- The simple mention of existing power rates in a graph has nothing to do with sustainability analysis and puts the whole project in jeopardy. Will you correct that?
  
- Energy availability will be a problem because of the 10 to 30 percent hydroelectric related snow pack reduction and increases in peak energy demand due to Global Warming caused by higher summer temperatures. Will you take that into consideration? How?
- Loss of annual snow pack means reservoirs will have to shed winter overflow that was previously used to create spring and summer power.
- Blackout and brownouts may be the norm when this sewer plant comes on line in 2011.
- Lifting water to Broderson to achieve a 20% groundwater recharge is a fatal flaw. One it won't reach 20% and two it will pollute potable water. For every gallon recharged, five gallons have to be lifted to the sight at unknown energy costs.
- Aggressive on site greywater retrofit program would use zero energy and help clean the upper aquifer immediately. Will you consider that in calculating future water flows lower? As with Ag. Watering, there would be 'no discharge' if delivered to the root zones of home landscaping. Why not consider that?
- Conservation is the most energy efficient method for offsetting overdraft. It is not addressed adequately, When will you address that?

Comment:

The most accurate assessments of energy availability make the whole sewer project unsustainable and contrary to good planning practices. Graphs courtesy of the Dynamic Cities Project, show a depletion model for the United States.

Urban planning for peak oil and natural gas depletion is essential. The present sewer projects in the fine screening would be severely impacted by any energy emergency above a class 2 emergency described above. How will you address this?

*Final Comment:*

*The Fine screening is incomplete related to GHG issues, energy scenarios, sea level issues, and salt water intrusion issues driven by sea level rise. Improving the environment is a holistic action. GHG*

*pollution is important for generations to come. Nitrogen mitigation that drove the original need for a centralized project seems to have been forgotten as a goal. Consideration of the total water cycle has been driven off course by an uncooperative Water board that has lost its way with environmental water stewardship. The sewer project refuses to face sustainability issues that are mandated by the very same state water agency in Sacramento that the RWQCB3 answers to.*

- *State GHG goals are being totally ignored in this study.*
- *Energy costs per ML nitrogen removed totally ignored in this study.*
- *Sea Level rise is being totally ignored by this study.*
- *Global warming impacts on energy are totally ignored.*
- *Nitrogen sequestering and recycling is totally ignored.*
- *On site and scaled cluster systems are not compared for energy efficiency and omitted as viable while considered elsewhere.*
- *Alternative energy is not proposed for operations.*
- *Sustainability's relationship to affordability and environmental justice is misunderstood and ignored.*
- *Co-generation is not proposed or studied although being used elsewhere in the State.*

*In defense of my position I would say that building a 1960's energy and resource consumptive community sewer driven by market forces related to known engineering relationships and 'mega-project' construction standards drives this study. Energy efficiency, global warming and GHG issues are left off the table.*

*Citizens should accept no excuse for their omission. – Steve Paige June 5, 2007*  
How will you address these concerns?

22. 6 Table 1.1 needs to name the facultative ponds still in after fine screening. Is ADS, AIPS or Nelson in?

7 1.2.1 Seawater intrusion reversal can be accomplished outside of the project by reducing the lower aquifer draft in lieu of upper aquifer water with nitrate for residential landscape application. These expenses can be paid by new development starting with the schools and park. Purple pipe is encouraged and funded by DWR. See the 2003 white paper on reuse. (Our upper aquifer is replenished by septic effluent and classed as partial wastewater or we would not need a sewer.

8 1.2.2 Golden State has applied to CAPUC for rate increase to pay for infrastructure and treatment



that will utilize the upper aquifer. How many ACY will that reduce the lower draft?  
This is an omission  
that needs attention.

9 1.3 Flow projections will not change constituent treatment requirements, with ponds it is not a big factor as with 24 hour in 24 out treatment train but that will effect disposal numbers.

10 FATAL FLAW "Properly installed bell-and-spigot..." will leak raw sewage into our drinking water aquifer which will soon be the upper aquifer as the lower aquifer is not recharging.

11 2.1 KEEP THE WATERS IN THE BASIN unless the water is not needed then it can be sprayed and disposed.

12 2.1.2 Lower aquifer is intruded and that portion is lost That is not necessarily so.

13 Upper aquifer water must be harvested to the point it does not leak into the bay.

14 Recharge must not have Phosphorus, which will clog soil pores. All treatments so far do not address

this.] impact on reuse. Calcium treatment that is affordable can be used in combination with wetlands

to remove phosphorus this so the treated effluent waters are safe.

