



SAN LUIS OBISPO COUNTY  
DEPARTMENT OF PLANNING AND BUILDING

VICTOR HOLANDA, AICP  
DIRECTOR

August 31, 2009

Sierra Club  
P.O. Box 15755  
San Luis Obispo, CA 93406

County Of San Luis Obispo  
Department Of Public Works  
Attn: John Waddell  
INTEROFFICE

**SUBJECT: APPEAL OF DRC2008-00103 – COUNTY OF SLO - LOWWP**  
**HEARING DATE: August 13, 2009 / PLANNING COMMISSION**

We have received your request on the above referenced matter. In accordance with County Real Property Division Ordinance Section 21.04.020, Land Use Ordinance Section 22.70.050, and the County Coastal Zone Land Use Ordinance 23.01.043, the matter has been scheduled for public hearing before the Board of Supervisors. A copy of the appeal is attached.

The public hearing will be held in the Board of Supervisors' Chambers, County Government Center, 1055 Monterey Street, Room D170, San Luis Obispo. The project has a hearing date of **Tuesday, September 29, 2009**. All items are advertised for 9:00 a.m. If you have any questions, you may contact your Project Manager, **Murry Wilson**. A public notice will be sent out and you will receive a copy of the notice.

Please feel free to telephone me at 781- 5718 if you have any questions.

Sincerely,

Nicole Retana,  
County Planning and Building Department

CC: Murry Wilson, Project Manager  
Jim Orton, County Counsel



# Coastal Zone Appeal Application

## San Luis Obispo County Department of Planning and Building

NOTE: To appeal a Board of Supervisors decision you will need to obtain appeal forms from the California Coastal Commission - 725 Front Street, Suite 300 - Santa Cruz, CA (408) 427-4863.

#1795

### PROJECT INFORMATION

Type of permit being appealed:

- Plot Plan   
 Minor Use Permit   
 Development Plan   
 Variance   
 Land Division  
 Lot Line Adjustment   
 Other \_\_\_\_\_   
 File Number: DRC 2008-00103

The decision was made by:

- Planning Director   
 Building Official   
 Administrative Hearing Officer   
 Subdivision Review Board  
 Planning Commission   
 Other \_\_\_\_\_   
 Date the application was acted on \_\_\_\_\_

The decision is appealed to:

- Board of Construction Appeals   
 Board of Handicapped Access   
 Planning Commission   
 Board of Supervisors

### BASIS FOR APPEAL

Please note: An appeal must be filed by an aggrieved person or the applicant at each stage in the process if they are still unsatisfied by the last action.

- INCOMPATIBLE WITH THE LCP. The development does not conform to the standards set forth in the certified Local Coastal Program of the county for the following reasons (*attach additional sheets if necessary*)

Explain: see attached - 10 pages

- INCOMPATIBLE WITH PUBLIC ACCESS POLICIES: The development does not conform to the public access policies of the California Coastal Act - Section 30210 et seq. Of the Public Resource Code (*attach additional sheets if necessary*)

Explain: \_\_\_\_\_

Specific Conditions. The specific conditions that I wish to appeal that relate to the above referenced grounds for appeal are:

Condition Number	Reason for appeal ( <i>attach additional sheets if necessary</i> )
98	No historic analysis of high groundwater areas

### APPELLANT INFORMATION

Print name: SIERRA CLUB

Address: P.O. Box 15755, SLO, 93406 Phone Number (daytime): 805-543-8717

I/We are the applicant or an aggrieved person pursuant to the Coastal Zone Land Use Ordinance (CZLUO) and are appealing the project based on either one or both of the following grounds, as specified in the CZLUO and State Public Resource Code Section 30603 and have completed this form accurately and declare all statements made here are true.

