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F14a



Prepared June 8, 2010 (for June 11, 2010 hearing)

To: Commissioners and Interested Persons

From: Dan Carl, District Manager
Jonathan Bishop, Coastal Planner

**Subject: STAFF REPORT ADDENDUM for F14a
CDP Application Number A-3-SLO-09-055/069 (Los Osos Wastewater Project)**

The purpose of this addendum is to modify the staff recommendation for the above-referenced item. In the time since the staff report was distributed, additional clarifying information was identified and has been added to the findings and conditions of the staff report. These changes do not substantively affect the staff recommendation. Thus, the staff report is modified as shown below (where applicable, text in underline format indicates text to be added, and text in ~~strike through~~ format indicates text to be deleted):

1. Revise Findings on page 16 of the Staff Report as follows:

In this respect the Commission notes that there has been substantial local debate regarding whether to use a STEP or a gravity collection system, and to a somewhat lesser degree a question in some minds regarding treatment plant siting. The Commission does not believe that there is an LCP or Coastal Act need to revisit treatment plant siting in terms of an evaluation of alternative sites or to revisit the collection system debate between STEP and gravity. A detailed constraints and alternatives analysis was used to identify a gravity system as the least environmentally damaging feasible alternative collection system (see Viable Project Alternatives Rough Screening Report of March 2007 and Fine Screening Report of August 2007). A cost comparison between a STEP collection system and a gravity system is included in the Fine Screening Report for the wastewater project. The report found that the cost associated with construction of both collection systems were substantially the same. In addition, the project EIR includes a detailed analysis of both STEP and gravity systems with regards to resource impacts (see Final Environmental Impact Report, September 2009).

In terms of overall ground disturbance, the analysis concluded that the difference in ground disturbance quantities associated with STEP and a gravity system would not be significant. While a STEP system can be directionally drilled, thereby possibly avoiding the impacts associated with trenching or “deep” excavation, even that technique involves large amounts of ground disturbance. For example, directional drilling requires bore pits at both ends, receiving pits, and lateral service connections (most will need to be trenched). The installation of new STEP tanks also requires excavations (roughly 8 feet deep) that match the majority of the gravity system depth. Excavations for new STEP tanks would likely require substantial excavation areas confined to small front yard areas. Therefore, the STEP alternative provides minimal opportunity to avoid resources if they are located within these areas.

The issue of sludge production and biosolids hauling is also analyzed. The studies performed by the County estimate the gravity system will produce about 4,000 lbs of sludge per day (at buildout), whereas



a STEP system would produce about 1,000 lbs per day (at buildout). For the gravity system this means there would be four truck trips per week (two loaded, two empty) hauling dewatered sludge to the landfill from the treatment plant. For the STEP system, sludge would be pumped from individual tanks at the rate of about 20 tanks per week, or 4 per day, trucked to the treatment plant, and then run through the full treatment system, dewatered, and then hauled to the landfill once or twice per week (but in smaller loads than with a gravity system). The timing of the hauling is established at once or twice per week, regardless of volume, because the sludge is still biologically active and has the capability to produce odors if not disposed of or treated further. Therefore, STEP would generate 2-4 trips per week to the landfill (loaded and empty), and 20 in town trips per day to collect sludge from STEP tanks in town. Although there is a reduction in sludge volume using a STEP collection system, there is also an increase in greenhouse gas emission. The reduction of sludge generation with the STEP system comes from the fact that at a pumping rate of once per five years, each tank will generate a bacterial colony that, after about year 3, breaks down some of the solids producing methane gas (a greenhouse gas), and releasing it to the atmosphere. Therefore, although there is an overall reduction in sludge volume, there is an increase in greenhouse gas emissions at each tank, and the sludge that is delivered to the treatment facility is relatively low in carbon relative to the nitrogen in the sludge. This is problematic because carbon is an important element in the de-nitrification process, and the County would need to add carbon to the sludge from the STEP tanks (likely in the form of methanol) to complete the de-nitrification treatment process, resulting in an additional increase in the carbon footprint from trucking in a carbon source. The County estimated the carbon footprint for these two project alternatives (assuming methanol was used as the additional carbon source to treat STEP (and storage pond) effluent) and found that a STEP system would produce greater amounts of greenhouse gas than a gravity system.

