

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT OFFICE
 725 FRONT STREET, SUITE 300
 SANTA CRUZ, CA 95060
 (408) 427-4863
 HEARING IMPAIRED: (415) 904-5200



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**STAFF REPORT: REGULAR CALENDAR
 COASTAL DEVELOPMENT PERMIT**

APPLICATION NUMBER: **A-3-SLO-97-40**

APPLICANT: **COUNTY OF SAN LUIS OBISPO, ENGINEERING DEPARTMENT**

PROJECT DESCRIPTION: Wastewater treatment system, including a treatment plant providing tertiary levels of treatment, gravity dry wells for treated effluent disposal, and a collection system consisting of pump/lift stations, force main and gravity main pipelines. The project also includes sensitive habitat acquisition, preservation, and restoration to mitigate for unavoidable biological impacts.

PROJECT LOCATION: San Luis Obispo County Service Area 9, which includes the communities of Baywood, Los Osos, and Cuesta-by-the-Sea, within the Estero Planning Area of the South Bay Urban Area of San Luis Obispo County. The treatment plant will be located at the southeast corner of the South Bay Boulevard and Pismo Street intersection (the Pismo site), and the gravity dry wells for the disposal of treated effluent will be located south of Highland Drive, between the extensions of Broderson Drive and Doris Drive (the Broderson site).

LOCAL APPROVALS: San Luis Obispo County Development Plan/Coastal Development Permit D950245D

FILE DOCUMENTS: Attached as Exhibit 1

PROCEDURAL NOTE

On July 9, 1997, the Coastal Commission determined that an appeal of the Coastal Development Permit approved by the County of San Luis Obispo for the subject project raised a substantial issue with respect to project's conformance with the County's certified Local Coastal Program. As set forth by Section 13115(b) of the California Code of Regulations, the next step is for the Commission to consider the merits of the project in a De Novo hearing. The De Novo hearing was previously continued by the Commission on January 16, 1998 and on June 8, 1998.

At the De Novo hearing stage, the general procedures for Commission action are typically the same as if the coastal development permit application had been submitted directly to the Commission, except that the standard of review is the certified Local Coastal Program (LCP) rather than Chapter 3 of the Coastal Act (PRC Section 30604(b)). The public access and recreation policies of Chapter 3 of the Coastal Act also apply to projects located between the nearest public road and the sea (Coastal Act Section 30604(c)).

Commission review of this Appeal, though, is more limited than the ordinary appeal because the project is a wastewater treatment plant. Public Resources Code Section 30412 assigns the primary responsibility for decisions relating to water quality to the State Water Resources Control Board and the regional boards. This means that the Commission may not take any action that conflicts with a determination by the State or regional board relating to water quality issues, such as the need to eliminate the use of individual septic systems in the Los Osos area.

Specifically, under Section 30412(c) of the Coastal Act, the Commission's review of a coastal development permit for a "treatment works", shall be determinative only with respect to the following aspects of the development: the siting and visual appearance of the treatment works within the coastal zone; the geographic limits of the service areas within the coastal zone which are to be served by particular treatment works and the timing of the use of capacity of treatment works for those service areas to allow for phasing of development and use of facilities consistent with the Coastal Act; and, development projections which determine the sizing of treatment works for providing services within the coastal zone. The State Water Resources Control Board emphasizes this limited review authority in a letter dated July 31, 1998 (pages 1 – 4 of Exhibit 9).

These limitations are also incorporated into the San Luis Obispo LCP as Policy 9 for Public Works, which requires that the issuance of a permit for a treatment works shall be consistent with PRC 30412 and the certified LCP. Thus, the issue areas that are relevant to the Commission's consideration of this coastal development permit application are limited to the following:

- Siting and design: has the project been sited and designed in a manner that complies with LCP standards, such as those requiring the protection of environmentally sensitive habitats and visual resources, and with Coastal Act access and recreation policies?
- Service area and phasing: is the proposed service area and phasing program consistent with LCP directives regarding the location and timing of new development?
- Capacity: has the project been sized consistent with the amount of development planned for by the LCP?

SUMMARY OF STAFF RECOMMENDATION

The staff recommends that the Commission **approve, with conditions**, the coastal development permit requested by the County of San Luis Obispo for the Los Osos Wastewater Treatment Project. With the recommended conditions, the proposed project conforms with the applicable policies of the San Luis Obispo County certified LCP, and the public access and recreation policies of the Coastal Act, within the limited issue areas subject to the Commission's review pursuant to Section 30412(c) of the Coastal Act.

The recommended conditions of approval are designed to ensure that the siting of the project, and the sizing of the treatment service area, comply with applicable requirements of the LCP, particularly regarding the protection of environmentally sensitive habitat areas. Specifically, the recommended conditions limit the size of the treatment plant to the minimum area possible in

order to minimize impacts on biological resources, and require the placement of gravity disposal wells in the least environmentally damaging location possible. The conditions also require the implementation of specific measures approved by the U.S. Fish and Wildlife Service and the Department of Fish and Game, that effectively mitigate the remaining unavoidable impacts to sensitive habitat areas. In addition, the recommended conditions limit the provision of wastewater treatment service within coastal zone areas to development that is consistent with the San Luis Obispo County certified LCP.

At previous hearings regarding this project, the need to consider the alternative project proposed by the locally based Solution Group was identified as an important issue. As a follow up to the Comparative Analysis completed by Questa Engineering in June, 1998, the Commission staff has facilitated numerous meetings of the interested parties (i.e., the Los Osos Working Group) in order to determine if the Solution Group alternative represents an environmentally preferable, feasible alternative that is more consistent with LCP requirements than the County project. Based on these discussions, it has been concluded that the Solution Group alternative does not offer any significant environmental benefits, in terms of LCP compliance, when compared to the County project. Moreover, based upon the input of the Central Coast Regional Water Quality Control Board (RWQCB), the Solution Group alternative, as currently proposed, does not appear to comply with RWQCB Order 83-13, and may be inferior to the County Project from a water quality standpoint. A detailed comparison of the two projects, including a comparison of environmental impacts, technical feasibility, regulatory compliance, and project costs, is attached to this report as Appendix A. While Appendix A is intended to provide detailed information relative to both projects, it is important to note that this information has limited application to the Commission's review of the County project pursuant to Coastal Act Section 30412 and LCP Policy 9 for Public Works, as discussed above.

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 2. Location Map
 3. Project Map and Proposed Service Area
 4. South Bay Urban Area Land Use Categories Map
 5. South Bay Urban Area Combining Designations Map
 6. Land Conservancy Map of Key Habitat/Greenbelt Parcels
 7. Wastewater Treatment Facilities Proposed by San Luis Obispo County
 8. Wastewater Treatment Facilities Proposed by the Solution Group
 9. Recent Correspondence from the State Water Resources Control Board and Associated Attachments
 10. Correspondence from the Central Coast Regional Water Quality Control Board
 11. Correspondence from the California Department of Health Services
 12. Minutes from the January 6, 1998 San Luis Obispo County Board of Supervisor's Hearing
 13. Proposal for Mitigation of Impacts to Biological Resources Submitted by Applicant
 14. Summary Of Findings from Comparative Review of Alternative Wastewater Plans for Los Osos Completed by Questa Engineering Corporation
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APPENDICES

Appendix A: Comparison of the Wastewater Treatment Project proposed by San Luis Obispo County and the alternative proposed by the Solution Group

Note: Appendix A is not attached to this staff report. It will be provided in a subsequent mailing.

I. STAFF RECOMMENDATION

The staff recommends that the Commission adopt the following resolution:

Approval with Conditions.

The Commission hereby **grants** a permit for the proposed development, subject to the conditions below, on the grounds that the development, as conditioned, conforms with the San Luis Obispo County certified Local Coastal Program and the public access and recreation policies of the Coastal Act, and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

II. STANDARD CONDITIONS

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
4. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
5. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.
6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

SITING AND DESIGN CONDITIONS

1. Approved Facilities: The approval of this permit is limited to the construction and operation of the wastewater treatment facilities as generally approved by the County of San Luis Obispo on May 6, 1997 and January 6, 1998, described on pages 28 - 31 of this staff report, subject to the following special conditions. Other than normal repair and maintenance as defined in Section 30610(d) of the Coastal Act and Section 13252 of the Commission's regulations, any modifications to any approved project components or any additional components within the coastal zone shall require a separate coastal development permit or an amendment to this permit.
2. Final Project Plans: PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the permittee shall submit, for Executive Director review and approval or determination that an amendment is required, final plans for the treatment plant, treated wastewater disposal facilities, and collection system. In addition to complying with the specific requirements of parts a, b, c, and d of this condition, said plans shall comply with all Special Conditions of this permit. This necessitates that, among other conditional requirements, the final design of all project facilities

comply with Special Condition 8 regarding hazards considerations, Special Condition 10 regarding design elements, and Special Condition 11 regarding access and recreation facilities.

Furthermore, in addition to the specific information that is required to accompany the submittal of final plans identified by parts a, b, c, and d of this condition, the submission of final project plans shall also be accompanied by: construction operation plans that minimizes the disturbance of sensitive habitats in accordance with Special Condition 4e; landscaping plans that meet the requirements of Special Conditions 3 and 4; grading and drainage plans that meet the requirements of Special Condition 7; and an archaeological report that meet the requirements of Special Condition 9.

a. Final Plans for Stage I of the Treatment Plant: PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall submit final plans for Stage I of the treatment plant for Executive Director review and approval or determination that an amendment is required. The submittal of Final Plans shall be accompanied by written evidence that the Regional Water Quality Control Board has approved these plans, or that no such approval is required.

Final plans for Stage I of the treatment plant shall include an increase in emergency storage capacity for 1.5 days to 3 days, or to the extent determined to be adequate by the Regional Water Quality Board. Any additional site coverage that results from the construction of storage facilities shall be accounted for in the final Biological Mitigation Plan required by Special Condition 3, below. Other than an increase in emergency storage capacity, final plans for the treatment plant shall reduce site coverage to the greatest degree feasible. This shall include: eliminating those facilities at the southern portion of plant associated with the Stage II expansion (additional clarifier and equalization basin); relocating the chainlink fence along the southern boundary of the treatment plant as close as possible to the clarifiers; and, any other change that would allow for a more compact facility. The remainder of the treatment plant site, outside of the footprint of the treatment plant facilities, shall be restored and preserved as coastal scrub habitat according to the specific criteria and requirements of Special Conditions 3 and 4, below.

b. Final Plans for Stage II of the Treatment Plant: PRIOR TO COMMENCEMENT OF CONSTRUCTION OR INSTALLATION OF ANY FACILITIES ASSOCIATED WITH STAGE II OF THE TREATMENT PLANT, the permittee shall submit for Coastal Commission review and approval, or determination that an amendment is required, final plans for Stage II of the treatment plant, which minimize site coverage to the greatest extent feasible and conform with the requirements of Special Condition 17 regarding capacity limitations. Any new development associated with the Stage II expansion of the treatment plant, other than the installation of the additional clarifier, equalization basin, and filters shown on the plans dated July 25, 1997 by Metcalf & Eddy, Inc., shall require an amendment to this permit or separate coastal development permit approval.

c. Final Plans for Treated Wastewater Disposal Facilities: PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall submit final plans for the treated wastewater disposal facilities, for Executive Director review and approval or determination that an amendment is required. These plans shall minimize the amount of land area required for the disposal wells, locate the well field outside of sensitive habitat areas to the greatest degree feasible, and provide for the preservation and restoration of native habitats on the remainder of the site that will not be impacted by disposal facilities according to the specific criteria identified in Special Conditions 3 and 4, below. Submission of final plans for the disposal wells shall be accompanied by: a geotechnical report identifying the minimum setback distance required

between the wells and the residences along Highland Avenue; and, written evidence that the use of gravity dry wells has been determined to be acceptable to the State Water Resources Control Board, the Regional Water Quality Control Board, and the State Department of Health.

d. Final Plans for the Collection System and On-Site Wastewater Management Program: PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall submit final plans for the Collection System and On-Site Wastewater Program for Executive Director review and approval or determination that an amendment is required. These plans shall be accompanied by written evidence that the Regional Water Quality Control Board has approved them, or that no such approval is required.

3. **Biological Mitigation:** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit, for Executive Director review and approval, two copies of a final biological mitigation plan that: incorporates the specific biological mitigation measures described in Special Condition 4, and in the mitigation proposal submitted by the County entitled "Proposal for Mitigation of Impacts to Endangered Species Habitat from the Construction of the Los Osos Sewer and Resulting Future Residential and Commercial Development" (Exhibit 13); provides for the preservation and restoration of native habitats on all portions of the treatment plant and disposal sites that are outside of the footprint of approved project facilities; and includes site specific landscape plans necessary to carry out these biological mitigation measures.

The final biological mitigation plan shall also contain monitoring and maintenance provisions to ensure the long-term success of the mitigation measures, and to identify any impacts to wetland habitats that may result from changes in subsurface groundwater flows caused by the project. This shall include specific monitoring plans containing performance standards developed in coordination with the Department of Fish and Game and U.S. Fish and Wildlife Service, that shall be conducted over a five year period commencing when treatment service begins, with a minimum monitoring frequency of one inspection every four months.

Submittal of the biological mitigation plan shall be accompanied by written evidence that the plan has been reviewed and approved by the California Department of Fish and Game and the U.S. Fish and Wildlife Service, or evidence that such approvals are not required. Submittal of the biological mitigation plan shall also be accompanied by either: evidence that the County has secured the mitigation sites that meets the established criteria for mitigation; or, a binding agreement with a qualified agency or organization, which establishes a procedure for the agency or organization to effectively implement the proposed mitigation with the necessary financing from the County. Such an agreement shall be subject to Executive Director review and approval PRIOR TO THE ISSUANCE OF THE PERMIT, and evidence of the acquisition of the proposed mitigation sites shall be provided for Executive Director review and approval PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

AT THE CONCLUSION OF THE FIVE YEAR MAINTENANCE AND MONITORING PERIOD, the permittee shall submit, for Executive Director review and approval, a report which identifies any impact to Baywood Marsh, Pecho Marsh, and/or Sweet Springs Marsh, in terms of habitat value and extent, attributable to the project. The report shall also document the successful implementation and performance of the approved mitigation measures, and identify any failure to achieve the objectives and performance standards of the approved biological mitigation plan. In the instance that any significant disruptions to wetland habitat values are observed, or the requirements of the approved biological mitigation plan are not achieved, the report shall include

an extended monitoring and maintenance program, including appropriate corrective actions, which shall be implemented until successful performance of the mitigation measures has been achieved and the biological continuance of wetland habitats has been assured.

4. **Project-Wide, Specific Biological Mitigations:** The following provisions shall be incorporated into the "Final Biological Mitigation Plan" required by Special Condition 3:

a. Mitigation Monitoring and Reporting. Mitigation monitoring shall be accomplished using a coordinated team approach. The team shall consist of the Environmental Coordinator, the Planning Director, and the County Engineer. Mitigation monitoring shall be accomplished in a manner that ensures oversight of all phases of the project, in order to guarantee the implementation and success of all required project mitigation measures. As required by Article 9 of the County of San Luis Obispo Environmental Quality Act Guidelines, mitigation monitoring shall be at the direction of the Environmental Coordinator, who shall take the lead in coordinating the efforts of the County Engineer and the Planning Director to ensure that these efforts are consistent with the terms of the approved Coastal Development Permit.

The County shall contract with an outside environmental monitoring consultant, whose functions will be to:

- 1) Provide persons with expertise and experience in each of the following disciplines:
 - a) Biological Resources
 - b) Air Quality
 - c) Drainage, Sedimentation and Erosion Control
 - d) Cultural Resources
 - e) Traffic
- 2) Depending on the discipline, act as an independent and objective preparer, reviewer, and/or implementor of mitigation plans.
- 3) Conduct in the field monitoring (including the preparation of required written reports) during and after the construction of the project.

At the discretion of the Environmental Coordinator, the County may contract with certain individuals (e.g., archaeologist, biologist, erosion control specialist) to act as environmental monitoring team members, in lieu of including those disciplines in the contract with the outside environmental monitoring consultant.

b. Disposal of Excess Soils. The permittee shall develop a plan for disposal of any excess excavated soil from the project as a part of final project design. The plan shall include the identification of a site or sites for placement of excess soil if it is not possible to otherwise use the material for fill on the project. The permittee shall consult with the Planning Director, the County Environmental Coordinator, the U.S. Fish and Wildlife Service, and the State Department of Fish and Game prior to final disposal site(s) selection. **PRIOR TO PLACEMENT OF ANY EXCESS SOILS**, the permittee shall obtain all necessary permits for the deposition of the excess material at the selected site.

c. Agency Consulting/Permitting. The County Engineer shall secure authorization for the disturbance or take of sensitive species from both the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG), consistent with the following:

- 1) Authorization for take by USFWS will require USFWS issuance of a Section 10(a)(1)(B) permit. Such a permit requires the development and implementation of a Habitat Conservation Plan (HCP).
- 2) Authorization for take by CDFG would require a Memorandum of Understanding (MOU) and Management Authorization (MA) pursuant to Section 2050 et seq. of the California Fish and Game Code. Development of a MOU/MA would be based upon the Section 10 USFWS consultation discussed above.

d. Additional Habitat Restored. Pursuant to the provisions of the Final Biological Mitigation Plan and the requirements of USFWS and CDFG permits, the County Engineer shall identify, acquire and undertake the restoration of land into suitable habitat for the local species of concern identified in the 1997 Final Supplemental EIR.

In addition to the land acquired for project facilities (e.g., the 10 acre treatment plant site and the 80 acre disposal site), the permittee shall acquire, protect, and restore a minimum of 40 acres of land which contains the following qualities:

- 1) The land shall be a parcel or group of large parcels that are contiguous with other open space lands.
- 2) The land shall be proposed for protection by the USFWS Recovery Plan for the Morro shoulderband snail, and/or targeted for acquisition by the San Luis Obispo Land Conservancy as part of a local effort to establish a greenbelt around Los Osos.
- 3) The land shall be in good condition relative to native habitats, but otherwise planned for development that could diminish the value of the existing habitat.
- 4) The land should be suited towards the protection and restoration of native habitat types that will be disturbed by the project. This means that the soils have not been removed or fill placed on the site that is unsuitable for the native plantings (other than small amounts), and that the land is free of structures or debris, or capable of being cleared of any structures. The land shall have primarily aeolian sand deposits; be in a stabilized condition (not mobile); have an open canopy; and be of the appropriate aspect and other meteorological conditions.
- 5) The land should be held by the County or appropriate conservation organization in perpetuity with deeded guarantees of non-development or transfer (unless to another like organization). The protection of the land may allow for some passive public activities, such as hiking, scientific investigation, and low-impact educational activities, which do not require structural development.

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall execute and record a deed restriction in a form and content acceptable to the Executive Director, which provides that no development, as defined in Section 30106 of the Coastal Act, shall occur in the area shown on Exhibit 1 except habitat restoration, minimal landscaping, trail and signing improvements required to accommodate the low intensity uses described in part 5) of this condition. The document shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the

enforceability of the restriction. This deed restriction shall not be removed or changed without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

e. Restoration. After securing the additional land in accordance with Special Condition 4d, and after approval of the "Final Biological Mitigation Plan" required by Special Condition 3, the County shall restore the land so that it functions as suitable habitat for many of the local species of plants and wildlife whose existence is endangered or of concern. Restoration of the land should include the following:

- 1) Removal of invasive exotic plant species. This may mean removal of all plants by grading, or a program of hand labor, depending upon the condition of the land. If the amount of invasives is relatively small, the work should be performed by hand so as to leave as much of the existing native vegetation intact as possible.
- 2) Removal of structures or debris.
- 3) Regrading of any unnatural mounds, holes or berms previously created on the site.
- 4) A planting program of a mixture of indigenous plant species that serve to restore the site and serve multiple species' needs, especially the Morro Blue Butterfly, Black Legless Lizard, and potential future re-introduction of the Morro Bay Kangaroo Rat. This will include Dune Lupine for the Morro Blue Butterfly.
- 5) An ongoing monitoring and maintenance program that meets the requirements of Special Conditions 3 and 4a. Ideally this would be established as part of the Morro Bay Estuary Program and/or in conjunction with Cal Poly (especially the Biology and Forestry and Natural Resources Departments). As required by Special Condition 3, the final planting program and accompanying monitoring and management measures, shall be developed in consultation with the CDFG and USFWS.

f. Minimize Disturbance of Coastal Scrub, Chaparral, Coast Live Oak Woodland, and Windrow Habitats During All Elements of Project Construction. To the greatest extent feasible, the amount of disturbance of land beyond the actual area of development required for the project shall be minimized. This shall be accomplished by identifying minimum activity area required, and establishing a physical construction limit beyond which equipment and storage of material would not extend. The submission of final project plans required by Special Condition 2 shall be accompanied by Construction Operations Plans that provides for:

- 1) Clearly identifying and marking the perimeter of all construction zones with highly visible temporary fencing prior to and during construction. This shall include the placement of highly visible temporary fencing around the perimeters of the driplines of Coast live oak and windrow areas near construction zones. During project construction, avoid all soil disturbance, compaction, and grading activities within and adjacent to such dripline areas.
- 2) Restricting the use of all heavy equipment, vehicles, and materials storage to areas located inside of the identified construction zones throughout the duration of construction.

- 3) Clearly identifying and marking the proposed access route to all construction zones, and limiting all construction traffic to areas located within the identified access route.

g. Avoid or Minimize Disturbance of Special-Status Plants Located Within and Adjacent to the Perimeter of All Construction Zones. PRIOR TO AND DURING CONSTRUCTION, the County Engineer shall implement the following measures to avoid or minimize unnecessary disturbance of special-status plants occupying the vicinity of all construction zones.

- 1) Retain a qualified botanist approved by the Environmental Coordinator to conduct focused surveys for special-status plant species during the appropriate flowering periods for the various species that are known to occur or have potential to occur within construction zones, based on the presence of suitable habitat.
- 2) Clearly map and identify each individual or groups of special-status plants observed during the focused survey with highly visible flagging. Morro Manzanita located in the southern portion of the treatment site and in the northern portion of the disposal site should be marked with highly visible flagging and fencing and completely avoided.
- 3) Provide instruction to construction personnel on avoiding unnecessary disturbance of areas marked with flagging and fencing in accordance with this condition.

h. Transplant Individual Special-Status Plants Located Within All Construction Zones. DURING THE IMPLEMENTATION OF SPECIAL CONDITION 4g, the botanist shall identify all special-status plants and animals that occur within project construction zones. If the biologist determines that avoiding disturbance of the identified special status plant(s) is not feasible, they shall be transplanted to the nearest suitable habitat area. It should be noted that the success of transplanting is highly dependent on the specific taxon. Transplanting of some species currently occupying the site may not be as successful as for others, or may fail entirely. Therefore, prior to implementing these operations, previous case studies should be researched to determine which plants are expected to have reasonable opportunities for survival following transplantation, and determine which techniques have been successful previously. If transplanting is then determined by a qualified botanist to be a viable option for some identified special-status plants, implement the following measures under the supervision of the botanist:

- 1) Avoid disturbance of the root system of each plant during transplanting.
- 2) A plant should only be moved to a habitat that contains site conditions similar to the location previously occupied by each plant.
- 3) As specified by the botanist and required by the Environmental Coordinator, closely monitor the success of each transplanted species.

i. Conduct Pre-Construction Surveys For Morro Bay Kangaroo Rat at the Disposal Wells' Site. IMMEDIATELY PRIOR TO CONSTRUCTION, a qualified biologist shall conduct surveys for Morro Bay Kangaroo Rat within the vicinity of the proposed rapid infiltration pond site. Prior to being undertaken, survey methods shall be reviewed and approved by the U.S. Fish and Wildlife Service and the California Department of Fish and Game. If upon completion of the survey, and review of survey results by the U.S. Fish and Wildlife Service and the California

Department of Fish and Game, it is determined that the Morro Bay Kangaroo Rat is or may be present on the disposal site, the permittee shall consult with the U.S. Fish and Wildlife Service and the California Department of Fish and Game to determine what protective measures shall be implemented prior to construction.

j. Restoration of Undeveloped Portions of the Treatment Plant and Disposal Site. AT THE CONCLUSION OF CONSTRUCTION OF THE APPROVED TREATMENT PLANT AND TREATED WASTEWATER DISPOSAL FACILITY, the additional land around the treatment plant site and disposal facility (that beyond the area disturbed) shall be protected and enhanced in its ability to provide habitat for the native species of plants and wildlife that occur or may occur in the area, in a manner consistent with the approved Final Biological Mitigation Plan and USFWS and CDFG permits. Upon the completion of construction, the permittee shall direct the immediate revegetation of all disturbed areas¹ located around the perimeter of the treatment facility, and all areas outside of the footprint of disposal facilities, with appropriate indigenous native vegetation approved in the Final Biological Mitigation Plan. All plantings shall be grown from native parent stock collected on-site, and will be propagated by a native plant nursery specialist. In addition, the health and maintenance of all replacement vegetation shall be monitored by a qualified botanist in accordance with the requirements of Special Condition 3 (i.e., for a period of not less than five years or until the new vegetation has been successfully established, whichever is greater). Only native vegetation for landscaping in areas located inside of the treatment plant facility shall be used, and all exotics that escape cultivation should be removed on a regular basis.

k. Control Introduction of Invasive Exotic Plants. The County Engineer shall implement the following measures to control the introduction of invasive exotic plants on the treatment plant site, the treated wastewater disposal site, and the additional land acquired for biological mitigation purposes:

- 1) Use only clean fill material (free of weed seeds) within construction zones.
- 2) Thoroughly clean all construction equipment prior to being moved onto and used at the construction sites.
- 3) Prohibit planting or seeding of disturbed areas with non-native plant species.
- 4) Control the establishment of invasive exotic weeds in all disturbed areas.

l. Replace Suitable Morro Shoulderband Dune Snail Habitat. AT THE CONCLUSION OF PROJECT CONSTRUCTION, and in a time frame and manner consistent with the approved Final Biological Mitigation Plan and USFWS and CDFG permits, the permittee shall protect and restore an area of Coastal Scrub habitat dominated by Heather Goldenbush that is, at a minimum, four times greater in size than the area of suitable Morro shoulderband dune snail habitat that will be disturbed by the project.

m. Replace Suitable Morro Blue Butterfly Habitat. AT THE CONCLUSION OF PROJECT CONSTRUCTION, and in a time frame and manner consistent with the approved Final

¹ Disturbed areas include any area that has been affected by construction activities, as well as any area where native habitat values have been diminished by the presence of non-native vegetation, off-road vehicle use, human trampling, or other occurrence.

Biological Mitigation Plan and USFWS and CDFG permits, the permittee shall protect and restore an area of Coastal Scrub dominated by Dune Lupine that is, at a minimum, four times greater in size than the area of suitable Morro blue butterfly habitat that will be disturbed by the project. To be successful, replacement habitat shall be located adjacent to or within 1,000 feet of occupied habitat. It may be possible to use the same property for this and the prior mitigation measure provided the habitat meets the USFWS and CDFG standards.

n. Replace Suitable Morro Bay Kangaroo Rat Habitat at the Disposal Wells Site. AT THE CONCLUSION OF PROJECT CONSTRUCTION, and in a time frame and manner consistent with the approved Final Biological Mitigation Plan and USFWS and CDFG permits, the permittee shall protect and restore an area of suitable Morro Bay kangaroo rat habitat similar to those existing within all project construction areas prior to project implementation that is, at a minimum, four times greater in size than the area of suitable Kangaroo rat habitat that will be disturbed by the project. The substrate, topography, and plant species composition of the replacement habitat should be similar to those habitats that currently exist at the project site and areas that are known to provide suitable habitat for Morro Bay Kangaroo Rat, such as in portion of the Essential Habitat area. It may be possible to use the same property for this and the prior mitigation measure provided the habitat meets the USFWS and CDFG standards.

5. Lighting of the Wastewater Disposal Site: On-site lighting shall be limited to emergency use only and any such lighting shall meet the requirements of section 23.04.320 of the CZLUO.

6. Lift Stations: Specific Biological Mitigations.

a. Lift station number 1. AS PART OF PROJECT FINAL DESIGN, the County Engineer shall ensure that all components of the lift station, including the construction buffers and fences will be a minimum of 50 feet from the upland edge of the riparian zone. The final design plans shall be reviewed and approved by the Environmental Coordinator before inclusion in the submittal of Final Project Plans for the Collection System required by Special Condition 2d.

b. Lift station number 7. AS PART OF PROJECT FINAL DESIGN, the County Engineer shall ensure that all components of the lift station, including the construction buffers and fences will be outside the driplines of adjacent oak trees. The final design plans shall be reviewed and approved by the Environmental Coordinator before inclusion in the submittal of Final Project Plans for the Collection System required by Special Condition 2d.

7. Grading, Drainage and Erosion Control Plans and Mitigation: PRIOR TO COMMENCEMENT OF CONSTRUCTION, the applicant shall submit a program for grading, drainage and erosion control for the Executive Director's review and approval. The program shall include, but need not be limited to, the following measures:

a. Grading and Drainage Plans. A qualified soils engineer shall prepare final grading and drainage plans designed to minimize erosion, sedimentation, and flooding potential during and after construction, in a manner consistent with Sections 23.05.034-036 of the Coastal Zone Land Use Ordinance, for review and approval by the Planning Director, prior to inclusion of the program submitted to the Executive Director as required by Special Condition 7.

b. DURING PROJECT CONSTRUCTION, all grading activities shall be consistent with the approved grading and drainage plans, and consistent with the requirements of Sections 23.05.034-036 of the Coastal Zone Land Use Ordinance.

c. NPDES Construction Activity Storm Water Permit. DURING PROJECT CONSTRUCTION, appropriate Best Management Practices, as established in the project's NPDES Construction Storm Water Permit, shall be employed. Such measures may include, but are not limited to, temporary sand bagging, construction of berms, installation of geofabric, and revegetation of areas by hydroseeding and mulching. The NPDES permit shall apply to all proposed facilities. The Pollution Prevention Plan portion of the NPDES permit shall be reviewed and approved by the County Engineer and the RWCQB and included as part of the grading, drainage and erosion control program.

d. Erosion and Sedimentation Control Plan. The County Engineer shall develop a long-term Erosion Control Plan. The plan shall include the treatment plant site, the pump station and force main locations, the treated wastewater disposal site, and within the vicinity of any sewer lines that will not be installed within an existing roadway. The Erosion Control Plan shall identify erosion control practices to be utilized for typical facility design scenarios. These may include recompaction of soils, revegetation of disturbed areas, utilization of soil binding, or other methods for reducing long-term erosion. The Plan shall be reviewed and approved by the Planning Director in consultation with the Natural Resources Conservation Service, and shall be included as part of the grading, drainage and erosion control program, as well as within contractor bid and contract documents.

e. RWQCB Authorization. DURING PROJECT CONSTRUCTION, any discharges associated with dewatering activities shall be authorized by the Regional Water Quality Control Board through issuance of Waste Discharge requirements and individual permit, or under a general NPDES permit for construction activity.

f. Dust Control Measures. DURING PROJECT CONSTRUCTION, dust generated by construction activities shall be kept to a minimum by full implementation of the following measures:

- 1) During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used to prevent dust from leaving the site and to create a crust after each day's activities cease.
- 2) During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the morning and after work is completed for the day and whenever wind speed exceeds 15 mph.
- 3) Stockpiled earth material shall be sprayed as needed to minimize dust generation.
- 4) During construction, the amount of disturbed area shall be minimized, and on-site vehicle speeds should be reduced to 15 mph or less.
- 5) Exposed ground areas that are planned to be reworked at dates more than one month after initial grading should be sown with fast germinating native grass seed and watered until vegetation is established.
- 6) After clearing, grading, earth moving, or excavation is completed, the entire area of disturbed soil shall be treated immediately by watering or revegetating or spreading

soil binders to minimize dust generation until the area is paved or otherwise developed so that dust generation will not occur.

- 7) Grading and scraping operations shall be suspended when wind speeds exceed 20 mph (one hour average).
- 8) All new roadways, driveways, and sidewalks associated with construction activities should be paved as soon as possible. In addition, building and other pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

g. Drainage Control and Sedimentation Plan. A Drainage Control and Sedimentation Plan shall be developed for the treatment plant site and the treated wastewater disposal site, and shall include infrastructure to adequately control and convey flows generated by impervious surface areas on-site. The Plan shall be reviewed and approval by the Planning Director and County Engineer and included as part of the grading, drainage and erosion control program.

h. Non-Point Source Pollution Control. The Drainage Control and Sedimentation Plan shall take into account non-point source pollution associated with proposed facilities, and shall include, to the extent feasible, design measures to control the quality of storm runoff generated on-site. These measures may include, but are not limited to, oil and grease traps, sediment traps, and bar screens. Additionally, sludge storage and loading areas at the treatment plant site should be provided with containment such that stockpiled materials are not subject to entrainment and discharge off-site during rains.

8. Hazards. Measures required to be implemented as part of the project, in order to avoid and mitigate potential hazards, include:

a. Emergency Storage. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee, in consultation with the Regional Water Quality Control Board, shall prepare a plan for the emergency storage of treated effluent in order to respond to potential seismic or other failure of the effluent force mains. The plan shall be submitted to the Executive Director for review and approval. Implementation of the plan may require an amendment to this permit if it involves new, additional, or different development, beyond that which has been specifically authorized by this permit.

b. Geotechnical Investigation. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, a final geotechnical investigation shall be completed by a qualified engineer. This geotechnical investigation shall include analysis of proposed treatment plant, pump station, and force main facilities, as approved by this permit. The geotechnical investigation shall be submitted for the Executive Director's review and approval and shall address the following issues:

- 1) Design of facility foundations such that potential impact associated with on-site fault rupture would be reduced to the extent feasible. Design measures for rapid repair of facilities shall be identified as necessary.
- 2) The potential for liquefaction impacts at the Pismo Street site. The investigation should determine on-site ground water levels, and identify soil layers that could be subject to liquefaction during a seismic event. The report should take into account existing ground water conditions, as well as increased ground water levels

associated with project implementation. Specific measures, such as excavation/recompaction of foundation areas, long-term dewatering, or utilization of foundation piles should be identified as necessary to reduce potential impacts to a less than significant level.