15 2.3.2 Bullet 4 describes the cost per acre of grade II-III farmland as \$40,000.00 I think \$10,000.00 is

a more responsible number. Giacomozzi was \$323,000.00 for 35 acres at one point. More inflated costs|

16 The case is correctly made that pumping the upper aquifer as landscape water is cheaper than piping effluent back to town and much safer.

17 Table 2.1 page 33

18 PERCOLATION PONDS AT BRODERSON: This was a project FATAL FLAW in 1997 SLO County plan

19 Urban wastewater reuse is a poor concept compared to upper zone nitrogen water for irrigation

instead of drinking water. Less piping and much lower health risk on school and community center.

20 They represent over 40ACF reduction in saltwater intrusion on the school/park sites.

21 2.1.2 Sea water intrusion is not irreversible. Early-indicator signals of groundwater contamination: the case of seawater encroachment

22 FCGMA documents reversal of saltwater intrusion in Ventura County.

<http://publicworks.countyofventura.org/fcgma/GMA%20Management%20Plan->

Final%20051506x%20electronic%20v2.pdf see page 25 for reversal of saltwater intrusion. Grants

from 319 USA were used, see page 75 reduction in seawater intrusion.

23 I recommend a cost benefit analysis for purple pipe in the reuse portion. And a note on septic INI if a

tank can be retrofitted in ground with sprayed epoxy, like manhole restoration it would only cost

\$700.00 per tank. saving replacement and removal and retirement costs

Replacements could take

place at the point of resale so as not to have the community dug up at once.

Charlotte County did not

replace any tanks. For Gordon's benefit they used a Tarriff document to gain access to private

property i have a copy if you would like me to send it along. Tank need

certification as per RWQCB3

requirements. If a tank is abandone it could be used to capture rain water and recharge through

existing leech fields. (No waste)

24 The STEP collection works well with pond treatment with low biosolids production and lowest energy

demand making the combination the most sustainable as the project goals state Many constraints

and costs have been added to STEP by this document that are not supported by the STEP Industry

data. I have screened out gravity due to the eventual leakage into the drinking water aquifer as they

have admitted. One other FATAL FLAW is the seawater intrusion around the Bay where the deepest

pipes will be trenched in. When saltwater enters the collection system then the treatment plant will

require reverse osmosis and brine trucking to Ventura County will ensue as many as 60 trucks a day. The expense of these impacts was not added to the gravity

cost as I recall \$60,000.00 a day or

23. Re;Revocation of Coastal, Attachment: Revocation of Coastal Development Permit Application No. A-3-SLO-03-113

Dear Commissioners, Peter Douglas, and Staff;

C.A.S.E. is represented by Burke, Williams & Sorensen, LLP. I say that so you will understand the gravity of our concern.

1. The misleading and completely false information in the LOCSD/MWH sewer Project

Report led you to believe, incorrectly, that the proposed sewer was somehow located in the only place appropriate for Los Osos i.e. the Tri-W property on ESHA, upslope of the Morro Bay estuary. Raw sewage plant of this genre is responsible yearly for over 6,000 coastal spills a year. The risk of a plant upslope of the Bay is not acceptable when an environmentally preferred site is still presently available.

2. Wetland impacts have been taken lightly by the LOCSD. For example 4<sup>th</sup> and Pismo, a rout for sewer mains, has 20 foot tall willows and oaks growing halfway to 5<sup>th</sup> St upslope where a spring originates feeding the wetlands below all the way to the Bay a distance of several blocks. USF&WS have relied on LOCSD environmental consultant Crawford Multari & Clark to provide true and accurate information on wetland impacts. Th e District has 9 employees with truck that service and check the 3<sup>rd</sup> street pump station two blocks away. The willows described at the edge of the bay from the El Moro drainpipe to Sweet Springs preserve grow along the eastern side of the Bay. Such an omission could not be construed an oversight, but seem an unwillingness to redesign the collection system in that area.
3. There has been no study on the impact to that spring and it feeding of the wetland bio. The Coastal Act protects such wetlands. Routing a collection system that will require maintenance and repair through sensitive areas is improper and a FULL hearing is required, We have seen staff to staff advice between Mr. Monowitz and LOCSD General Manager Bruce Buel over the appeal process fail to address these issues by micro managing the project. That is why this method of oversight is inappropriate under Coastal Act Rules.
4. The preferred environmentally protective method in the Final EIR, STEP collection will avoid these issue. It was "too expensive" to use according to table 4-4 of the LOCSD Project Report. That was a lie. I am attaching a present cost of the environmentally preferred STEP collection and treatment plant on the preferred location in grade 3 AG land.
5. The "On Balance" argument used for this sewer location is a flat out lie. This LOCSD sewer in not more protective of the Coastal Resources. It wastes our water. It destroys wetlands. It is 10 times the National average in cost. It unnecessarily destroy ESHA in the sacred "Green Belt" where ESHA is contiguous. It may require 40 acres be negatively impacted by leech field failure as not effluent perc test have been applied to the drain filed areas.
6. The recovery plan in the Draft HCP has omitted the replanting with viable plants rather than seeds. And the likelihood of the HCP to address the perpetuity of the endangered species is very questionable. The Coastal Act/LCP require your commission CERTIFY these documents BEFORE a coastal development permit is issued.