A common cause of sewer system overflows is due to the infiltration of groundwater and rainwater into sewer pipes, commonly referred to as inflow and infiltration (I/I). To address this issue, the County selected a “sealed system” using elastomeric/bell and spigot pipes which is not anticipated to leak under appropriate installation practices. According to the County, the materials used are subject to standards which specify zero leakage. However, the County also will use fusion welded or chemically sealed pipes and will do additional inspections in the field during construction to ensure proper installation in areas of high groundwater to further reduce I/I (see County condition 98, Exhibit 2). In other words, the project includes appropriate safeguards to address I/I. That said, it should be noted that any system, including pressurized systems, constructed in the field and subjected to various environmental factors, over time has some potential for failures of various kinds. According to the County, conservative design parameters for wastewater treatment plants include designing for infiltration, even when the potential for such flows to occur is low, and with modern operational requirements applied, will be insignificant. In short, the project recognizes I/I and takes appropriate precautions to protect coastal resources, including the Los Osos Groundwater Basin and Morro Bay, from potential I/I and sewer overflow impacts.

Issues have also been raised that additional increases in water conservation approved by the County (a roughly 25% reduction from current usage) would reduce the flows needed for proper gravity system function and may undermine efforts to balance the groundwater basin. However, the project is



conditioned to appropriately mitigate impacts related to reduced septic flows (see County conditions 88, 97, 101, and 103). In addition, County condition 111 requires the use of recycled water for typical routine flushing. Moreover, the concern that the use of treated effluent or potable water for system flushing is an unnecessary waste of water does not appear on point because all water that is sent through the wastewater system will be re-used within the Los Osos Basin, as required by the project conditions of approval.

It is also fair to note a number of issues raised by the County related to feasibility of construction and operations. For instance, the County notes that STEP likely has higher in-lot costs (borne by the individual without benefit of public financing opportunities) for electrical hookups and yard restoration. Right-of-way issues can also be problematic, including because the RWQCB will require the County to own and operate all STEP tanks. To do that, the tanks must be accessible in the front yard and within a County-owned easement. Securing such easements may be difficult, and according to the County may result in substantial additional costs and delays. While every home currently has some sort of septic tank, there are areas where installing new tanks, even in the same spot as the existing tank, could be problematic from a space/size perspective. While it may be simple to install a STEP tank on a vacant, undeveloped property, doing so in a space already developed with a house can be much more difficult, especially with infrastructure present (other underground lines, overhead lines, fences, garages, concrete walks and patio space, etc.). In short, the County concluded that the process of the County managing and handling waste from over 4,000 individual STEP tanks, along with a wastewater treatment plant and disposal system, was fraught with potential operational and maintenance issues, and would not result in significant reduction of environmental impacts. In sum, there does not appear to be a significant difference in terms of coastal resource protection by switching to a STEP based collection system.

In addition to the extensive alternatives analysis of the STEP versus gravity systems, the County analyzed various alternatives for the treatment plant location. Technical Appendices B-1: Alternatives Development and Descriptions and B-2: Systems Component Evaluation, and the Fine Screening Report (Corollo Engineers 2007) and Rough Screening Report (Corollo Engineers 2007) summarize the process the County followed to identify the four alternative project locations analyzed in detail in the EIR, while dismissing other alternatives from further consideration. The four location alternatives evaluated in the EIR include: 1) Cemetery/Giacomazzi/Branin; 2) Giacomazzi; 3) Giacomazzi/Branin; and 4) Tonini.