Signature Andrew Christie  
ANDREW CHRISTIE

Date 8/27/09

OFFICE USE ONLY			
Date Received:	<u>8/27/09</u>	By: <u>Quisnace, Secretary</u>	
Amount Paid:	<u>0</u>	Receipt No. (if applicable): <u>N/A</u>	
			Revised 5/05/04/LF



SIERRA  
CLUB

FOUNDED 1892

SLO CNTY 1  
PLANNING/BUILDING  
DIST

20 Santa Lucia Chapter  
20080827 PM 11:31  
P.O. Box 15755

San Luis Obispo, CA 93406

(805) 543-8717

www.santalucia.sierraclub.org

August 27, 2009

TO: San Luis Obispo County Board of Supervisors

RE: Appeal of Coastal Development Permit, Los Osos Wastewater Project, DRC2008-00103

The project does not conform with:

- **Estero Area Plan, Chapter 6, Section IV, A.1 Maintain, and where feasible, restore the quality and biological productivity of coastal waters, streams, wetlands, estuaries, and lakes in order to protect human health and maintain optimum populations of marine and other wildlife.**
- **Estero Area Plan, Chapter 6, Section IV, A.3 Avoid, and if not feasible, minimize impacts to watershed from erosion, runoff, pollution, and water diversions by new public and private development.**
- **Coastal Plan Policies for Environmentally Sensitive Habitats, Policy 2: Permit Requirement: As a condition of permit approval, the applicant is required to demonstrate that there will be no significant impact on sensitive habitats and that proposed development or activities will be consistent with the biological continuance of the habitat. This shall include an evaluation of the site prepared by a qualified professional which provides: a) ~~the maximum feasible mitigation measures~~ (where appropriate).... [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTIONS 23.07.170-178 OF THE CZLUO.]**

There are two overall problems with the project as permitted which render it out of conformity with these coastal policies. First, feasible and practical alternatives that would result in the avoidance of impacts have been disregarded in favor of mitigation measures that allow impacts to occur and then mitigate for them, contrary to the intent of local coastal policies and CEQA. Second, where mitigations are stipulated, the mitigation is often inadequate and could be supplemented or replaced by other measures or project alternatives that would substantially increase mitigation value.

The project fails to avoid or adequately mitigate potential significant impacts on coastal resources because it does not include a wastewater collection system that would result in the greatest protection against the release of partially treated or untreated wastewater, afford the greatest protection for the groundwater of the Los Osos basin, utilized the most cost-effective

means to avoid impacts to cultural sites, avoid environmental impacts from deep trenching/dewatering, and enable the use of renewable energy sources.

The EIR needs to be recirculated in order to correctly state and evaluate the environmental impacts of a pressurized effluent collection system and the mitigations it provides when placing and operating a wastewater treatment collection system in an environmentally sensitive area, including:

- Monitored system pressure; ground leakage is caught immediately.
- Ground leakage contains no solids.
- Pipe slope settlement or damage is non-existent.
- Aggressive conservation coupled with on-site graywater systems will have no negative effect on a STEP collection system
- No surface spillage of raw sewage (black water plus solids) is likely to ever contact the waters of the Estuary. (Paige)

The recirculated EIR also needs to assess the benefit of reduced plant size and carbon footprint concomitant with the substantial reduction of inflow & infiltration attendant on the use of pressurized effluent collection system.

- The project does not conform with **Coastal Plan Chapter 12, Policy 1: Protection of Archaeological Resources**: *The county shall provide for the protection of both known and potential archaeological resources. All available measures, including purchase, tax relief, purchase of development rights, etc., shall be explored at the time of a development proposal to avoid development on important archaeological sites. Where these measures are not feasible and development will adversely affect identified archaeological or paleontological resources, adequate mitigation shall be required.*

The EIR assumes replacement of 5000 septic tanks with STEP tanks. The recirculated EIR should analyze hydrostatic or other on-site testing of septic tank integrity, and the likelihood that up to 75% of existing tanks will be found suitable for use in a STEP-STEP system. Under this scenario, the EIR should reevaluate on site and archaeological impacts, sludge hauling, GHG emissions, and dewatering, as compared to the impacts of a gravity system.