- 3) The potential for settlement or lurching associated with seismic events. Specific measures, such as excavation/recompaction, should be identified as necessary to reduce potential impacts to a less than significant level.

After approval by the Executive Director, the County Engineer shall review the geotechnical investigation, and shall review final project design to ensure incorporation of recommended measures PRIOR TO THE SUBMITTAL OF FINAL PLANS REQUIRED BY SPECIAL CONDITION 2.

c. Pump Station #2 Fuel Storage. Bulk fuel storage at pump station #2 shall be placed underground, or shall be provided by portable fuel tank(s). Portable fuel tanks, if used, shall be moved to the site only during actual emergency situations and exercises, and shall be removed within 24 hours after the conclusion of the emergency power need.

d. Seismic Precautions. DURING PROJECT CONSTRUCTION, a qualified geologist shall observe the trenching for the effluent force main in the vicinity of strand "B" of the Los Osos fault to verify that the rapid repair facilities are properly located, and shall accurately map and appropriately record the location of the fault. Such information shall also be kept on file at the County Engineering Department and made available to the public for review.

e. Safe Trench Crossings. DURING PROJECT CONSTRUCTION, safe, temporary pedestrian crossing of all excavations shall be provided for school children and other pedestrians as necessary. All excavations shall be made safe for pedestrians when work is not being conducted in the immediate area.

f. Ground Water Monitoring Program. AT THE TIME OF PROJECT IMPLEMENTATION, a Ground Water Monitoring Program shall be initiated to monitor and assess ground water conditions as disposal wells are brought on-line and used over the long-term. This program shall include sufficient data recovery to determine the areal extent of ground water infiltration and its affect on ground water levels within the Los Osos area. The intent of this program shall be the maintenance of ground water levels to provide adequate effluent disposal, improvement of long-term ground water quality, maintenance of long-term basin yield, and avoidance of potential secondary impacts associated with high ground water levels, particularly within low-lying areas and along the bay fringe. These include potential secondary impacts to salt marsh habitat identified in Section 5.3 of the 1997 Final Supplemental EIR. The Ground Water Monitoring Program shall be developed by the Consulting Engineer, and shall be subject to review and approval by the County Engineer and the Regional Water Quality Control Board and the Executive Director PRIOR TO COMMENCEMENT OF CONSTRUCTION.

g. Ground Water Monitoring. POST PROJECT IMPLEMENTATION monitoring of ground water levels shall continue for a minimum 2-year period following implementation of Phase I to ensure that basin response is consistent with the results of ground water modeling conducted for the proposed project. In the event that ground water levels exceed modeled parameters, and or interest with soils zones identified as potentially liquefiable, discharge parameters shall

be altered, in consultation with the Regional Water Quality Control Board, to ensure that ground water levels do not increase the potential for liquefaction within the Los Osos Area.

h. Chemical Deliveries. FOR THE LIFE OF THE PROPOSED PROJECT, chemical deliveries shall be routed to avoid sensitive receptors to the extent feasible.

i. Hazardous Materials Management Plan. PRIOR TO OPERATION OF THE PROJECT, the County Engineer shall submit a Hazardous Materials Management Plan, to the County of San Luis Obispo Health Department, and the Executive Director, for review and approval. The plans shall identify hazardous materials utilized on-site and their characteristics; storage, handling and training procedures; and spill contingency procedures. Additionally, the plan should address diesel fuel storage at the pump station sites.

j. Emergency Response Plan. PRIOR TO OPERATION OF THE PROJECT, an Emergency Response Plan shall be developed for the proposed wastewater treatment plant and pump stations in coordination with the South Bay Fire Department. The plan shall be submitted for the Executive Director's review and approval and shall address the following topics:

- 1) Hazardous materials handling, storage and application.
- 2) Hazardous material spill response.
- 3) Emergency release of untreated influent from the collection system or treatment facilities.
- 4) Emergency failure of treatment facilities, resulting in a release of untreated or partially treated effluent.
- 5) Personnel training.
- 6) Community notification.
- 7) Impacts on nearby environmentally sensitive habitats and on critical community facilities such as schools, public gathering areas, health care facilities, high occupancy structures, etc.

k. UBC Seismic Zone 4 Design Requirements AS A PART OF PROJECT FINAL DESIGN, proposed facilities shall comply with UBC Seismic Zone 4 regulations, which provide for design of structures to withstand the maximum credible earthquake (M7.0) within the project

9. **Revised Archaeological Mitigation Plan**. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit a revised mitigation plan for the review and approval of the Executive Director. The plan shall be prepared by a qualified archaeologist and shall include the following elements:

a. Archaeological survey of all areas that will be affected by construction of the project. This investigation shall include an archival records search at the SCCAIC housed at the University of California at Santa Barbara. If the records search determines that the site has not been subject to previous field reconnaissance or that the previous reconnaissance is unacceptable by current

professional standards, then the site must be surveyed by a qualified archaeologist. The results of the survey shall be mapped and described in the text of the report.

b. Specific recommendations: The revised mitigation plan shall include detailed, specific recommendations designed to protect identified resources. Recommendations may include all standard protocols, including redesign of project components to avoid impacts on archaeological sites.

c. Monitoring and implementation: The plan shall provide for monitoring of all ground disturbing activities on sites identified in the updated survey as particularly sensitive. The monitoring team shall include a qualified archaeologist and a representative of the Chumash.

d. Discovery of resources during construction: The plan shall include recommendations for preserving archaeological resources discovered during the course of construction. These recommendations shall comply with the requirements of Section 22.05.140 of the San Luis Obispo County Coastal Zone Land Use Ordinance and in addition shall provide for the preparation of a supplemental archaeology report, which describes the resources and mitigation measures needed to provide adequate protection. Any supplemental reports shall be subject to the review and approval of the Executive Director.

10. Visual Resources. The applicant shall comply with the following conditions to avoid adverse impacts on visual resources of the Los Osos area:

a. Landscaping Plan. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, submit a landscaping plan in conformance with section 23.04.186 that provides native, drought tolerant, vegetative screening of the treatment plant (particularly for views from South Bay Boulevard and the adjacent school facility for the Pismo Site). Vegetative screening need not create a complete visual block, but provide a softening of the overall project design. The landscaping plan shall be reviewed and approved by the Planning Director and Executive Director in consultation with Los Osos Citizen's Advisory Committee and CSA-9.

b. Lighting Plan PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, submit a lighting plan in conformance with section 23.04.320 that includes specific elements designed to reduce glare and the spillage of light from the treatment plant site. At a minimum, the plan shall identify shielding measures for all lights to avoid glare and light spill-over onto adjacent properties and roadways. The Lighting Plan shall be reviewed and approved by the Planning Director and the Executive Director prior to the commencement of grading activities.

c. Treatment Plant Site. AS A PART OF PROJECT FINAL DESIGN, the primary structural elements of the buildings shall be no higher than 35 feet above average natural grade.

d. Pipeline Routes. PRIOR TO THE COMPLETION OF CONSTRUCTION, all pipeline routes in areas of natural vegetation shall be restored using native plants in order to return the corridor to its original appearance. Restoration of pipeline routes shall occur in a manner consistent with the approved Final Biological Mitigation Plan required by Special Condition 2.

e. Good Housekeeping. PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES, the County Engineer shall prepare a "good-housekeeping plan" for the project, to be reviewed and approved by the Planning Director and Executive Director. The plan shall include such

information as designation of onsite locations for materials and equipment storage, schedule for debris removal, and proposed screening mechanisms.

f. Project Design. AS PART OF PROJECT FINAL DESIGN, the project shall include elements (architectural treatments, graded berms, exterior materials, exterior color selection) that help the facility blend into the existing environment and provide as much compatibility with surrounding structures as possible. These elements shall be reviewed by the Planning Director in consultation with the community advisory committee, and incorporated into the final plans submitted for Executive director review and approval, or determination that an amendment is required, pursuant to Special Condition 2.

g. Revegetation Plan. As part of the final Biological Mitigation Plan required by Special Condition 3, the County Engineer shall submit a Revegetation Plan using native materials for the pump and lift station sites. The plan shall include specific revegetation details (e.g., plant palette, number and size of plants to be used, etc.) for each of the lift and pump station sites. For pump station number 2, the Revegetation Plan shall include vegetative measure to provide screening of the generator. The generators shall also be screened and protected through structural means.

11. Access and Recreation.

a. Lift station number 3. AS PART OF PROJECT FINAL DESIGN, the County Engineer shall ensure that all components of the lift station, including fencing are located in such a way as to not preclude future development of a community park/coastal access. The final design plans shall be reviewed and approved by the Planning Director and the Executive Director.

b. AS A PART OF FINAL PLANS FOR THE TREATED WASTEWATER DISPOSAL FACILITIES, provision shall be made for a pedestrian and equestrian trail in conformance with county trail standards. Access for wheeled vehicles are restricted to that need for facility maintenance. Final plans submitted as required by Condition 2c shall identify the trail routes, signage and design. The approved trails shall be constructed and available for public use within ninety days of the completion of Phase I of the Project.

12. Other Approvals. PRIOR TO COMMENCEMENT OF CONSTRUCTION, the permittee shall submit, for Executive Director review and approval, evidence of the following authorizations and project approvals, or evidence that no such approvals are required:

a. Regional Water Quality Control Board: NPDES Construction Activity Storm Water Permit; Storm Water Pollution Prevention Plan; and, Waste Discharge Requirements for any dewatering activities.

b. Department of Fish & Game: Memorandum of Understanding and Management Agreement pursuant to Section 2050 et. seq. of the California Fish and Game Code.

c. U.S. Fish and Wildlife Service: Completed Section 7 Consultation and associated mitigation program.

d. Any easement or encroachments permits required to undertake project construction.

If compliance with any of the other approvals required for the project involves revisions to the project description or plans submitted to the Commission, or requires additional plans, such changes shall be submitted PRIOR TO THE COMMENCEMENT OF CONSTRUCTION for Executive Director review and approval or a determination that an amendment is required.

SERVICE AREA AND PHASING CONDITIONS

13. No Guarantees of Development Approvals. Approval of this permit, or any method of financing the project utilized by the County (e.g., the established assessment program), does not guarantee Coastal Commission or local government approval of any new or intensified uses within the service area. All new development proposals must be reviewed for consistency with the San Luis Obispo County certified Local Coastal Program (and/or the California Coastal Act, as applicable); such review shall consider, among other issues, the environmental impacts of the new development, including the impacts associated with the installation of lateral connections necessary to tie into the approved collection system. WASTEWATER TREATMENT SERVICE SHALL ONLY BE PROVIDED TO DEVELOPMENTS THAT HAVE OBTAINED THE REQUIRED COASTAL DEVELOPMENT APPROVALS< IN A MANNER CONSISTENT WITH SUCH APPROVALS.

PRIOR TO THE ISSUANCE OF THE PERMIT, the permittee shall submit, for the Executive Director review and approval, a public notice to all property owners of record within the service area that includes a copy of this condition, and an explanation of its effect upon the ability to obtain wastewater treatment service for future development. Said notice shall be mailed to all property owners within the service area, or noticed in three local newspapers and included in public information handouts provided by the County, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

14. Project Phasing. PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the permittee shall submit, for Executive Director review and approval, the revised service area map required by Special Condition 1.b., which shall also illustrate the following revision to the proposed project phasing: the three large parcels at the southern end of the service area known as the Morro Palisades shall be served by Phase II of the project rather than Phase I (please see Exhibit 3).

15. Service Area. The approved service area for the wastewater treatment facilities corresponds to the area within the Urban Service Line designated by the San Luis Obispo certified Local Coastal Program (LCP). For the South Bay Urban Area. No service shall be provided to the three areas outside of the Urban Services Line illustrated by Exhibit 3 of this staff report. PRIOR TO THE ISSUANCE OF THE PERMIT, the permittee shall, submit, for Executive Director review and approval, a revised service area map which eliminates all parcels beyond the designated Urban Service Line from the project service area.

Future additions to the wastewater treatment service area within the coastal zone shall require a separate coastal development permit, and must be proceeded or submitted concurrently with an LCP amendment that incorporates the proposed service area expansion within the Urban Service Line designated by the LCP. The permittee shall not cause any property outside of the authorized service area to be assessed for benefits received, nor enter into any agreement to serve any properties outside of the service area, until a coastal development permit or amendment to this permit for an expanded service area has been approved.

PLANT CAPACITY CONDITIONS.

16. **Allocation of Wastewater Treatment Capacities:** Because the approved project has been sized to accommodate buildout within the South Bay Urban Reserve Line allowed by the San Luis Obispo County certified Local Coastal Program, no allocation program has been proposed or established. However, should an allocation program that sets priorities for connections to wastewater treatment services be proposed in the future, such a program must be approved by the Commission either through an amendment to this permit or through incorporating such a program into the Local Coastal Program (LCP) through the LCP amendment process.

17. **Stage II treatment Plant Expansion:** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION OR INSTALLATION OF ANY FACILITIES ASSOCIATED WITH STAGE II OF THE TREATMENT PLANT, the permittee shall submit, for Coastal Commission review and approval, a project status report which documents: the operational effectiveness of Phase I; and, any changes in land use designations or expected development within the project service area (especially within the Morro Palisades properties) that would allow for a reduction in Stage II treatment plant capacities. Any opportunity to reduce the Stage II capacity of the treatment plant, based upon actual flows or changed land use circumstances documented by the approved project status report, shall be implemented by the permittee, and reflected in the submittal of final plans for Stage II of the treatment plant required by Special Condition 1.a.

18. **Water Conservation Devices.** All existing development within the coastal zone to be connected to the proposed project shall be provided with water conservation kits that contain, at a minimum, tank capacity reducers for all toilets and flow restrictors or aerators for all faucets and showerheads. This kit shall be provided by the County of San Luis Obispo, and verification that this has been accomplished shall be submitted to the Executive Director prior to connection to the project.

CONDITIONS IMPOSED BY LOCAL GOVERNMENT

This action has no effect on conditions imposed by San Luis Obispo County pursuant to their authority to carry out the requirements of the California Environmental Quality Act.

IV. FINDINGS AND DECLARATIONS

FINDING 1: BACKGROUND

A. Project Need:

The proposed wastewater treatment project will serve the communities of Los Osos, Baywood Park, and Cuesta-by-the-Sea. These communities comprise the Los Osos area referred to in this staff report, which is located in the Chorro and Los Osos valleys east of Morro Bay and about ten miles west of the City of San Luis Obispo, within the coastal zone of San Luis Obispo County. The Los Osos area was platted in the late 19th Century, with approximately 5,000 small lots intended for summer homes and retreats; many of these lots are only 25 or 37 feet in width and 125 feet in length. As the resident population increased from approximately 600 in 1950 to the current level of approximately 15,000, so has the number and intensity of septic systems.

The proliferation of individual septic systems in the Los Osos area has raised concerns regarding the protection of the groundwater resources underlying Los Osos, from which the Community currently obtains its water. It has also raised concerns regarding the protection of water quality in the adjacent Morro Bay National Estuary, which supports sensitive wetland habitats and provides important opportunities for coastal recreation. These concerns are related to the lack of adequate separation between septic leach fields and groundwater, and the intensity of individual septic systems within a densely populated area, as described in more detail below.

As described in an August 14, 1998 letter from the State Water Resources Control Board (pages 5 – 7 of Exhibit 9), typically functioning septic systems will separate out solids from raw sewage within a septic tank, and the liquid sewage will flow, without treatment, into the soils surrounding the tank (i.e., the leach field). Because treatment of the liquid sewage is accomplished by the soil, it is necessary to have adequate amounts of soil between the leach field and ground water, and to have adequate room for the dispersal of the pollutants contained in the sewage. These minimum requirements are typically established by Regional Water Quality Control Boards in Basin Plans developed for specific watershed regions.

Primary constituents of concern in sewage are nitrates, which can lead to health problems if certain concentrations are found in drinking water. In addition, high concentrations of nitrates in surface waters can result in alga blooms that deplete oxygen from the water, having an adverse impact on aquatic habitats. Other elements of domestic sewage that can have adverse environmental impacts include bacteria such as fecal coliform, and viruses. These constituents pose health risks to humans both from direct contact with contaminated surface water, as well as from the consumption of contaminated shellfish. A March 10, 1998 memo from the Central Coast Regional Water Quality Control Board discusses that oyster growing operations in Morro Bay have been downgraded due to increasing levels of bacteria found in Morro Bay in recent years. These higher bacteria levels require local growers to close portions of their lease areas year-round, and shut down operations for many days after it rains. The California Department of Health Services, in letters to the Commission dated October 5, 1998 and June 8, 1998 (Exhibit 11), recommends approval of the County project in order to address this issue.

According to a November 17, 1994 status report from the Central Coast Regional Water Quality Control Board (RWQCB), the RWQCB and other health agencies became concerned with the use of individual disposal systems (i.e., septic systems) in the Los Osos area in 1971. As described in the status report, the basis for this concern was that while depth to groundwater varies in the area, it is shallow enough to flood some leach fields in wet weather. In the Baywood Park area, few of the systems can meet the RWQCB's criteria for separation between the bottom of a leach field and ground water. Furthermore, many of the smaller lots are too small for leach fields, and as a result, utilize deeper seepage pits which may discharge directly to ground water. Concerns regarding the impacts of septic systems on ground water were heightened by the fact that the Los Osos area obtains its water supply from groundwater aquifers.

As a result, an interim Basin Plan adopted by the RWQCB in June, 1971 contained a provision prohibiting septic system discharges in the area after 1974. This was followed up by Resolution 83-13 (pages 8 - 13 of Exhibit 9), adopted by the RWQCB in September 1983, which imposed a discharge prohibition of individual and community sewage disposal systems in the Los Osos area that became effective in November, 1988. Since that time, new construction or major expansion of existing buildings has been effectively prohibited, and the San Luis Obispo County Engineering Department has been in the process of designing, financing, and obtaining regulatory approvals for a community wide wastewater collection, treatment, and disposal system.

The RWQCB's actions described above, and the County's efforts to develop a community wide wastewater treatment system, are intended to protect groundwater resources and the quality of surface waters adjacent to the Los Osos, including those of the Morro Bay National Estuary. In particular, the establishment of a community wide wastewater treatment system is intended to reduce the amount of nitrates and bacteria that enter the local groundwater aquifers and surface water bodies.

Many opponents to the County project have expressed their opinion that a link between the use of individual septic systems and the water quality problems identified by the RWQCB has not been clearly established, and therefore assert that a wastewater treatment plant may not be needed. In response to this contention, it is important to note that the State and regional water quality control boards are the lead agencies for the protection of water quality. This is reflected by part (b) of Coastal Act Section 30412, which states:

The State Water Resources Control Board and the California regional water quality control boards are the state agencies with primary responsibility for the coordination and control of water quality. The State Water Resources Control Board has primary responsibility for the administration of water rights pursuant to applicable law. The commission shall assure that proposed development and local coastal programs shall not frustrate this section. The commission shall not, except as provided in subdivision (c), modify, adopt conditions, or take any action in conflict with any determination by the State Water Resources Control Board or any California regional water quality control board in matters relating to water quality or the administration of water rights.

Thus, it is beyond the scope of the Commission's review to question the RWQCB's determination that a wastewater treatment system is needed. Nevertheless, the following information regarding the need for a wastewater treatment project has been provided as background information relevant to the Commission's consideration of the County's coastal development permit application.

As summarized by a July 10, 1998 letter from the RWQCB (pages 1 – 3 of Exhibit 10):

Many of the area's ... small lots, being too small for leach fields, utilize seepage pits which discharge directly to ground water without benefit of treatment through the soil, as required by our Basin Plan. During wet weather (and for several months after rains), failing septic systems result in surfacing wastewater in yards and running down street gutters. Ground water monitoring indicates the Los Osos ground water basin is one of the more severely contaminated basins in our region, and that ground water nitrate concentrations have significantly increased as population increased in the Los Osos area. Surface waters in Morro Bay National Estuary are also impacted by surface flow and lateral seepage of inadequately treated wastewater.

There are two ground water aquifers underlying the Los Osos area; an upper and a lower aquifer. In a December, 1995 study by the RWQCB entitled Assessment of Nitrate Contamination in Ground Water Basins of the Central Coast Region Preliminary Working Draft, nitrate contour maps depict significant increases in nitrate concentrations over time in both the upper and lower aquifers.

According to a July 10, 1998 letter from the RWQCB, the data used to generate these maps were obtained from 107 monitoring wells with more than 1100 data points. The sources of this data were the EPA STORET database, the USGS National Weather Information Service, the California Department of Health Services, California Department of Water Resources, and small water systems. (It is noted that these maps show that, during the most recent time frame of 1985-1994, nitrate levels in the lower aquifer have not increased, and in some areas have decreased. In its July 10, 1998 letter, the RWQCB states that this may be due to many of the monitoring sites being discontinued after the late 1970s and early 1980s.)

The July 10, 1998 RWQCB letter also states:

Monitoring data indicates much of the shallow groundwater in the most densely developed areas exceeds 45 mg/l, the drinking water standard for nitrate. For this reason, many of the shallow water supply wells have been removed from service and demand shifted to the deeper aquifer. Dependence upon the deeper aquifer exacerbates the surface water problems because the community's water supply, formerly drawn from the upper aquifer, is now drawn from the deeper aquifer and recharged (after use) to the upper aquifer causing ground water levels to rise and flood more septic systems. Increasing surface water impacts including: restriction of portions of shellfish harvesting areas because of rising bacteria levels; waters surrounding the Los Osos area periodically do not meet bacteria standards for water contact recreation (such as swimming, wading, kayaking and small boat sailing); and the public is increasingly exposed to surfacing wastewater.

As evidence that discharges from septic system leach fields and pits are the source of the ground water nitrate problem in Los Osos, the RWQCB letter of July 10, 1998 refers to the Los Osos Wastewater Study Task F – Report on Sanitary Survey and Nitrate Source Study by Metcalf & Eddy. According to this letter, the study concludes that septic systems contribute the majority of nitrogen to ground water. Other evidence cited by the July 10, 1998 RWQCB letter includes violations with Basin Plan requirements for septic systems. The Basin Plan specifies one residence per acre, while in Los Osos, ten residences per acre are common. The Basin Plan also specifies 20 to 50 feet separation in sandy soils between the bottom of the leach trench or pit and groundwater, while in Los Osos, zero separation is not uncommon. Finally, the July 10 letter states:

Sampling efforts to characterize runoff and seepage from "springs" [surfacing wastewater] has recently included constituents which would be common in domestic wastewater and not found in nature (such as detergents). In this manner fecal coliform bacteria from sewage can be differentiated from other sources. The evidence [that septic systems are the source of the nitrate problem in Los Osos], both scientific and anecdotal, is overwhelming.

In addition to identifying the need for a wastewater treatment system in Los Osos, correspondence received from the State and regional water boards have emphasized the urgency of installing such a system. In an August 14, 1998 letter from the State Water Resources Control Board (pages 5 – 7 of Exhibit 9), it is stated that "There is no dispute the shallow aquifer is already polluted. That polluted groundwater moves downhill to surface water and the deeper aquifer. Unless the source of the sewage is removed, it is inevitable that Morro Bay and the deep drinking water supply will be

polluted. Morro Bay is already being contaminated by bacteria and other pollutants discharged from the Baywood/Los Osos septic tanks."

To further illustrate the urgency of the project, this letter references Time Schedule Order 95-90 (pages 14 – 18 of Exhibit 9) issued by the Regional Board to enforce compliance with the septic tank prohibition. This order sets forth a time schedule for the County to complete a wastewater collection and treatment system. Construction was supposed to start December 17, 1997, and Segment I of the system is supposed to be complete on December 28, 1999. The RWQCB can impose monetary liability of \$10,000 per day for each day a deadline is missed.

Other factors of urgency include the availability of State funding to finance the project, as well as increasing costs to construct the project. Currently, the State Water Quality Control Board has committed \$47 million in funds to the project. The availability of these funds will expire on April 1, 1999, unless construction begins by that date. In addition, as stated in a September 1, 1998 letter from the State Water Resources Control Board, project costs are expected to increase approximately \$50,000 per month (based on current construction cost index of one percent per year as reported in *Engineering News and Review*). In light of these factors, this letter urges the Commission to complete the permitting process on this project as soon as possible.

In summary, the State and regional water quality control boards are the State agencies with the responsibility of regulating water quality. In this case, the RWQCB has determined that it is necessary to discontinue the use of individual septic systems in the Los Osos area in order to protect ground water resources and surface water quality. The water quality experts at the RWQCB have based this determination upon many years of monitoring and numerous technical studies. In addition, the RWQCB has established time schedules for compliance with this determination, based upon the urgent necessity of addressing these water quality issues. The Commission, by law, may not take any action that conflicts with such determinations (PRC Section 30412(b)). Thus, the Commission is precluded from pursuing any alternative, such as the Solution Group proposal, that does not provide for the discontinuance of individual septic systems within the prohibition area established by the RWQCB.

B. Project Evolution:

Since the County initiated plans to construct a wastewater treatment facility in 1987, the project has undergone various revisions and updates. There have been 5 environmental reviews conducted pursuant to the California Environmental Quality Act (CEQA) for this project, as well as numerous technical reports and investigations conducted by County Engineering staff and their consultants. Alternative project designs and locations have been considered throughout the project's history, as discussed in detail on pages 36 - 39 of this report.

An earlier version of the wastewater treatment project currently proposed was approved by the County of San Luis Obispo Board of Supervisors on May 6, 1997, then appealed to the Coastal Commission. In July, 1997, the Commission determined that the appeal raised a substantial issue with respect to the project's conformance with the provisions of the San Luis Obispo County Local Coastal Program (LCP) protecting environmentally sensitive habitat areas.

As originally approved by the County, the project included the use of Rapid Infiltration Ponds for the disposal of treated wastewater. Since that time, the County investigated the use of dry gravity wells rather than ponds for treated effluent disposal. The results of this investigation indicate that, when combined with tertiary levels of treatment, the use of wells is not only technically feasible, but

provides opportunities to significantly reduce impacts to sensitive habitat areas by diminishing the footprint of the disposal facilities. As a result, the San Luis Obispo County Board of Supervisors, on January 6, 1998, directed the Engineering Department to modify the disposal method from Rapid Infiltration Ponds to shallow gravity wells. The minutes from this hearing are attached to this report as Exhibit 12.

In addition to the change from disposal ponds to wells, the project has become more specific in terms of mitigating impacts to sensitive habitats. Since the County's May 1997 approval, the County has developed a biological mitigation proposal, attached to this report as Exhibit 13.

C. Events Since the January 1998 Commission Hearing

In November 1997, a citizen's group referred to as the "Solution Group" proposed an alternative to the County's wastewater treatment project. The Commission has received numerous letters in support of this alternative, not only because it is viewed by many people in the community as a more creative and comprehensive solution, but because it is claimed to be significantly less expensive than the project proposed by the County. It has also been represented as a more environmentally sensitive and sustainable system than the County's plan. In order to adequately consider the Solution Group alternative and its potential environmental benefits, the Commission continued the De Novo hearing on the County's project at its meeting of January, 16, 1998, and requested an independent comparative analysis of the two proposals.

Following the January, 1998 hearing, the Commission staff worked closely with the Solution Group, San Luis Obispo County, State Senator Jack O'Connell's office, and other interested parties (i.e., the "working group") in developing a Request for Proposals for such a study, and in selecting an appropriate consultant. As reported to the Commission at the March 1998 meeting, the proposal submitted by Questa Engineering Corporation was selected by a unanimous vote of the working group. The selected proposal included a "fatal flaw" process, under which an unresolvable deficiency with either project would eliminate the need to continue with further investigations. The selected consultant during their review of the two projects identified no fatal flaws.

As reported to the Commission at the March 1998 meeting, a draft report was expected at the end of April 1998. However, Commission staff did not receive the draft until May 19, 1998. Other working group participants received the draft report on May 21 or 22, 1998. Public comments on the draft were submitted by May 29, 1998, and the final report, which included the draft report and a response to the comments received, was hand delivered at the Commission meeting of June 5, 1998. The Solution Group did not have an opportunity to review this final document prior to the June hearing.

In summary, the Comparative analysis found the County project to be superior to the Solution Group project in terms of: water quality protection (e.g., the ability to reduce nitrate levels in groundwater); sensitive habitat protection (the County project has a smaller footprint); and, regulatory compliance (i.e., RWQCB Order 83-13, Waste Discharge Requirements, Standards for Recharge and Recycling Projects). It also identified practical problems with the Solution Group treatment method that called into question the technical feasibility of this alternative. With respect to economic impacts, the comparative analysis identified potential costs that were not accounted for in the Solution Group proposal. While the Comparative Analysis found that the overall project cost of the Solution Group Alternative was less than the cost of the County

project, it concluded that the Solution Group alternative poses greater economic risks. A summary of Questa's Comparative Analysis findings is attached to this report as Exhibit 14.

At the June 198 meeting, the Commission continued the De Novo hearing due to procedural and substantive concerns affecting to the Commission's ability to determine the environmentally preferable, feasible alternative. The reduced time frame for responding to the draft analysis, the lack of adequate opportunity for involved parties to review the final document prior to the hearing, and the failure of the consultant to identify the technical problems with the alternative earlier in the process as a "fatal flaw" subject to the review of the working group, were procedural factors resulting in the continuance.

Substantively, the Commission expressed the need to obtain and consider the input of experts more familiar with the treatment method proposed by the Solution Group in order to determine its feasibility. In addition, the need for a more complete analysis of the difference in habitat impacts between the two projects was identified as an important information item necessary to identify the environmentally preferable alternative. Other substantive concerns included the need to have a better understanding of the cost breakdown of the County project, and to further pursue opportunities to avoid impacts to sensitive habitat (i.e., locating the disposal wells in existing roadways). The adequacy of the County's mitigation proposal, particularly with respect to the mitigation of secondary impacts, and whether the mitigation proposal was adequately defined, was another substantive issue raised by the Commission.

Since the June 1998 hearing, the Commission staff has facilitated 4 meetings of the working group in an attempt to resolve these outstanding issues. A primary focus of these meetings was the issue of technical feasibility; whether the Solution Group proposal could effectively address the water quality problems of the Los Osos area. These discussions delved into the assumptions and methodologies involved in the evaluation of nitrate loading, as well as other technical issues including the handling of algae, sludge, and odor issues. Other issues debated at these meetings, relative to both projects, included economic costs and means of financing, environmental impacts and mitigation measures, and consistency with legal requirements (e.g., California Environmental Quality Act). The details of these discussions, and the independent conclusions of the Commission staff regarding how the two projects compare in terms of technical merits, environmental impacts, regulatory compliance, and economic costs, are presented by Appendix A of this report. **Note: Appendix A is not attached to this staff report. It will be provided in a subsequent mailing.**

As detailed by Appendix A, the Solution Group, in concert with experts in the proposed method of treatment, have provided convincing information that the proposed alternative may be technically feasible. This, however, would be subject to the review and approval of the State and regional water boards. In the correspondence received from these agencies, and in the staff positions communicated at the meetings of the Working Group, it is clear that their position remains that approval of the County project, rather than further pursuit of the Solution Group alternative, is the preferable alternative in terms of water quality protection. A December 22, 1997 letter from the RWQCB (pages 4 - 6 of Exhibit 10) articulates this position. A more recent letter from the State Water Resources Control Board dated August 14, 1998 (pages 5 - 7 of Exhibit 9) states "The County is already behind schedule [in complying with RWQCB Time Schedule Order 95-90]. If the Coastal Commission requires the County to start over with an alternative project, construction and operation will be delayed for years beyond the deadlines of the Order and would likely result in no project at all. A directive to the County to start over with an alternative would conflict with the RWQCB's determination that the continued discharge from septic tanks should be stopped as soon as possible." Other unresolved regulatory and

economic impediments to the successful implementation of the Solution Group alternative are identified by Appendix A.

In light of the position of the State and regional water boards, in context with Coastal Act Section 30412, the Commission can not consider the Solution Group proposal an entirely feasible alternative. In addition, it does not appear that the Solution Group Alternative would result in any significant benefits towards the protection of sensitive habitat areas when compared to the County project. The basis for this conclusion is detailed by Appendix A.

FINDING 2: PROJECT LOCATION AND DESCRIPTION

The proposed project is located approximately 2 miles south of the City of Morro Bay, in the Los Osos Valley of western San Luis Obispo County. Morro Bay bounds the Los Osos Valley to the west and northwest, with Park Ridge to the northeast, and the Irish Hills to the south. The project area includes the unincorporated communities of Los Osos, Baywood Park, and Cuesta-by-the-Sea, adjacent to Morro Bay State Park and Montana de Oro State Park. (Please see Exhibit 2 for a location map). Primary land uses in the area include residential, limited commercial, open space and agricultural uses.

The proposed project consists of a wastewater collection system, treatment plant, and treated effluent disposal facility to serve that portion of County Service Area No. 9 within the septic tank prohibition area defined by RWQCB Resolution 83-13. The proposed service area, and the location of the project components, is illustrated in Exhibits 3 and 7. Special Condition 1.b. requires slight modifications to the proposed service area in order to comply with LCP policies limiting the provision of wastewater treatment services to areas within the Urban Service Line for the South Bay planning area. The project also includes mitigation measures to offset unavoidable impacts of the project on biological resources. These project components and their locations are more specifically described below. Special Condition 1 describes the development authorized by this permit and states that any additional development shall require an amendment to this permit or a separate coastal development permit.