Originally, the County selected the Tonini site as the preferred treatment plant location. All of the alternative sites analyzed included some impact to agricultural resources. However, due to significant visual resource impacts at the Tonini site, including a shift away from sprayfields as an effluent disposal option, the County ultimately selected the Giacomazzi site for the treatment plant. The Cemetery/Giacomazzi/Branin and the Giacomazzi/Branin alternatives were dismissed because use of these combined sites would convert more than one agricultural parcel to non-agricultural public facility use and unnecessarily fragment agricultural lands. The County found that the Giacomazzi site alone better avoided significant public viewshed impacts, better avoided sensitive wetlands and other ESHA's, better avoided known archaeological resources, and would better accommodate a treated effluent



urban/agriculture reuse program. The CCC concurs with the County’s conclusion that the Giacomazzi site is the least environmentally damaging feasible alternative location for the treatment plant.

It is clear, as will be shown in the findings that follow, that there are certain project modifications necessary, but that the proposed treatment plant site and the proposed gravity collection system are appropriate from an LCP and Coastal Act standpoint. Thus, the findings that follow are premised on evaluating the site proposed and the collection system proposed for LCP and Coastal Act consistency. Such analysis does not require, and does not purport to cover, a co-equal evaluation of STEP versus gravity collection, or co-equal evaluation for a different treatment plant site. The Commission does not believe that such analysis is required inasmuch as the proposed project before the Commission, with certain modifications as are discussed below, meets LCP and Coastal Act requirements.

2. Insert the following footnote at the end of second full paragraph on page 43 after the word “project”:

The Commission recognizes that, as with all undeveloped properties in Los Osos that are sensitive habitat, non-resource dependent land uses may be considered in the future for the Midtown site as part of the HCP evaluation and LCP amendment processes that are part of the proposed project (and part of the Commission’s approval – see special condition 6), and that such evaluation of the Midtown site could raise questions regarding whether considering any such use of the Midtown site is appropriate given the restoration and mitigation requirements for Midtown that are part of this CDP. The Commission believes that any future planning efforts should not be required to avoid evaluating the Midtown site in that way due to it being used as mitigation for the LOWWP. Thus, the Commission’s action here does not preclude a different action by the Commission in the future related to the Midtown site. In making this finding, however, the Commission notes that because the Midtown site is mitigation for the LOWWP, any future HCP/LCP amendment process that would allow for non-resource dependent development at Midtown would necessarily need to at least double the offsetting habitat mitigation that might ordinarily be considered for impacts at the Midtown site (i.e., once to offset the mitigation for the LOWWP CDP that accrues to Midtown, and once for any HCP/LCP amendment that might allow for non-resource dependent land use and development), and this would need to be reflected in the HCP, the LCP amendment, and in an amendment to this CDP.

3. Add Findings after the first full paragraph on page 47 as follows:

Under Special Condition 1, submittal of Final Project Plans for the approved treatment plant site and the collection and disposal systems can be phased separately. The reason is to allow construction of the effluent collection and disposal system to begin while plans for the treatment plant site are further developed by the County. Thus, the Coastal Commission intends Special Condition 1 to allow for the phasing of these different project elements.



4. Revise Findings in the first full paragraph on page 63 as follows:

... As specified in Special Condition 5, this plan would require the County to ensure that the service area, location and timing of the wastewater disposal component of the LOWWP project maximizes long-term ground and surface water, and resources health and sustainability (wetlands, streams, creeks, lakes, riparian corridors, marshes, etc.), including with respect to offsetting seawater intrusion as much as possible within the Los Osos Groundwater Basin.