I respectfully request you withdraw the Coastal Development Permit for this project until the Habitat Conservation Plan is certified. At present it is going to SLO County for beginning public circulation and comment. The affected public here has yet had comment on this HCP or the final EIR/EIS from USFWS. Your cart should be behind your horse.

I respectfully request you Revoke the LOCSD CDP due to the project designs are incomplete. You may be aware that the Design Engineering firm has left out concrete and other amenities essential to build the proposed plant. The cost estimate was close to 50% in error. Only 3 of many qualified contractors bid the project showing there is a lot of risk tied to this project.

The gravity collection design listed on the the DEIR SLO County web site is the one referred to above. That permit was cancelled by LOCSD. How will the concerns listed and answer how they will be mitigated, changed or addressed?

24. Sewer Paper attachment:

The NRDC published some concerns in the paper "SWIMMING IN SEWAGE" How will you address these environmental concern created by Gravity sewers? •

Endocrine toxicity;

• Gastrointestinal/liver toxicity;

• Immunotoxicity;

• Respiratory toxicity; and

• Skin or sense organ toxicity.

*Bioaccumulative toxin that will store in fat tissues and all the risk associated with sewer effluent in potable aquifers well documented need to be avoided. How will you do that?*

Draft EIR available will enable Los Osos community residents, the project team and County elected officials to consider the LOWWP's potential environmental impacts as the County identifies the

*County of San Luis Obispo*

*Alternatives to the Proposed Project Los Osos Wastewater Project Draft EIR*

*7-6 Michael Brandman Associates*

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Preferred alternative using environmental, economic, and community preferences information;

incorporates appropriate mitigations; and moves forward with the final design and permitting process.

1. The environmental, economic, and community preferences information has been omitted by Carollo and SLO County staff as to alternatives.

Vacuum and LPS need to be vetted here. As the more protective technologies. This new information must be evaluated according to CEQA.

### 3. Appendix C Land Use

The Williamson act as related to prime ag land at Tonini is not addressed. Giacomazzi has grade 3 grazing lands primarily. The impacts are quite different. Less piping for Giacomazzi.

### 4. Appendix D Groundwater

Recharge at Broderson is not evaluated for the impacts of the Lamellae fine lenses as they will move effluent laterally more than stated. Seawater mitigation will not happen. Water will surface down slope to destabilize housing development Redfield Woods as liquefaction conditions are caused by effluent lateral movement underneath the foundations. These home cannot get earthquake insurance. Please re evaluate. 300K gpd lost to INI in gravity collection. Please evaluate and mitigate these significant impacts. There are cumulative impacts here.

Recharge at Broderson will likely call for RO and Advanced Oxidation. Reverse osmosis membrane will reject over 30% brine that will be hauled to Venture brine receiving facility or elsewhere. Please address this missing information as complying with CA DHS Recharge regulations apply for Broderson if sewer effluent is used.

Over 60 truck loads a day at 5K gallons (42,500 pounds per truck). The air pollution is not quantified for pounds of diesel emissions.

The footprint of such treatment is not described. Please include.

### 5. Appendix E Drainage

## 6. Appendix F Geology

Morro Bay gravity collection pipes were so damaged in the Dec 22, 2003 earthquake FEMA grants were awarded... In Los Osos where the water pipes were not damaged as in MB the septic tank remained intact as well. But the SLO County engineering put a penalty on STEP but not on gravity collection more bias based on not science.