The FEIR states: "The concept that STEP directional drilling will not impact archaeological sites is wrong. The resources could potentially be impacted under any condition, the impacts to sites through directional drilling would be unknown as opposed to controlled excavations where the scientific information would be preserved" (FEIR 3-295). This misstates the issue. It would appear that controlled excavations can be performed independently of collection system technology; if a site is discovered, STEP directional drilling can easily avoid an archaeological site by simply going around it, whereas gravity trenching, to maintain grade, must stop work, re-rig for drilling, and submit a change order whenever such a site is encountered. A recirculated EIR must correctly state this issue and provide an estimate of comparative impact-related costs of STEP directional drilling vs. gravity trenching/change order/drilling.

The project does not conform with:

- **Coastal Plan Policy 7: Protection of Environmentally Sensitive Habitats:** *Coastal wetlands are recognized as environmentally sensitive habitat areas. The natural ecological functioning and productivity of wetlands and estuaries shall be protected, preserved and where feasible, restored. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTIONS 23.07.170-178 OF THE CZLUO.]*
- **Coastal Plan Policy 35: Protection of Vegetation:** *Vegetation which is rare or endangered or serves as cover for endangered wildlife shall be protected against any significant disruption of habitat value. All development shall be designed to disturb the minimum amount possible of wildlife or plant habitat.*
- **Coastal Plan Policies for Environmentally Sensitive Habitats, Policy 20: Coastal Streams and Riparian Vegetation:** *Coastal streams and adjoining riparian vegetation are environmentally sensitive habitat areas and the natural hydrological system and ecological function of coastal streams shall be protected and preserved. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO SECTION 23.07.174 OF THE CZLUO.]*

COA 98 should be amended so that the “areas of high groundwater” in COA 98 are specified as needing to be clearly defined and based on a detailed analysis by the design-build teams of historic high groundwater elevations. The County’s map of vulnerable pipelines (COA p. 3-169) compared with DEIR Appendix D graphic showing the extent of potential perched groundwater raises concern as to the validity of the County’s mapping of vulnerable pipelines. In an extreme precipitation scenario such as March 1995 when the month recorded a total of 18.3” and a one-day record of 8.8”, there is little doubt that the perching clay layer would create transient groundwater levels at or near the ground surface for a number of weeks or months. Hence, “areas of high groundwater” should include the entire service area above the perching clay layer as well as areas susceptible to tidal action and sea level rise.

Project construction and detection of high groundwater areas is likely to take place in low precipitation months. Winter precipitation is often higher than summer precipitation, and groundwater storage is not fully recharged in summer. Consequently, the water table is lower in the summer period. The disparity between the level of the winter and summer water table is known as the *zone of intermittent saturation*, wherein the water table will fluctuate in response to climatic conditions. This underscores the need for a prior detailed analysis of historic high groundwater elevations by the project teams, rather than relying on identification of such areas in the field during construction.

The EIR assumes that infiltration of water into the collection system will occur during the rainy season in the amount of 310,000 gallons a day. (EIR I&I evaluation, 310,000 gpd /5,000 homes). In the context of the EIR’s discussion of increasing I&I due to gradual loss of integrity and compaction of the seals of bell & spigot joints of a gravity sewer, the FEIR states that “fusion welded pipe joints are expected to maintain water tightness indefinitely” (3-10), a statement that only applies to the 5 miles of gravity pipe that are proposed to be fusion welded. Differential settlement and earth movement in the areas of pipe-to-concrete penetrations (manholes and lift

stations) creates significant sources of infiltration in a gravity system. Infiltration and inflow will become increasingly likely throughout the rest of the system over time, to a far more significant degree than the estimated I&I attendant on a 100 percent fusion-welded pressurized effluent system, requiring mitigations for an impact that could be avoided.