A. Collection System:

The proposed wastewater collection system consists of approximately 50 miles of gravity flow sewer pipe, 23,000 linear feet of low-pressure sewer pipe, and 17,000 linear feet of sewer force main. Six below ground "lift stations" will distribute collected wastewater to collection basins, where it will flow by gravity either to another lift station, or to a pump station that will pump wastewater to the treatment plant. The two pump stations required for the project include on-site generators to provide emergency power.

The proposed collection system would be constructed at one time, but individual connections would occur in three phases. Phase 1 encompasses the majority of the septic tank prohibition area established by RWQCB Order 83-13. The Phase I area is generally defined as areas with ground water levels of less than 30 feet below ground surface. Phase 2 hook ups to the collection system would take place two years after successful operation of the effluent disposal facilities; this area encompasses the remainder of the RWQCB prohibition area. According to the project engineer, the San Luis Obispo County Board of Supervisors required this phasing program in order to ensure that the proposed method of disposing treated effluent functioned effectively. Phase 3 includes areas of development with relatively large lots that currently comply with Regional Water Quality Control Board guidelines for on site septic systems. Sewering of these phase III properties is deferred until

a later undefined date (1997 Supplemental EIR, pages 3-3 - 3-5), and is not a part of the project currently before the Commission. Special Condition 14 of this permit requires revisions to the proposed phasing plan to ensure that new development which may be inconsistent with LCP policies protecting sensitive habitat areas is not encouraged by the project, as further discussed on pages 52 - 58 of this report.

B. Wastewater Treatment Plant:

The wastewater treatment plant will be constructed in two stages. The first stage will provide an average dry weather flow (ADWF) of 1.32 million gallons per day (mgd) and a peak wet weather flow (PWWF) of 4.18 mgd. Stage II, representing the currently planned facility buildout, would provide for an ADWF of 2.03 mgd and a PWWF of 5.23 mgd. This ultimate capacity of the treatment plant is based upon the expected buildout of the South Bay Urban Area allowed by the LCP. An analysis of the proposed capacity's consistency with the quantity of development allowed under the certified LCP is provided on pages 52 - 58 of this report.

The treatment plant will be located on an undeveloped 10 acre site at the eastern terminus of Pismo Street, east of South Bay Boulevard, which is bordered by Los Osos Junior High School to the north, undeveloped land to the east, and residential neighborhoods west of South Bay Boulevard. This area is currently designated "Residential Suburban" by the Estero Plan portion of the San Luis Obispo certified LCP, intended to provide for suburban scale residential development on 1 to 5 acre parcels. Other non-residential uses, including wastewater treatment plants, are also allowed within this designation. Areas approximately one quarter of a mile northeast of the proposed treatment plant site are designated as Sensitive Resource areas as a result of the riparian habitat values associated with Los Osos Creek.

Construction of the treatment plant and associated facilities would cover approximately 7 acres of the 10 acre site (see Exhibit 7). The remaining 3 acres are proposed for sensitive habitat preservation and restoration. Special Condition 2.a. limits the site coverage of the treatment plant to the minimum amount necessary in order to minimize impacts on sensitive habitat areas.

As originally proposed, the treatment plant would provide secondary levels of treatment, and eventually be upgraded to tertiary treatment. However, the treatment plant has been upgraded to tertiary treatment in order to allow for the use of gravity wells rather than rapid infiltration ponds for treated wastewater disposal, as discussed below. 1 to 1.5 days of emergency storage would be provided by the treatment plant according to current plans. Special Condition 2a requires final plans for the treatment plant to include at least 3 days of emergency storage, as recommended by Questa Engineering Corporation, or an amount determined to be adequate by the Regional Water Quality Control Board.

The proposed treatment process is the "Modified Ludzack-Ettinger biological process". This is a treatment process designed to remove nitrogen, biochemical oxygen demand (BOD), and suspended solids from incoming wastewater. The treatment scheme includes aerated grit removal followed by suspended growth nitrification/denitrification to effect biological oxidation and nutrient removal from the waste stream. The carbon in the incoming wastewater will be used as a food source for microbial denitrification of the recycled flow.

Following the treatment process, secondary clarifiers will separate solids from the treated effluent, which will then undergo gravity filtration and U.V. disinfection to achieve tertiary levels of treatment. The resulting water is pumped to the effluent disposal facility, and the solids are hauled either to a

Class 1 landfill or sold for agricultural purposes in accordance with standards established by the San Luis Obispo County Department of Environmental Health and the U.S. EPA. It is expected that approximately 60 cubic yards per week of sludge will be generated. According to the project engineer, this equates to approximately one truckload per day. Approximately 1.3 million gallons of treated effluent will be pumped to the effluent disposal facility per day.

Under the County project, about 14% of dwelling units within the CSA 9 service area would continue to utilize septic tank treatment and on-site disposal. This would occur in limited circumstances where existing septic and on-site disposal systems have adequate capacity and replacement potential. The County would implement an On-Site Wastewater Management program for such areas, to ensure that these systems function effectively. The details of this program have yet to be developed, and are required to be submitted for Executive Director review and approval by Special Condition 2d.

C. Effluent Disposal/Groundwater Recharge Component:

A primary component of the project is to dispose of treated wastewater in a manner which recharge's the groundwater basin upon which the affected communities are dependent for water supply. As originally approved by the County, disposal of secondary treated wastewater was to take place in Rapid Infiltration Ponds located approximately 500 feet south of Highland Drive, between the extensions of Broderson Drive and Doris Drive (referred to as the "Broderson Site"), south and uphill of a residential area. This disposal area is currently designated for residential single family use, although public facilities are allowed, and was selected because it is in a limited geographic region that has adequate depth to groundwater and a location that facilitates groundwater recharge.

Although the County approved this effluent disposal method in May, 1997, the Board of Supervisors also directed County staff to investigate the feasibility of utilizing wells, rather than percolation ponds, in order to address community concerns regarding the use of the ponds. This evaluation found that the use of wells, when combined with tertiary treatment, is not only technically feasible, but will significantly reduce project impacts on environmentally sensitive habitat areas by diminishing the permanent footprint of the disposal facilities. As a result, the Board of Supervisors, at a public hearing on January 6, 1998 (minutes attached as Exhibit 12), directed the County Engineering Department to modify the disposal method accordingly. The project description has, therefore, been revised to delete the Rapid Infiltration Ponds and to provide for a series of disposal wells (please see Special Condition 2c).

In order to maintain groundwater recharge objectives, the disposal wells will be installed in the same location as the original pond site (i.e., the Broderson site). While the County's wastewater consultant recommended the installation of 46 wells, the County has proposed 60 wells in order to ensure that there will be adequate disposal capacity during well maintenance and repair. As recommended by the consultant, the wells will have a minimum separation of 150 feet to preventing "mounding". Page 5 of Exhibit 7 provides a draft layout for these wells. Special Condition 2c of this permit requires final plans for the well field to be reviewed and approved by the Executive Director, and specifies that the wells must be placed within the least environmentally sensitive portion of the Broderson site that will not cause adverse impacts to the existing residences along Highland Avenue.

D. Biological Mitigation:

The project includes mitigation measures for impacts to biological resources that will result from the direct impacts associated with facility construction, as well as mitigation for secondary biological impacts attributable to development of sites containing sensitive habitat values that may be facilitated by construction of the project. These measures are described by the County's *Proposal for Mitigation to Biological Resources*, attached to this report as Exhibit 13, and summarized below.

Because the project will result in the loss of habitat for federally endangered species, the County must consult with the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the Endangered Species Act. The proposed mitigation has been designed to comply with this requirement, as well as the requirements of the San Luis Obispo County certified LCP. The County has not, however, initiated Section 7 consultation with the U.S. Fish and Wildlife Service; such efforts have been suspended pending coastal development permit approval. As explained by the project engineer, it is necessary for the County to obtain coastal permit approval prior to selling bonds to finance the project, and this funding is needed to finance the Section 7 consultation.

In summary, the biological mitigation proposed by the County includes:

- preservation and restoration of the 3 acres on the 10 acre treatment plant site that will not be impacted by the project;
- preservation and restoration of the 66 acres of the 80 acre effluent disposal site that will not be impacted by the disposal wells; and,
- acquisition and protection of at least 40 acres of good coastal scrub habitat that contains at least one acre dominated by dune lupine to mitigate for project impacts to the Morro blue butterfly.

The County has yet to identify the specific location(s) of the habitat area(s) to be acquired because of the need to obtain agreement with the USFWS, and the sensitive nature of land negotiations. Instead, the proposal states that the land will be comprised of large parcels, in good habitat condition, contiguous with other open space lands. According to the proposal, all candidate parcels are within areas proposed for protection by the USFWS Recovery Plan for the Morro shoulderband snail, and have been targeted for acquisition by the San Luis Obispo Land Conservancy as part of a local effort to establish a greenbelt around Los Osos.

The consistency of the proposed mitigation measures with the San Luis Obispo County certified LCP is analyzed beginning on page 45 of this report. A number of Special Conditions ensure that the mitigation programs will be successfully implemented (please see Special Conditions 3 and 4).

FINDING 3: LCP CRITERIA FOR THE REVIEW OF TREATMENT WORKS

Chapter 8 of the San Luis Obispo County certified LCP contains policies for public works. Policy 9 of this chapter, entitled "Review of Treatment Works", states:

For any development that constitutes a treatment works (PRC 30120), issuance of a permit shall be consistent with the certified LCP and PRC 30412 and shall address the following aspects of such development:

- a. The siting and visual appearance of treatment works within the coastal zone.
- b. The geographic limits of the service area within the coastal zone which is to be served by the treatment works and the timing of the extension of services to allow for phasing of development consistent with the certified LCP.
- c. Projected growth rates used to determine the sizing of the treatment works.

PRC 30412, which is incorporated into the above Policy, states:

(a) In addition to Section 13142.5 of the Water Code, this section shall apply to the commission and the State Water Resources Control Board and the California regional water quality control boards.

(b) The State Water Resources Control Board and the California regional water quality control boards are the state agencies with primary responsibility for the coordination and control of water quality. The State Water Resources Control Board has primary responsibility for the administration of water rights pursuant to applicable law. The commission shall assure that proposed development and local coastal programs shall not frustrate this section. The commission shall not, except as provided in subdivision (c), modify, adopt conditions, or take any action in conflict with any determination by the State Water Resources Control Board or any California regional water quality control board in matters relating to water quality or the administration of water rights.

Except as provided in this section, nothing herein shall be interpreted in any way either as prohibiting or limiting the commission, local government, or port governing body from exercising the regulatory controls over development pursuant to this division in a manner necessary to carry out this division.

(c) Any development within the coastal zone or outside the coastal zone which provides service to any area within the coastal zone that constitutes a treatment work shall be reviewed by the commission and any permit it issues, if any, shall be determinative only with respect to the following aspects of the development:

(1) The siting and visual appearance of treatment works within the coastal zone.

(2) The geographic limits of service areas within the coastal zone which are to be served by particular treatment works and the timing of the use of capacity of treatment works for those service areas to allow for phasing of development and use of facilities consistent with this division.

(3) Development projections which determine the sizing of treatment works for providing service within the coastal zone.

The commission shall make these determinations in accordance with the policies of this division and shall make its final determination on a permit application for a treatment work prior to the final approval by the State Water Resources Control Board for the funding of such treatment works. Except as specifically provided in this subdivision, the decisions of the State Water Resources Control Board relative to the construction of treatment works shall be final and binding upon the commission.

(d) The commission shall provide or require reservations of sites for the construction of treatment works and points of discharge within the coastal zone adequate for the protection of coastal resources consistent with the provisions of this division.

(e) Nothing in this section shall require the State Water Resources Control Board to fund or certify for funding, any specific treatment works within the coastal zone or to prohibit the State Water Resources Control Board or any California regional water quality control board from requiring a higher degree of treatment at any existing treatment works.

Taken together, Policy 9 for Public Works and Section 30412 of the Coastal Act, limit the Commission's consideration of a permit for a treatment works project to the following specific issues:

- Siting and design: has the project been sited and designed in a manner that complies with LCP standards, such as those requiring the protection of environmentally sensitive habitats and visual resources, and with Coastal Act access and recreation policies?
- Service area and phasing: is the proposed service area and phasing program consistent with LCP directives regarding the location and timing of new development?
- Capacity: has the project been sized consistent with the amount of development planned for by the LCP?

These issues are analyzed in detail below.

FINDING FOUR: ENVIRONMENTALLY SENSITIVE HABITATS

A. Location:

LCP Requirement: Avoid Locating Public Facilities in Sensitive Area Where Feasible

Section 23.08.288 of the San Luis Obispo County Coastal Zone Land Use Ordinance (CZLUO) specifically regulates Public Utility Facilities. Part d. of the ordinance states:

Limitation on use, sensitive environmental areas. Uses shall not be allowed in sensitive areas such as on prime agricultural soils, Sensitive Resource Areas, Environmentally Sensitive Habitats, or Hazard Areas unless a finding is made by the applicable approval body that there is no other feasible location on or off-site of the property. Applications for Public Utility Facilities in the above sensitive areas shall include a feasibility study, prepared by a qualified environmental professional approved

by the Environmental Coordinator. The feasibility study shall include a constraints analysis, and analyze alternative locations.

In this case, "feasibility" not only includes the ability to appropriately treat and dispose of wastewater, but to do so in a manner that will recharge the groundwater basin. Policy 1 for Coastal Watersheds of the Coastal Plan Policies component of the certified LCP requires that the long term integrity of groundwater basins be protected, and Policy 11 from the same LCP section mandates that new development maximize groundwater recharge.

Analysis

The first test of project compliance with LCP Section 23.08.288 is determining whether the project is located in a sensitive area. The LCP defines such areas as follows:

Sensitive Resource Area: Means those identifiable and geographically bounded land and water areas within the coastal zone of vital interest and sensitivity, pursuant to Section 23.01.043c(3) of this title. [Section 23.01.043c(3) includes: special marine and land habitat areas, wetlands, lagoons, and estuaries mapped and designated as Environmentally Sensitive Habitats in the Local Coastal Plan; areas possessing significant recreational value, including any "V" (Visitor Serving designation as shown in the Land Use Element and areas in or within 100 feet of any park or recreation area; highly scenic areas which are identified as Sensitive Resource Areas by the Land Use Element; archaeological sites referenced in the California Coastline and Recreation Plan or as designated by the State Historic Preservation Officer; Special Communities or Small-Scale Neighborhoods which are significant visitor destination areas as defined by Chapter 23.11 of this title; areas that provide existing housing or recreational opportunities for low-and moderate income persons; and, areas where divisions of land could substantially impair or restrict coastal access.]

Environmentally Sensitive Habitats: A type of Sensitive Resource Area where plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and development. They include wetlands, coastal streams and riparian vegetation, terrestrial and marine habitats and are mapped as Land Use Element combining designations.

Numerous environmental documents prepared for the project have documented the presence of many sensitive species and habitats at both the proposed treatment plant location and the effluent disposal site, as described in detail below. Thus, the sites definitely contain Environmentally Sensitive Habitat as described by the LCP. Unfortunately, the ESH is not currently mapped in the Land Use Element, which is the anticipated mechanism for implementing resource protection policies by the County's map-based LCP. That is, in the context of the overall San Luis Obispo County LCP, which establishes a "Resource Management System" (RMS) to address changing resource circumstances, the above LCP definitions assume a robust mapping system that would be continually updated to reflect current, on-the-ground conditions. However, in this case, the County's existing SRA maps have not been updated since January 1989, and do not reflect the actual ESH found at the sites at issue. ESH areas have been mapped on the project sites as part of the environmental reviews, but these habitat areas have not been incorporated into the LCP mapping system.

The LCP is silent on what to do in those instances where environmentally sensitive habitats are found at a particular site, as is the case here, but they have not yet been officially mapped. To interpret the LCP policies in way that such environmentally sensitive habitats are not treated as such would be at odds with both the intent of the LCP's ESH protection policies and the clear direction of Coastal Act objectives. It would also be poor public policy and resource planning to suggest that an accurate delineation of all sensitive habitats will be accomplished at only one specific point in time, due to the many dynamic variables that can affect the type and location of such resources over time. Public policy must be able to account for new information and scientific understanding in the implementation of resource protection policies, such as the information that has been developed by the County regarding the habitat values of the treatment plant and disposal sites. The only rational response in such situations, therefore, is to treat existing environmentally sensitive habitats as such under the LCP, regardless of whether they are currently precisely mapped in the certified Land Use Element. As described below, such an approach is clearly warranted in this case.

The treatment plant site (the Pismo site) supports three primary ecological communities considered sensitive by the California Department of Fish and Game (DFG): Coastal Scrub, Chaparral, and Coast Live Oak Woodland. The coastal scrub community is the most dominant plant community on the site, with Dune Lupine Scrub occupying approximately the central one-third of the site, blending with Heather Goldenbush Coastal Scrub to the South. Live Oak woodland, along with Monterey Cypress and Monterey Pine trees, are located within the east and northeast portion of the site. Morro Manzanita, listed as federally threatened, occupies the eastern edge of the site; other chaparral communities represented by Chamise - Wedgeleaf Ceanothus are located within the southwestern portion of the site. Non-native Veldt Grass forms a grassland within a western portion of the site.

As documented by the 1997 Supplemental EIR for this project, the native plant communities on the treatment plant site provide suitable habitat for numerous special status plant and animal species. Morro Manzanita and Monterey spineflower (federally listed as threatened), as well as Sand Almond and rare non-vascular plants (lichens) have been found on the site, while other special status plant species are expected to occur. The Morro Shoulderband Dune Snail (federally endangered), Black legless lizard (proposed as federally endangered), Monarch Butterfly (habitat considered sensitive by DFG), and Morro Blue Butterfly are also expected to utilize the site.

The 1997 Supplemental EIR for this project also documents that the 80 acre site proposed for effluent disposal (the Broderson site) supports various Chaparral, Coastal Scrub, and Live Oak Woodland habitats. Special status plant and animal species that are expected to occur on the site, include: Blochman Leafy Daisy, Indian Knob Mountainbalm, San Luis Obispo Wallflower, Morro Manzanita, and Sand Almond; and, Morro Bay Kangaroo Rat, Morro Shoulderband Dune Snail, Morro Blue Butterfly, Monarch Butterfly, Black Legless Lizard, and California Spotted Owl (which may use the area for foraging due to the presence of its primary prey, the Dusky-Footed Woodrat). This site is identified as "Critical Habitat" for the endangered Morro Bay Kangaroo Rat by the USFWS. It is also within a "Conservation Planning Area" identified by USFWS's Draft Recovery Plan for the Morro Shoulderband Snail and Four Plants (Morro Manzanita, Chorro Creek Bog Thistle, Indian Knob Mountainbalm, and Pismo Clarkia) from San Luis Obispo County.

Based on the identified sensitivity, rarity, and value of habitat at both the treatment plant site and two of the three potential disposal sites, the project will be located within both Sensitive Resource Areas and Environmentally Sensitive Habitats, as defined by the San Luis Obispo County LCP.

The next step in evaluating project conformance with LCP Section 23.08.288 is to determine whether alternative locations, on or off site, could feasibly accommodate the project.

B. Alternative Locations for the Treatment Plant:

A February, 1997 Supplemental Environmental Impact Report prepared for the project analyzed three alternative locations for the treatment plant, as well as an alternative to the effluent disposal sites proposed in 1987. The results of this analysis indicate that the original site for the treatment plant proposed in 1987, known as the Turri Road site, was environmentally superior by a very slight margin. This site was specifically designated to accommodate the wastewater treatment plant in a 1990 amendment to the LCP approved by the Commission, but includes prime agricultural soils, as well as wetlands, and is the furthest distance from the service area. The other potential treatment plant location evaluated by the 1997 Supplemental EIR (referred to as the Cordoniz site) posed greater environmental impacts than either the Turri or Pismo sites.

Due to significant increases in project costs associated with increased pumping distances, the environmental impacts associated with pipeline creek crossings, and the LCP's directive to protect prime agricultural lands, the County selected the currently proposed Pismo site for the treatment plant, rather than the Turri Road site. This selection was made in recognition that the overall environmental impacts of the two sites were generally equivalent; neither provided an opportunity to avoid impacts on sensitive environmental areas. The investigation of alternative sites, as required by Section 23.08.288, has been unable to identify feasible project locations that would avoid impacts to such areas.

Another potential site for wastewater treatment purposes is the treatment site proposed by the Solution Group. This site includes approximately 55 acres, in the middle of the developed portion of Los Osos. In 1992, a residential development known as the Morro Shores was proposed on this site, and an Environmental Impact Report (EIR) was prepared. As part of this environmental review, two botanical surveys were conducted in 1989. According to these surveys, vegetation on this site "is or was coastal dune scrub. This has been much disturbed over the years throughout much of the site." While the disturbed nature of this area is emphasized by the survey, it also recognizes that "[s]ince the coastal scrub communities are fast disappearing along the central California coast, the remaining vegetation has increased in value". The botanical surveys identify four particular portions of the site that support Coastal dune scrub habitat (i.e., lots 7 to 15, lots 97 to 99, the are along the eastern boundary of lot 101, and portions of lot 102 near the western boundary of the existing library). The presence of Coast live oak trees on lots 59, 91, and 97 is also identified by the botanical surveys. Other sensitive plant species identified on the site by the botanical surveys include Sand almond, and *Eriastrum densifolium*. Neither the botanical reports nor the EIR quantify the acreage of the native habitat present on the site. Some rough estimations are contained in Appendix A of this report, as part of the comparison of environmental impacts between the Solution Group proposal and the County project.

Although no federally listed threatened or endangered plants or animals were identified by the 1992 EIR, it is important to note that the EIR was prepared prior to the listing of the Morro shoulderband snail. Based on the documented presence of such snails in other areas of Los Osos that contain Coastal dune scrub vegetation, it is highly likely that they occur on this site. This is reflected by the Draft Recovery Plan for the Morro shoulderband snail prepared by the U.S. Fish and Wildlife Service (USFWS), which designates the site as an "Other Habitat Area".

The Comparative Analysis performed by Questa Engineering also assumed that this area provided potential habitat for the Morro shoulderband snail.

By virtue of the Coastal dune scrub habitat on the treatment site proposed by the Solution Group, which provides potential habitat for the Morro shoulderband snail, as well as the presence of other sensitive plant species such as Coast live oak trees and Sand almond, this site can not be considered an alternative project location that would avoid impacts to Environmentally Sensitive Habitat areas. As detailed by Appendix A, the quality of the habitat on the treatment site proposed by the Solution Group is essentially equivalent to the quality of the habitat found on the treatment plant site proposed by the County. In addition, Appendix A identifies that the treatment system proposed by the Solution Group requires more land area than the County treatment system, and as a result, has the potential to result in a greater disturbance to sensitive habitat areas.

C. Alternative Locations for the Disposal of Treated Wastewater:

With respect to effluent disposal, the County project evaluated in 1987 proposed to utilize both a discharge along Los Osos Creek during dry weather, as well as Rapid Infiltration Ponds during wet weather. Although the discharge of treated effluent to the creek was considered superior from a groundwater recharge standpoint, there were potentially significant environmental impacts associated with this element of the project (e.g., creek crossings, loss of riparian habitat), the resolution of which were deferred to a later date. The extent of Rapid Infiltration Pond development was not reduced by the inclusion of the creek disposal because during wet weather, it would be necessary to dispose of all of the treated wastewater in the Rapid Infiltration Ponds.

In the 1987 EIR for the project, the Rapid Percolation Ponds were proposed in a generalized location just east of the currently proposed Broderson disposal site, in an area referred to as Site 6 (or the "Morro Palisades"). This area is designated as "essential habitat" for the endangered Morro Bay Kangaroo Rat by the U.S. Fish and Wildlife Recovery Plan for this species. It was selected after four alternative percolation sites, referred to as the Los Osos Creek Valley sites and Cemetery Mesa sites (two potential disposal sites at each), were rejected due to inadequate percolation rates and inappropriate geologic conditions (1987 EIR, p. VII-25).

Additional sites for wet weather disposal facilities considered and rejected by the 1987 EIR included areas along the eastern side of the Los Osos Community and west of Los Osos creek, undeveloped areas in western Los Osos generally north of Los Osos Valley Road, and areas west of Pecho Road and east of the southern end of Morro Bay State Park. These sites were rejected due to high groundwater levels, inappropriate geologic conditions, proximity to Morro Bay, the presence of significant habitat values, and/or other reasons (1987 EIR, p. VII-30 - VII-31). The EIR findings rejecting these disposal sites was reconfirmed in a subsequent alternative investigation performed in 1995, known as the Task G report (pages B1-11).

In subsequent efforts to determine the best specific location for the Rapid Infiltration ponds, the County found that impacts to sensitive habitat areas would be reduced by relocating the ponds west of Site 6 to the Broderson site. The Broderson site is outside of the area identified as essential Kangaroo rat habitat by the U.S. Fish and Wildlife Service. In addition, the County found that the high permeability of the soils at this location, and sufficient depths to groundwater, would allow for the entirety of the effluent to be disposed of at the Broderson site, thereby eliminating additional costs and environmental impacts associated with creek disposal. In

addition, groundwater modeling efforts confirmed that the disposal of treated effluent at the Broderson site would effectively recharge groundwater supplies (pages 1 – 2 of Metcalf & Eddy's November 21, 1997 "Draft Evaluation of Effluent Disposal at the Proposed Broderson Recharge Site, Los Osos, California" referencing Metcalf & Eddy's February 26, 1996 report entitled "Hydrogeologic Evaluation of the Proposed Broderson Recharge Site, Los Osos, California").

According to the County Engineering Department, the County also considered locating the ponds within a more disturbed area currently used for equestrian purposes west of the Broderson site. This option was rejected on the basis that groundwater recharge potential would be significantly reduced. The further west the recharge site is located, the more likely it would be for the discharged effluent to flow towards the Bay, rather than towards the groundwater basin.

As previously noted, the County revised the method of treated effluent from rapid infiltration ponds to dry gravity wells in January 1998. As currently proposed, the wells will be located within the same area where the ponds were to be installed. However, in investigating the feasibility using wells rather than ponds, the option of locating the wells in existing roadway rights-of-way was considered. According to a January 15, 1998 letter from Metcalf & Eddy (wastewater engineering consultants to the County), this alternative was concluded to be "marginally feasible". Downfalls to this alternative identified by this letter included the need to conduct additional groundwater modeling studies, and an increased cost of \$1 million due to the need to install additional flow controls. Of particular concern was the unknown separation between the wells and the groundwater surface at this location, which could affect the ability of obtaining approval from the California Department of Health Services. In addition, the wells would be much closer to existing residences, necessitating further analysis of soil conditions and the potential for discharged effluent to mound and surface in this area.

Nonetheless, based on the potential feasibility of this alternative, which would avoid impacts to sensitive habitats at the Broderson site, the Commission staff requested the County to further consider this option. In response, the County provided an updated letter from Metcalf & Eddy that concludes that locating the wells on the Broderson site is "more cost-effective and serves the Community better than the linear alignments along Highland Drive and Mar Vista Drive". This conclusion was based on: the increased risk of the surfacing of treated effluent, and the reduced degree of groundwater recharge associated with locating the wells down gradient of the Broderson site; and, the impact of the well system on local traffic during construction and operation, which may require access to one or more wells on a weekly basis. According to this letter, the grid configuration proposed on the Broderson site "has the greatest assurance of success, best matches the hydraulic modeling work on which our conclusions were based, and provides a balance between habitat disruption and impacts on the residents."

Thus, the option of locating disposal wells in existing roadway rights-of-way is not considered a feasible alternative that would avoid impacts to environmentally sensitive habitat areas.

With respect to other potential locations for effluent disposal, it has been suggested that ongoing groundwater modeling studies being conducted by Woodward Clyde consultants for the Southern California Water Company could result in the identification of other feasible sites. The purpose of this groundwater modeling study is to evaluate, update, and enhance a model of the Los Osos Groundwater Basin developed by the U.S. Geological Service (USGS) in 1988. On September 5, 1997, the most recent product of this effort, a draft report entitled Los Osos Groundwater Model Update and Post Audit Analysis was released. According to this document,

the primary objective is to update, and evaluate the groundwater model previously developed by the USGS, and convert data to enhance computer applications for groundwater management needs. Thus, the report will not address the wide range of factors that must be applied to the determination of the most appropriate location for effluent disposal facilities, such as sensitive habitat considerations, site specific soil conditions, and other technical and land use considerations. Given the numerous locations for effluent disposal previously considered by the County, the unique characteristics required for an appropriate disposal site, and the need to come to a timely solution the water quality problems faced by Los Osos, it would be inappropriate to delay action on the project based on this groundwater modeling study.

Other locations for treated wastewater disposal, include Los Osos Creek, or public spaces and farms, where the water could be used for irrigation. Both of these alternatives are included as part of the alternative project proposed by the Solution Group.

As previously discussed, discharging treated wastewater to the upper reaches of Los Osos creek poses environmental impacts which have not been fully identified or resolved, and would not reduce the biological impacts associated with other disposal techniques based upon the seasonal nature of this disposal option. Similarly, the use of treated wastewater for the irrigation of public spaces would not accommodate the need to dispose of treated effluent on a year-round basis. The same constraint applies to the option of disposing treated wastewater on agricultural land, an alternative that was considered and rejected by the 1987 EIR. Thus, none of these options would avoid impacts to environmentally sensitive habitat areas.

Conclusion

As required by CZLUO Section 23.08.288, the applicant has appropriately analyzed the constraints and feasibility of alternative project locations that would avoid sensitive habitat areas. The results of these analyses support a finding that there is no feasible location on or off site of the properties designated for the wastewater treatment and treated wastewater disposal that would reduce impacts to sensitive habitats and still achieve the LCP directive to maximize groundwater recharge. The project is therefore consistent with CZLUO Section 23.08.288.

D. Design:

LCP Requirement: Design Projects to Minimize Impacts on Sensitive Resources

In addition to considering alternative locations that avoid sensitive habitat areas, other policies and ordinances contained in the LCP call for projects to be designed and sited in a manner which avoids or minimizes impacts to sensitive habitat areas. These include the following Coastal Plan Policies for Environmentally Sensitive Habitats:

Policy 5: 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.

Policy 27: Protection of Terrestrial Habitats. Designated plant and wildlife habitats are environmentally sensitive habitat areas and emphasis for protection should be placed on the entire ecological community. Only uses dependent upon the resource shall be permitted within the identified sensitive habitat portion of the site.

Development adjacent to environmentally sensitive habitat areas and holdings of the State Department of Parks and Recreation shall be sited and designed to prevent impacts that would significantly degrade such areas and shall be compatible with the continuance of such habitat areas.

Policy 33: 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.

Analysis

As previously established, the treatment plant site and the effluent disposal site are environmentally sensitive habitat areas, and are therefore subject to the above policies. The first requirement of Policy 27 is that the proposed use be dependent upon the identified sensitive habitat that will be impacted.

Although the effluent disposal facilities are not dependent upon the specific habitat resources of the Broderson site, they are dependent upon the unique geologic resources within this area. After extensive analysis, the limited geographic region in which the wells are proposed was the only area identified as having the geologic characteristics necessary to effectively accommodate the treated effluent and recharge the groundwater basin, without adversely affecting downslope residences. These unique geologic characteristics, upon which the project is dependent, include high depth to groundwater, adequate percolation rates, and the absence of impermeable layers that would prevent the disposed effluent from traveling vertically. In addition, the acquisition of the site, and the preservation of the 66 acres that will not be impacted by the disposal facilities, will protect the sensitive biological resources dependent upon these habitat areas.

Similarly, the location of the treatment plant is not fully consistent with Policy 27 because this type of facility is not dependent upon the habitat resources found on the proposed site. However, the habitat values at the treatment plant site are diminished by the fact that the site is surrounded by development on three sides, and is therefore a fragmented habitat that has limited value towards the long term survival of the species found on the site. Developing the treatment plant at this location will also avoid greater environmental impacts associated with alternative locations, including pipeline creek crossings, the loss of prime agricultural land, impacts to wetlands, and the disturbance of environmentally sensitive habitats with more significant habitat value.

And as already mentioned, it is also important to recognize that the wastewater treatment project is necessary to avoid significant adverse impacts to important groundwater resources and environmentally sensitive habitat areas within the Morro Bay National Estuary that would result from continued use of septic systems throughout Los Osos.

Finally, Policy 27 must be read in conjunction with Section 23.08.288 of the CZLUO, which does not prohibit the siting of public facilities in Environmentally Sensitive Habitat areas if no other feasible alternatives available. As discussed above, such is the case here. In addition, development on this site has been extensively conditioned to avoid, minimize or mitigate impacts on existing habitat values. As conditioned, the project can be found to be consistent with the sensitive habitat protection provisions of the LCP (please see Special Conditions 3 and 4).

Overall, then, the project is generally consistent with the resource dependent requirements of Policy 27.

The second requirement of Policy 27, and the standard established by Policy 33, is that projects within and adjacent to environmentally sensitive habitat areas be designed to minimize the disruption of habitat values. In the case of the subject project, there may be alternative designs and technologies for wastewater treatment and disposal that could reduce project impacts on sensitive habitat areas, as discussed below.

As previously described, the project has incorporated the use of gravity dry wells rather than Rapid Infiltration Ponds for effluent disposal. This will allow for a significant reduction in the 14 acres of environmentally sensitive habitat that would be permanently lost through the construction of the previously proposed Rapid Infiltration Ponds. Nonetheless, the County mitigation proposal identifies an impact area of 14 acres at the Broderson site. This appears to be an overly conservative estimation based upon the draft configuration of the well field (page 5 of Exhibit 7), and the County's intention to restore and protect the areas between the wells and access roads and Coastal dune scrub habitat, as further discussed below

A November 1997 report investigating the feasibility of wells estimates that 23 continuously utilized wells would be necessary to accommodate the 1.3 million gallons per day of treated wastewater generated by Phase I of the project. The report therefore recommends the installation of twice this number (46 wells) to address variables in predicted flow rates, maintenance requirements, and other performance contingencies. The report further recommends that the wells be separated by 150 feet based upon observed 70-foot radii of wetted area surrounding the wells observed during infiltration tests. This configuration is illustrated in the draft layout for the wells recently submitted by the County (page 5 of Exhibit 7).