The 1994 Northridge earthquake is well documented for damage to gravity collection (14 years and \$2 billion to repair) pipes but water pipes were much easier and quicker to repair over 60% of water was restored in 24 hours. Similar to STEP, LPS and Vacuum collections.

**4.6 GROUND LURCHING** The October 17, 1989 Loma Prieta earthquake was responsible for 62 deaths and 3,757 injuries. In addition, over \$6 billion in damage was reported including damage to 18,306 houses and 2,575 businesses. Approximately 12,053 persons were displaced. The most intense damage was confined to areas where buildings and other structures were situated on top of loosely consolidated, water saturated soils. Loosely consolidated soils tend to amplify shaking and increase structural damage. Water saturated soils compound the problem due to their susceptibility to liquefaction and corresponding loss of bearing strength.

Ground lurching occurs as the ground is accelerated during a seismic event. As evidenced by the Loma Prieta, Landers, Northridge, and San Simeon earthquakes, the effects;

The October 17, 1989 Loma Prieta earthquake was responsible for 62 deaths and 3,757 injuries. In addition, over \$6 billion in damage was reported including damage to 18,306 houses and 2,575 businesses. Approximately 12,053 persons were displaced. The most intense damage was confined to areas where buildings and other structures were situated on top of loosely consolidated, water saturated soils. Loosely consolidated soils tend to amplify shaking and increase structural damage. Water saturated soils compound the problem due to their susceptibility to liquefaction and corresponding loss of bearing strength. See <http://www.es.ucsc.edu/~es10/fieldtripEarthQ/Damage1.html>

Ground lurching can damage facilities and buried pipelines. Ground lurching occurs due to

detachment of underlying stratigraphic units, allowing near-surface soil to move differentially

from underlying soil. The site is within a seismically active region of Central California that is

prone to moderate to large earthquakes. It is therefore our opinion that there is a potential for

ground lurching to impact the site. Ground lurching is generally not a geologic hazard that can

be prevented, and therefore is mitigated by implementing preparedness measures. That is why lamellae is a new liquefaction condition not addressed. That changes the impact levels and the mitigation therefore is an unaddressed significant impact.

The fault search routine in FRISKSP was used to identify active and potentially active mapped faults and fault segments within a 62-mile radius of the project vicinity. They include: Los Osos, Hosgri, San Luis Range (S. Margin), Rinconada, Casmalia (Orcut Frontal Fault), Lions Head, San Juan, San Andreas (Cholame), and Los Alamos

#### 5.4.5 - Level of Significance Prior to Mitigation

Less Than Significant or No Impacts were found related to the project being susceptible to fault

rupture and landslides. These issues will not be discussed further.

- Hokie and unscientific assumption in light of existing evidence that Los Osos has a 7.5 Hosgri fault 10 miles offshore 7 magnitudes higher than the San Simeon 2003 quake. The complete analysis and with the lamellae lenses this is inadequate. People will die, buildings will be destroyed if Broderson is implemented.
- The gravity trenching will cut through the clay lenses causing the waters to run down the trenches to the bay. A matrix of 8' deep trenches will make a creek that will drain these perched water bowls (clay lenses) out to the bay where we will lose a large amount of waters. When a quake occurs the wet soils in the trenches will consolidate and the engineered slope of the beds will be lost. The gravity sewer will cease to function as designed and Los Osos will be without sanitary services and at risk of cholera and other contagious diseases. How will services be provided? At what cost? Please detail the recovery plan as case law has adjudicated.

rationale for determining a Less Than Significant or No Impact for each of the thresholds of

significance can be found in Appendix F-1. Table 5.4-1 is a summary of Geology Significance

Determination and provides a quick reference for items of No Impact, Less Than Significant Impact, and Potentially Significant Impact (for which mitigation measures are proposed).



*Project-Specific Analysis*

Proposed Project 1

Strong seismic ground shaking can occur in response to local or regional earthquakes. The sites under Proposed Project 1 are located within a seismically active area, and the potential exists for strong ground motion to affect the proposed facilities at the sites under Proposed Project 1 during the design lifetime. In general, the primary effects will be those phenomena associated with shaking and/or ground acceleration. Given that it is likely for the proposed facilities to be impacted

*Cumulative Impact Analysis*

Proposed Project 1

Implementation of Proposed Project 1 may contribute to cumulative ground shaking impacts on people and/or structures. Therefore, Proposed Project 1 may contribute to cumulative fault rupture impacts; and this contribution is considered cumulatively considerable, therefore, significant.