The Final EIR must address the impacts on water availability and conservation of a gravity-flow collection system due to its minimum flow requirement, and the costs of flushing a gravity system.

The project does not appear to conform with the cited coastal policies due to probable dewatering impacts from deep trenching. The recirculated EIR must evaluate this mitigation or avoidance of this environmental impact. On 1/30/09, the regional Water Quality Control Board submitted a comment on the DEIR referencing the DEIR's failure to adequately characterize the environmental impacts of the deep trenching of a gravity collection system vs. the shallow trenches of a STEP/STEG system. (*"The County should expand on their environmental impact evaluations regarding trenching associated with the installation of the STEP STEG system as described in proposed project alternative number 1. This description should discuss potential environmental impacts associated with dewatering activities as a result of deeper versus shallower trenching."*) In response, the Final EIR compared the 8-foot depth of a STEP tank excavation with the average 8-foot depth of "75 percent of a gravity collection system." On this basis, the Final EIR concluded "the construction dewatering requirements of the two systems, and consequently their associated environmental effects, appear to be similar in nature" (FEIR 3-47). Presuming to analyze alternatives and their impacts simply by stating that those impacts "appear to be similar in nature" is clearly inadequate to the requirements of CEQA, and there is no comparison between the dewatering requirement for a STEP tank excavation and the dewatering required for laying a gravity pipe in a trench. A number of the gravity trenches not included in that "75 percent" of the gravity system excavated at a depth of 8 feet would range up to 23 feet in depth. If in high groundwater, a STEP tank site need only be pumped briefly, sufficient for the tank to be placed in the ground rather than on water, whereas a gravity pipe trench must be completely pumped out, for its full length, for as long as necessary -- which can take several days, pumping 24 hours a day -- until it is dry and water is no longer entering the trench.

The EIR's attempt to state these impacts as equivalent was in error. The recirculated EIR must correct the nonresponsiveness of the FEIR on this project impact.

The number of local groundwater wells is in dispute, with 20 or more private domestic wells west of 18<sup>th</sup> Street apparently not included in the 7/29/09 Cleath report. The discrepancy between the Cleath count of 240 wells and County Environmental Health's count of 350 wells must be resolved in a recirculated EIR, which should not assume that all water users in a water purveyor's territory are on purveyor water.

- The project does not conform with **Coastal Plan Policy 39: Siting of Shoreline Structures**: *Shoreline structures, including piers, groins, breakwaters, seawalls and pipelines, shall be designed or sited to avoid and minimize impacts on marine habitats.*

The FEIR states: "The proposed projects evaluated in the Draft EIR do not have proposed facilities that directly affect the Morro Bay State Marine Reserve" (FEIR 3-587), and further that "...accidental releases could indirectly affect the Morro Bay State Marine Reserve; however, at this time, it is speculative regarding the level of impact because the location and size of the accidental spill would need to be known" (ibid).

The first statement is in error, as pumps on the shore of the estuary and a central lift station on the midtown site, one-half mile uphill from a portion of the estuary characterized by low tidal flushing, would have significant potential to "directly affect" the SMR.

The second statement is in error both because the impacts of a spill on the SMR would not be "indirect" and because it is not permissible under CEQA to fail to identify an impact because "the location and size of the accidental spill would need to be known." Claiming that this impact is "speculative" is akin to asserting that it is speculative to state that a heavy rainstorm may occur sometime in the next 50 years. It is not necessary to precisely forecast the size or duration of a sewage spill into the estuary in order to determine that this impact would not conform with coastal watershed policies meant to maintain productivity of coastal waters. Moreover, the location of the proposed pumps on the shore of the estuary and the midtown lift station are known. The size of a spill in the event of the failure of the midtown centralized lift station, into which 100 percent of the project's wastewater would flow, is readily calculable over various time frames.