As previously noted, the County project includes the installation of up to 60 wells in order to ensure that there is adequate disposal capacity during wet weather flows. The County engineer has identified that each well would have a maximum footprint of 400 square feet (20 feet by 20 feet). In addition, a 12 foot wide gravel access road along each row of wells, and an access road along the eastern boundary of the site of the same width, would be required for maintenance purposes.

The 1,110 foot wide Broderson site could accommodate 7 wells per row at the recommended separation of 150 feet. 8.6 rows of wells, also separated 150 feet, would be required for 60 wells, resulting in a well field depth of approximately 1,200 feet. Thus, the overall well field area, including the area between the wells, is estimated to consume approximately 1,332,000 square feet, or 31 acres. Taking into consideration the County's intention to protect and restore the areas between the wells and access roads as native Coastal dune scrub habitat, very little of this area will be impacted by the wells and access roads (see calculations below). To ensure this is the case, Special Conditions 2 and 3f require Executive Director review and approval of a construction operations plan that avoids the disruption of all sensitive habitat areas outside of the footprint of the wells and access roads during well field construction.

The 60 wells, with a maximum footprint of 400 square feet each, would consume 24,000 square feet of land area. 8.6 rows of 12 foot wide access corridors that are approximately 1,100 feet long results in an additional disturbance of about 113,530 square feet. The 12 foot wide access road along the eastern boundary of the site, which will extend for the entire depth of the well field (1,200 feet), plus the 200 foot setback from the residences along Highland Avenue, adds another 16,800 square feet of impact area. Thus, the total footprint of the disposal facilities

equates to about 154,320 square feet (or approximately 3.5 acres) over 10 acres less than the 14 acre footprint previously anticipated for the Rapid Infiltration Ponds.

Impacts to sensitive habitat areas associated with the well field may be further diminished by reducing the 200 foot setback from the residences bordering the southern portion of the site, originally required by Condition 59 of the County's approval. This setback area, intended to provide a buffer between the residences and the ponds, represents the most disturbed portion of the disposal site. Because impacts associated with the above ground storage of treated wastewater (i.e., the potential for an unplanned release of treated effluent and potential odors) would be eliminated through the use of wells, a reduction in this setback may be appropriate. Special Condition 2c therefore requires final plans for the disposal facilities to locate the wells in the least environmentally damaging location by minimizing this setback distance as much as possible. The final setback distance will be determined by a supplemental geotechnical report analyzing the potential hazards associated with the use of wells for effluent disposal, which must be reviewed and approved by the Executive Director.

Therefore, as conditioned, the use of wells on the Broderson site represents the most environmentally preferable, feasible design for the project, consistent with the previously identified LCP policies.

Another wastewater treatment design that has been considered is the system proposed by the citizen based "Solution Group". In summary, this alternative proposes to:

- Replace septic tanks in areas of the community with less than 30 feet to groundwater with Septic Tank Effluent Pump (STEP) systems. STEP systems pump liquids to a treatment facility, and act as a holding tank for solids that would be removed periodically and trucked to the treatment facility. Commercial areas and mobile home parks would also be served by STEP systems.
- Utilize an Advanced Integrated Wastewater Ponding System (AIWPS) to treat wastewater generated from the STEP systems and independently transported septage (solids). Such systems are successfully being utilized in California communities such as St. Helena, Bolinas, and Delhi. The treatment scheme involves Facultative Ponds with fermentation pits for solids digestion, and the recycling of oxygen-rich water from subsequent treatment steps for odor control. After primary treatment, the effluent enters shallow, channelized High-Rate Ponds which are designed to promote rapid algae growth with concomitant generation of oxygen to aid in the further destruction of biodegradable organic matter.
- Retain septic tank treatment and on-site disposal for approximately 44% of the dwelling units in the service area. An On-Site Wastewater Management Zone and a Septic System Maintenance and Management Program would be established to oversee the upgrade and proper maintenance of existing septic tanks.
- And, dispose of treated wastewater by utilizing gravity wells located either within the Highland Avenue right-of-way, or on the Broderson site.

This alternative also proposes to harvest groundwater from low lying areas of the community that experience periodic flooding as a result of high groundwater levels, and utilize this water for both domestic supply and groundwater recharge purposes.

As previously discussed, Section 30412 of the Coastal Act and LCP Policy 9 for Public Works prohibits the Commission from considering the Solution Group proposal as a feasible alternative inasmuch as the alternative as currently proposed is in direct conflict with RWQCB Order 83-13. Nevertheless, an analysis of the environmental impacts associated with this proposal, as compared to the environmental impacts associated with the County project, is provided in Appendix A. The conclusions of this analysis indicate that the Solution Group alternative will not avoid or minimize the impacts to environmentally sensitive habitats associated with the County project. In fact, as detailed by Appendix A, the Solution Group has the potential result in the disturbance of a greater amount of sensitive habitat areas, and jeopardize the implementation of a solution to the water quality problems faced by this region.

In addition to the location and design alternatives previously discussed, additional alternatives have been considered by the County throughout the history of this project, in an effort to both reduce project costs and minimize impacts on environmentally sensitive habitat areas. These additional alternatives are summarized below.

The no project alternative was not considered acceptable, as it would not resolve the septic system prohibition imposed by the Regional Water Quality Control Board or the water quality degradation attributable to continued use of septic systems in the area. The no project alternative would also forego the opportunity to utilize treated wastewater to recharge the local groundwater supply, and might increase pressure to develop outside of the prohibition zone, which could have an adverse impact on several sensitive plant and animal species (1987 EIR, p. VII-1).

The 1987 EIR also analyzed a reduced capacity alternative. The EIR concluded that such an alternative may reduce, but not avoid impacts to biological resources. This alternative was previously rejected because it would not provide an equivalent level of groundwater recharge, and the reduced number of residents that would share the cost did not make this an economically attractive alternative (1987 EIR, p. VII-3). However, current project plans include a revised service area that is limited to the RWQCB prohibition zone. Revisions to the assessment district formed to finance this project were required to accomplish this change, and although the total amount of treated wastewater that can be utilized for groundwater recharge purposes has been reduced, this reduction also minimizes the amount of sensitive habitat that will be impacted by the required effluent disposal facilities.

Other project alternatives rejected in 1987 include a modified water source, which would not address the degradation of groundwater or comply with the Regional Water Quality Control Board's order; and, use of contaminated groundwater for agricultural purposes, which was deemed infeasible based upon extraction and pumping costs, the potential for seawater intrusion, further groundwater degradation, and impacts to a freshwater marsh area along the southern fringe of Morro Bay (1987 EIR, p. VII-4 - VII-5).

The 1987 EIR also evaluated alternative project components. With respect to collection systems, conventional gravity systems, pressure sewer systems (including septic tank effluent pumping, or "step" and grinder pump systems), variable-grade gravity systems, and combination systems were considered. The combined use of conventional gravity and pressure collection systems were selected from an environmental, feasibility, and cost standpoint (1987 EIR, p. VII-

5 - VII-10). Regarding treatment system alternatives, the 1987 EIR analyzed a regional treatment system at the Morro Bay-Cayucos treatment plant, a central community treatment system (proposed project), and neighborhood subsystems. Treatment at Morro Bay was rejected based on increased project costs and failure to recharge groundwater, while neighborhood subsystems was rejected because of increased project costs and community opposition (1987 EIR, p. VII-10 - VII-112).

Alternative disposal systems contemplated by the 1987 EIR included ocean disposal, rapid infiltration (percolation ponds), agricultural utilization, and a combination of disposal alternatives including aquaculture treatment and wetland disposal. The ocean outfall alternative was rejected due to higher costs, unknown environmental consequences, and the failure to recharge groundwater supplies. The alternative of utilizing treated wastewater for agricultural purposes was rejected because it would only be feasible during the dry portion of the year, the long term commitment of an adequate number of agricultural operators could not be guaranteed, and it would require more advanced levels of treatment. The use of aquaculture as an alternative treatment process, where water plants such as duckweed or water hyacinth are cultivated in ponds through which wastewater is passed, was rejected because of potential unreliability with regard to nitrate removal, the need for approximately 18.4 acres of additional land area, and the potential for exotic aquatic plants to invade native wetland systems (1987 EIR, p VII-14 - VII-21).

In a 1989 Supplement to the 1987 EIR (1989 SEIR), San Luis Obispo County reexamined the potential use of on-site wastewater management systems, and the establishment of a wastewater management district to oversee necessary septic system improvements and maintenance, similar to the alternative recently proposed by the Solutions Group. According to the 1989 SEIR, this alternative "had been rejected by the County and affected state and federal agencies as early as 1978. However, because of community concerns, it was reexamined by the Engineering Department and has been included in this Supplement." The County Engineering Department rejected this alternative because: it would require special legislation; continued effluent disposal from septic tanks within the Los Osos groundwater basin is specifically prohibited by the RWQCB; the financial burden of a maintenance district over the life of the project would be more expensive than a conventional sewer system; and, the County would become liable for all discharges in the district and for enforcing compliance by individual property owners.

In 1995, the County conducted a more detailed evaluation of alternatives for managing wastewater in Los Osos, in which more than 40 alternatives were considered. This County sponsored investigation, known as the "Task G Report", identified alternative wastewater management technologies, and evaluated them on a technical merit and cost basis. The objective of this effort was to develop alternative system plans that would reduce nitrate contamination of groundwater at a lower cost than the project proposed in 1987. This report concluded that the preferred plan was to adopt a conventional wastewater system for all areas of the community. However, the citizen-based Technical Advisory Committee participating in the review of alternatives objected to this conclusion. The report did not document any opportunities to minimize project impacts on environmentally sensitive habitat areas through the use of alternative technologies.

Conclusion

Throughout the history of the wastewater treatment project, numerous alternative technologies and designs have been considered. Most recently, the use of wells for effluent disposal rather than the proposed Rapid Infiltration Ponds has been incorporated into the project to reduce

impacts on environmentally sensitive habitats. In addition, an analysis comparing the environmental impacts of the County project and the alternative proposed by the Solution Group has recently been completed. This analysis concludes that the Solution Group project will not avoid or minimize impacts to environmentally sensitive habitats when compared to the County project. Therefore, as conditioned, the County project is consistent with LCP Policies for Environmentally Sensitive Habitat areas which require that new development minimize impacts to such areas.

E. Biological Mitigation:

LCP Requirement: No Significant Impact to Environmentally Sensitive Habitats; Ensure Biological Continuance of Sensitive Species

When new development is proposed within or adjacent to environmentally sensitive habitats, the LCP requires that the development must not have a significant adverse impact on such habitats, must allow for the biological continuance of the habitat, and must provide for the maximum feasible mitigation. As previously noted, LCP Policy 33 for Environmentally Sensitive Habitats requires that vegetation which is rare or endangered, or serves as cover for endangered wildlife, must be protected against any significant disruption of habitat value. Other such LCP provisions include:

- Policy 1 for Environmentally Sensitive Habitats, which requires that “New development within or adjacent to locations of environmentally sensitive habitats (within 100 feet unless sites further removed would significantly disrupt the habitat) shall not significantly disrupt the resource...”.
- Policy 2 for Environmentally Sensitive Habitats, which requires “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) , and b) a program for monitoring and evaluating the effectiveness of mitigation measures where appropriate.”
- CZLUO Section 23.07.170a(1), which requires that permit applications for projects within or adjacent to Environmentally Sensitive Habitat “identify the maximum feasible mitigation measures to protect the resource and a program for monitoring and evaluating the effectiveness of the mitigation measures”.
- CZLUO Section 23.07.170b., which requires that approvals of projects within or adjacent to environmentally sensitive habitats be accompanied by a findings that “there will be no significant negative impact on the identified sensitive habitat and the proposed use will be consistent with the biological continuance of the habitat”, and “the proposed use will not significantly disrupt the habitat”.
- Standards for environmentally sensitive habitat areas established by CZLUO Section 23.07.170d include “(1) New development within or adjacent to the habitat shall not significantly disrupt the resource” and “(4) Development shall be consistent with the biological continuance of the habitat”.

Analysis

Under the LCP requirements identified above, the wastewater treatment project must mitigate for its unavoidable impacts to environmentally sensitive habitats to a degree that will ensure that the impacts of the project will not result in a significant adverse impact to the affected habitats, or jeopardize their biological continuance. The first step in confirming compliance with this requirement is to document the impacts to environmentally sensitive habitats that will result from project implementation.

1) Biological impacts of the treatment plant:

The treatment plant and associated facilities will result in a total site disturbance of 6.9 acres on a 10 acre parcel. 6.7 acres of the disturbed area is considered to be environmentally sensitive habitat, as it provides suitable habitat for the federally endangered Morro shoulderband snail, Morro Bay kangaroo rat, and Indian knob mountainbalm, as well habitat for other special status species including the Morro blue butterfly, Black legless lizard, and Monarch butterfly. As documented by the 1997 SEIR and the County's biological mitigation proposal, this habitat is comprised of: 1.4 acres of Chamise - Wedgeleaf Ceanothus chaparral; 0.7 acres of coastal scrub habitat dominated by Heather Goldenbush; 2.9 acres of coastal scrub habitat dominated by Dune Lupine; and 1.7 acres of Veldt Grass grassland which, although non-native, has been found to contain shells of the Morro Shoulderband Snail at this location.

2) Biological impacts of treated wastewater disposal facilities:

Under the County's original proposal, a total of 14 acres of the Broderson site would be disturbed by the construction of the Rapid Infiltration Ponds and associated infrastructure. 11.3 acres of this area is considered environmentally sensitive habitat. This included suitable habitat for the Morro Bay Kangaroo Rat, Morro Shoulderband Snail, Morro Blue Butterfly, Monarch Butterfly, Black Legless Lizard, California Spotted Owl (which may use this area to forage for Dusky-Footed Woodrats), and numerous special-status vascular plant species.

As previously discussed, the recent change to gravity dry wells has significantly reduced the amount of habitat that will be lost as a result of disposal facility construction, to approximately 3.5 acres. The same specific types of habitat that would be impacted by the construction of the percolation ponds will be impacted by the wells, but to a lesser degree due to their smaller footprint.

3) Indirect biological impacts:

Indirect impacts to environmentally sensitive habitats include those impacts that will result from new development facilitated by the elimination of septic tank moratorium established by the RWQCB. Such development will be regulated by the San Luis Obispo County certified LCP, which contains provisions to ensure that such development will take place consistent with the protection of environmentally sensitive habitats. The current effort to update the Estero Area Plan being undertaken by the County includes programs to improve the protection of sensitive habitats throughout the Los Osos area, such as a transfer of development program, clustered subdivisions and changes in zoning densities.

Given the fact that there is a certified LCP in place for the area that will be serviced by the project, the Commission must rely upon the LCP and the local coastal development permit processes to resolve the biological impacts of future development, rather than require the wastewater treatment project to mitigate these impacts. Impacts to sensitive habitats by future development will be

subject to future coastal development review and approval, and must provide appropriate mitigation, consistent with LCP standards, independent of the mitigation provided through this permit.

4) Adequacy of proposed mitigation:

As previously described, the County's mitigation plan (Exhibit 13) proposes to mitigate direct biological impacts by preserving the remaining 2.9 acres of the treatment plant site, as well as the remaining 66 acres of the effluent disposal site, as open space habitat conservation areas. In addition, areas of the disposal site between the wells, and the area between the wells and the homes along Highland Avenue, would be preserved and restored as native dune scrub habitat, as would the undeveloped portion of the treatment plant site. The mitigation proposal also includes the acquisition of 40 additional acres of good coastal scrub habitat in large parcels, contiguous with other open space areas, in order to mitigate for secondary biological impacts. As noted above, future development must comply with LCP standards regarding the protection of environmentally sensitive habitats, and, as a result, this project is not responsible for mitigating these impacts. Thus, it is appropriate for the Commission to consider the entire biological mitigation proposal as applying to the mitigation of the project's direct impacts to sensitive habitat areas. Impacts to sensitive habitats from future development will be subject to future coastal development review and approval, and must provide appropriate mitigation, consistent with LCP standards, independent of the mitigation provided through this permit.

In analyzing the adequacy of this proposal with LCP standards, it is necessary to determine whether or not the mitigation will preserve the same type of habitat impacted, in adequate quantities, so that, overall, the project would not significantly disrupt such areas, or jeopardize their biological continuance. In determining the appropriate size of a mitigation area, resource and regulatory agencies typically require a mitigation site of greater size than the area of impact. This is intended to account for interim habitat losses and reduced functional capacity, the uncertain habitat values that will result from the mitigation over the long term, and the need to minimize the overall loss of habitat acreage. The area of mitigation, as compared to the area of impact, is commonly referred to as the "mitigation ratio".

In cases similar to the subject project (i.e., projects which impact coastal scrub habitat), the Department of Fish and Game recommends that unavoidable impacts to sensitive habitats of the Central Coast be mitigated by setting aside 3 acres or more of the same type of existing habitat. In addition, the Department recommends restoring 1 acre of the impacted type of habitat for each acre lost, depending upon the habitat type (some projects may require greater amounts of acquisition and/or restoration depending upon the particular circumstances related to the feasibility of restoration). This is intended to ensure that if restoration is unsuccessful, the maximum amount of habitat lost over time does not exceed 25%. These requirements translate to a 4:1 mitigation to impact ratio.

A comparison of project impacts to the proposed mitigation, based on the information contained in the County's mitigation proposal, is provided in the following table. It is important to note that as described in the mitigation proposal, the 14 acres of habitat impacted at the disposal site was derived from the footprint of the previously proposed Rapid Infiltration Ponds. These impacts will be significantly reduced through the use of disposal wells rather than ponds.

Type of Habitat	Acreage of Disturbance - Treatment Site	Acreage of Preservation - Treatment Site	Acreage of Disturbance - Disposal Site	Acreage of Preservation - Disposal Site
Chamise - Wedgeleaf Ceanothus Chaparral	1.4	2.3	0.1	0.2
California Sagebrush - Black Sage Scrub	0	0	0.2	0.4
Coastal Scrub Habitat Dominated by Heather Goldenbush	0.7	0.01	8.1	3.5
Coastal Scrub Habitat Dominated by Dune Lupine	2.9	1.4	2.9	2.8
Non-Native Veldt Grass Grassland: - Morro shoulderband snail habitat - not Morro shoulderband snail habitat	1.7	0.1	0.5	1.8
Windrow (Eucalyptus Trees) - Monarch Butterfly Habitat	0	0	1.1	2.4
Coast Live Oak Forest/Manzanita	0	0	0.7	+ 60
TOTALS (does not include non-native veldt grass that does not provide habitat for the Morro shoulderband snail)	6.7	3.81	13.1	+ 69.3

According to the figures above, the proposed on-site habitat preservation and restoration will not result in the protection of equivalent types and amounts of dune scrub habitat that will be impacted by the project. 8.8 acres of coastal scrub habitat dominated by heather goldenbush will be impacted by the project, and 3.51 acres will be preserved; 5.8 acres of coastal scrub habitat dominated by Dune lupine will be impacted, and only 4.2 acres will be preserved. The remaining area proposed for preservation on the effluent disposal site (approximately 60 acres), although important habitat for the Morro Manzanita, does not provide "like for like" mitigation when compared to project impacts.

Furthermore, the proposed on-site mitigation does not achieve the 4:1 "like for like" mitigation ratio recommended by the Department of Fish and Game. The overall on-site mitigation is short 3.5 acres of Chamise - Wedgeleaf Ceanothus chaparral habitat, 0.4 acres of California Sagebrush - Black Sage habitat, 31.69 acres of coastal scrub habitat dominated by Heather Goldenbush, and 19 acres of coastal scrub habitat dominated by Dune Lupine in meeting this standard.

The additional 40 acres of dune scrub habitat proposed to be acquired by the County, and the 10.5 acre reduction in impacts to coastal dune scrub associated with the use of disposal wells rather than ponds, will, however, adequately address these shortfalls. The 40 acres to be acquired, when combined with the on-site mitigation measures and the use of disposal wells, will result in a total mitigation area of approximately 119.5 acres. Compared to a total impact area of approximately 10.2 acres (6.7 acres at the treatment site, and approximately 3.5 acres at the disposal site), the 119.5 acres of mitigation equates to more than 11 acres of mitigation for every one acre impacted. If no credit is given for the 60 acres of Coast live oak forest and Morro manzanita that will be preserved by this mitigation proposal (since the project is not impacting this type of habitat), the proposal results in the preservation and restoration of 59.5 acres of coastal dune scrub habitat. This achieves a coastal dune scrub mitigation area that is more than 5 times larger than the 10.2 acres of coastal dune scrub that will be impacted by the project.

Another benefit of the proposed mitigation will be the preservation of higher quality habitat than the quality of the habitat that will be impacted. The quality of the habitat at the treatment plant site is diminished by the fact that it is surrounded on 3 sides by development, and as a result, represents a fragmented habitat area that has limited value towards the long term survival of the sensitive species found on the site. Similarly, the habitat that will be impacted by the installation of effluent disposal facilities on the lower portion of the disposal site, while of higher quality than the wastewater treatment plant, is in close proximity to residential development, and is being adversely impacted by invasive plants. In comparison, the upper portion of the effluent disposal site that will be preserved provides a larger habitat area further removed from existing development, in close proximity to State Park property. Furthermore, the 40 acres of coastal scrub habitat area to be acquired by the County will be a contiguous with other open space lands and within areas proposed for the protection by the U.S. Fish and Wildlife Service recovery plans for the affected species. As a result, concerns regarding the quality of habitat provided by mitigation sites, which may warrant higher mitigation ratios in other cases, have been appropriately addressed.

While the County's biological mitigation proposal exceeds the 4:1 mitigation to impact ratio suggested by the Department of Fish and Game, it lacks the details necessary to ensure that these measures will effectively prevent the project from having a significant impact on environmentally sensitive habitat areas. This includes information regarding the exact location and biological composition of the mitigation site(s), and maintenance and monitoring provisions to ensure the long-term success of the proposed habitat preservation. In addition, the comparative analysis recently completed identified that the County project may affect the wetland habitats by decreasing subsurface groundwater flows to Baywood Marsh and increasing these flows to Pecho Marsh, and Sweet Springs Marsh. No provisions to monitor or mitigate these impacts are provided by the mitigation proposal.

Special Condition 3 therefore requires the County to submit a final mitigation plan, for Executive Director review and approval, which includes, but is not limited to the specific elements described in Special Conditions 3 and 4, to address these issues. The final plan must contain specific monitoring and maintenance provisions to ensure that the project will not result in a significant disruption to sensitive terrestrial or wetland habitats long-term success of the mitigation measures. The details of these measures must be developed in coordination with the Department of Fish and Game and U.S. Fish and Wildlife Service, and approved by these agencies *prior to the issuance of the Coastal Development Permit*. The mitigation and monitoring provisions must be conducted over a five-year period, commencing when wastewater treatment service becomes available, with a minimum monitoring frequency of one inspection every four months.

To ensure the long-term success of the proposed mitigation, Special Condition 3 also requires the submission of a report, at the conclusion of the five year maintenance and monitoring period, which identifies any impact to Baywood Marsh, Pecho Marsh, and/or Sweet Springs Marsh, in terms of habitat value and extent, attributable to the project. The report must also identify any failure to achieve the objectives and performance standards of the approved biological mitigation plan. In the instance that any significant disruptions to wetland habitat values are observed, or the requirements of the approved biological mitigation plan are not achieved, an extended monitoring and maintenance program, including appropriate corrective actions, must be implemented until successful implementation of the mitigation measures has been achieved and the biological continuance of wetland habitats has been assured.

With respect to the selection and acquisition of appropriate mitigation sites, Special Condition 3 requires that the biological mitigation plan be accompanied by evidence that the County has secured a mitigation site that meets the established criteria for mitigation; or, a binding agreement with an agency or organization qualified to effectively implement the required mitigation. The latter option is intended to allow for the County to pursue an agreement that would allow the U.S. Fish and Wildlife Service, or other qualified agency or organization, to implement the proposed mitigation, which would be financed by the County. Under this option, the Executive Director would have to review and approve such an agreement prior to the issuance of the permit, and evidence that the proposed mitigation sites have been acquired would have to be provided prior to the commencement of construction.

Additional measures to further minimize impacts to sensitive resource present at the treatment plant and effluent disposal construction sites are required by Special Conditions 3 and 4. These conditions require a qualified biologist to relocate any Black legless lizards or Morro shoulderband snails that are observed within the construction areas to a suitable habitat nearby that is not subject to construction disturbance. This condition is commonly utilized by the Commission to prevent adverse impacts to Black legless lizards, and is appropriate to utilize in this instance to minimize project impacts to sensitive resources, as directed by the LCP. These conditions also require transplanting of sensitive plant species found within all project construction areas.

Finally, Special Condition 12 requires evidence of other agency approvals, including authorizations from the U.S. Fish and Wildlife Service, and the California Department of Fish and Game, to ensure that the project complies with state and federal endangered species acts.

Conclusion

Site-specific information will be required at the appropriate time to ensure that the biological mitigation proposed by the County will prevent the project from having a significant adverse impact on environmentally sensitive habitats, or jeopardize their biological continuance. This includes the exact location of the mitigation sites, specific measures for carrying out the proposed mitigation, and for ensuring the long term success of the mitigation, as well as evidence of compliance with state and federal regulations protecting endangered species. In addition, the relocation of sensitive species that may be impacted by project construction, is also necessary to minimize project impacts on sensitive resources. As a result the Special Conditions described above have been attached to this permit, and will ensure project conformance with the previously cited LCP policies relevant to the protection of environmentally sensitive habitat areas.

FINDING FIVE: HAZARDS

Throughout the review of this project, the public has expressed concern about potential hazards associated with locating the treated effluent disposal facilities uphill from, and nearby, a residential area. In particular, residents are concerned about an unplanned release of treated effluent (e.g., during a seismic event), as well as the potential for disposed effluent to travel horizontally rather than vertically, and surface down slope of the disposal facility. Related to these concerns is the allegation that the County has not adequately analyzed the hazards of using wells rather than ponds for the disposal of treated effluent.

With respect to these concerns, the following LCP provisions apply:

LCP Policy 1 for Hazards states, in relevant part:

All new development proposed within areas subject to natural hazards from geologic or flood conditions (including beach erosion) shall be located and designed to minimize risks to human life and property. ...

LCP Ordinance 23.05.040 provides:

Standards for the control of drainage and drainage facilities provide for designing projects to minimize harmful effects of storm water runoff and resulting inundation and erosion on proposed projects, and to protect neighboring and downstream properties from drainage problems resulting from new development. The standards of Section 23.05.042 through 23.05.050 [Drainage Plan Requirements] are applicable to projects and activities required to have land use permit approval.

Analysis

Concerns regarding the hazards of the project's disposal facilities was a primary issue addressed during the appeal of the Planning Commission's approval to the Board of Supervisors. For the most part, these issues were characterized by the County as differences of opinion between the experts hired by the County and the appellants.

In February 1996, a hydrogeologic evaluation of the disposal site was completed. The various tests and evaluations conducted as part of this study, are summarized by a letter from the County's consultants dated April 3, 1997. As stated by this letter:

"From the testing data, evaluation of test results and the refinement of the USGS groundwater model, Metcalf & Eddy, Inc. (M&E) has concluded that the use of the Broderon site for infiltration of the effluent from the proposed wastewater treatment facility will not result in either surfacing of groundwater flows in the vicinity of the infiltration basins nor will groundwater levels be increased such that liquefaction risks within the existing (and anticipated) urbanized area increase beyond existing liquefaction levels."

Notwithstanding this conclusion, it has been asserted that the change from percolation ponds to disposal wells may result in new hazards to down slope residences. In considering this concern, it is important to recognize that these two methods of disposal are generally the same; both rely upon the vertical percolation of water through the soil matrix as a method of recharging ground

water supplies. The primary difference is that where the infiltration surface for the ponds was a horizontal surface, the area of permeability provided by the wells is vertical.

This issue was examined in detail by the Draft Evaluation of Effluent Disposal at the Proposed Broderson Recharge Site produced by Metclaf & Eddy, for the County of San Luis Obispo, dated November 21, 1997. This report, which concludes that dry well disposal of treated waste water at the Broderson site is viable, states that this method of disposal would not increase soil moisture at depths shallower than 16 feet bgs (below ground surface) at any location away from the discharge well (p.18). Thus, this disposal method is not expected to pose a risk to the homes along Highland Avenue, downslope of the disposal facilities. This conclusion was based on tests that demonstrated a downward movement in the moisture that will be discharged by the disposal wells.

With respect to LCP drainage requirements, the April 3, 1997 letter from Metcalf & Eddy stated that by providing an on-site detention basin, the disposal facilities would improve existing drainage conditions. According to the project engineer, final plans for the disposal facilities that reflect the change from percolation ponds to disposal wells will maintain this detention basin. To ensure that drainage issues for all project facilities are adequately addressed, Special Condition 2 requires final plans for the disposal facilities to be accompanied by an updated drainage plan that meets the requirements of Coastal Zone Land Use Ordinance 23.05.044 (Drainage Plan Preparation and Content). These plans must be reviewed and approval of the Executive Director prior to the commencement of construction. In addition, Special Condition 9 includes specific requirements for all construction activities to ensure that LCP policies and ordinances relevant to drainage and erosion are adequately addressed.

Conclusion

Potential hazards posed by seismic activity, erosion, improper drainage, and the storage of chemicals associated with the proposed wastewater treatment facilities have been appropriately considered in the review of a coastal development permit for the Los Osos Wastewater Treatment project. A number of conditions have been attached to this permit to eliminate or mitigate these potential hazards (please see Special Conditions 2 and 9). In accordance with the detailed engineering evaluations performed for San Luis Obispo County, the project has been designed and conditioned to minimize risks to human life and property, consistent with LCP Policy 1 for Hazards.

Preliminary plans for wastewater disposal facilities do not, however, fully provide the drainage information required by LCP Ordinance 23.05.040. As a result, Special Condition 2 requires final plans for the disposal facilities to include such information, subject to the review and approval of the Executive Director. With this and other cited conditions, the project is consistent with the policies and ordinances of the San Luis Obispo County LCP addressing hazards.

It is also noted that by eliminating the use of individual septic systems, the project is intended to reduce existing hazards to human health associated with the high levels of nitrates and bacteria found in the Los Osos Groundwater Basin and the Morro Bay National Estuary.

FINDING SIX: PROJECT CAPACITIES, PHASING, AND SERVICE AREA

An important issue relevant to certified jurisdictions' or the Commission's appellate review of "treatment work" projects in the coastal zone, pursuant to Coastal Act Section 30214 (c), is the geographic limits of service areas and the capacity of the treatment works to allow for phasing of

development and use of facilities in a manner consistent with the certified LCP; and, development projections used to determine the sizing of the treatment works.

In the case of the subject project, the San Luis Obispo County certified LCP regulates the intensity of new development, and specifies those areas that are eligible to receive wastewater treatment service. The proposed project's consistency with these standards is analyzed below.

LCP Requirements

Local Coastal Plan Policy 2 for Public Works states:

New or expanded public works facilities shall be designed to accommodate but not exceed the needs generated by projected development within the designated urban reserve lines. Other special contractual agreements to serve public facilities and public recreation areas beyond the urban reserve line may be found appropriate.

The implementing ordinance for the above policy, Section 23.04.430 of the CZLUO, states:

A land use permit for new development that requires water or disposal of sewage shall not be approved unless the applicable approval body determines that there is adequate water and sewage disposal capacity available to serve the proposed development, as provided by this section. Subsections a. and b. of this section give priority to infilling development within the urban service line [USL] over development proposed between the USL and URL [Urban Reserve Line]. In communities with limited water and sewage disposal service capacities as defined by Resource Management System alert Levels II or III:

- a. A land use permit for development to be located between an urban services line and urban reserve line shall not be approved unless the approval body first finds that the capacities of available water supply and sewage disposal services are sufficient to accommodate both existing development, and allowed development on presently-vacant parcels within the urban services line.
- b. Development outside the urban services line shall be approved only if it can be served by adequate on-site water and sewage disposal systems, except that development of a single-family dwelling on an existing parcel may connect to a community water system if such service exists adjacent to the subject parcel and lateral connection can be accomplished without trunk line extension.

Section 23.04.432 of the CZLUO states:

To minimize conflicts between agricultural and urban land uses, development requiring new community water or sewage disposal service extensions beyond the urban services line shall not be approved.

The location of the urban service line and urban reserve line designated by the LCP for the South Bay Urban Area is illustrated by Exhibit 4, attached.

Other applicable LCP Policies for Public works include Policy 8, which states:

Where existing or planned public works facilities can accommodate only a limited amount of new development, the following land uses shall have priority for services in accordance with the Coastal Act and be provided for in the allocation of services in proportion to their recommended land use within the service area.

- a. Uses which require location adjacent to the coast (coastal-dependent uses).
- b. Essential public services and basic industries vital to the economic health of the region, state, or nation including agriculture, visitor-serving facilities and recreation.;

and Policy 9, which states:

For any development that constitutes a treatment works (PRC 30120), issuance of a permit shall be consistent with the certified LCP and PRC 30412 and shall address the following aspects of such development:

- a. The siting and visual appearance of treatment works within the coastal zone.
- b. The geographic limits of the service area within the coastal zone which is to be served by the treatment works and the timing of the extension of services to allow for phasing of development consistent with the certified LCP.
- c. Projected growth rates used to determine the sizing of treatment works.