Not correct as mitigation is called for but not detailed. It could be inadequate without seeing it. Kabuki. I am reading this with a tinfoil hat on.

5.4.7 - Level of Significance After Mitigation

Project-Specific

*Proposed Projects 1 Through 4*

Less than significant.

Cumulative Again Not correct as a mitigation is called for but not detailed. It could be inadequate without seeing it. Kabuki. I am reading this with a tinfoil hat on.

*Proposed Projects 1 Through 4*

Less than significant. Not correct as a mitigation is called for but not detailed. It could be inadequate without seeing it. Kabuki. I am reading this with a tinfoil hat on.

## 7. Appendix G Biological

See California Native Plant Society responses which are significant and note that Native that are damaged by diesel will be invaded by nonnative like South African Veldt grass, thereby losing the mitigation for TRI-W and the excavation of the Broderson leach field will also be invaded by non natives or exposed to it. How will you mitigate those impacts?

## 8. Appendix H Cultural

Deep trenching of gravity collection will disturb cultural resources. Where there is an alternative of lesser impact that should be selected. See CZLOU and Coastal Act and Estero Plan which all require least impactful project to goals and guidelines.

## 9. Appendix I Public Hearing

## 10. Appendix J Traffic

21,900 brine trucks

Union Asphalt quantified the truck hours to move 2,500 trucks of river rock for leach fields at Broderson. From their Santa Maria Site; 228,690 mile, \$1,262,869.05 materials, \$734,349.00 trucking cost, 90 miles round trip. 170 minutes a trip at 20 yards of rock per load and each truck will weigh 80,000 pounds. A yard weighs 1.2 tons or 2400 lbs. Times 20=48,000 lbs. How much diesel fuels for all of this hauling please state the facts, the impacts and the mitigation.

Please evaluate road impacts/damage and traffic flows. Why this obvious concern is not addressed is curious.

Similarly evaluate 3,750 truck loads of sandy soils to be removed from Broderson leach field and where it will be taken. If fill for what site? ( leach field is 8 acres assuming 7 acres of leach area 6 feet deep with 4 feet of rock and 2 feet of other cover.)

Untitled 3 attachment: Shows utility pipes crossing gravity trench have to be cut, capped and replaced loss of service time needs to be identified for those properties. Have you evaluated this impact?

## 11. Appendix K Air Quality

All trucking mentioned above has AQ impacts. Will truck retrofits, as described by recent air quality legislation since this document was written, be implemented? That will increase the economics of this aspect of the project. Please re evaluates.

12. Appendix L Noise created by Brodeson truck and RO trucking need quantifying, What will those potential impacts be to humans, plants and animals?

13. Appendix M Agriculture

AG lost from Tonini is a greater impact than Giacomazzi grade three grazing land that is hard pan clay in the summer and expansive in the wet season. What will you do to reduce those impacts or mitigate them?

14. Appendix N Visual Resources

15. Appendix O Environmental Justice

#### 8.3 - EFFECTS FOUND NOT TO BE SIGNIFICANT

The environmental issues that were determined not to be significantly affected by the proposed

Project and therefore, do not require evaluation in the document, per section 15063(c) of the State

CEQA Guidelines, are as follows:

Mineral Resources

Population and Housing (Displacement of Substantial Numbers of Existing Housing and People)

Public Services and Utilities (Fire and Police Protection, Schools, Parks, Solid Waste, and Other Public Facilities)

Recreation

The above environmental issues were determined not to be significantly affected by the proposed

project in the Notice of Preparation (NOP) for this Draft EIR (Appendix A), and in the Draft EIR for

the Los Osos CSD Wastewater Facilities Project (November 2000). The NOP, 2000 EIR, and the following discussion are intended to provide adequate environmental documentation for the issues

that will not be further addressed in the EIR.

So the impact of losing your housing does not count?

When renters lose their housing due to proposed \$250.00 a month cost of this sewer as defined by SLO County. Many can barely make the rent payments.

That is not an impact of this sewer. When senior lose their homes, that is not an impact? When marginal population become refugees that is not considered a project impact?

Please read Sierra Club sustainability policy for affordable housing stock:

"Affordable Housing Crisis Plagues America

More Americans than ever before live in inadequate housing or spend more than half of their monthly income on housing. As the growing population's demand for housing increases, we are failing to provide affordable, convenient options. Strip malls and cookie cutter housing developments do not represent the needs or wishes of most Americans. Suburban sprawl and limited transportation choices often fail to provide affordable housing. Even middle income Americans are feeling the affordable housing crunch as new home prices escalate.