The EIR states that mitigation measures for sewage spills are in placen and seeks to equate the impacts of a major spill of raw sewage with the impacts of some percentage of pollutants making their way into the estuary as a result of some percentage of local septic leachfields not functioning properly, resulting in inadequate filtration of effluent. These environmental impacts are not comparable, and should be viewed in the context of multiple sewage spills from local central coast gravity-fed treatment plants over just the last five years - all of which, it may be presumed, had mitigation measures in place. These spills have usually resulted from heavy rains, triggering high levels of inflow & infiltration in gravity sewers, causing treatment plants to be overwhelmed.

Here again, the EIR has substituted mitigation of impacts without consideration of the avoidance of impacts. The recirculated EIR must evaluate these potentially significant impacts and their most obvious means of avoidance: A collection system that does not require pumping stations on the shore of the SMR or a central lift station at the midtown site.

- The project does not conform with **Coastal Zone Framework for Planning 13. Resource Use and Energy Conservation - Support the conservation of energy resources by: d. Encouraging land use and transit measures that reduce use of non-renewable resources such as petroleum.**

The EIR claims that a gravity collection system is more energy intensive but emits less GHG due to the absence of septic tank venting and less chemical production; that STEP/STEG is less energy intensive, but overall the process emits a large amount of GHG due to septic tanks and chemicals. (Carollo, June 2008)

The EIR failed to evaluate -- and failed to adequately respond to comments on its failure to evaluate -- alternatives to chemical (methanol) use for denitrification of STEP effluent that would result in a significant reduction of GHG emissions. A recirculated EIR must analyze this mitigation and compare to the GHG emissions of a gravity systems.

AIPS ponding presents the prospect of methane capture. "Using this renewable resource of methane reduces the depletion of fossil fuels, and recycling the carbon dioxide produced by its combustion to enhance microalgal growth further reduces the level of greenhouse gas emissions." ("Methane Recovery in Advanced Integrated Ponding Systems: An Update," W. J. Oswald, F.B. Green, UC Berkeley, CIEE 1993). The EIR evaluated methane production solely as a negative impact, not as a benefit and means of reducing the project's fossil fuel energy use and GHG impacts, and thus did not fully analyze this project alternative. A recirculated EIR must analyze these potential benefits of ponding/methane capture.

A recirculated EIR must address the issues raised and data presented in the 5/27/09 letter to the Planning Commission from Michael Saunders of Orenco Systems, Inc., regarding construction-related GHG emissions and methane from vented STEP tanks. These comments note with supporting data that "the GHG Technical Memorandum included a methodology that appears to hide the magnitude and overall impacts" of construction-related GHG emissions of a gravity sewer, and identifies "inconsistency between the construction impacts and the methane STEP tank emissions. While the construction impacts were averaged over 30 years, septic tank emissions were derived from day one.... A real and immediate impact in the gravity sewer column was averaged, while a nonexistent impact from nonexistent STEP tanks was utilized in day one of the analysis." Orenco proposed a methane monitoring and mitigation strategy and concludes that "the elimination of any potential methane emission, partnered with a lower impact methodology for sludge handling would generate a significantly different outcome than the analysis completed by staff.... The EIR readily uses mitigation strategies for the very significant environmental impacts associated with gravity sewers. The EIR makes no effort to consider or document any mitigation strategy for a STEP option."

This information, and reevaluation of methodology and annualization periods, must be analyzed in a recirculated EIR.

- The project does not conform with **Estero Area Plan, Chapter 6, Section IV A.4:**  
*Minimize erosion, siltation and water pollution by promoting sound land management practices and minimizing the amount of impervious surfaces on public and private lands.*

The use of treated effluent on cropland over the basin is now part of the project as conditioned by the Planning Commission. Expensive nitrate removal methods that are necessary for STEP effluent if disposal is the end goal, as was the case in the project prior to conditioning, are now not necessary and are counterproductive if recycled water is to be used on crops instead. The provision of nitrate-rich effluent to growers would conform with this provision of the Estero Plan by promoting the sound management practice of reducing the amount of synthetic nitrogen-based fertilizers used by growers which is currently causing pollution of the watershed and estuaries. A STEP-STEG collection system delivering high-nitrogen content effluent to a treatment plant meets that goal. A Recirculated EIR should evaluate a STEP/STEG collection/storage pond/ ag



exchange project alternative in which all available effluent is recycled by area growers for crops, and nitrate removal and Broderon disposal is not necessary.