Analysis

The LCP provisions cited above regulate both the capacity and service area of new wastewater treatment projects, and sets priorities regarding connections to wastewater treatment systems. Under these provisions, new wastewater treatment projects must be sized to serve the buildout within the Urban Reserve Line allowed under the LCP. However, wastewater treatment service can only be provided to development located within the Urban Service Line, and coastal dependent, visitor-serving, and recreation land uses have priority for connecting for such services. Projects located between the Urban Service Line and Urban Reserve Line are not eligible for wastewater treatment service until such a time that the LCP has been amended to include such properties within the Urban Service Line. In this way, treatment projects can be sized to accommodate full buildout within the Urban Reserve Lines, but the expansion of treatment services outside the Urban Service Line must take place only after such expansions have been determined to be consistent with the Coastal Act.

The vast majority of the proposed service area (Exhibit 3) is located within the Urban Service Line; however, a very small area at the southeast and southwest corners of the proposed service area, as well as a portion at the northern edge, is outside of the Urban Services Line, but within the Urban Reserve Line. As regulated by the LCP, providing wastewater treatment service to these areas will be dependent upon an amendment to the LCP which incorporates these areas into the Urban Service Line. To maintain consistency with this LCP requirement, Special Condition 15 of this permit eliminates those areas located outside of the Urban Service Line from the approved project's service area. This condition also specifies that future additions to the service area within the coastal zone shall require a separate coastal development permit or an amendment to this permit, and must be proceeded or submitted concurrently with an LCP amendment that incorporates the proposed service area expansion within the Urban Service Line designated by the LCP.

With respect to the sizing of the project, the proposed wastewater treatment system is designed to accommodate the buildout allowed by the certified LCP within the South Bay Urban Area Urban Reserve Line, consistent with LCP Policy 2 for Public Works. To determine the capacity necessary to service the buildout of this area, a land use based methodology was used. This methodology derived Dwelling Unit Equivalent (DUE) projections according to the land use designations contained in the certified LCP, and applied a daily wastewater flow rate of 200 gallons per DUE. This flow rate is considered conservative by the project engineers, and was used to ensure that adequate treatment capacity was provided by the constructed facilities, consistent with the aforementioned policy.

The methodology used to determine the appropriate service capacity for the wastewater system assumes that the maximum intensity of development allowed under the LCP would be realized. Similarly, the assessment formed by the County to finance the project is based upon the assumption that the future development of currently vacant lots would occur at the maximum intensity allowed under current LCP land use designations. These assumptions do not account for the fact that maximum development intensities may not be realized due to constraints such as the presence of environmentally sensitive habitats that may be located upon a site proposed for development. As a result, a concern is raised that the assessments levied by the County creates expectations that maximum development intensities can be realized, regardless of other constraints that would need to be addressed through the coastal development process, and that may require a lower intensity of development.

To address this issue, Special Condition 13 clarifies that Commission approval of this permit, or any method of financing the project utilized by the County (e.g., the established assessment program), does not guarantee Coastal Commission or local government approval of any new or intensified uses within the service area, and that all new development proposals must be reviewed for consistency with the San Luis Obispo County certified Local Coastal Program and/or California Coastal Act, as applicable. This condition also requires that the permittee notify property owners within the service area of this condition, so that no false expectations regarding development potential result from this project.

The above condition will adequately address the potential for the project to facilitate new development that may be inconsistent with the LCP throughout most of the proposed service area, which is primarily urbanized and composed of small lots that can not be further subdivided. There is one exception to this, however, in the southern portion of the service area. Three parcels totaling 112 acres, known as the Morro Palisades, is almost entirely composed of significant environmentally sensitive habitat. This habitat area has been identified by the U.S. Fish and Wildlife Service as essential habitat for the Morro Bay Kangaroo rat, and is listed as a conservation planning area in the Draft Recovery Plan for the Morro shoulderband snail and four plants from San Luis Obispo County (USFWS, Sept., 1997).

Based upon a current zoning designation for the site limiting residential development to an intensity of between 3 and 5 units per acre, the Morro Palisades was originally assessed for 446.8 benefit units (one benefit unit is equivalent to one residence), assuming a future development potential of 4 units per acre. According to the County Engineer, this assessment was recently reduced to 89 benefit units at the request of the property owner. However, the LCP has not been revised to reflect this reduction in future development. It is premature to conclude that either 89 or 446 residential units are allowable on this 3 parcel site, based upon LCP requirements to protect environmentally sensitive habitats.

As described earlier in this report, addressing the negative effects of existing septic systems on water quality is the primary purpose of this project. Therefore, the first phase of the collection system and the first stage of the treatment plant have been designed to provide wastewater treatment service to those areas of the community most in need; the areas with less than 30 feet to groundwater. The Morro Palisades properties, however, have a much higher depth to groundwater and are currently undeveloped. Nevertheless, they have been included within Phase I of the service area. This is especially unusual due to the fact that the areas down slope of the Morro Palisades are within Phase II of the service area. In keeping with the primary objective of addressing existing sources of groundwater degradation, Special Condition 3 of this permit requires that the Morro Palisades be removed from the first phase of the project.

As proposed, Phase II of the collection system would be constructed concurrently with Phase I, but connections to the system within the Phase II service area would be installed only after the successful operation of the effluent disposal facilities has been documented over a two year period. Stage I of treatment plant construction would include the site preparation necessary to accommodate the additional facilities associated with Stage II, and construction of the effluent disposal facilities would be sized to accommodate the total quantity of effluent that will be generated by project buildout.

In order to minimize impacts to environmentally sensitive habitats associated with the Stage II expansion of the treatment plant, and to more accurately size the plant to serve the area permitted by the LCP, Special Condition 2.a. limits initial project construction to those facilities necessary to accommodate Stage I of the treatment plant. As required by Special Condition 17, the buildout of the second stage of the treatment plant, to the extent currently proposed, is contingent not only upon the operational effectiveness of the first phase, but the actual service levels provided during the first phase, and any changes in land use designations or expected development intensities, that would allow for a reduction in project buildout. This will enhance opportunities to reduce project impacts on environmentally sensitive habitats, as a reduction in the capacity of the second stage of the plant would allow for reductions in the amount of habitat disturbed at the treatment plant site. The Commission will have the opportunity to review this issue prior to the construction of the second phase of the project pursuant these Special Conditions.

With respect to those land uses that have priority to receive wastewater treatment services under the LCP, the wastewater treatment project has been sized to accommodate the buildout allowed under the current LCP. As a result, there will be adequate capacity to serve Coastal Act priority uses such as coastal dependent, visitor serving, and recreational facilities, as required by LCP Policy 8 for Public Works. However, to account for the potential that at some point in the future an allocation program for remaining treatment capacities may be proposed to address other land use constraints (e.g., a limit on the number of new homes that can be constructed in order to comply with air quality standards), Special Condition 1.c. requires that any such program be approved by the Commission either through an amendment to this permit or through amending such a program into the Local Coastal Program (LCP). This will ensure that any wastewater treatment capacity allocation program proposed in the future will be reviewed for conformance with the requirement to reserve capacities for priority uses.

Conclusion

As conditioned to re-assess the final sizing of the second stage of the treatment plant, the proposed wastewater treatment project has been appropriately sized to serve the maximum intensity of development allowed within the Urban Reserve Line by the San Luis Obispo County

LCP, as required by LCP Policy 2 for Public Works. However, it is necessary to clarify that the approval of this permit, or the assessment utilized by the County to finance the project, does not guarantee any future development within the coastal zone, and that such development will be subject to coastal development permit review and approval.

With the exception of three small portions of the proposed service area indicated by Exhibit 3, the portion of the Community that will be served by the project is consistent with the Urban Service Line established by the LCP. Special Condition 15 of this permit require the permittee to eliminate the areas outside of the Urban Service Line from the projects service area, in order to comply with CZLUO Section 23.04.432.

In addition, Special Condition 16 of the permit requires that if any allocation program for remaining wastewater treatment capacities is proposed in the future, it must be reviewed and approved by the Commission. Such review is necessary to ensure that the allocation program reserves adequate wastewater treatment capacity for Coastal Act priority uses, as required by LCP Policy 8 for Public Works.

Finally, Special Conditions 2 and 4 require that prior to constructing the second stage of the treatment plant, the Commission have the opportunity to review the status of the project, and, if appropriate, reduce the buildout of the project to meet actual land use needs. This will provide an opportunity to reduce project impacts on environmentally sensitive habitats, as required by the LCP policies previously identified in this report. Consistent with this objective, Special Condition 4 also requires that the most environmentally significant portion of the proposed service area, the Morro Palisades, be within Phase II of the project rather than Phase I. (This site also does not meet the criteria established for areas to be serviced by the first phase of the project). This change will also achieve consistency with the stated intention to serve those areas with less than 30 feet to groundwater during the first phase of the project.

FINDING SEVEN: WATER RESOURCES

The proposed project has been initiated by the County, under the directives of the Regional Water Quality Control Board (RWQCB), in order to protect the water quality of the Los Osos groundwater basin. It has been developed in close consultation with the RWQCB, who has endorsed the project, and urged its timely approval. Other organizations, such as the Morro Bay National Estuary Program, have identified problems of high nutrients and bacteria levels within Morro Bay that are of concern to the long-term health of the estuary, and have resulted in a downgrading of the local shellfish harvesting areas. Protecting the quality of Morro Bay's coastal waters, marine habitats, and the Los Osos groundwater basin is clearly dependent upon the timely implementation of a solution to the wastewater treatment and disposal needs of the Los Osos community.

LCP Requirements

LCP Policy 1 for Coastal Watersheds states:

"The long-term integrity of groundwater basins within the coastal zone shall be protected. The safe yield of the groundwater basin, including return and retained water, shall not be exceeded except as part of a conjunctive use or resource management program which assures that the biological productivity of aquatic habitats are not significantly adversely impacted."

Policy 2 for Coastal Watersheds states, in relevant part:

“Groundwater levels and surface flows shall be maintained to ensure that the quality of coastal waters, wetlands and streams is sufficient to provide for optimum populations of marine organisms, and for the protection of human health.”

Analysis

In order to maintain the safe yield of this basin, the project proposes to dispose of treated wastewater in a manner that will recharge the groundwater basin. Project hydrogeologic studies identify that the disposed effluent will primarily go into the upper aquifer and produce a net basin balance. These reports further identify that some of this water will likely reach the lower aquifer, from which the community water supply is obtained. This will be achieved through the percolation of treated effluent through the permeable soils at the disposal site. The RWQCB has established Waste Discharge Standards for the project to ensure that the disposal of treated wastewater will protect the quality of groundwater resources. More significantly, the RWQCB views this project as an opportunity to remediate the upper aquifer, which currently contains levels of nitrate and bacteria in excess of state drinking water quality and basin Plan standards.

In achieving the LCP's directive to protect groundwater resources, water conservation, as well as proper wastewater handling, is an important issue. In recognition of this, Special Condition 9 requires the County to provide water conservation kits, containing capacity reducers for all toilets and flow restrictors or aerators for all faucets and showerheads, for all existing development to be served by the project. (New development is subject to more stringent statewide plumbing standards that require the use of water conserving fixtures, and therefore would not benefit from such water conservation kits). This requirement will not only assist in maintaining the safe yield of groundwater resources, but may also assist in reducing the actual flow of wastewater such that Stage II capacities of the treatment plant may be reduced. As previously discussed, a reduction in treatment plant expansion will minimize project impacts on environmentally sensitive habitats, as required by the LCP.

Other conditions that have been attached to this permit in order to ensure that the project complies with LCP policies protecting water resources include:

- Special Condition 2.a., which, as recommended by the Comparative Analysis, requires final plans for the treatment facility to include emergency storage for three days or more, or to the extent determined to be adequate by the Regional Water Quality Control Board.
- Special Condition 2.d., which requires that final plans include the details of the On-site Wastewater Management Program, as approved by the Regional Water Quality Control Board. And,
- Special Condition 9, which requires the implementation of specific measures to ensure that construction activities do not have an adverse impact on the quality of adjacent surface waters.

Conclusion

The wastewater treatment project proposed by San Luis Obispo County provides an opportunity to correct the existing groundwater nitrate problem of the Los Osos groundwater basin. The project, as conditioned, will protect and improve the water quality of the Los Osos groundwater

basin and Morro Bay estuary, consistent with the objectives of LCP Policies for Coastal Watersheds. In addition, the indirect groundwater recharge that will result from the disposal of treated effluent will help maintain groundwater levels, and restore groundwater quality, consistent with LCP Policies protecting water resources.

FINDING EIGHT: ARCHAEOLOGICAL RESOURCES

The San Luis Obispo County LCP contains six policies relevant to the identification and protection of archaeological resources (Land Use Element, Coastal Plan Policies pages. 12-2 to 12-5). These policies direct development away from archaeological sites if possible (Policy 1) and require mitigation plans for projects which must be located on parcels containing resources (Policy 5). Other policies require preliminary surveys to identify resources and the maintenance of county data files on known sites.

These policies are implemented by Sections 23.07.104 and 23.05.140 of the Coastal Zone Land Use Ordinance. Section 23.07.104 requires a preliminary site survey by a qualified archaeologist for parcels determined to be "archeologically sensitive" as defined in the ordinance. If the preliminary site survey reveals the prescience of archaeological resources, a mitigation plan to protect the resources must be prepared by a qualified archaeologist and considered in the evaluation of the project (23.07.104(c)). According to 23.07.104(d), projects may only be approved if they include adequate measures to protect significant archaeological resources. Section 23.05.104 provides guidance for treatment of archaeological sites discovered during the course of construction. This ordinance requires construction to stop immediately upon discovery and remain stopped until a qualified archaeologist can inventory the site and determine the appropriate disposition of the artifacts or human remains.

Analysis

The EIR prepared for this project includes a section on Cultural Resources. The document notes that the project site lies within the historic territory of the Chumash Native Americans and that the Los Osos area has a long history of habitation by the Chumash because of its proximity to the bay and other sources of food and fresh water.

The EIR authors found two prehistoric sites (CA-SLO-347 and FW-1) on the parcel proposed for development with the sewage treatment plant. These sites were the subject of a "Phase II Testing and Data Recovery Program" which stated that a portion of CA-SLO-347 qualified as a significant site but that FW-1 was not (EIR page 5.9-7). The EIR concluded that "Installation of the treatment plant would result in significant disturbance to, and possibly destruction of, two recorded archaeological sites" and that "There is a potential that the installation of the treatment facilities could result in significant impacts to unknown cultural resources that are currently buried on the project site...." The EIR found that the impacts on the recorded sites (CA-SLO-347 and FW-1) would be adequately mitigated if grading of the sites was monitored by a qualified archaeologist and a representative of the Chumash. Potential impacts to unknown sites discovered during construction would be mitigated by implementing Sec. 22.05.140 of the zoning ordinance which provides for ceasing work until a qualified archaeologist can assess the resources and develop a plan for disposition of the artifacts or human remains. It is unclear how monitoring of grading activities within the identified sites will mitigate impacts on CA-SLO-347 and FW-1 and thus assure consistency with LCP provisions which require protection of archaeological resources. As presently described in the EIR, it is entirely unclear whether the identified sites will be preserved or destroyed. An archaeology report which more clearly

specifies the mitigation methods that will be used to preserve these sites is needed to ensure consistency with LCP requirements.

The mitigation plans to preserve the other identified and potential sites located along the path of the collection system and in the vicinity of the disposal well field are equally vague (EIR pages 5.9-7 through 5.9-17). Given the large number of known archaeology sites and the potential for discovery of many others in the Los Osos area, a revised archaeological mitigation plan for the project (treatment plant site, well field site, collection system route, etc.) which clearly describes the resources and specifies how protection will be achieved is necessary to comply with the mandates of the LCP (Please see Condition 9).

FINDING NINE: VISUAL RESOURCES

LCP Requirements

LCP Policy 1 for Visual and Scenic Resources requires:

Unique and attractive features of the landscape, including but not limited to unusual landforms, scenic vistas, and sensitive habitats are to be preserved and protected, and in visually degraded areas restored where feasible.

LCP Policy 2 for Visual and Scenic Resources states:

Permitted development shall be sited so as to protect views along the ocean and scenic coastal areas. Wherever possible, site selection for new development is to emphasize locations not visible from major view corridors. In particular, new development should utilize slope created "pockets" to shield development and minimize visual intrusion.

LCP Policy 6 for Visual and Scenic Resources provides:

Within the urbanized areas defined as small-scale neighborhoods or special communities, new development shall be sited to complement and be visually compatible with existing characteristics of the community which may include concerns for the scale of new structures, compatibility with unique or distinguished architectural style, or natural features that add to the overall attractiveness of the community.

LCP Policy 7 for Visual and Scenic Resources requires:

The location and design of new development shall minimize the need for tree removal. When trees must be removed to accommodate new development or because they are determined to be a safety hazard, the site is to be replanted with similar species or other species which are to be reflective of the community character.

Analysis

The wastewater treatment facilities authorized by this permit, with the exception of the treatment plant and the lift stations, will be located either below ground, or in the case of the disposal wells, slightly above ground level.

The treatment plant, which is located on the eastern boundary of the Los Osos community, will not impact scenic views of the coast. It does, however, have the potential to diminish the quality of the inland view of a scenic rural area of the County available from the intersection of South Bay Boulevard and Pismo Avenue and the adjacent middle school.

To minimize this impact, Special Condition 10a requires a landscaping plan that provides native, drought tolerant, vegetative screening of the treatment plant (particularly for views from South Bay Boulevard and the adjacent school facility). In addition, Special Condition 10b requires a lighting plan in that includes specific elements designed to reduce glare and the spillage of light from the treatment plant site. With these conditions, the treatment plant will not have a significant adverse impact on the scenic qualities of the area, and will be shielded from visual intrusion, consistent with LCP Policies 1 and 2 for Visual and Scenic Resources.

To further ensure that the treatment plant is visually compatible with the surrounding community, as required by Visual Policy 6, Special Condition 10c requires that the primary structural elements of the buildings shall be no higher than 35 feet above average natural grade. In addition, Special Condition 10f requires that the final design of the treatment plant include elements (architectural treatments, graded berms, exterior materials, exterior color selection) that help the facility blend into the existing environment and provide as much compatibility with surrounding structures as possible. These elements shall be reviewed by the Planning Director in consultation with the community advisory committee, and incorporated into the final plans submitted for Executive director review and approval, or determination that an amendment is required, pursuant to Special Condition 2.

To address the visual impacts of the pump and lift stations, which are mainly located on the fringes of residential neighborhoods and will not impact views of the coast, Special Condition 10 requires that these facilities be screened with native vegetation.

As required by LCP Policy 7 for Visual and Scenic Resources, the project has been conditioned to minimize impacts to trees, and to revegetate all areas of native vegetation that will be disturbed during installation of pipelines (please see Special Conditions 3, 4, and 10).

Conclusion

As conditioned, the project is consistent with the visual resource protection requirements of the San Luis Obispo County LCP.

FINDING TEN: PUBLIC ACCESS AND RECREATION

Although the effluent disposal component of the project is approximately 1.5 miles inland of the ocean, it is located between the sea and the first through public road paralleling the sea, which in the southern portion of the Los Osos community is Los Osos Valley Road. As a result, the project must be analyzed for conformance both with the public access and recreation policies of the certified LCP and the Coastal Act pursuant to Public Resources Code Section 30604(c).

Due to its distance from the ocean, the project will not have any direct affect upon coastal access and recreation opportunities. However, by providing a solution to the water quality problems resulting from the use of septic systems, the project will enhance and preserve opportunities for water-oriented recreational activities, consistent with Coastal Act Section 30220.

V. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures which would substantially lessen any significant adverse effect which the project may have on the environment.

San Luis Obispo County has conducted 5 environmental reviews pursuant to CEQA since the original wastewater treatment project was proposed in 1987. Most recently, the County Board of Supervisors approved and certified the February 1997 Final Supplemental Environmental Impact Report, which includes extensive mitigation measures to address the environmental impacts of the current project. Most of these mitigation measures have been incorporated into the conditions of this permit, as they are required to ensure project consistency with the LCP. Those mitigation measures unrelated to the LCP, which flow from the County's CEQA authority and responsibility, are unaffected by the Commission's approval and remain enforceable by the County.

In addition to the project alternatives that have been considered pursuant to CEQA, a comparative analysis of the County project and the alternative proposed by the Solution Group was recently undertaken. The results of this analysis indicate that the Solution Group alternative does not offer any significant environmental benefits when compared to the County project. Moreover, based upon the input of the Central Coast Regional Water Quality Control Board (RWQCB), the Solution Group alternative, as currently proposed, does not appear to comply with RWQCB Order 83-13, and may be inferior to the County Project from a water quality standpoint.

Nevertheless, the Commission's review of this project has identified additional mitigation measures and project revisions that are necessary to achieve project consistency with the San Luis Obispo County certified LCP, described throughout this staff report and required by the Special Conditions of approval. These mitigation measures, in conjunction with the mitigation measures adopted by the County of San Luis Obispo, ensure that the project, as conditioned, will not have a significant impact on the environment within the meaning of CEQA.

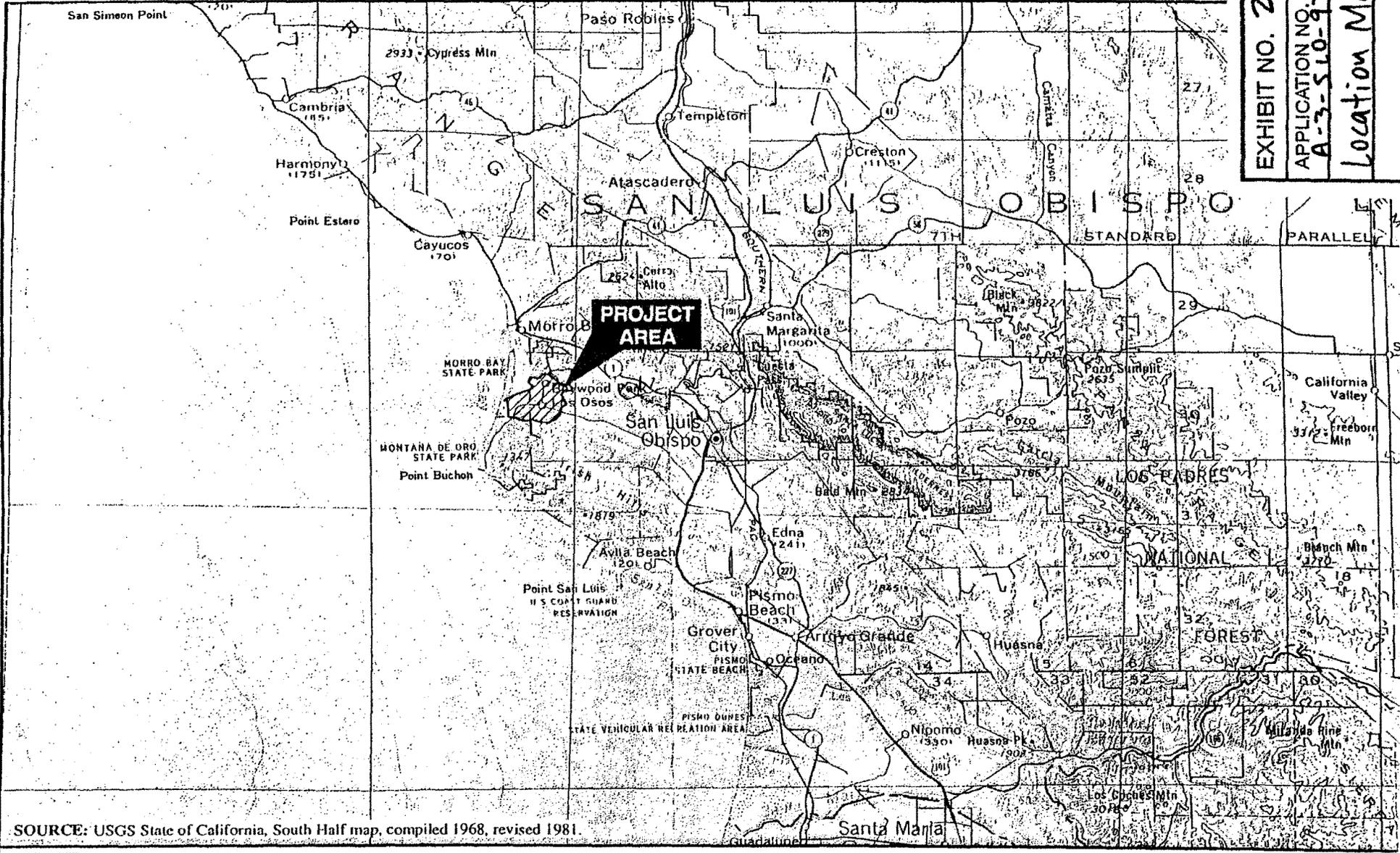
EXHIBIT 1: SUBSTANTIVE FILE DOCUMENTS

1. San Luis Obispo County Certified Local Coastal Program
2. Correspondence received from the San Luis Obispo County Engineering Department, the Solution Group, Questa Engineering Corporation, Central Coast Regional Water Quality Control Board, State Water Resources Control Board, California Department of Health Services, and other interested parties
3. Draft Comprehensive Comparative Analysis of Alternative Wastewater Treatment Plans for Los Osos, Questa Engineering Corporation, May 21 1998
4. Comprehensive Comparative Analysis of Alternative Wastewater Treatment Plans for Los Osos [Response to Comments], Questa Engineering Corporation, June 5, 1998
5. Draft Evaluation of Effluent Disposal at the Proposed Broderson Recharge Site, Metcalf & Eddy, Inc., November 21, 1997
6. Los Osos/Baywood Park Comprehensive Resource Management Plan, Solution Group, November 24, 1997
7. U.S. Fish and Wildlife Service Draft Recovery Plan for the Morro shoulderband snail and four plants from San Luis Obispo County (Morro manzanita, Chorro Creek bog thistle, Indian Knob mountainbalm, and Pismo clarkia), September, 1997
8. San Luis Obispo County Development Plan/Coastal Development Permit D950245D
9. Final Supplemental Environmental Impact Report for the CSA 9 Wastewater Treatment Facilities, Fugro West, Inc., February 1997
10. Los Osos Wastewater Study Task G Report on Detailed Evaluation of Alternatives, Metcalf & Eddy, Inc., July 1995
11. San Luis Obispo County Local Coastal Program Amendment File No. 1-90
12. Final Supplemental Environmental Impact Report - CSA 9 Wastewater Treatment Facilities, the Morro Group, September 1989
13. Second Addendum Environmental Impact Report - CSA 9 Wastewater Treatment Facilities, The Morro Group, October 1989
14. Addendum Environmental Impact Report - County Service Area No. 9 Wastewater Treatment Facilities, The Morro Group, December 2, 1987
15. Final Environmental Impact Report - County Service Area No. 9 Wastewater Treatment Facilities, The Morro Group, August 1987

EXHIBIT NO. 1
APPLICATION NO. A-3-SLO-97-40
Substantive File
Documents

DOB 14028470NLD04

EXHIBIT NO. 2
APPLICATION NO. A-3-510-97-40
Location Map



SOURCE: USGS State of California, South Half map, compiled 1968, revised 1981



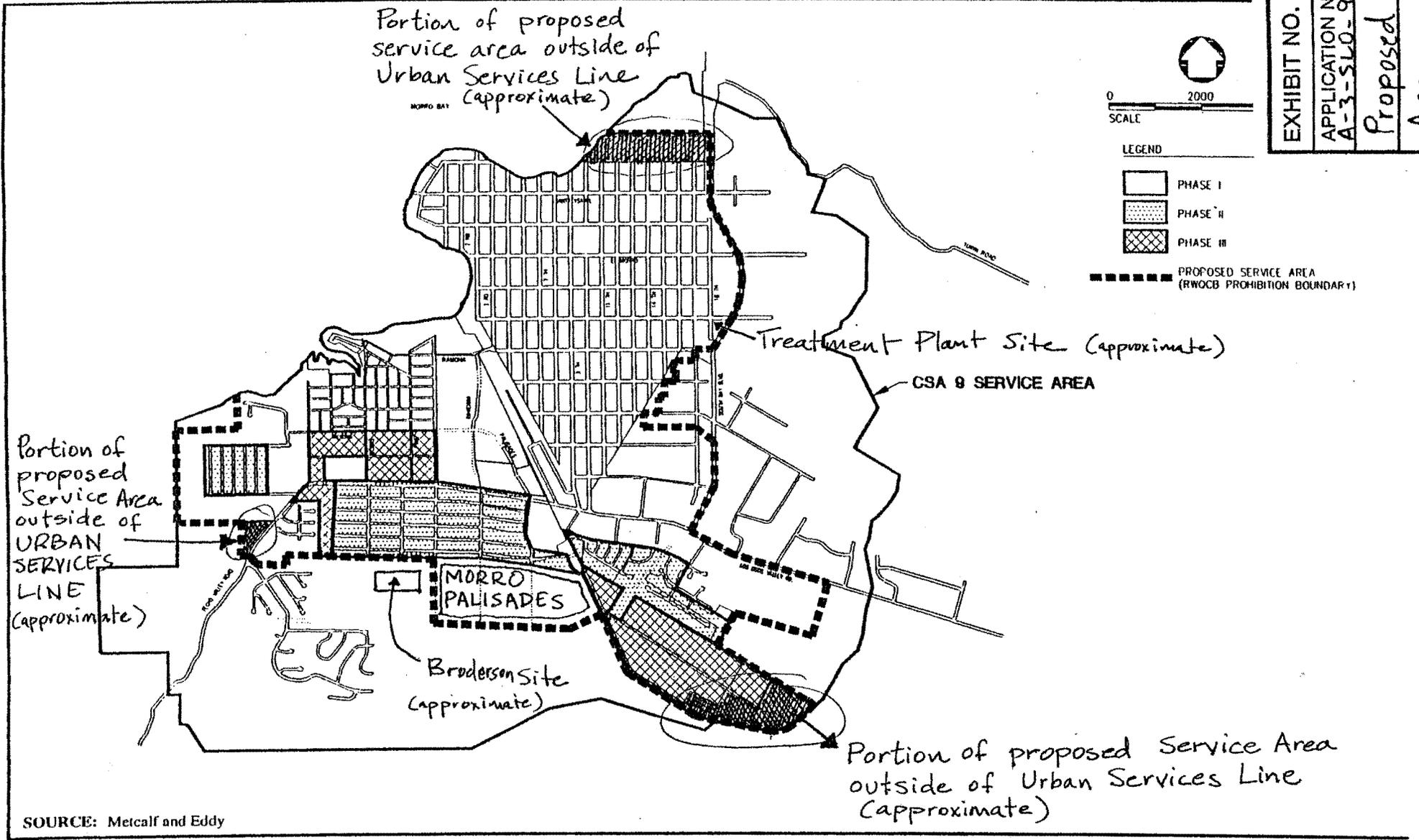
LOS OSOS SEWER
Environmental Review

FUGRO

REGIONAL LOCATION

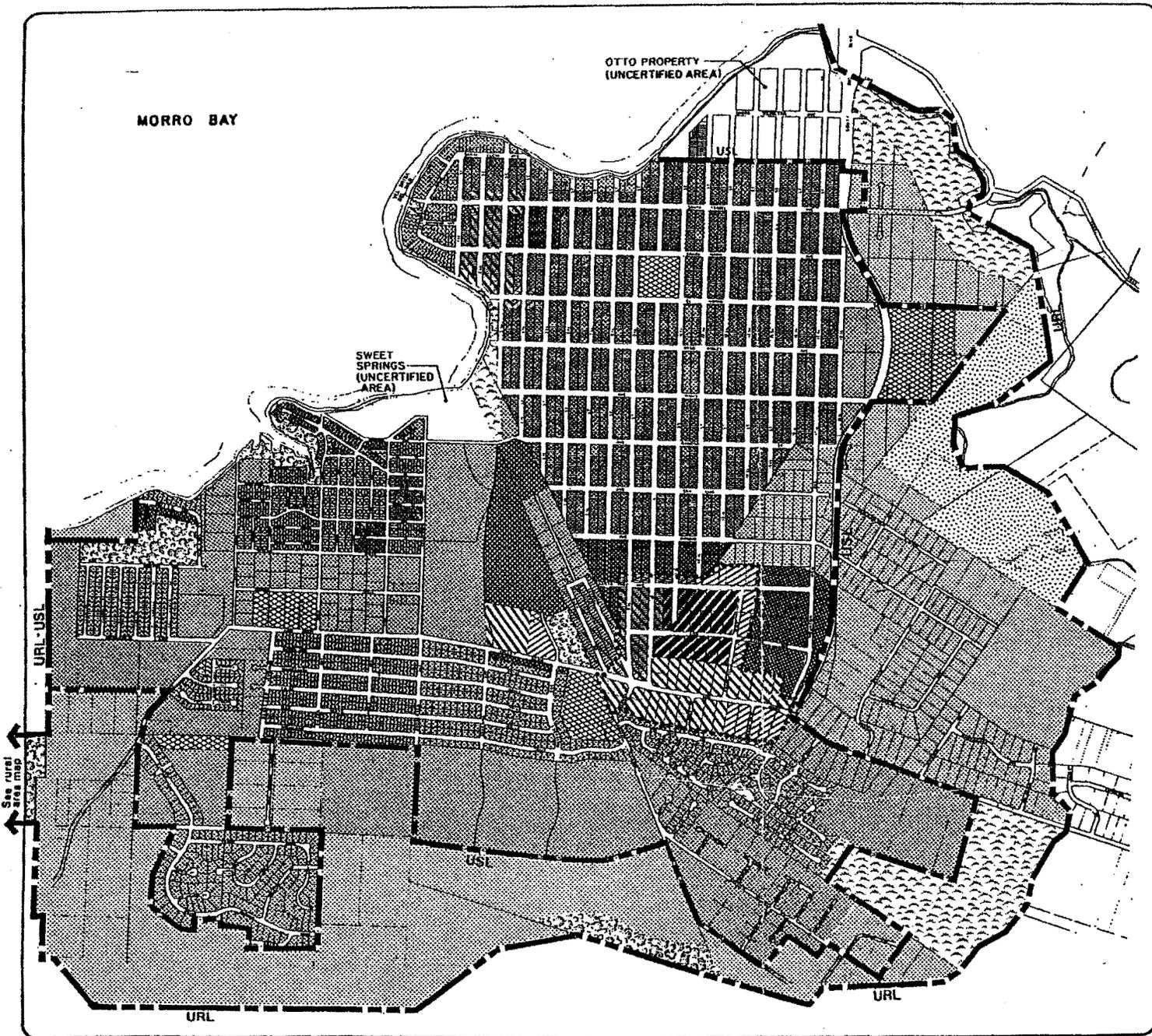
Figure 3.2

EXHIBIT NO. 3
APPLICATION NO. A-3-SLO-97-40
Proposed Service



PROPOSED SERVICE AREA AND IMPLEMENTATION PHASING





LEGEND

LAND USE CATEGORIES

- AGRICULT
- RURAL LA
- RECREATION
- RESIDENT
- RESIDENTIAL SUBURBAN
- RESIDENTIAL SINGLE FAMILY
- RESIDENTIAL MULTIPLE FAMILY
- OFFICE & PROFESSIONAL
- COMMERCIAL RETAIL
- COMMERCIAL SERVICE
- INDUSTRIAL
- PUBLIC FACILITIES
- OPEN SPACE

BOUNDARIES

- URBAN RESERVE LINE (URL)
- URBAN SERVICES LINE (USL)
- VILLAGE RESERVE LINE (VRL)
- PLANNING AREA
- CENTRAL BUSINESS DISTRICT

SCALE



NORTH



NOTE:

This map is for reference purposes only. Official maps showing precise property lines and land use category boundaries, are on file in the Planning Department.