Sprawl pulls investment and the tax base away from existing communities, and forces the expensive construction of new roads, sewer lines and other infrastructure. Smart Growth provides a solution to sprawl and the affordable housing challenge. Fighting sprawl can and should include Smart Growth and affordable housing." See [http://motherlode.sierraclub.org/challenge\\_sprawl.html](http://motherlode.sierraclub.org/challenge_sprawl.html)

#### Gentrification: An Unnecessary Evil

Many residents of inner cities fear revitalization projects. If their community becomes a more desirable place to live because of improved services, accessible jobs, and business opportunities, won't housing prices rise? To prevent gentrification--the displacement of current residents by more affluent newcomers--community members can create a development plan that incorporates exclusionary zoning, fair-share housing, and rent controls to keep housing affordable. Replacement ordinances make sure affordable housing is not lost in the construction of better communities. Giving all citizens a voice in planning is the key to Smart Growth. Revitalization does not need to drive out low-income residents. And:

<http://www.lhc.ca.gov/lhcdir/house/FrankJun01.pdf>

The impacts of this project will be to reduce the affordable housing stock. Under General Plan, CZLOU and Estero Plan policies and principles that is an impact. Again case law supports protecting coastal resources for affordable housing. See CA Coastal Commission laws and Policies. And Ca Housing Policies and statutes. A project in conflict, where there is a project alternative of a lesser

impact should be selected. No where in the body of water law or state law does it state a community must implement the most costly alternative. In fact the opposite is true.

Fair Share housing to promote neighborhoods, create a vibrant,

Diverse community, and meet the needs of a variety of income levels... This project does not allow our diverse community, but forced gentrification. Our work force will need to commute causing more traffic impacts with these added costs

<http://www.sierraclub.org/sprawl/affordable.pdf>

#### 16. Appendix P Alternative information

Constructed Wetlands: Effluent disposal using constructed wetlands would create habitat as

Well as recreational and aesthetic benefits for the community. Wetlands are considered primarily

As a storage device. However, disposal through evapotranspiration could also occur.

Constructed wetlands typically operate at depths of 1 to 5 feet, and areas of both vegetation and open water allow for different types of habitat.

<http://www.npr.org/templates/story/story.php?storyId=90043021>

Yes and it remove the human carbon that causes disinfectant by products.

Metals and emerging contaminant

sustainably. Polishing the water for AG reuse and exchange. At a low energy cost. See Clayton County Ga

"I like to say it's raining everyday in Clayton County because we're putting right now about 10 million gallons back in our water supply," says Mike Thomas, general manager of the Clayton County Water Authority.

Thomas says the reservoirs here are full and have never been in danger of being too low. That's because back in the 1980s, folks realized there wasn't enough water to support the growth, so they decided to build a system of wetlands and reservoirs that would help them save water. And... The price tag is also an advantage — it can be as little as half the cost of building a regular wastewater treatment plant.

This idea probably won't work for bigger cities like Atlanta because it requires a lot of land. Still, it's attractive for smaller communities.

And there's an added benefit: Officials can create a nature preserve for those who live nearby.

#### Table 1: Summary of Evaluation Criteria

##### Baseline Criteria Sub-criteria Comments

1. Water Balance A. Salinity Management Project must contribute to mitigation of saltwater intrusion into lower aquifer

Due to lamellae lenses the effluent will not reach the lower aquifer and no seawater mitigation will occur. Project goal not met.

B. Groundwater Recharge Project must contribute to recharging groundwater resources in lower aquifer

Again: Due to lamellae lenses the effluent will not reach the lower aquifer and no seawater mitigation will occur. Project goal not met.

2. Water Quality A. Meeting RWQCB

Requirements for WDR

(Discharge limits)

Project must be effective in meeting effluent discharge levels for: BOD, total suspended solids (TSS), nitrogen, viruses, and bacteria.

B. Meeting RWQCB

requirements for

elimination of pollution

to groundwater

Project must involve mitigation of potential effects of effluent discharge on domestic water wells.

C. Addressing emerging contaminants:

pharmaceutical and

other constituents

Project is required to be consistent with EPA standards for emerging

Contaminants

Project fails to meet this goal. RO and Advanced Oxidation required, not included in project description.

3. Energy The project is a higher energy user...not sustainable. See ponds and wetlands and AG exchange data in Ripley Project Report 2006.