As the project now contains a condition for ag exchange, a recirculated EIR should incorporate the following facts regarding nitrate removal and the experience of the ag exchange project of the Monterey Regional Water Pollution Control Agency program:

“The MRWPCA recycled water total nitrogen (TKN) runs from the low 30s to the low 40s mg/L (expressed as NO<sub>3</sub>). Most of it is usually nitrate and there is no effort to nitrify. Over the 12+ years that recycled water has been in constant use for irrigation of 12,000 acres of raw-eaten vegetables, farmers have found the nitrogen content of recycled water to be beneficial but not entirely adequate for their crops--partly because some supplemental well water is also in use as there is not enough recycled water for all of their needs. So, they supplement with chemical fertilizers as needed to maximize their yields.

“I see a parallel situation in Los Osos, i.e., no need for denitrification and no need to reduce nitrogen levels to any extent or by any means. Farmers will be delighted with the nitrogen levels in the recycled water (whether in the form of NO<sub>3</sub> or NH<sub>4</sub> or NH<sub>3</sub> or NO<sub>2</sub>) and will probably find that they will need to add a fraction of the pounds/acre of N that they have traditionally applied to their crops when using well water.

“Denitrification is expensive and energy-intensive. Why remove nitrogen at great cost when it is an asset to the end user (farmers) for irrigation of vegetables and other high-N demanding crops? The only case in which nitrogen may be in excess of what the crops will take up is if the recycled water is applied at high (disposal) rates in a land application scheme without the benefit of a crop that would aggressively take up the nitrogen. Even grass is a big user of nitrogen--as in golf courses and other landscaping” (- Dr. Bahman Sheikh, water reuse consultant, 4/22/09).

The California Coastal Commission has strongly urged the County to make “minimizing sludge production to the maximum extent practicable” a “high priority in the selection of collection and treatment technologies” (7/15/09 letter to Paavo Ogren from Dan Carl, CCC Central Coast District Mgr.). The EIR did not make a priority of the analysis and mitigation of sludge production relative to collection and treatment technologies, but notes that a STEP/STEG system for Los Osos would result in a 75 percent reduction in the amount of sludge produced by a gravity system. Todd Ecological Design Inc. estimates .5 lbs of sludge generated and .8Kwh of energy consumed per 1,000 gallons in a natural system model (trickling filter/wetland). This compares to 10 pounds of sludge generated, consuming 3.5 Kilowatt hours per 1,000 gallons with the project’s currently selected activated sludge process. For a treatment system optimized for STEP collection, Orenco Systems estimates .1-.15 lbs. of biosolids production per pound of incoming BOD, in comparison to an activated sludge process producing approximately .75-.85 lbs. of biosolids per pound of incoming BOD.

A recirculated EIR needs to evaluate this data and accurately state the environmental impacts of greater and lesser sludge production, and separately identify the costs associated with sludge disposal.

The FEIR claims no greater impact of increased sludge volume because “There is no plan to apply sludge to land with the current proposal” (FEIR 3-904). This assertion is based on a County moratorium currently in place limiting land application of sewage sludge to 1500 cubic yards per year, with the balance sent to landfill. The moratorium on land application will expire in three years. Sludge from wastewater treatment plants includes industrial solvents, paint and chemical residues, detergents, soaps, cleaning solutions, antibiotics, antimicrobial soaps, antidepressants, heart medication, and other physiologically active drugs, heavy metals such as mercury, lead, and arsenic, from all of the citizens that use the municipal sewage system, all going through the wastewater treatment process. While some of these substances are broken down by the treatment process, many of these chemicals are left in the sludge. These substances are harmful to humans and wildlife, and although some are bound in soils and inactivated, many persist and build up in the environment, unable to be broken down by natural processes.