EXHIBIT NO. 4
 APPLICATION NO.
 A-3-SLO-97-40
 Land Use
 Planning

SOUTH BAY

LAND USE CATEGORIES

San Luis Obispo County Planning Department
 Revised: 12-5-75

EXHIBIT NO. 5
 APPLICATION NO.
 A-3-350-97-40
 South Bay

LEGEND

COMBINING DESIGNA	
	AR AH
	ARCH-SEN AR SE
	GS GE
	FH FL
	H HI
	EX ENERGY & EXTRACTIVE AREA
	LCP LOCAL COASTAL PLAN
	V VISITOR SERVING AREA
	SRA SENSITIVE RESOURCE AREA

PROPOSED PUBLIC FACILITIES	
	HIGH SCHOOL
	JR. HIGH SCHOOL
	ELEMENTARY SCHOOL
	PARK
	POLICE OR PUBLIC SAFETY FACILITY STATION
	WATER TREATMENT FACILITIES
	SEWAGE TREATMENT FACILITIES
	SOLID WASTE FACILITIES
	GOVERNMENT FACILITY
	LIBRARY

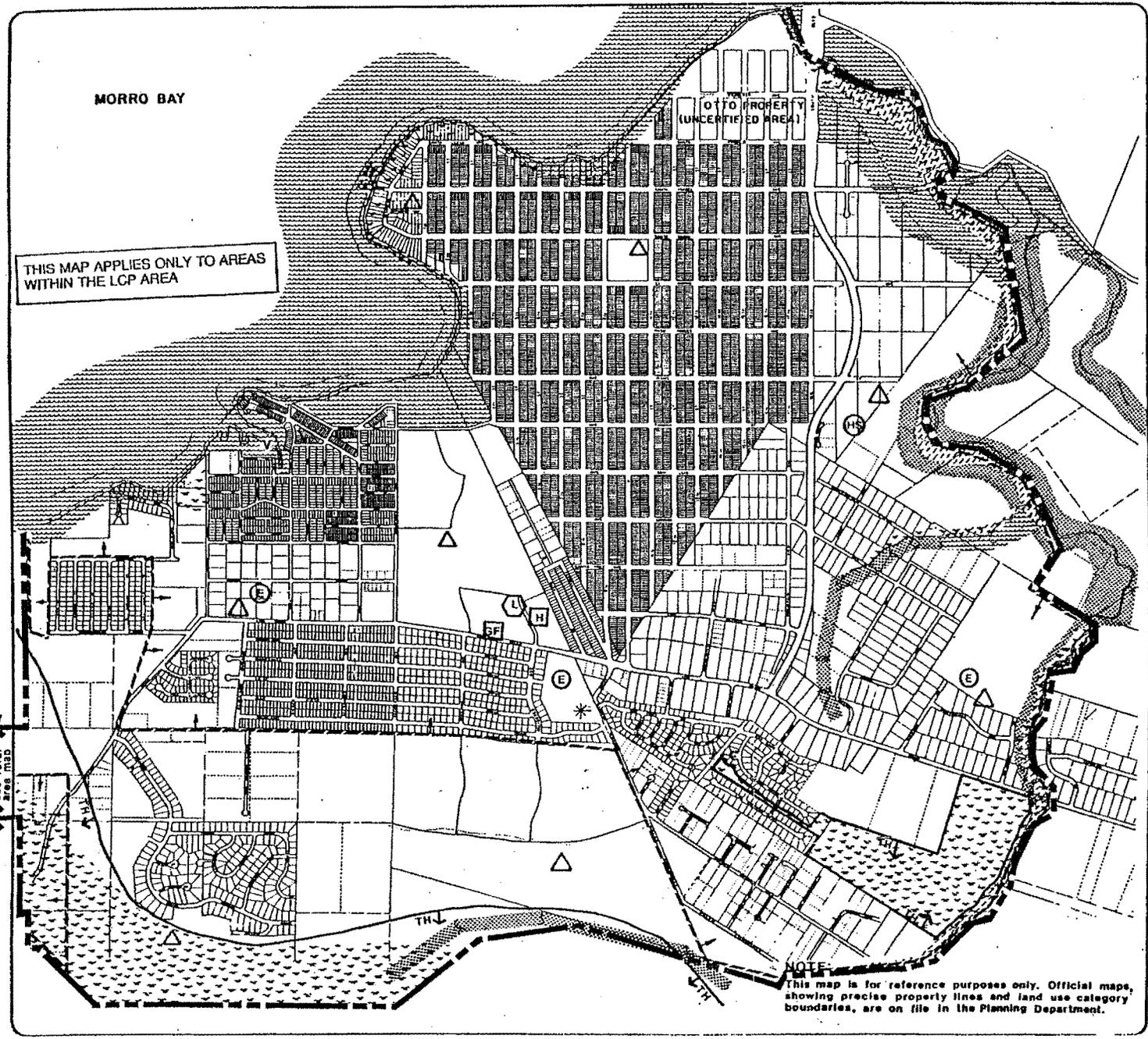
SENSITIVE RESOURCE AREAS THAT ARE AL ENVIRONMENTALLY SENSITIVE HABITATS

	TERRESTRIAL HABITATS
	COASTAL STREAMS AND RIPARIAN VEGETATION
	WETLANDS
	MARINE HABITAT

SCALE NORTH

SOUTH BAY

COMBINING DESIGNATIONS
 San Luis Obispo County Planning Department
 Revised: 1-6-89



MORRO BAY

THIS MAP APPLIES ONLY TO AREAS WITHIN THE LCP AREA

See Title Area Map

NOTE: This map is for reference purposes only. Official maps, showing precise property lines and land use category boundaries, are on file in the Planning Department.

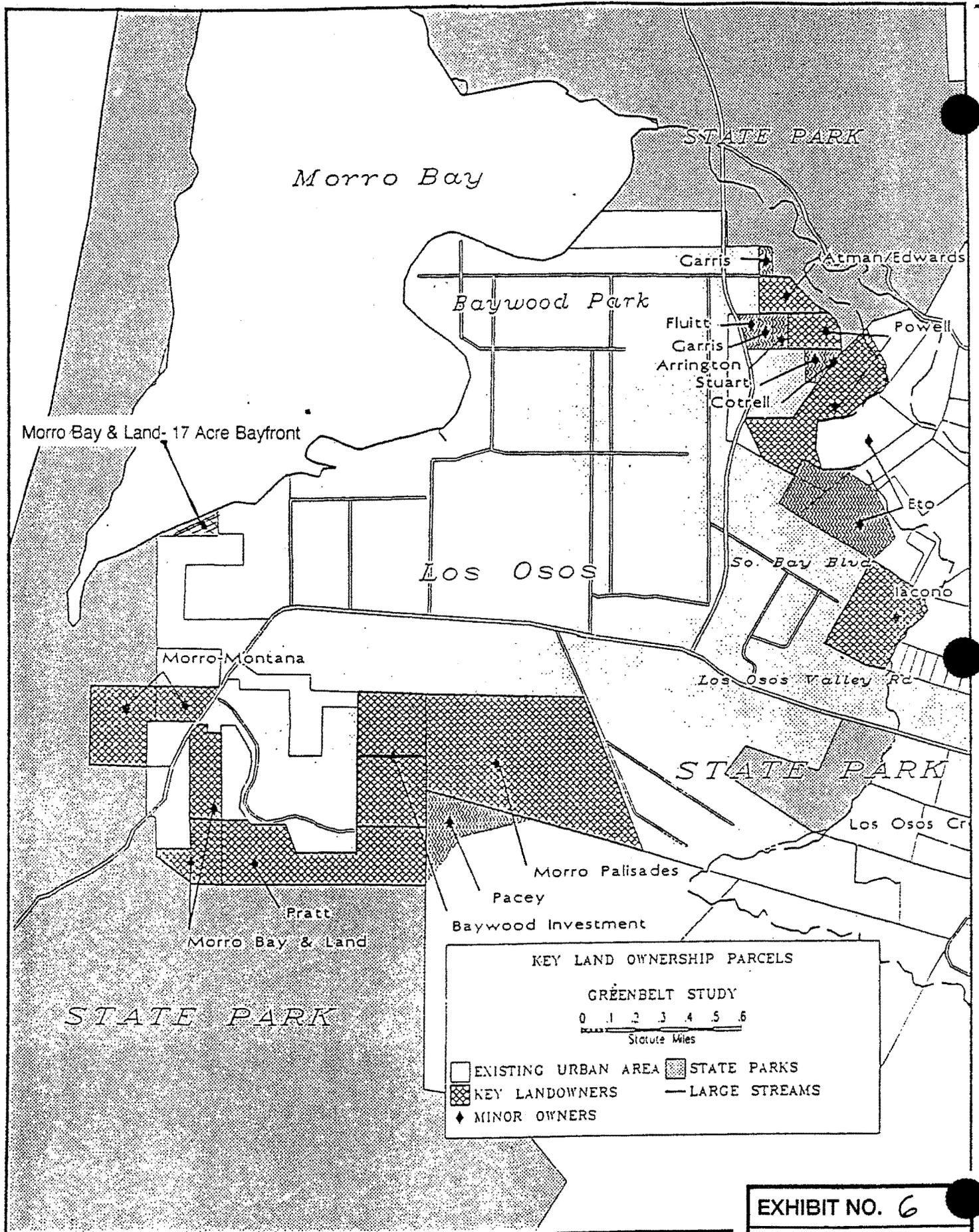


figure 6

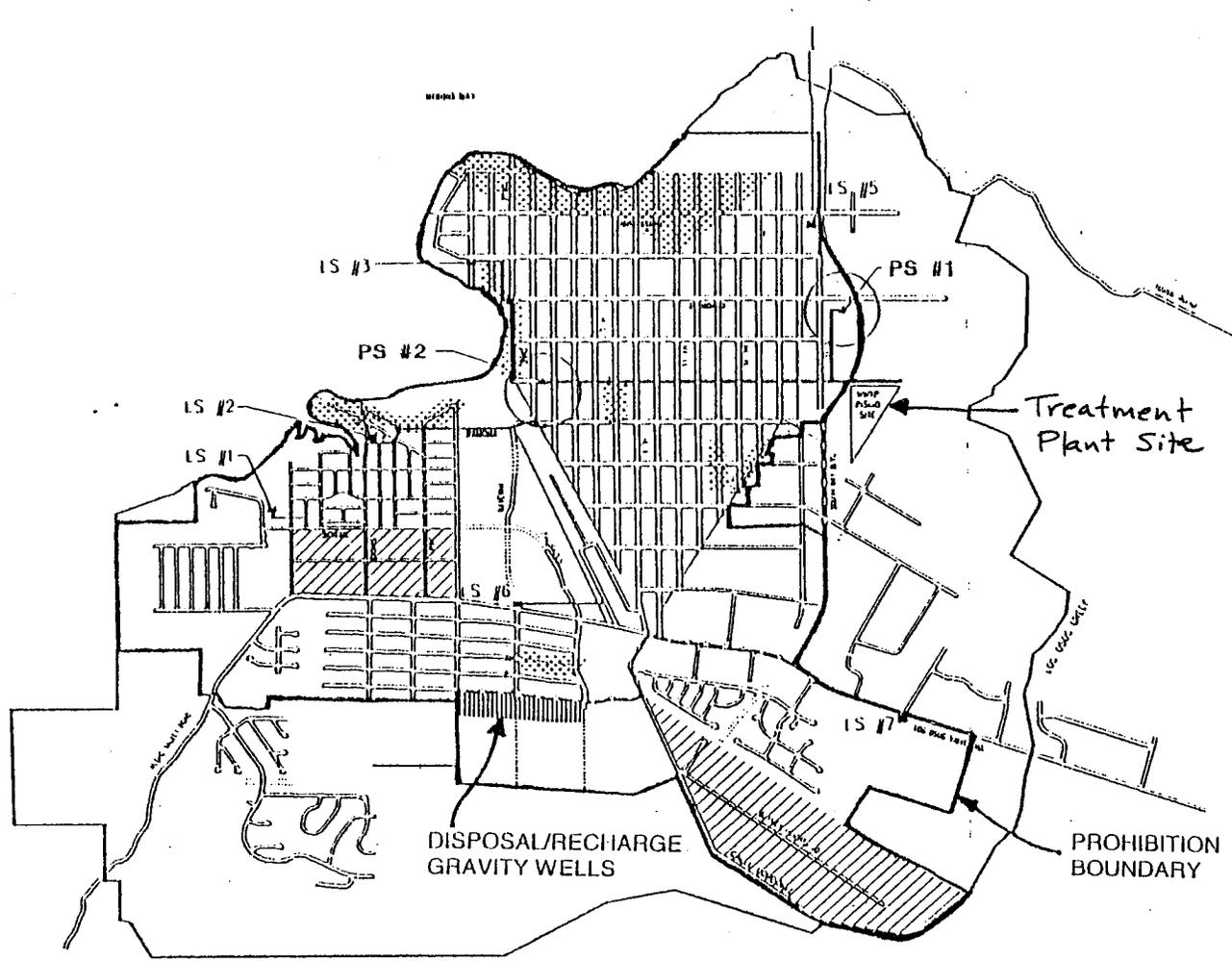
SOURCE: LAND CONSERVANCY, 1995

EXHIBIT NO. 6

APPLICATION NO.
A-3-SLO-97-40

Key habitat /
greenbelt parcels

EXHIBIT NO. 7, p.1
 APPLICATION NO.
 A-3-SLO-97-40
 Wastewater Treatment
 Facilities Proposed by



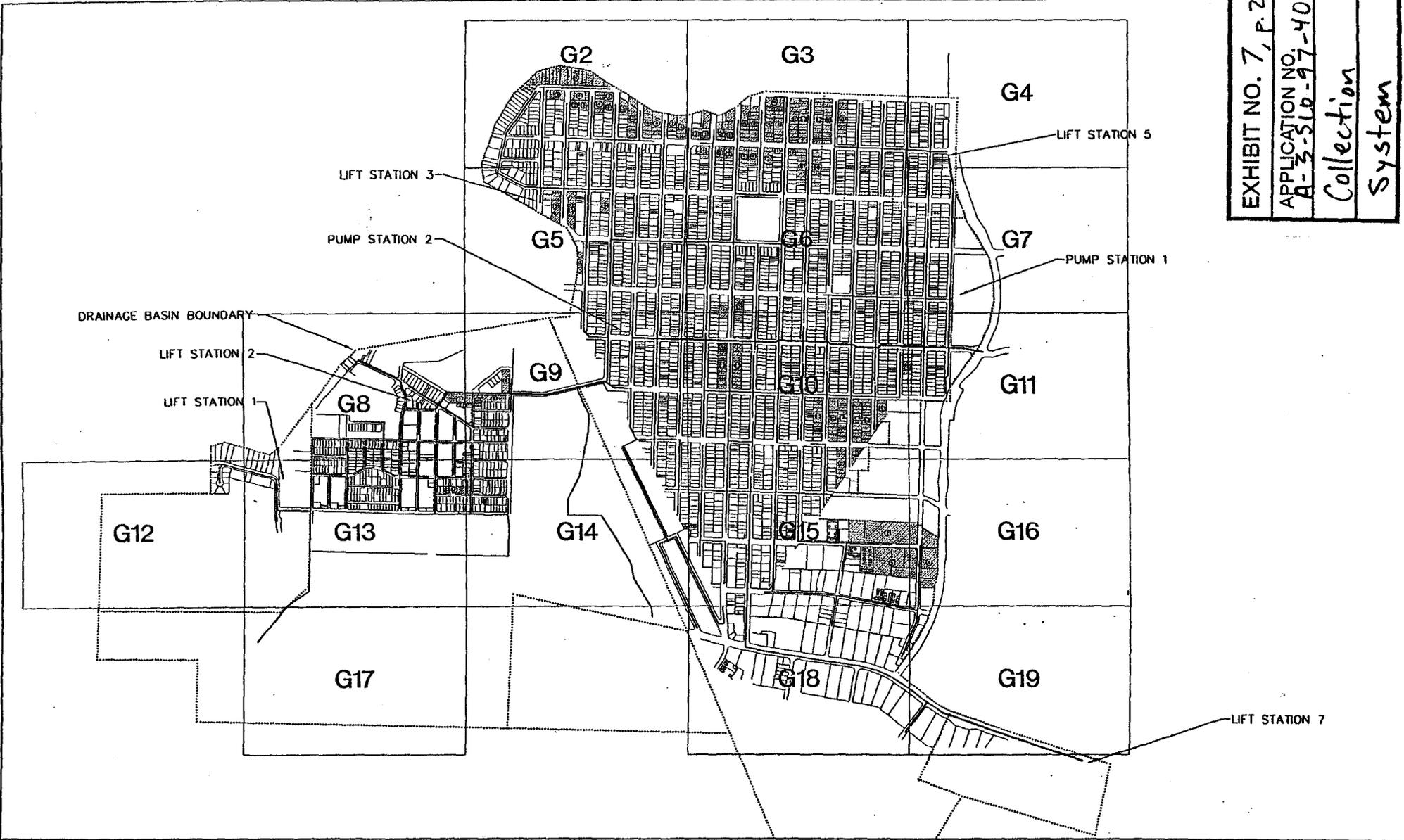
■ LAGOON
 ▲ PUMP STATION
 — FORCE MAIN (SOLID LINE FROM PS TO WWTP)
 - - - FORCE MAIN
 ■ AREAS TO BE SERVED BY PRESSURE SEWERS
 ▨ AREAS TO REMAIN ON-SITE SYSTEMS

QUESTA ENGINEERING CORPORATION
 1220 BRICKYARD COVE ROAD
 PT. RICHMOND, CA 94807
 Job No: Appr: Date:

SAN LUIS OBISPO COUNTY
 WASTEWATER FACILITIES PLAN
 FOR
 LOS OSOS

FIGURE
 1

EXHIBIT NO. 7, P. 2
 APPLICATION NO.
 A-5-SLD-97-40
 Collection
 System



JUL 23 1997

NUMBER	DATE	MARK BY	CHECKED BY	REVISIONS
B	3/20/97	SEH		KEY MAP GRID UPDATED
A	3/17/97	SEH		POTENTIAL GRINDER PUMP PARCELS IDENTIFIED

DESIGNED BY RRH
DRAWN BY SEH
CHECKED BY

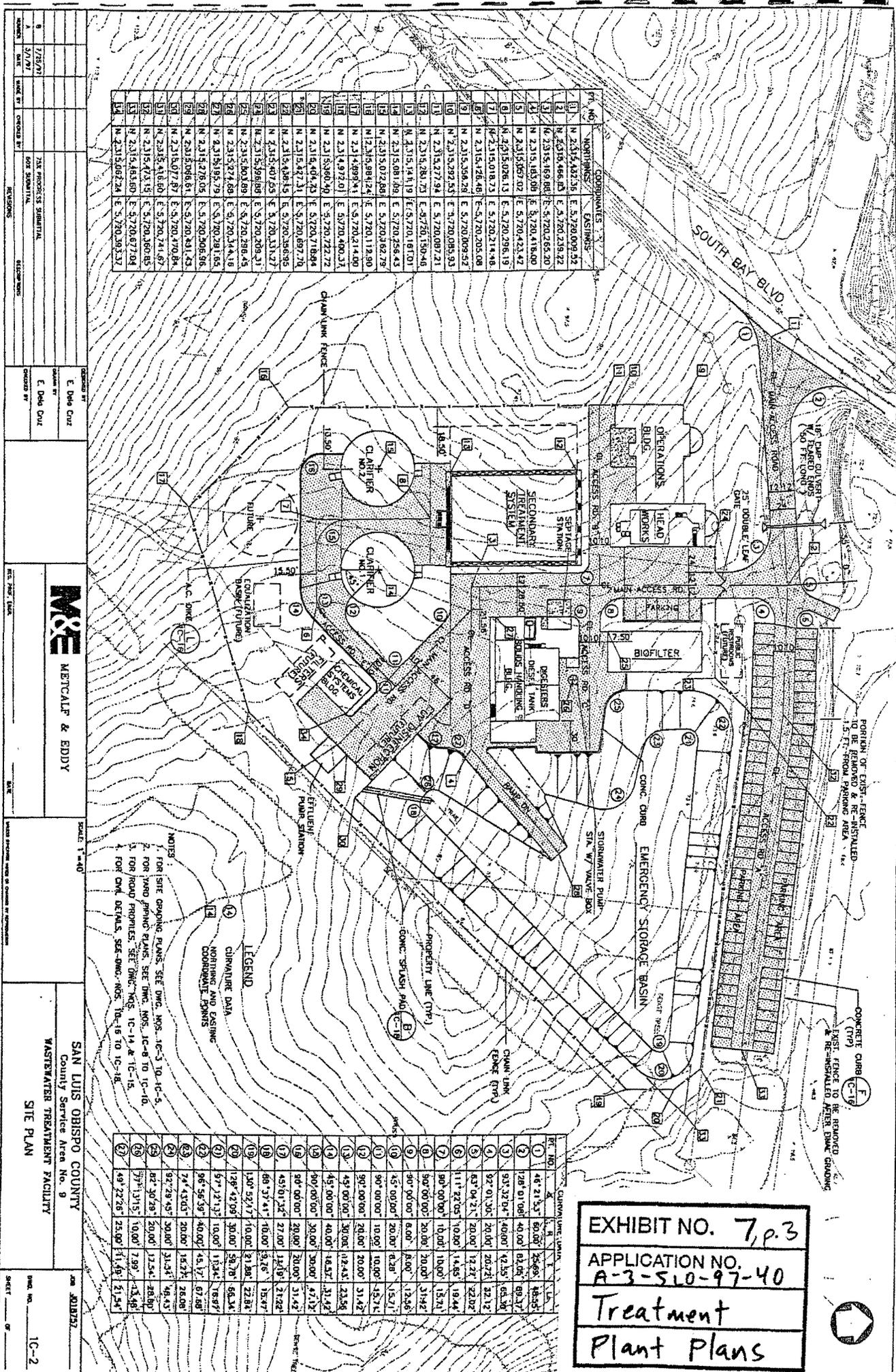
M&E METCALF & EDDY

SCALE:
 HORIZ 0' 600' 1200'

DATE

SAN LUIS OBISPO COUNTY
 SERVICE AREA NO. 9

OVERALL PLAN	JOB #018757
DWG. NO. G-1	SHEET OF



NO.	NORTHINGS	EASTINGS
1	N 2,315,432.75	E 5,720,009.42
2	N 2,315,466.83	E 5,720,238.22
3	N 2,315,169.88	E 5,720,265.20
4	N 2,315,165.08	E 5,720,418.00
5	N 2,315,067.02	E 5,720,433.42
6	N 2,315,028.13	E 5,720,296.19
7	N 2,315,018.73	E 5,720,214.98
8	N 2,315,126.48	E 5,720,205.08
9	N 2,315,358.28	E 5,720,009.52
10	N 2,315,292.53	E 5,720,085.93
11	N 2,315,277.94	E 5,720,087.21
12	N 2,315,281.73	E 5,720,150.46
13	N 2,315,141.19	E 5,720,181.01
14	N 2,315,081.88	E 5,720,256.43
15	N 2,315,072.86	E 5,720,262.79
16	N 2,315,094.24	E 5,720,112.90
17	N 2,315,489.34	E 5,720,214.00
18	N 2,315,497.01	E 5,720,400.31
19	N 2,315,886.40	E 5,720,722.72
20	N 2,315,464.25	E 5,720,718.84
21	N 2,315,427.31	E 5,720,697.70
22	N 2,315,438.15	E 5,720,386.95
23	N 2,315,407.53	E 5,720,331.27
24	N 2,315,298.80	E 5,720,289.21
25	N 2,315,580.88	E 5,720,286.43
26	N 2,315,274.88	E 5,720,344.18
27	N 2,315,195.79	E 5,720,201.55
28	N 2,315,278.05	E 5,720,506.95
29	N 2,315,029.61	E 5,720,331.23
30	N 2,315,077.87	E 5,720,470.84
31	N 2,315,476.00	E 5,720,314.67
32	N 2,315,473.19	E 5,720,360.85
33	N 2,315,453.80	E 5,720,677.84
34	N 2,315,068.24	E 5,720,203.17

NOTES:
 1. FOR SITE GRADING PLANS, SEE DWG. NOS. 10-3 TO 10-5.
 2. FOR YARD GRADING PLANS, SEE DWG. NOS. 10-8 TO 10-10.
 3. FOR ROAD PROFILES, SEE DWG. NOS. 10-14 & 10-15.
 4. FOR CIVIL DETAILS, SEE DWG. NOS. 10-16 TO 10-18.

LEGEND
 CHAUVREUR DATA
 NORTHING AND EASTING COORDINATE SYSTEM

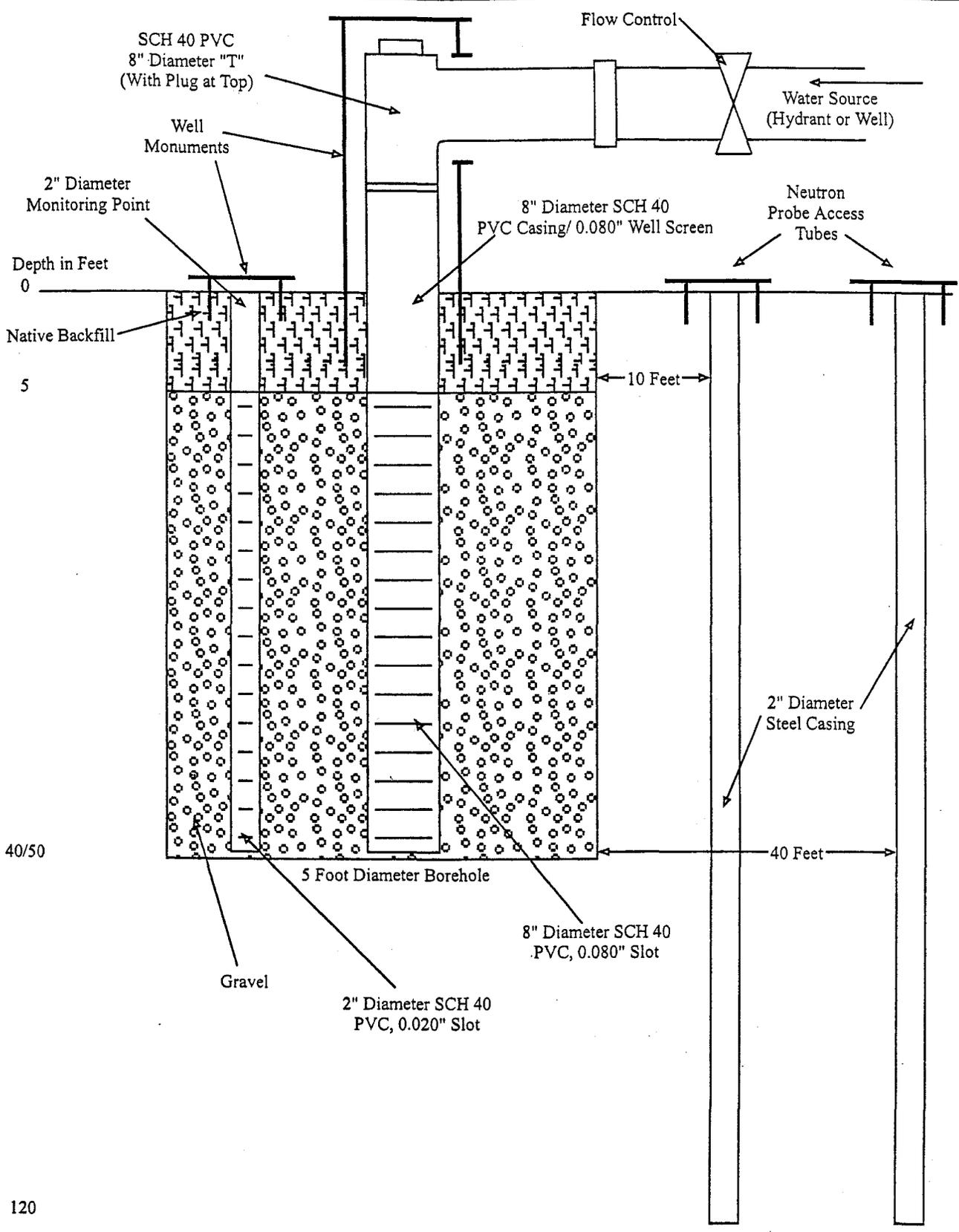
LINE NO.	AREA	PERIMETER	AREA	PERIMETER
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2	728,011.00	40.00	83.00	89.12
3	53,327.04	40.00	42.55	62.30
4	92,013.00	20.00	20.23	32.12
5	63,942.21	20.00	12.27	22.02
6	111,227.05	10.00	14.60	19.44
7	80,000.00	10.00	10.00	13.71
8	90,000.00	20.00	20.00	31.62
9	30,000.00	6.00	6.00	12.36
10	15,000.00	20.00	8.28	15.71
11	90,000.00	10.00	10.00	13.71
12	90,000.00	20.00	20.00	31.62
13	45,000.00	30.00	18.43	23.58
14	45,000.00	30.00	18.43	23.58
15	45,000.00	30.00	18.43	23.58
16	45,000.00	30.00	18.43	23.58
17	45,000.00	30.00	18.43	23.58
18	45,000.00	30.00	18.43	23.58
19	45,000.00	30.00	18.43	23.58
20	45,000.00	30.00	18.43	23.58
21	45,000.00	30.00	18.43	23.58
22	45,000.00	30.00	18.43	23.58
23	45,000.00	30.00	18.43	23.58
24	45,000.00	30.00	18.43	23.58
25	45,000.00	30.00	18.43	23.58
26	45,000.00	30.00	18.43	23.58
27	45,000.00	30.00	18.43	23.58
28	45,000.00	30.00	18.43	23.58
29	45,000.00	30.00	18.43	23.58
30	45,000.00	30.00	18.43	23.58
31	45,000.00	30.00	18.43	23.58
32	45,000.00	30.00	18.43	23.58
33	45,000.00	30.00	18.43	23.58
34	45,000.00	30.00	18.43	23.58

EXHIBIT NO. 7, p.3
 APPLICATION NO. A-3-510-97-40
 Treatment Plant Plans

DATE: 7/28/79
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 PROJECT: 75% PROGRESS SUBMITTAL
 SHEET NO. 1C-2

M&E METCALF & EDDY
 SAN LUIS OBISPO COUNTY
 County Service Area No. 9
 WASTEWATER TREATMENT FACILITY
 SITE PLAN

SCALE: 1" = 40'



120

Not to Scale

drywellA.cdr

FIGURE 2-2
 SHALLOW RECHARGE WELL SCHEMATIC
 LOS OSOS VALLEY INFILTRATION STUDY
 LOS OSOS, CALIFORNIA

EXHIBIT NO. 7, P. 4
APPLICATION NO. A-3-SLO-97-40
Recharge Well
Schematic

COLLECTED AREAS

AREA 30' OR MORE TO GROUND WATER

URBAN RESERVE AND SEPTIC SYSTEM MAINTENANCE/MANAGEMENT LINE

RWQCB PROHIBITION

EXHIBIT NO. 8, p. 1
APPLICATION NO. A-3-SLO-97-40
Wastewater Treatment Facilities Proposed by The Solution Group