A. Contributing to Improvements in air quality

Project must demonstrate:

- Minimizing particulate emissions

As stated above in Traffic and AQ the trucks trips necessary for Broderson and RO brine hauling will have significantly greater impacts than Ag exchange in Lieu of pumping where RO and trucking 3,700 truck of dirt are not required.

- Effectiveness in minimizing release

*Los Osos EIR Technical Memorandum 2.1 Page 13*

*Kennedy/Jenks Consultants*

Baseline Criteria Sub-criteria Comments of airborne pathogens, and exposure to vectors

Any septage hauling will cause spores to be air borne See SWRCB fines of the Pacifica Plant.

B. Promoting sustainability

Project must increase energy efficiency over conventional designs, reducing overall use of natural resources

C. Reducing greenhouse gas emissions

Project must result in reduction of carbon footprint from conventional designs Carbon footprint big with gravity construction. Fused pipe under estimated

4. Costs A. Life Cycle Costs Project must involve:

- Efficient use of funds for capital improvements

- Lowest feasible and practical

Operations and maintenance costs

Necessary to meet WDR discharge

Limits.

Gravity sewers have a long history of violations; Here is a plant designed by MWH the designer of the 3 gravity projects you have listed as project 2,3 and 4.

Lila Tang of the San Francisco Bay Regional Water Quality Control Board said her agency would investigate the January spills in Pacifica.

"We have taken quite a few enforcement actions against the city (over time), possibly more action than against other cities," Tang said. "We haven't imposed



any corrective actions on them for the January incidents or for these types of wet-weather events in general," she added, noting that the city of Burlingame ended up discharging more than 2 million gallons of fully treated wastewater into the Bay during the same weekend.

Tang said the Pacifica plant could escape a fine if it had no alternative than to dump the wastewater, and demonstrates the ability to cope next time.

January's spill wasn't the only such incident in the plant's history, however. Documents provided to the Times show that another big storm -- lasting from Nov. 29 to Dec. 1, 2001 -- forced 110,000 gallons of partially treated wastewater out into Calera Creek without the benefit of the sand filters or the ultraviolet cleaning system.

Gromm attributes those incidents to growing pains at the plant, which had just come online in September of 2000.

"We had to figure out how to change the plant to respond to these high flows," he said. "Since then, I don't think we've had any problems" -- the most recent incident excepted.

But other violations of a different nature have plagued the wastewater plant since its inception.

The Regional Water Quality Control Board fined the Pacifica facility \$396,000 for violating its discharge-permit limits 137 times between January 2001 and Nov. 30, 2007.

The list of violations included at least 74 discharges of fecal coliform, 23 discharges of ammonia and two mercury-limit violations, according to documents obtained from the board.

Some of these problems are attributed to the plant's anaerobic digester, which becomes clogged with foam. Plant engineers employed a temporary workaround, and next week, construction crews will begin the process of modifying the machine at a cost of \$1 million, according to Gromm.

Other machine malfunctions have also led to fines. In December 2001, a pump station in the neighborhood of Linda Mar discharged over one million gallons of untreated sewage into the ocean, leading to fines of \$125,000.

In December 2005, 253,000 gallons of sewage escaped from the Rockaway pump station during a pipe system replacement. Pacifica was fined \$190,000 and sued the construction company for negligence.

Reach Julia Scott at 650-348-4340

B. Staffing Requirements Project must minimize number of required management and staff positions.

Ponds, vacuum or LPS would have the lowest staff hours as well as ADS pond treatment.

C. Community Acceptance

Includes consideration of:

- Private property value

A large assessment of \$25 to \$40 million would be less acceptable than a project of \$15 K. Nowhere in California even in areas of high income is there a sewer fee of \$250.00 a month...it is outrageous taking of our rights to live under the constitution of the USA.

- Aesthetics

5. Permit ability A. Coastal Permit • Required for any work

- Must be in compliance with the Local Coastal Plan (LCP) Not in this project

B. Endangered Species

Habitat Areas (ESHA)

Includes considerations of what is permitted in the ESHA

C. Environmental Includes consideration of the following:

- Endangered Species Protection Act

Many species including homo sapiens will be adversely affected in the endocrine systems as they develop. EDSAP

<http://www.cardam.eu/NR/rdonlyres/733613DB-623F-4A8A-B193-B38D28E24103/0/HildaWittersfinal.pdf> and

Since 1998 test are ongoing for all domestic chemicals sold or released into the USA environment <http://www.epa.gov/endo/>

National Resources Defense Council and other plaintiffs joined and won a decision to force USEPA to go forward with that evaluation.