The project’s oxidation ditch plan should be evaluated in light of the impacts of conventional sand filters which often use coagulation and filter aids, such as aluminum sulfate or proprietary flocculants, which would increase solids wasting. Microfilter tertiary, after seasonal storage would add no chemicals to the system and waste solids would be returned to the front of the secondary plant, an “endogenous operation” – i.e. highly degradable, ultimately reducing waste solids to carbon dioxide and water in the presence of oxygen. Post-seasonal microfiltration adds no chemicals, so solids load from tertiary filters does not increase overall load. This process should be evaluated in a recirculated EIR for its mitigation of the impacts of sludge production, processing and hauling.

The recirculated EIR must evaluate the relative impacts of the volume of sludge production in the event of land application, in comparison of a gravity and pressurized effluent collection system, and in comparison of oxidation ditch treatment to facultative ponds.

- The project does not conform with **CZ Framework for Planning 15. Economics - Promote a strong, diverse, and viable local economy by:** a. *Pursuing planning policies that balance economic, environmental, and social needs of coastal areas.* c. *Considering the economic effects of land use planning decisions.*

Many of the excess cost issues presented by the permitted project can be summed up thusly: “Given the expense associated with sludge disposal, the role of onsite solids digestion [i.e. STEP interceptor tanks] may improve the economics of wastewater treatment, while the transport of clarified effluent in small diameter, watertight piping will reduce the cost of collection systems (G. Tchobanoglous, “Water Reuse,” 2007, p. 791).

The project as permitted does not meet the listed project objective: “Project Costs. Meet the project water quality requirements while minimizing life-cycle costs and mitigating affordability impacts on the community.” The recirculated EIR should address the statement by the EPA, on their septic technologies website, urging “full consideration of options to a traditional gravity sewer, which “smaller communities cannot afford,” such as pressurized effluent collection systems consisting of:

*“shallowly buried plastic pipes, low-cost cleanouts instead of frequent/costly manholes, and a minimum number (if any) of lift stations. They have 40 years of successful experience in*

*the US and worldwide (less I/I [inflow and infiltration], exfiltration, construction duration and disruption). Their management requirements are equal to or lower than conventional gravity sewers (depending on the number of lift stations)."*

([www.epa.gov/owm/septic/pubs/septic\\_technologies.ppt](http://www.epa.gov/owm/septic/pubs/septic_technologies.ppt))

A pressurized effluent system with no lift stations clearly represents, per the EPA, the Environmentally Superior Alternative for cleanouts, I/I, exfiltration, construction duration and disruption, and management requirements.

The project's selection of the highest-cost collection system has been rendered even further out of conformity with coastal policies by the requirement for fusion-welded pipe and change orders for more fusion welding as needed in the field:

"If a STEP/STEG collection system is selected it is anticipated that there will be minimal I/I since the system is sealed and under pressure. 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 a STEP/STEG system. However, fusion welded PVC sewers are a new technology with little long-term operating history, and can be significantly more costly to install than traditional bell-and-spigot gravity sewers" (Fine Screening Report, 2007, Carollo Engingeers).

Additional failure to consider economic effects is evident in the County's statement that no redesign of the gravity collection system will be necessary to accommodate the substantially reduced flow of 50gpd that will be the case when the permit's 25% conservation measures are implemented, and additional reduction in flows occur as the area sees increasing use of graywater systems over time. County staff has stated that the gravity collection system need not be redesigned to accommodate this prospect by increasing pipe gradient to increase flows, stating that this can be achieved by instead reducing pipe diameter as a mitigation for lower conservation flow/higher strength wastewater – i.e. reducing an 8" gravity pipe to a 6" pipe to increase flow and achieve scouring velocity, negating the need to lay pipe at a steeper angle to achieve this. (John Waddell, Planning Commission, 8/13/09).