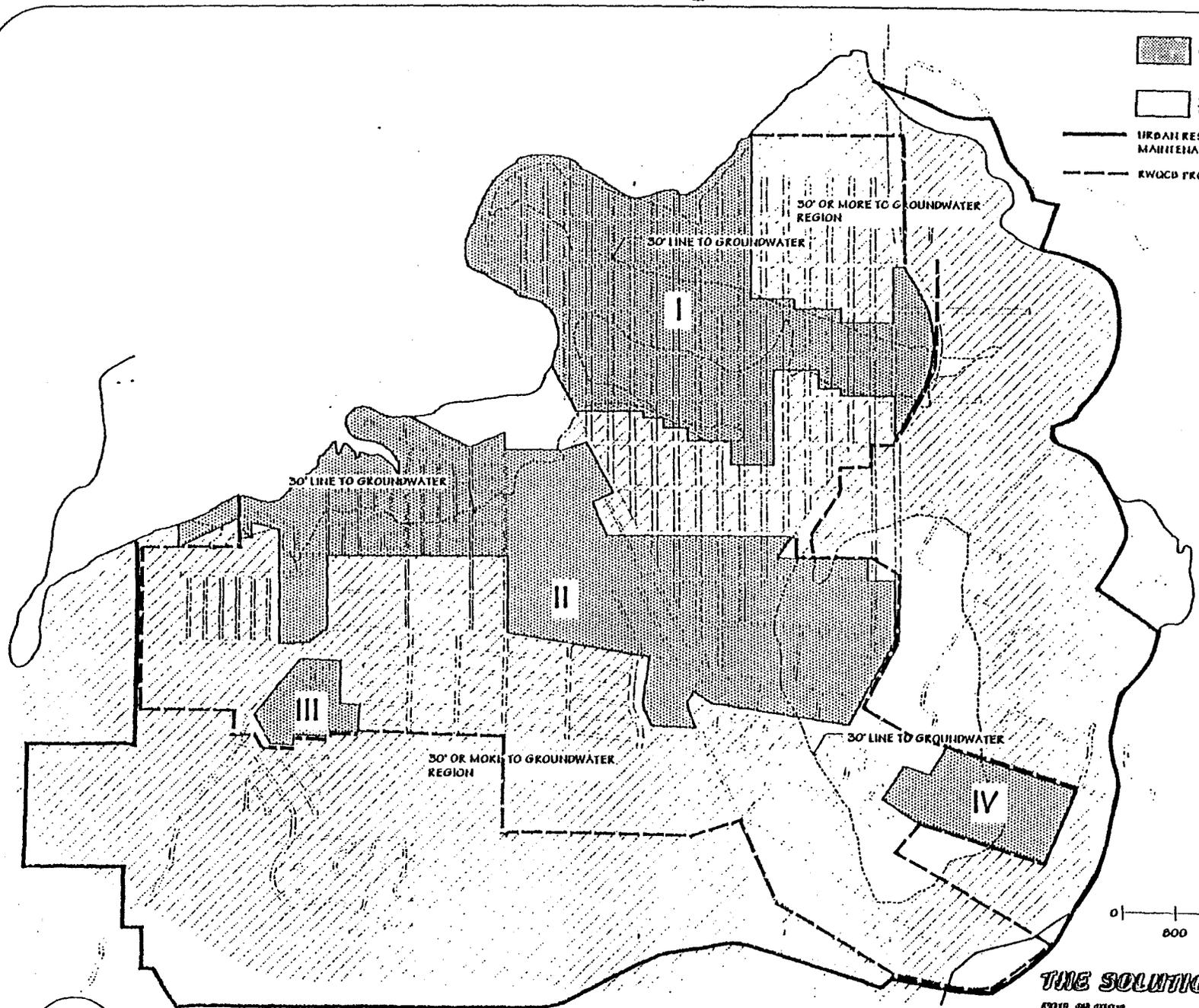


FIG. 2

PROPOSAL FOR COLLECTED REGIONS

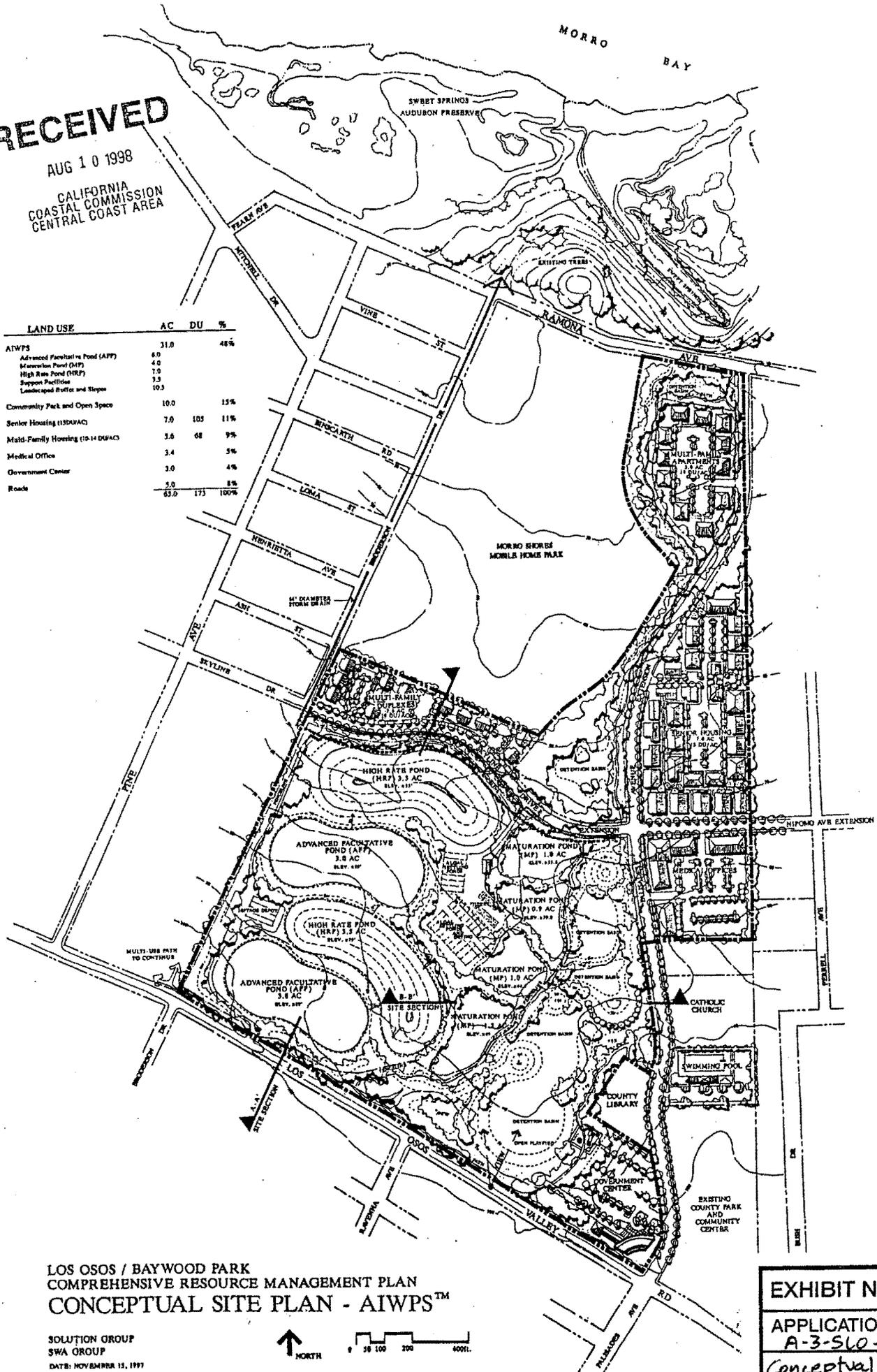
THE SOLUTIONS GROUP
EST. 1988

RECEIVED

AUG 10 1998

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

LAND USE	AC	DU	%
ATWPS	31.0		48%
Advanced Facilitative Pond (AFP)	6.0		
Retention Pond (RP)	4.0		
High Rate Pond (HRP)	7.0		
Support Facilities	3.9		
Landscape Office and Storage	10.5		
Community Park and Open Space	10.0		15%
Senior Housing (150 DU/AC)	7.0	103	11%
Multi-Family Housing (10-14 DU/AC)	3.6	68	9%
Medical Office	3.4		5%
Government Center	3.0		4%
Roads	5.0		8%
	63.0	173	100%



LOS OSOS / BAYWOOD PARK
COMPREHENSIVE RESOURCE MANAGEMENT PLAN
CONCEPTUAL SITE PLAN - AIWPS™

SOLUTION GROUP
SWA GROUP
DATE: NOVEMBER 15, 1997
REVISED: AUGUST 7, 1998

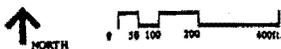


EXHIBIT NO. 8, p. 2
APPLICATION NO.
A-3-SLO-97-40
Conceptual Site Plan
for the Treatment
Facility proposed by
the Solution Group



State Water Resources Control Board

John P. Caffrey, Chairman

Peter M. Rooney
Secretary for
Environmental
Protection

Office of Chief Counsel
901 P Street • Sacramento, California 95814 • (916) 657-2154 • FAX (916) 653-0428
Mailing Address: P.O. Box 100 • Sacramento, California 95812-0100
Internet Address: <http://www.swrcb.ca.gov>



Pete Wil
Govern

RECEIVED
AUG 05 1998

July 31, 1998

CA COASTAL COMMISSION
LEGAL DIVISION

Mr. Ralph Faust
Chief Counsel
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

Dear Mr. Faust:

PROPOSED WASTE WATER TREATMENT PLANT FOR THE BAYWOOD/LOS OSOS AREA

I represent the Regional Water Quality Control Board, Central Coast Region (RWQCB). I am writing regarding the coastal development permit for the proposed waste water treatment plant for the Baywood/Los Osos area of San Luis Obispo County. We talked about this project on the telephone several weeks before the Commission's June meeting. During that call I asked about the applicability of Public Resources Code section 30412 to this project. You agreed that section 30412 applies in this case.

The RWQCB has not formally raised the limitations on the Commission's jurisdiction under section 30412 because RWQCB hoped that the Commission would issue the permit promptly once additional information was submitted to it. However, the inaction of the Commission at its June meeting and the additional information required by Commission staff leave the RWQCB no choice but to notify the Commission that the Commission is acting beyond its jurisdiction.

Public Resources Code section 30412 provides in pertinent part:

“(b) The State Water Resources Control Board and the California regional water quality control boards are the state agencies with primary responsibility for the coordination and control of water quality. . . . The commission shall assure that proposed development and local coastal programs shall not frustrate this section. The commission shall not, except as provided in subdivision (c), modify, adopt conditions, or take any action in conflict with any determination by the State

California Environmental Protection Agency

EXHIBIT NO. 9, p. 1
APPLICATION NO. A-3-SLO-97-40
Correspondence

Water Resources Control Board or any California regional water quality control board in matters relating to water quality or the administration of water rights."
(Emphasis added.)

This language states clearly that the Commission may not interfere with decisions of the RWQCB to protect water quality except to the limited extent specified in subsection (c) of section 30412. In this case, the Commission's numerous conditions and additional information requests has delayed and may ultimately defeat implementation of a series of water quality protection decisions by the RWQCB. The Commission's conditions and information requests exceed the limited authority provided the Commission in subsection (c) of section 30412.

Subsection (c) of Public Resources Code section 30412 provides in pertinent part:

"Any development within the coastal zone or outside the coastal zone which provides service to any area within the coastal zone that constitutes a treatment work shall be reviewed by the commission and any permit it issues, if any, shall be determinative only with respect to the following aspects of the development:

- (1) The siting and visual appearance of treatment works within the coastal zone.
- (2) The geographic limits of service areas within the coastal zone which are to be served by particular treatment works and the timing of the use of capacity of treatment works for those service areas to allow for phasing of development and use of facilities consistent with this division.
- (3) Development projections which determine the sizing of treatment works for providing service within the coastal zone.

The commission shall make these determinations in accordance with the policies of this division and shall make its final determination on a permit application for a treatment work prior to the final approval by the State Water Resources Control Board for funding of such treatment works. Except as specifically provided in this subdivision, the decisions of the State Water Resources Control Board relative to the construction of treatment works shall be final and binding upon the commission."

In this case the Coastal Commission has inquired into and demanded compliance with numerous matters outside its limited jurisdiction to review this treatment works project. The Commission does not have jurisdiction to compare the treatment works to other methods of treatment and collection based on cost or other matters. Nor can the Commission order the project to be

administered by the County or a community services district. The additional information requested by the Commission staff after the June meeting addresses matters beyond the Commission's jurisdiction. The RWQCB has sole authority to determine that there is a ground and surface water pollution problem and that a prohibition of septic tank discharges is necessary to address it.

The Commission does have authority to consider siting and appearance of the treatment works but that does not include changing the fundamental treatment and collection method in order to force use of a new site. Approval of the treatment and collection method is solely within the RWQCB's jurisdiction. Information necessary to judge the best site for this treatment and collection method is contained in the supplemental EIR and should be sufficient for the Commission to make a decision regarding site selection.

The Commission also has authority to regulate the service area to be served by the plant, but must do so in a manner that does not conflict with the RWQCB decision regarding protection of water quality. In this case, the RWQCB fixed the boundaries of the area when it established its septic tank prohibition in 1983. Because all septic tank discharges are prohibited in that area, an alternative means of waste disposal must be provided in that entire area. The proposed treatment works will provide that alternative.

The Commission may regulate timing of use of capacity and phasing of development and may regulate development projects which determine the sizing of the plant. The authority to control development should not prevent the Commission from approving the treatment plant itself. New development is a minor issue in this case because most of the area is already built up and the entire area is already zoned for development.

I request that you advise the Commission of their limited authority to review the coastal development permit for the Baywood/Los Osos waste water treatment plant and collection system. I also request that you advise them that they cannot review whether a plant is needed to protect water quality or select a method of treatment or collection. They also lack authority to condition permit approval on formation of a community services district. Their review must be limited to the matters covered by subsection (c) of Public Resources Code section 30412 and must be in accordance with subsection (b) of section 30412.

The ground water supply at stake here is a sole source drinking water aquifer. Once it becomes polluted the community will have to find another source of drinking water or the community will be abandoned. Protecting this valuable coastal resource is not a popular activity. But it is the job of government agencies like the Commission and the RWQCB to protect this resource for future generations who are not here to protest but who will suffer the consequences of our actions

Mr. Ralph Faust

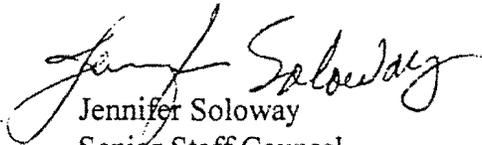
- 4 -

July 31, 1998

today. I urge you to do whatever you can to protect the drinking water supply in Baywood/Los Osos as well as the coastal waters that are being affected by the discharge of polluted shallow ground water.

Please call me if you wish to discuss this letter. My phone number is (916) 657-0433. Thank you in advance for your attention to this matter.

Sincerely,


Jennifer Soloway
Senior Staff Counsel

cc: Mr. Roger Briggs
Executive Officer
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401

Mr. Peter Douglas
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

A-3-SLO-97-40
Exhibit 9, p. 4



Peter M. Rooney
Secretary for
Environmental
Protection

State Water Resources Control Board

John P. Caffrey, Chairman

Office of Chief Counsel
901 P Street • Sacramento, California 95814 • (916) 657-2154 • FAX (916) 653-0428
Mailing Address: P.O. Box 100 • Sacramento, California 95812-0100
Internet Address: <http://www.swrcb.ca.gov>



Pete Wil
Govern

August 14, 1998

RECEIVED

AUG 17 1998

CALIFORNIA
COASTAL COMMISSION

Mr. Ralph Faust
Chief Counsel
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Dear Mr. Faust:

PROPOSED WASTEWATER TREATMENT PLANT FOR THE BAYWOOD/LOS OSOS AREA

Thank you for your prompt courteous response to my July 31, 1998, letter. While I do not agree with the analysis in your letter, I agree further discussion of these issues should be postponed because the Commission will not be considering this matter until October. Your letter notes that if I provide copies of Regional Water Quality Control Board determinations they would be transmitted to the Commissioners. I have enclosed copies of the two most important RWQCB orders regarding Baywood/Los Osos and this letter briefly describes them. I request that this letter and enclosures be transmitted to the Commissioners.

In order to understand these RWQCB orders, it is important to understand what a discharge from a septic tank is. Every toilet and drain in Baywood/Los Osos flows to a septic tank. If the tank is functioning, the raw sewage sits in the tank temporarily while solids settle out. Then the liquid sewage, without any treatment, flows into the soils surrounding the tank. All treatment of the sewage is done by the soil. If there is enough soil, treatment can be effective and pollutants such as nitrates, which are not completely removed by soil, are sufficiently dispersed. There is general agreement among engineers that a minimum of one acre of land per home is needed for adequate treatment (some believe more land is needed). Also, a minimum separation between the leach field and groundwater is necessary as well as other factors. In Baywood/Los Osos it is

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Exhibit 9, p. 5

common to find 10 households per acre and many leachfields are saturated by groundwater. During the rainy season untreated liquid sewage sometimes surfaces. The bottom line is, without adequate land to absorb, treat, and disperse the liquid sewage, it flows to groundwater untreated or without adequate treatment. People continue to flush and drain, so the sewage continues to flow. This untreated sewage must go somewhere.

There is no dispute the shallow aquifer is already polluted. That polluted groundwater moves downhill to surface water and the deeper aquifer. Unless the source of the sewage is removed it is inevitable that Morro Bay and the deep drinking water supply aquifer will be polluted. Morro Bay is already being contaminated by bacteria and other pollutants discharged from the Baywood/Los Osos septic tanks. The RWQCB determined in the early 1970's that these septic tank discharges were too concentrated for the land to support. The Board has taken a series of actions since then to prevent the inevitable surface and groundwater contamination from these untreated sewage discharges.

The first enclosure is the 1983 septic tank prohibition in RWQCB Resolution 83-13. This resolution was approved by the State Water Resources Control Board and is incorporated into the Central Coast Region Water Quality Control Plan (Basin Plan). The prohibition establishes a time schedule for the County to complete a wastewater collection and treatment system by November 1, 1988. It also bans all discharges from septic systems in the designated prohibition area as of November 1, 1988. Of course the County did not comply with the time schedule and all residents and businesses in the designated area continue to violate the ban. Any wastewater collection and treatment system that does not provide an alternative to septic tank discharges in the entire designated area will conflict with the RWQCB's prohibition.

The second is the time schedule order the RWQCB issued against San Luis Obispo County in April 1997. In 1997 the County was proceeding with financing and final planning for the collection and treatment system, but it was already over ten years behind schedule. To enforce compliance with the septic tank prohibition, the RWQCB adopted Time Schedule Order 95-90. The order sets forth a time schedule for the County to complete the wastewater collection and treatment system. Construction was supposed to start December 17, 1997, and Segment I of the system is to be complete on December 28, 1999. The RWQCB can impose monetary liability of \$10,000 per day for each day a deadline is missed. The County is already behind schedule. If the Coastal Commission requires the County to start over with an alternative project, construction and operation will be delayed for years beyond the deadlines in the Order and would likely result in no project at all. A directive to the County to start over with an alternative would conflict with the RWQCB's determination that the continued discharge from septic tanks should be stopped as soon as possible.

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Exhibit 9, p. 6

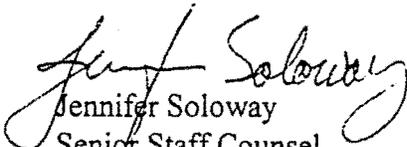
Mr. Ralph Faust

- 3 -

August 14, 1998

Thank you in advance for distributing this letter and the enclosures to the Coastal Commissioners. Please call if you wish to discuss these issues further. My number is (916) 657-0433.

Sincerely,


Jennifer Soloway
Senior Staff Counsel

Enclosures

cc: Mr. Roger Briggs, Executive Officer
Mr. Brad Hagemann
Ms. Sorrel Marks
Central Coast Regional Water
Quality Control Board
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401

✓ Mr. Peter Douglas
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105

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Exhibit 9, p. 7

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

RESOLUTION NO. 83-13

Revision and Amendment of Water Quality Control
Plan by the Addition of a Prohibition of Waste
Discharge from Individual Sewage Disposal
Systems Within the Los Osos/Baywood Park Area,
San Luis Obispo County

- WHEREAS, the California Regional Water Quality Control Board, Central Coast Region (hereafter Regional Board), adopted the Water Quality Control Plan for the Central Coastal Basin (hereafter Basin Plan) on March 14, 1975; and,
- WHEREAS, the Regional Board, after notice and public hearing in accordance with Water Code Section 13244, periodically revises and amends the Basin Plan to ensure reasonable protection of beneficial uses of water and prevention of pollution and nuisance; and,
- WHEREAS, in protecting and enhancing water quality, the Basin Plan specifies certain areas where the discharge of waste, or certain types of waste, is prohibited; and,
- WHEREAS, Article 5, Chapter 4, Division 7, of the California Water Code defines criteria for such prohibition areas (Section 13240 et seq.); and,
- WHEREAS, Los Osos/Baywood Park is an unincorporated community, with a 1980 population of 10,933 persons located south of the City of Morro Bay, in San Luis Obispo County; and,
- WHEREAS, current zoning will accommodate a population in excess of 27,000 people and an average residential lot size of about 6600 ft²; and,
- WHEREAS, on-site soil absorption or evapotranspiration systems are the sole means of wastewater disposal in the Los Osos/Baywood Park area; and,
- WHEREAS, the Los Osos/Baywood Park area soil permeability is rapid and there are substantial areas with high groundwater; and,
- WHEREAS, the majority of lots are too small to provide adequate dispersion of individual sewage disposal system effluent; and,

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Exhibit 9, p. 8

WHEREAS, the San Luis Obispo County Environmental Health Department has provided documentation concerning the problem of liquid waste disposal in the Los Osos/Baywood Park area; and,

WHEREAS, the County of San Luis Obispo is preparing an environmental impact report (EIR) in accordance with the California Environmental Quality Act and a project report that identifies adverse environmental impacts from continued use of septic tanks in the Los Osos/Baywood Park area and discusses alternatives to existing wastewater management practices; and,

WHEREAS, "Los Osos-Baywood Park/Phase I Water Quality Management Study" cites conditions which constitute contamination and pollution as defined in Section 13050 of the California Water Code; and,

WHEREAS, chemical analyses of wells in Los Osos/Baywood Park indicates 38% of the shallow wells tested in the Phase I study, taking water from the Old Dune Sands deposits portion of the aquifer, contain nitrate concentrations which exceed State Health Department Drinking Water Standards of 45 milligrams per liter; and,

WHEREAS, bacterial analyses of 42 wells tested in the Phase I study resulted in 26 wells indicating total coliform in violation of State Health Drinking Water Standards, and 2 wells indicating fecal coliform in violation of Basin Plan limits for groundwater; and,

WHEREAS, surface water bacterial analyses tested in the Phase I study indicated total and fecal coliform levels exceeding Basin Plan recommended limits for water contact recreation (REC-1); and,

WHEREAS, a letter from the California Health and Welfare Agency, Department of Health Services, states their concerns regarding the high nitrate levels in the waters of Los Osos/Baywood Park area, and recommends adequate measures be taken to correct the nitrate problems to bring the waters into compliance with California Drinking Water Standards; and,

WHEREAS, a letter from the San Luis Obispo County Health Agency Director cites violation of the public health limit for nitrates and recommends elimination of shallow groundwater usage and adoption of a discharge prohibition; and,

WHEREAS, the Regional Board is obligated to include a program of implementation for achieving water quality objectives in its Basin Plan; and,

WHEREAS, present and anticipated future beneficial uses of Los Osos/Baywood Park creeks include recreation and aquatic habitat; and,

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Exhibit 9, p. 9

WHEREAS, Los Osos Basin groundwaters are suitable for agricultural, municipal, domestic, and industrial water supply; and,

WHEREAS, a Regional Board staff report finds beneficial uses of Los Osos ground and surface waters are adversely affected by individual sewage disposal system discharges, there appears to be a trend of increasing degradation, and public health is jeopardized by occurrences of surfacing effluent; and,

WHEREAS, drafts of proposed revisions and amendments of the Basin Plan, prohibiting discharges from Los Osos/Baywood Park individual sewage disposal systems, have been prepared and provided to interested persons and agencies for review and comment; and,

WHEREAS, Regional Board staff has prepared documents and followed appropriate procedures to satisfy the environmental documentation requirements of both the California Environmental Quality Act, under Public Resources Code Section 21080.5 (Functional Equivalent), and the Federal Clean Water Act of 1977 (PL 92-500 and PL 95-217), and the Regional Board finds adoption of this prohibition area will not have a significant adverse effect on the environment; and,

WHEREAS, on September 16, 1983, in the San Luis Obispo City Council Chambers, 990 Palm Street, San Luis Obispo, California, after due notice, the Regional Board conducted a public hearing at which evidence was received pursuant to Section 13281 of the California Water Code concerning the impact of discharges from individual sewage disposal systems on water quality and public health; and,

WHEREAS, pursuant to Section 13280 of the California Water Code, the Regional Board finds that discharges of wastes from new and existing individual disposal systems which utilize subsurface disposal in the affected area will result in violation of water quality objectives; will impair beneficial uses of water; will cause pollution, nuisance, or contamination; and will unreasonably degrade the quality of waters of the State; and,

WHEREAS, the Regional Board finds the aforesated conditions in need of remedy to protect present and potential beneficial uses of water and to prevent pollution and nuisance.

NOW, THEREFORE, BE IT RESOLVED, that the Water Quality Control Plan, Central Coastal Basin, be amended as follows:

Page 5-66, after Item 7, following the legal description for Pasatiempo Pines (added by Resolution 83-09), insert the following prohibitions:

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Exhibit 9, p.10

"8. Discharges of waste from individual and community sewage disposal systems are prohibited effective November 1, 1988, in the Los Osos/ Baywood Park area, and more particularly described as:

"Groundwater Prohibition Zone

(Legal description to be provided for area prescribed by Regional Board).

"Failure to comply with any of the compliance dates established by Resolution 83-13 will prompt a Regional Board hearing at the earliest possible date to consider adoption of an immediate prohibition of discharge from additional individual and community sewage disposal systems."

Discharges from individual or community systems within the prohibition area in excess of an additional 1150 housing units (or equivalent) are prohibited, commencing with the date of State Water Resources Control Board approval.

BE IT FURTHER RESOLVED, that the above area is consistent with the recommendations of the staff report as shown on "Attachment A."

BE IT FURTHER RESOLVED, that the Regional Board does intend standard exemption criteria, first paragraph of Page 5-67 of the Basin Plan, to apply to this action.

BE IT FURTHER RESOLVED, that compliance with the above prohibition of existing individual or community sewage disposal systems shall be achieved according to the following time schedule:

<u>Task</u>	<u>Compliance Date</u>
Begin Design	November 1, 1984
Complete Design	November 1, 1985
Obtain Construction Funding	December 1, 1985
Begin Construction	April 1, 1986
Complete Construction	November 1, 1988

BE IT FURTHER RESOLVED, that reports of compliance or noncompliance with schedules shall be submitted to the Regional Board within 14 days following each scheduled date unless otherwise specified, where noncompliance reports shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance.

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Exhibit 9, p.11

BE IT FURTHER RESOLVED, the County will continue a monitoring program, approved by the Regional Board staff, that will monitor ground water quality within the prohibition boundaries as set forth in this resolution, and also a monitoring program which covers areas outside the prohibition boundaries but within the urban reserve line as shown in Attachment A.

BE IT FURTHER RESOLVED, that the Regional Board has determined this action will not have a significant adverse impact on the environment and the Executive Officer of the Regional Board is hereby directed to file a Notice of Decision to this effect with the Secretary of the Resources Agency.

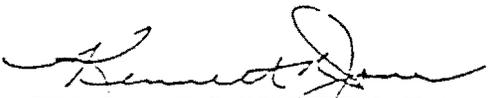
BE IT FURTHER RESOLVED, that the State Water Resources Control Board is hereby requested to amend forthwith the Clean Water Grant Project Priority List to recognize the necessary structural solution for Los Osos/Baywood Park as a Priority "A" project.

BE IT FURTHER RESOLVED, that if the Board holds a hearing and adopts an immediate prohibition as described above, the prohibition is effective as of the date the Regional Water Quality Control Board adopts a prohibition of discharge from additional individual and community sewage disposal systems.

BE IT FURTHER RESOLVED, the Executive Officer of the Regional Board is hereby directed to submit this revision of the Basin Plan to the State Water Resources Control Board for approval pursuant to Section 13245 of the California Water Code.

BE IT FURTHER RESOLVED, upon approval by the State Water Resources Control Board, Chapter 5 of the Water Quality Control Plan is revised by the addition of the above prohibition.

I, KENNETH R. JONES, Executive Officer of the California Regional Water Quality Control Board, Central Coast Region, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Coast Region, on September 16, 1983.


Executive Officer

A-3-SLO-97-40
Exhibit 9, p. 12



April 17, 1997



Pete Wilson
Governor

Central Coast
Regional Water
Quality Control
Board

Mr. George Gibson
San Luis Obispo County
Engineering Department
County Government Center
San Luis Obispo, CA 93408

81 Higuera Street
Suite 200
San Luis Obispo, CA
93401-5427
(805) 549-3147
FAX (805) 543-0397

Dear Mr. Gibson:

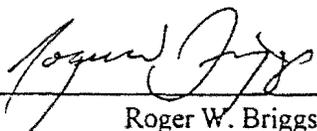
**TIME SCHEDULE ORDER NO. 95-90 FOR SAN LUIS OBISPO COUNTY SERVICES
AREA 9, BAYWOOD/LOS OSOS WASTEWATER FACILITIES, SAN LUIS OBISPO
COUNTY**

Enclosed is Time Schedule Order No. 95-90, concerning San Luis Obispo County which was revised by this Board on April 4, 1997.

If you have questions, please contact Sorrel Marks at (805)549-3695 or Bard Hagemann at (805) 549-3697.

Sincerely,

CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD, CENTRAL COAST REGION

BY 

Roger W. Briggs
Executive Officer

Enclosure

p:\cm\final.ltr

cc: See Attachment

A-3-SLO-97-40
Exhibit 9, p. 14

Mike Ryan
County Board of Supervisors
County Government Center
San Luis Obispo, CA 93408

Tim Nanson
Co. Engineering Dept.
County Government Center
San Luis Obispo, CA 93408

Ruth Brackett
County Board of Supervisors
County Government Center
San Luis Obispo, CA 93408

Harry Ovitt
County Board of Supervisors
County Government Center
San Luis Obispo, CA 93408

John Curphey
State Department of Health Services
P. O. Box 4339
Santa Barbara, CA 93140-4339

Paul Reynolds
2979 Clark Valley Rd
Los Osos, CA 93402

Peg Pinnard
County Board of Supervisors
County Government Center
San Luis Obispo, CA 93408

Roger Shields
505 Rosina Drive
Los Osos, CA 93402

Frank Freiler
1548 Nipomo Avenue
Los Osos, CA 93402

Jennifer Soloway, OCC
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Jerry Gregory
1230 Los Osos Valley Road
Los Osos, CA 93402

Stan Stein
131 Lilac Drive
Los Osos, CA 93402

Jerry Holland
P.O. Box 956
San Luis Obispo, CA 93406

Les Strnad
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060-4508

Alex Hinds
Co. Planning Dept.
County Government Center
San Luis Obispo, CA 93408

Susan Zepeda, Director
San Luis Obispo Co. Health Dept.
P.O. Box 1489
San Luis Obispo, CA 93406

Ron Holland
1220 Marsh St.
San Luis Obispo, CA 93401

Charles Pound
Metcalf & Eddy
450 B Street, Suite 1900
San Diego, CA 92101

Rosemarie Kalemkiarian
5252 Pine Hills Road, #1022
Julian, CA 92036

Kate Symonds
USFWS
2493 Portola Rd, Ste. B
Ventura, CA 93003

Bud Laurent
County Board of Supervisors
County Government Center
San Luis Obispo, CA 93408

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Exhibit 9, p.15

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5427

ORDER NO. 95-90

A TIME SCHEDULE ORDER CONCERNING
SAN LUIS OBISPO COUNTY

The California Regional Water Quality Control Board, Central Coast Region (Board), finds:

1. San Luis Obispo County (hereafter County), owns and operates wastewater collection, treatment, and disposal systems which provide sewerage service to facilities discharging wastes within the Los Osos/Baywood Park area.
2. Treatment facilities that were discharging as of December 8, 1995 consist of individual on-site sewage disposal systems located at the Los Osos Library, South Bay Park, and Baywood Park/Los Osos Fire District Fire Station (the discharges).
3. The discharges are subject to a prohibition of waste discharge from individual sewage disposal systems as specified in the Water Quality Control Plan, Central Coastal Basin (Basin Plan). The prohibition was adopted by the Board on September 16, 1983 as Resolution 83-13. The Basin Plan prohibition specifies, in part:

Page IV-54,

- "3. Discharges from individual and community sewage disposal systems are prohibited effective November 1, 1988, in the Los Osos/Baywood Park area depicted in the Prohibition Boundary Map included as Attachment "A" of Resolution No. 83-13 which can be found in Appendix A-25."
4. On July 7, 1989, in San Luis Obispo, California, the Board held a public hearing at which evidence was presented and the Board

adopted Cease and Desist Orders finding that the discharges violated the Basin Plan Prohibition and establishing conditions for the County to achieve full compliance with the Basin Plan prohibition. Cease and Desist Order Nos. are as follows:

<u>FACILITY</u>	<u>ORDER NO.</u>
Los Osos Library	89-124
South Bay Park	89-125
Baywood Fire District	89-127

5. Cease and Desist Order No. 89-124 requires the County to cease discharging to on-site disposal facilities at the Los Osos Library, located at 2075 Palisades Avenue, Los Osos, as shown on Attachment A. Cease and Desist Order No. 89-124 contains the following deadline that was violated by the County:

"1. Discharger shall achieve compliance with the Basin Plan as soon as possible, but no later than August 31, 1994."

6. Cease and Desist Order No. 89-125 requires the County to cease discharging to on-site disposal facilities at South Bay Park, located at the intersection of Los Osos Valley Road and Palisades Avenue, Los Osos, as shown on Attachment A. Cease and Desist Order No. 89-125 contains the following deadline that was violated by the County:

"1. Discharger shall achieve compliance with the Basin Plan as soon as possible, but no later than August 31, 1994."