" In recent years, some scientists have proposed that certain chemicals might be disrupting the endocrine system of humans and wildlife. A variety of chemicals have been found to disrupt the endocrine systems of animals in laboratory studies, and compelling evidence shows that endocrine systems of certain fish and wildlife have been affected by chemical contaminants, resulting in developmental and reproductive problems. Based on this and other evidence, Congress passed the Food Quality Protection Act in 1996, requiring that EPA initiate EDSP to screen pesticide chemicals and environmental contaminants for their potential to affect the endocrine systems of humans and wildlife."

<http://www.epa.gov/endo/pubs/edspoverview/index.htm>

World wildlife federation

[http://wwf.worldwildlife.org/site/PageServer?pagename=can\\_results\\_endocrine](http://wwf.worldwildlife.org/site/PageServer?pagename=can_results_endocrine)

Dioxin Exposure, from Infancy through Puberty, Produces E  
<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2199303> endocrine  
Disruption and Affects Human Semen Quality.

*There is ample and overwhelming evidence both from studies and common sense that the products we use daily. Prescription drugs, off of the shelf healthcare and cosmetics have levels of toxins and pollutants and other classes of chemicals that effect human health and development...mutagens and carcinogens that remain in sewer effluent after treatment process that is scheduled to be added to our potable and limited water supply for 15,000 people. Add to this the chemicals on the cleaning aisles of supermarkets, hardware and auto parts stores, local dry cleaners, auto Body and other stores that will be added pollutants...over 200,000 and we have a new source of potable water at Broderson that must meet recharge standards. You have failed to meet CEQA requirements to define impacts, classify impacts and meet mitigation standards. Our hope is a SEIR may do so.*

Stably transfected human breast cancer cell line,  
developed by INSERM (Balaguer et al, 1999) □  
Section 7 consultations with US Fish  
and Wildlife Service

- Archaeology
- Sensitive species/habitat
- State Marine Reserve

D. Land Uses Includes:

- No other feasible alternative for ESHA
- Prime agricultural land
- Siting of public utility facilities

E. Engineering Includes the following elements:

- Health and Safety
- Drainage
- Noise
- Odor
- Traffic Trips
- Operational Dependability

5.1AG Exchange is different than reuse as we get potable water for treated effluent.. Using the AG X should be an A priority. ReCip TVA subsurface wetlands vector proof, in Small Flows article and followed by

page 432 DEIR 7-24 Table 7-5 screening level A,B,C  
Disagree with the values in penalizing and minimizing bias

Table 7.7 page 456: Wrong \$11.4 Capital cost \$355,000 O&M

- Construction low:  
\$18 to \$21 million
- O&M medium:  
About \$800,000/year.

Page 464 top Wrong... ponds need dredging 15-20 year

Page 474 Other Effluent Disposal Alternatives  
*Constructed Wetlands Can't harvest water see Clayton County Georgia*

*Conclusion:*

*There is evidences of constructive fraud through the process. The values reported in the due diligence, Rough/Fine screening tech memos and the resulting conclusions are based on questionable values. The alternatives were not vetted in some cases leaving out known data from Carollo project that won awards recently...Petaluma Pond/wetland and Carnation WA Vacuum sewer with wetlands.*

*This plan has a lot of deferred costs and impacts. How ill these be identified in the disposal plans?*

*Please obtain a copy of Los Osos TAC Report Comments by Tom Ruethr March 30 through April 8, 2007 Dr, Ruehr has 35 years studying this project from the earlier TAC in the 80-90s, was a member of the citizens group that formed the LOCSD "The Solutions Group" and a retired (last year) Soil Scientist at Cal Poly San Luis Obispo. He has information that needs considering in this DEIR...lamellae layered at 2" to 4" depth hold the effluent in the soils and create a lateral flow. As I have pointed out earlier. If you do not recognize these problems the CA Coastal Commission or the Courts may. It is after all scientific evidence.*

*More study needs to be completed and Tom supports my view that Vacuum, Low Pressure and STEP have a superior outcome for collection in these conditions than does gravity. Please invite and evaluate the submissions of LPS, Vacuum and STEP/STEG as well has wetlands and AG exchange.*

*Thank You AL Barrow Coalition for Low Income Housing and Citizens for Affordable and Safe Environment.*

*\*Eone puts a valve at the septic tank junction to the grinder pump for power outages,*