5. Revise Paragraph 2 on page 64 as follows:

Implementing the components of the Los Osos Basin Recycled Water Management Plan will also complement on-going efforts in Los Osos to address the large seawater intrusion program. Under Special Condition 5, the Los Osos Basin Recycled Water Management Plan must be prepared by persons known to the Executive Director to be experienced with and expert in the fields of knowledge applicable to the Los Osos Basin Recycled Water Management Plan components (e.g., groundwater monitoring and assessment components must be prepared with input from licensed and certified hydrologists), should be prepared in coordination with all Los Osos area water purveyors to the maximum degree possible, must be accompanied by all supporting documentation regarding Los Osos Basin Recycled Water Management Plan components (including assumptions and data underlying its methodologies, assessment criteria, and related measures), and must include enforceable mechanisms designed to ensure its successful implementation (e.g., legal agreements, ordinances, etc.). Currently there is a group of parties, including water purveyors in Los Osos, working under the auspices of an Interlocutory Stipulated Judgment (ISJ) in the Los Osos Groundwater Basin to draft a Basin Management Plan. This ISJ Working Group recently released an update on the Basin that summarizes various goals of the group, the status of seawater intrusion, etc. (see Exhibit 4, pgs 138 through 167 of 318). Anticipated goals of the Basin Management Plan include addressing the future sustainable water supply for existing and future development, stopping seawater intrusion into the lower aquifer, managing contamination of the upper aquifer, and establishing a strategy for maximizing the reasonable and beneficial use of Basin resources. Notably, the recent update recognizes the importance of various wastewater discharge components of the LOWWP that would be governed by Special Condition 5, including the disposal at Broderson and Bayridge leach fields, indoor water conservation, and agricultural and urban reuse to addressing the needs of the Basin. The ISJ Working Group states:

The ISJ Working Group recognizes the above-listed LOWWP actions are crucial to mitigating the negative impacts with which the Los Osos community is faced and that implementation of these measure should be pursued as soon as possible. (Los Osos Groundwater Basin Update, ISJ Working Group, pg.5, May 4, 2010).

6. Cite the Los Osos Valley Scenic Corridor areawide standard as an applicable Public Views LCP policy on page 77 as follows:

B. Irish Hills Scenic Backdrop Critical Viewshed and Los Osos Valley Road Scenic Corridor. The Irish Hills Scenic Backdrop Critical Viewshed and the Los Osos Valley Road Scenic



Corridor (see Figure 7-7) are established with the primary purpose of protecting the following: important views of scenic backdrops, background vistas and foreground areas from Los Osos Valley Road; important plant and animal habitats; and watershed resources. All applicable standards in the Coastal Zone Land Use Ordinance apply within this area (e.g. those in Chapter 23.04).

7. Add Special Condition 1(l) as follows:

1. Construction. All construction staging and related areas shall be identified, and all development associated with such areas shown on a site plan. All such areas within which construction staging are to take place shall be minimized to the maximum extent feasible in order to minimize impacts on resources (e.g., terrestrial habitat, wetlands, creeks, riparian areas, or other sensitive resource areas, etc.). All measures to be taken to minimize impacts associated with construction staging and related areas shall be identified, including but not limited to screening, fencing, landscaping, signage, and designation of various activity and storage areas on the site. If additional construction staging and related areas are needed following approval of Final Plans, such areas shall be identified in a plan and submitted for Executive Director review and approval. The Final Plans shall require that copies of the signed CDP be maintained in a conspicuous location at the construction staging area at all times, and that such copies be available for public review on request. All persons involved with the construction shall be briefed on the content and meaning of the CDP, and the public review requirements applicable to them, prior to commencement of construction. The Final Plans shall also require that a primary construction coordinator be designated for public inquiries regarding the construction, and that their contact information (i.e., address, phone numbers, etc.) including, at a minimum, a telephone number available 24 hours a day for the duration of construction, be conspicuously posted at the construction staging area and at individual construction sites where such contact information is readily visible from public viewing areas, along with indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The construction coordinator shall record the name, phone number, and nature of all complaints received regarding the construction, and shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry.

8. Revise the first full paragraph on Page 96 as follows:

The County, acting as the lead CEQA agency, certified an Environmental Impact Report for this project on September 29, 2009. The EIR included a substantial alternatives analysis as summarized above in this report. The County concluded that ...