This assertion is contradicted by the following:

"Decreasing the pipe diameter to, say, 6", actually requires an increase in pipe gradient. The minimum slope for 6" pipe is generally assumed to be 0.6%. Accordingly, decreasing pipe size would cause deeper pipe excavations and deeper lift stations, or alternatively, it would require more lift stations to maintain the currently proposed depths. SLO County standards actually allow pipe gradients that are less than normal practice. This...however, is based on an average daily flow of 100 gpd, not with 50 gpd average daily flow, assumed under a conservation flow. Based on the SLO County design criteria, it would take approximately 100,000 gpd or approximately 70 gpm peak flow to achieve a pipe flowing half full. If the design was done in accordance with this [criteria] and the flow is 50 gpd/capita, we would need approximately 500 people or several hundred homes before the pipe achieves the design point at half full. Accordingly, I would suggest that a 6" pipe would still require a major design change from the existing plans" (Michael Saunders, Orenco Systems).

A recirculated EIR needs to estimate the cost of fusion-welding five miles of pipe, change orders in the field for same, and the implications for the collection system of the permit's conservation measures and increased graywater systems, i.e. impacts and costs of reduced flows and the prospect of a "blackwater" sewer, requiring pumping trucks and system flushing, and assess estimated costs of any necessary collection system redesign versus the cost of a pressurized effluent collection system. These impacts must be assessed against the cost of a system that consists of 100% sealed pipe by design. This must be clearly stated and compared in a recirculated EIR.

The recirculated EIR must estimate the cost of identifying and repairing sections of large, rigid pipe, which will have "more leaks and damage to pipe sections over time" than a STEP system, "especially when located below roads and buildings in developed urban areas" ("Water Reuse: Issues, Technologies and Applications," Takashi, Asano, et al, 2006, Metcalf & Eddy).

The recirculated EIR must estimate the relative costs of horizontal boring for both gravity and pressurized effluent collection pipes, not simply state "This approach could be done for a gravity system as well as a pressurized system" (FEIR 3-596).

- The project does not conform with **Coastal Plan Chapter 9, Policy 11: Preserving Groundwater Recharge**: *In suitable recharge areas, site design and layout shall retain runoff on-site to the extent feasible to maximize groundwater recharge and to maintain in-stream flows and riparian habitats.*

The Planning Commission directed Public Works to work with the local Low Impact Development Center for design ideas on LID components for the project. This directive does not appear to have been followed. Mitigation of impacts due to the presence and function of the collection system should seek to leverage multiple community impacts so as to be cost efficient. One option is to focus some of the mitigation budget to a demonstration project that addresses flooding, stormwater, mobility (pedestrian, emergency services, vehicular) needs. A "complete" or "Green Street" project may be an appropriate approach. The County should be strategic in leveraging the project with other Los Osos infrastructure needs. Without any financial impact to the project, the project budget can be counted as a match for other funding sources such as grants for drainage infrastructure. It would be a major lost opportunity and out of conformity with Coastal Zone Framework for Planning economic policies if the County failed to pursue grants using the wastewater project as match requirements, which could result in free drainage system improvements for the community. A permit condition should direct Public Works to work with the LID Center in identifying LID mitigation measures to be incorporated into the project such as infiltrative bioswales, which also have the potential to substantially reduce the cost of the project to residents.

Due to the substantial reconfiguration of the project in the Coastal Development Permit/Development Plan Findings and conditions of approval, the significant new information entered into the record in the Planning Commission process, and the inadequate and conclusory nature of the EIR as detailed above, the County must recirculate a revised EIR, pursuant to CEQA Guidelines § 15088.5(a)(1); § 15088.5(a)(2); and § 15088.5(a)(3).