A-3-SLO-97-40
Exhibit 9, p. 16

7. Cease and Desist Order No. 89-127 requires the County to cease discharging to on-site disposal facilities at the Baywood Park/Los Osos Fire District Fire Station, located at 2315 Bayview Heights Drive, Los Osos, as shown on Attachment A. Cease and Desist Order No. 89-127 contains the following deadline that was violated by the County:

"1. Discharger shall achieve compliance with the Basin Plan as soon as possible, but no later than August 31, 1994."
8. The County violated deadlines prescribed in Cease and Desist Order Nos. 89-124, 89-125 and 89-127 and has not made significant physical progress toward compliance since issuance of the cease and desist orders.
9. From May 16, 1990, to March 16, 1994, the County fought a lawsuit challenging the assessment district established to finance the sewer project, through the trial court and the Court of Appeal. That litigation was not finally resolved until 1994 when the Court of Appeal ruled in favor of the County, and the Appellant's time to petition the California Supreme Court for further appeal expired.
10. The County has proposed to comply with the Cease and Desist Orders by implementing a wastewater management plan that includes construction of a wastewater collection system and a wastewater treatment plant to serve the Basin Plan prohibition area in Los Osos. The County has submitted a time schedule which indicates that they will not be able to implement the wastewater management plan and comply with the Cease and Desist Orders for approximately six years. Therefore, there has been and there will be a continuing violation of the Cease and Desist Orders.
11. California Water Code Section 13308 authorizes the Board to establish a time schedule and prescribe a civil penalty which shall become due if compliance is not achieved in accordance with that time schedule.
12. The time schedule established in this Order is based on the time schedule submitted by the County and approximately 30 days were added to the dates estimated by the County in order to provide reasonable time for contingencies.
13. The civil penalty established in this Order, \$10,000 per day of violation of the time schedule, is established in an amount necessary to achieve compliance and does not include any amount intended to punish or redress previous violations. This amount is necessary to achieve compliance in light of the project cost, estimated to be \$60,000,000. The \$10,000 per day of penalty would amount to a penalty equal to only 6 percent of the total project cost after an entire year of violation. Additionally, the long history of delay by the County indicates that substantial inducement is necessary to assure that the County will achieve compliance. Furthermore, because the Board does not intend to punish or redress previous violations, this Order provides that the Board may extend the time for compliance for delays beyond the reasonable control of the County.
14. This enforcement action is taken for the protection of the environment and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000, et seq.) in accordance with Section 15321, Chapter 3, Title 14, California Code of Regulations.

IT IS HEREBY ORDERED, pursuant to Section 13308 of the California Water Code, San Luis Obispo County, shall comply with the following time schedule for implementation of a wastewater management plan for the Basin Plan prohibition area in Los Osos which will result in compliance with the Cease and Desist Orders.

A-3-SLO-97-40
Exhibit 9, p.17

<u>Task</u>	<u>Completion Date</u>
Begin Design	March 2, 1996
Complete 60% Design	March 1, 1997
Complete 100% Design	July 17, 1997
Acquire Treatment and Disposal Site Property	December 7, 1997
Begin Construction	
(Segment I)	December 17, 1997
(Segment II)	July 1, 2003
Complete Construction	
(Segment I)	December 28, 1999
(Segment II)	July 8, 2004
Report on compliance (per California Water Code Section 13267)	Two weeks after each above date, as well as quarterly reports beginning January 15, 1996.

This Board reserves its jurisdiction to modify the time schedule in this Order to permit a specified task or tasks to be completed at later dates if the County demonstrates and the Board determines that the delay was beyond the reasonable control of the County to avoid.

If the County fails to complete a task in compliance with the time schedule (or Board approved modification of the time schedule), the County shall be liable in the amount of \$10,000 per day for each day in which the violation of the time schedule occurs.

ORDERED BY *Robert J. [Signature]*
Executive Officer

April 4, 1997
Date

SJM/W:\lososos.tso\js\hp:acm

A-3-SLO-97-40
Exhibit 9, p. 18



Central Coast
Regional Water
Quality Control
Board

81 Higuera Street
Suite 200
San Luis Obispo, CA
93401-5427
(805) 549-3147
FAX (805) 543-0397

July 10, 1998

Charles Lester, District Manager
California Coastal Commission
725 Front Street
Santa Cruz, CA 95060

Dear Mr. Lester:

**SAN LUIS OBISPO COUNTY SERVICES AREA 9, BAYWOOD PARK/LOS OSOS
COMMUNITY SEWER SYSTEM - REQUEST FOR INFORMATION**

This letter responds to your July 2, 1998 memorandum regarding Coastal Commission consideration of a permit for the County's proposed wastewater facilities in Los Osos. You requested additional information regarding water quality problems in Los Osos so that the Commissioners could "determine the appropriate solution". I thought the responsibility of the Coastal Commission was to consider the application by the County for a permit. It would undoubtedly be helpful for the Commission to be familiar with the environmental permitting documents (Environmental Impact Report, two addenda and three supplements) developed over the past ten years, which support the proposed project as the environmentally superior alternative. It would also be helpful for the Commission to be familiar with the many studies performed to verify that the proposed sewerage project is the most technically, legally, environmentally, financially and socially acceptable project to resolve water quality problems in Los Osos. However, details of surface and ground water quality problems, sources of pollutants and feasible solution alternatives includes more than 15 feet of documents filed at the Regional Board office (representing millions of taxpayers' dollars for preparation).

Following is a very brief summary of the background and information you requested. For a historical summary (greater detail than in this letter but short of spending years studying the topic) I recommend you read through the November 17, 1994 staff report (attachment one).

The communities of Baywood Park, Los Osos and Cuesta-by-the-Sea (current population approximately 15,000 people) are served entirely by septic systems. Many of the area's 5,000 individual lots are only 25 or 37 feet wide by 125 feet deep. Depth to ground water in the area varies, but in many areas is shallow enough to flood leachfields. Many of the small lots, being too small for leachfields, utilize seepage pits which discharge directly to ground water without benefit of treatment through the soil, as required by our Basin Plan. During wet weather (and for several months after rains), failing septic systems result in surfacing wastewater in yards and running down street gutters. Ground water monitoring indicates the Los Osos ground water basin is one of the more severely contaminated basins in our region and that ground water nitrate concentrations have significantly increased as population increased in the Los Osos area. Surface waters in Morro Bay National Estuary are also impacted by surface flow and lateral seepage of inadequately treated wastewater.

Attached are nitrate contour diagrams for both the shallow and the deeper ground water zones. These maps were developed using ground water monitoring data from the following sources: EPA STORET database, USGS National Water Information Service, California Department of Health Services, California Department of Water Resources, and small water systems. The Nitrate contour maps depict significant increases in nitrate concentrations over time in both the upper (Old Dune



Pete Wilson
Governor

EXHIBIT NO. 10, p.1
APPLICATION NO. A-3-SLO-97-40
Correspondence
From RWQCB



A-3-SLO-97-40
Exhibit 10, p.1

Sand) and lower (Paso Robles and Alluvium) aquifers. The study which generated these nitrogen contour figures evaluated 107 monitoring wells with more than 1100 data points.

Monitoring data indicates much of the shallow ground water in the most densely developed areas exceeds 45 mg/l, the drinking water standards for nitrate. For this reason, many of the shallow water supply wells have been removed from service and demand shifted to the deeper aquifer. Dependence upon the deeper aquifer exacerbates the surface water problems because the community's water supply, formerly drawn from the upper aquifer, is now drawn from the deeper aquifer and recharged (after use) to the upper aquifer causing ground water levels to rise and flood more septic systems. Increasing surface water impacts including: restriction of portions of shellfish harvesting areas because of rising bacteria levels; waters surrounding the Los Osos area periodically do not meet bacteria standards for water contact recreation (such as swimming, wading, kayaking and small boat sailing); and the public is increasingly exposed to surfacing wastewater.

You may note that the nitrate contours depicted in the deeper (Paso Robles) aquifer do not appear increased in the most recent time frame (1985-1994) and in some areas appear slightly decreased. This may be due to many of the monitoring sites being discontinued after the late 1970s and early 1980s.

You requested evidence that septic tanks are the source of the nitrate problem in Los Osos. Septic tanks are unlikely a serious problem unless they are not water tight, however the discharges from leach fields and pits cause both surface and ground water problems. Evaluation of potential sources and relative contribution of each source is summarized in Los Osos Wastewater Study Task F - Report on Sanitary Survey and Nitrate Source Study by Metcalf & Eddy. The study concludes septic systems contribute the majority of nitrogen to ground water. Septic systems in Los Osos violate criteria for separation to ground water and lot size density specified in the Water Quality Control Plan, Central Coast Region (Basin Plan) designed to protect water quality. For example, the Basin Plan specifies one residence per acre if septic systems are used, in Los Osos ten residences per acre are common. The Basin Plan specifies 20 to 50 feet separation in sandy soils between the bottom of the leach trench or pit and ground water, in Los Osos zero separation is not uncommon. **That means the waste is discharging directly to a drinking water supply.** As indicated above, failing septic systems result in surfacing wastewater in residential yards, running down street gutters and seeping laterally into Morro Bay. Sampling efforts to characterize such runoff and seepage from "springs" has recently included constituents which would be common in domestic wastewater and not found in nature (such as detergents). In this manner fecal coliform bacteria from sewage can be differentiated from other sources. The evidence, both scientific and anecdotal, is overwhelming.

A list of the reports regarding Los Osos currently available at our office is provided as attachment three.

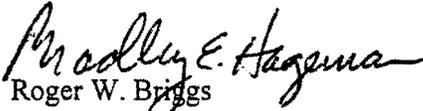
I repeat what I have stated in each correspondence with the Coastal Commission on this issue. Degradation of ground and surface water from high density use and failing septic systems in Los Osos will continue until the sewer system is built. Only the Coastal Commission is preventing this project from proceeding.

A-3-SLO-97-40
Exhibit 10, p. 2



If you have further questions, please contact Sorrel Marks 805/549-3695 or Brad Hagemann 805/549-3697 of my staff.

Sincerely,

For 
Roger W. Briggs
Executive Officer

SJMH:\LOSOSOS\COASTAL4.LTR
Task: 121-01
File: SLO CSA9, Los Osos

Attachments

1. November 17, 1994 Staff Report w/attachments
2. Ground water nitrate contour maps
3. Partial list of Baywood/Los Osos studies and reports

cc: Regional Board Members w/out attachments

Walt Pettit, Executive Officer, State Water Resources Control Board, 901 P Street,
Sacramento, CA 95814 w/out attachments

Working Group members w/out attachments





Central Coast
Regional Water
Quality Control
Board

11 Higuera Street
Suite 200
San Luis Obispo, CA
93401-5427
(805) 549-3147
FAX (805) 543-0397

December 22, 1997

Mr. Steve Monowitz
California Coastal Commission
725 Front Street
Santa Cruz, CA 95060-4508

Dear Mr. Monowitz:

**SOLUTION GROUP PROPOSAL FOR SAN LUIS OBISPO COUNTY SERVICES AREA 9,
BAYWOOD PARK/LOS OSOS WASTEWATER FACILITIES**

At the December 5, 1997 Regional Board meeting, the Solution Group (a new citizens action group in Los Osos) submitted its proposal for modifying the County's plans for sewerage the community of Baywood Park/Los Osos. In general terms, the Solution Group proposal includes the following components:

- Community sewer system would be limited to approximately 60% of the area sewerage in the County's project.
- All new development with less than one acre density and/or less than 30' depth to ground water would hook up to the community sewer system.
- All septic tanks would remain in place and STEP (Septic Tank Effluent Pumping) system would be used in sewerage areas. Septic tank effluent would be pumped through small diameter pipes to the treatment facility.
- Septage (solids from septic tanks) would be hauled by truck to the treatment facility and reintroduced to the liquid portion of the wastewater.
- Treatment facilities would be located between Los Osos Valley Road, Morro Shores Mobile Home Park, the County Library and residential neighborhoods.
- Wastewater treatment would be by a pond system followed by dissolved air floatation, filtration and disinfection.
- Discharge of treated wastewater would be to the Broderson site and other recharge and reuse sites in the community as well as agricultural reuse outside the immediate area.

We have the following comments regarding the Solution Group proposal, as it compares to the County's project. Because of the magnitude of detail in both plans (the County's and the Solution Group's) our comments primarily highlight major differences and/or major problems. Please keep in mind Regional Board authority is based on protecting/restoring water quality for existing and future generations. The Regional Board does not dictate specific treatment or collection system technologies, however we do have considerable experience with a wide variety of municipal, domestic and industrial wastewater systems located within the Central Coast Region.

1. In its proposal, the Solution Group emphasizes the importance of addressing related problems (wastewater, water supply and drainage) in a coordinated effort, a "comprehensive management plan". We strongly agree with this concept in order for these problems to be resolved in the most cost effective manner feasible. With this goal in mind, the County's project is designed to address each of these issues and maintain/restore usable ground water supplies within the Los Osos ground water basin.
2. The Solution Group proposes to sewer only those areas with less than 30' separation to ground water (from ground surface). This means that seepage pits 15-25' deep (commonly used in Los Osos) may be left with only 5' to 15' of sandy soil separating them from ground water. Because of the small lots in Los Osos, areas not sewerage would continue to discharge more than ten times the amount of waste (per acre) allowed in our Basin Plan (based on the one acre minimum criteria for use of on-site systems). The Solution Group proposal does not provide an estimate of how long it would take to restore the ground water to drinking quality or even if restoration of ground water would occur. Partial sewerage of the community is evaluated in the "Los Osos Wastewater Study Task G - Report on Detailed Evaluation of Alternatives" prepared in 1995.

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CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA



Pete Wilson
Governor

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A-3-SLO-97-40
Exhibit 19. p. 4

3. The Solution Group proposes using STEP technology for the entire collection system. As stated above, the Regional Board does not direct sewerage agencies to use one type of collection system over another. In fact, we suggested to the County (during original conceptual design more than ten years ago) that cost savings may be available through utilizing STEP technology. Collection system using STEP (septic tank effluent pumping) or STEG (septic tank effluent gravity) is also evaluated in the "Los Osos Wastewater Study Task G - Report on Detailed Evaluation of Alternatives". The County project, as approved by the Board of Supervisors, includes using STEP technology in specific locations where it is the most economically feasible alternative. However, this technology was rejected for use throughout the entire project as it was not cost effective.
4. Cost estimates provided in the Solution Group proposal do not provide for present worth analysis which includes operations/maintenance costs. Operations and maintenance costs for a STEP system with thousands of residential pumps would be high (relative to a gravity system). Also, certain project costs (EIR development, permitting, 75% design work, etc.) have already been incurred. This money has been spent and would not be refunded if the project was modified. In fact additional costs would be incurred for new EIR preparation, permitting, design of a different project, formation of a new assessment district, etc. Therefore costs paid for the County's project and costs necessary for redoing these components to address any significant modification of the project should be added to the base cost estimate of the Solution Group proposal.
5. The Solution Group proposal indicates shallow ground water would be collected (to reduce drainage problems) and this water would be added to the community's water supply. This shallow ground water would require treatment prior to use (if it is legally useable) but no treatment costs are included in proposed estimates. The County's project, on the other hand, proposes to restore shallow ground water to useable quality without further treatment.
6. Implementation of the Solution Group proposal represents significant time delays due to formation of a new assessment district (by public vote), redevelopment of EIR with accompanying opportunities for appeal and litigation delay, etc. The funding and environmental permitting process has taken ten years for the County project and there is no indication the Solution Group proposal would take any less time. Such delays mean further degradation of ground and surface waters in Los Osos and Morro Bay Estuary and prolonged exposure of the public to surfacing septage.

In summary we respect the amount of effort which the Solution Group has dedicated to preparing it's proposal. Many concepts presented are based on sound wastewater engineering and could be incorporated into the project (STEP technology for example). Although since STEP has not proved economically advantageous, it is not clear why it should be implemented.

In simple terms the Solution Group proposes the following significant modifications to the County project: a) different treatment technology, b) different treatment location, c) different collection technology, and d) smaller area sewerage. We would have no objection to changes a, b and c, provided they did not delay the project and would meet the goal of restoring water quality in Los Osos. However, considerable time delays would be necessary to repeat the environmental review and permitting process, form a new assessment district and redesign the project. The County's project incorporates the most cost effective alternatives/technologies identified by County staff, professional consultants, and independent value engineering review. As described above, most of the concepts in the Solution Group proposal have been evaluated and found not to be cost effective or effective in meeting the goals of the project.

Overall, we do not believe the proposal is a realistic cost saving alternative to the County's community sewerage project. The proposal is not consistent with sanitary engineering practices designed to protect public health and environmental resources.

A-3-SLO-97-40
Exhibit 10, p. 5

Mr. Steve Monowitz

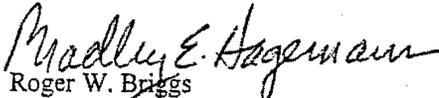
-3-

December 22, 1997

We would like to reiterate Regional Board support for San Luis Obispo County's proposed wastewater facilities project, as approved by the Board of Supervisors. We look forward to implementation of the project as soon as possible in order to stop current degradation of ground and surface water quality from high density use and failing septic systems in Los Osos. Implementation of the community sewer system as proposed will eliminate discharges of inadequately treated wastewater to Morro Bay from failing septic systems as well as nitrate laden shallow ground water. Therefore, the community sewer project will serve to protect ground water, Morro Bay National Marine Estuary, shellfish industry in the Bay and other marine resources.

If you have any questions, please call Sorrel Marks at 805/549-3695 or Brad Hagemann at 805/549-3697.

Sincerely,

For 
Roger W. Briggs
Executive Officer

SMH:\LOSOSOS\COASTAL.LTR\H:LETTERS\
Task: 121-01
File: SLO CSA9, Los Osos

cs:

Gary & Pandora Nash Karner
350 Michell Drive
Los Osos, CA 93402

Joseph Giannine & Jacqueline Smalley
565 Baywood Way
Los Osos, CA 93402

Honorable Tom Bordonaro
State Assemblyman 33rd District
1065 Higuera Street
San Luis Obispo, CA 93401

Honorable Jack O'Connell
State Senator 18th District
1260 Chorro Street
San Luis Obispo, CA 93401

SLO Co. Health Commission
P. O. Box 1489
San Luis Obispo, CA 93406

Richard Lichtenfels
SLO Co. Division of Envi. Health
P. O. Box 1489
San Luis Obispo, CA 93406

Michael Draze
SLO Co. Dept. of Planning & Building
County Government Center
San Luis Obispo, CA 93408

George Gibson
SLO Co. Engineering Dept.
County Government Center
San Luis Obispo, CA 93408

Ruth Brackett, Chairwoman
SLO Co. Board of Supervisors
County Government Center
San Luis Obispo, CA 93408

Jeff Edwards
P. O. Box 6070
Los Osos, CA 93412

Richard Green
225 S. Cabrillo Hwy, Suite 103C
Half Moon Bay, CA 94019

Darrin Polhemus
SWRCB - CWP
P. O. Box 2000
Sacramento, CA 95812-2000

A-3-SLO-97-40
Exhibit 10, p. 6

DEPARTMENT OF HEALTH SERVICES

2151 BERKELEY WAY
BERKELEY, CA 94704
(510) 540-3423

EXHIBIT NO. 11, p. 1
APPLICATION NO.
A-3-SLO-97-40
Correspondence from
Dept. of Health Services

E WILSON, Governor



October 5, 1998

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OCT 06 1998

CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

Steve Monowitz
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, CA 95060

RE: COASTAL COMMISSION HEARING ON SAN LUIS OBISPO COUNTY COASTAL DEVELOPMENT PERMIT

Dear Mr. Monowitz:

The California Department of Health Services (Department) would like to encourage the Commission to avoid further delays in its decision regarding the San Luis Obispo County Coastal Development Permit. The Department is concerned that further delays will result in an unacceptable public health risk due to the continuing contamination of Morro Bay. The Department's Environmental Management Branch recommends that the Commission approve the coastal development permit requested by San Luis Obispo County for the Los Osos wastewater treatment plant project.

The Department is the lead agency in the state's Shellfish Sanitation Program, which adheres to the guidelines and recommendations of the National Shellfish Sanitation Program (NSSP) administered by the U.S. Food and Drug Administration. The Department is responsible for all public health concerns related to the commercial harvest of bivalve shellfish (e.g., oysters, mussels, clams, scallops) for the purposes of human consumption. The Department maintains a routine monitoring program in Morro Bay to ensure that all certified growing areas continue to meet the water quality criteria of the NSSP.

In 1996 the Department found that water quality in a portion of a certified growing area in Morro Bay had degraded and no longer met the NSSP standards. The classification of this site was downgraded to "Prohibited" status, i.e. the affected area is unsuitable for direct harvest of shellfish for human consumption.

Shoreline surveys conducted by the Department and the Regional Water Quality Control Board have revealed numerous seeps along the shoreline of Los Osos and Baywood Park. The water from these seeps has been found to be exceedingly high in nitrates, fecal coliform bacteria and the surfactants commonly found in detergents. There is no question but these seeps, representing sewage contamination of the groundwater from failing septic systems, are impacting the waters of Morro Bay. If this problem continues unabated the use of the bay for commercial aquaculture and sport-harvesting of shellfish, and perhaps for recreational water contact as well, will be threatened.

The Department has recently experienced the impact of a shellfish-related illness outbreak in Tomales Bay. This outbreak, which involved at least 171 ill people, was the result of human fecal contamination of the bay, which caused the contamination of the commercial shellfish beds with a Norwalk-like virus. One of the potential sources for this contamination is the number of suspect septic systems within two miles of the growing area. The Department determined that the fecal contamination from one ill person, shedding viruses at a rate of 10^9 viruses per day, would require 700,000,000 cubic feet of clean water to dilute the virus concentration below the infectious dose in shellfish. For a body of

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Exhibit 11, p. 1

October 5, 1998

Page 2

water with an average depth of ten feet, this is equivalent to a half-circle radius greater than one mile around the pollution source.

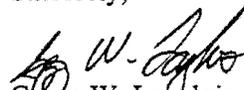
There are two striking elements to the Tomales Bay outbreak relative to the existing problems in the Los Osos/Baywood Park community. First, there are approximately 36 septic systems within two miles of the shellfish growing area in Tomales Bay. In contrast, there are hundreds, perhaps thousands, of septic systems which may be contaminating the groundwater of Los Osos/Baywood Park, which in turn is entering into Morro Bay. Second, the suspect systems in Tomales Bay have no obvious signs of failure, e.g., no obvious direct discharges, seeps, or high fecal coliform concentrations in surface waters. There are numerous examples of obviously failing septic systems in the Los Osos/Baywood Park community. The exact cause of the Tomales outbreak will never be known, but is likely related to an unpredictable combination of circumstances, e.g., a substandard septic system, saturated soils, and an ill person shedding viruses. Because of the public health impacts, the Department, The San Francisco Bay Regional Water Quality Control Board, and the County are moving forward with thorough site inspections and testing of all shoreline septic systems. Failures that cannot be immediately corrected may require restrictions on occupancy, e.g. red-tagging, until an acceptable alternative waste treatment system can be employed.

It is obvious that the current situation in Morro Bay represents a far greater risk to human health and should be remedied as quickly as possible. It is the Department's opinion that, because of the length of time required to implement the long-term solution of sewerage the community, the Commission should act immediately so that this process can begin without further delay. In the interim, the Department strongly recommends that the Regional Water Quality Control Board and San Luis Obispo County Environmental Health Department immediately make the necessary short-term corrections to ensure that failing systems do not continue to contaminate groundwater supplies, threatening Morro Bay and creating an unacceptable public health risk.

The Department has serious concerns regarding the sustained suitability of Morro Bay for commercial shellfish growing, as well as recreational harvesting, if the problem of failing septic systems in the area is not quickly and adequately addressed. The Department therefore recommends that the Commission approve the County of San Luis Obispo's Coastal Development Permit immediately so that the County's plan for a wastewater treatment plant can be implemented without further delay. If the Department determines that the shellfish growing areas can be impacted by the contaminated water originating from Los Osos/Baywood Park, it will not hesitate to reclassify Morro Bay as prohibited and close the bay to commercial shellfish harvesting to ensure protection of the public health.

Thank you for the opportunity to submit these comments into the record. If you need any additional information from our Department please contact me at (510) 540-3423.

Sincerely,


Gregg W. Langlois

Environmental Specialist IV, Supv.
California Department of Health Services

A-3-SLO-97-40
Exhibit 11, p. 2

DEPARTMENT OF HEALTH SERVICES

2151 BERKELEY WAY
BERKELEY, CA 94704
(510) 540-3423



June 8, 1998

TO: California Coastal Commission

RE: Coastal Commission Hearing on San Luis Obispo County Coastal Development Permit

Submitted by Facsimile Transfer; original mailed.

To Whom it May Concern:

The Department of Health Services' Environmental Management Branch recommends that the Commission approve the coastal development permit requested by San Luis Obispo County for the Los Osos wastewater treatment plant project. The Department also recommends against any additional delays to this project for reasons given below.

The Department is the lead agency in the state's Shellfish Sanitation Program, which adheres to the guidelines and recommendations of the National Shellfish Sanitation Program (NSSP) administered by the U.S. Food and Drug Administration. The Department is responsible for all public health concerns related to the commercial harvest of bivalve shellfish (e.g., oysters, mussels, clams, scallops) for the purposes of human consumption. The Department maintains a routine monitoring program in Morro Bay to ensure that all certified growing areas continue to meet the water quality criteria of the NSSP.

In 1996 the Department found that water quality in a portion of a certified growing area in Morro Bay had degraded and no longer met the NSSP standards. The classification of this site was downgraded to "Prohibited" status, i.e. the affected area is unsuitable for direct harvest of shellfish for human consumption.

Shoreline surveys conducted by the Department and the Regional Water Quality Control Board have revealed numerous seeps along the shoreline of Los Osos, Baywood Park, and Cuesta-By-the-Sea. The water from these seeps has been found to be exceedingly high in nitrates and in fecal coliform bacteria.

There are several potential sources of fecal contamination that can impact water quality in Morro Bay. Failing septic systems are one of the greatest concerns due to the large number of systems in these communities and the overwhelming evidence of large-scale failures. Due to the proximity of these communities to the existing commercial shellfish growing areas, even a small number of failing systems could represent a serious threat to the growing areas. Because of the low infectious dose for some viruses and the fact that shellfish can concentrate pathogens up to 50-fold the ambient concentration, fecal contamination of the bay from one ill person can result in an infectious level of viruses in shellfish miles away.

For these reasons the Department has serious concerns regarding the sustained suitability of Morro Bay for commercial shellfish growing, and thus recreational harvest as well, if the problem of failing septic systems in the area is not adequately addressed. The Department therefore recommends that the Commission approve the County of San Luis Obispo's Coastal Development Permit immediately so that

A-3-SLO-97-40
Exhibit 11, p. 3

California Coastal Commission
Page 2
June 8, 1998

the County's plan for a wastewater treatment plant can be implemented without further delay.

Thank you for the opportunity to submit these comments into the record at such a late date. If you need any additional information from our Department or would like clarification of any of these issues, please contact me at (510) 540-3423.

Sincerely,



Gregg W. Langlois
Environmental Specialist IV, Supv.
California Department of Health Services

A-3-SLO-97-40
Exhibit 11, p.4

EM

IN THE BOARD OF SUPERVISORS COUNTY OF SAN LUIS OBISPO, STATE OF CALIFORNIA

Tuesday, January 6, 1997/8 sm

PRESENT: Supervisors Harry L. Ovitt, Laurence L. Laurent, Peg Pinard, Michael P. Ryan, Chairperson Ruth E. Brackett

ABSENT: None

In the matter of Los Osos Wastewater Treatment Facility Project:

This is the time set for hearing to consider a report on shallow gravity wells for groundwater recharge in connection with the Los Osos Wastewater Treatment Facility project; 2nd District.

Mr. George Gibson: Engineering, presents a brief staff report; states this report was submitted to the Board on November 25, 1997, and continued to today to allow time for review; asks the Board to look at the two recommended alternatives and direct staff accordingly.

Mr. Matt Tebbetts: Metcalf & Eddy Project Manager, presents a brief summary of the Los Osos Wastewater Facility Alternative Disposal Study on shallow gravity well disposal; recommends 46 wells with 150 feet separation and states they would fit within the Broderon site; addresses concerns of the wells clogging; states the estimated cost increase is \$1,440,000 due to the increased level of treatment.

Supervisor Laurent: questions if it would be possible to use existing road right-of-way for the development of recharge drywells rather than going to the Broderon site, with Mr. Tebbetts agreeing that could occur.

Supervisor Laurent: questions the longterm savings in irrigation by using the tertiary effluent rather than having to pump native groundwater; addresses Mr. Brim's letter and concerns regarding probe access.

Mr. Tebbetts: explains there is a potential for savings with this alternative; discusses the method of testing done by the probe; states he does not agree with Mr. Brim's letter.

Ms. Ann Calhoun: questions a letter written by Supervisor Laurent to Mr. Nanson, County Engineer, where he referred to a report by Wade Brim and asked staff to review Mr. Brim's

EXHIBIT NO. 12, 18
APPLICATION NO. A-3-510-97-40
Minutes from 1/6/98
Board of Supervisors Hearing

report and where there were points of disagreement asked for "irrefutable" evidence; wants to know if Supervisor Laurent has received that report from staff, and when will it be made public.

Mr. Wade Brim: hands the Board a draft review of Broderson Disposal Report; suggests most of the statements made in the Metcalf and Eddy Report as fact, are not supported by evidence (no calculations); urges the Board to look at his report.

Mr. Virgil Just: addresses the availability of data on shallow or gravity well testing; questions the length of time and the amount of water used in the testing done by Metcalf and Eddy to come to conclusions regarding the recharge capabilities.

Mr. Eric Greening: addresses the infiltration wells and their cost disadvantage; speaks regarding the risk of leaks at the Broderson Site which could lead to claims against the County; states one could look at the injection wells as insurance against such claims.

Mr. Paul Reynolds: addresses two observations: 1) if the cost of the wastewater project exceeds the \$71 million, would that cause any individual assessment to go up above the original plan and require a new Assessment District and a new vote; 2) are Engineering and the consultant working to keep this project in that budget; questions if the project can accommodate the \$1.4 million increase without changing the Assessment District and if the outflow to Los Osos Creek is to be pursued, what is the cost of that and can it be accommodated under the ceiling (in dollars) of the Assessment District

Mr. Gibson: responds to public comment; states the project can accommodate these costs, however, there will be compromises; original cost estimates have come down; speaks regarding the Los Osos Creek cost and the tertiary treatment; believes the basins are solid and will last the life of the project; states more time and information is better, however, the County is not afforded that time; based on information from field tests and the hydrogeology investigation done over a year ago it provides a level of confidence that these wells will work.

Mr. Tim Nanson: County Engineer, states the report by staff regarding Mr. Brim's report was delivered on December 22, 1997.

Supervisor Laurent: states they will make that report available to the public; states any action taken here today needs to go to CSA-9 for their full comments.

Matter is fully discussed and thereafter, on motion of Supervisor Laurent, seconded by

EXHIBIT NO. 13, p.1
APPLICATION NO. A-3-SLO-97-40
Biological Mitigation
Proposal

*Proposal for Mitigation of Impacts to Biological Resources,
Including Endangered Species Habitat,
from the Construction of the Los Osos Sewer and
Resulting Future Residential and Commercial Development*

INTRODUCTION

The County of San Luis Obispo (County), on behalf of Community Services Area #9, is planning the development of a wastewater treatment facility (sewer) for the community of Los Osos. The sewer is being built by order of the Regional Water Quality Control Board as a way of reducing nitrogen loading and other impacts to the ground water and the estuary.

The three primary components of the sewer are the collection system, the treatment plant and the disposal facility. The Pismo site, located at the southeastern corner of the junction of South Bay Boulevard and Pismo Avenue, is the proposed location of the wastewater treatment plant. The Broderon site is located just south of Bayview Heights Drive west of the southern extension of Broderon Avenue, and is the proposed location of the treated wastewater disposal field. The lower (northern) Morro Palisades site is located just south of Bayview Heights Drive east of the southern extension of Broderon Avenue, and is an alternate location of the treated wastewater disposal field. [NOTE: As an alternate site, the specific habitat types that would be affected have not been identified, however, the proposal would place the gravity wells in the portion of the site already disturbed through the on-going maintenance of an exiting fire break.]

Because development of the sewer will result in the loss of habitat for federally listed endangered species, the County must comply with the Endangered Species Act (ESA). Analysis and mitigation of the impacts is being done pursuant to §7 of the ESA, which requires consultation between the lead federal agency (in this instance the U.S. Environmental Protection Agency) and the U. S. Fish and Wildlife Service (USFWS). Section 7 jurisdiction is appropriate for the sewer because a portion of the funding for its construction originated with the federal government. It must be acknowledged that this mitigation proposal is subject to modification through the section 7 process, as well as through the processing of the Coastal Development Permit for the project. Therefore, this proposal should be considered the minimum level of mitigation that would be provided for the project.

The purpose of this report is to discuss the mitigation measures proposed by the County for minimizing impacts to biological resources, including endangered species and species of concern. Specific species include the Morro shoulderband snail, Morro kangaroo rat, Black legless lizard, Morro blue butterfly, Indian knob mountain balm, and Morro manzanita. Many of these measures were also reported in the environmental documentation of the project pursuant to the California Environmental Quality Act (CEQA).

The County is proposing to purchase 40 acres of land as mitigation for direct and indirect impacts of the project. This purchase and considerable additional mitigation measures are the subject of this

proposal.

MITIGATION

The primary objective of the mitigation program is to protect viable areas of coastal scrub habitat. The need for mitigation for the sewer and its secondary impacts was based upon the existence of suitable habitats for the Morro shoulderband snail and other species at the treatment plant, disposal site and undeveloped parcels in Los Osos. The snail has been the primary focus in this investigation. However, all of the species of concern for this project exist within the same coastal scrub habitat as the snail. Therefore, as stated in the 1997 Final Supplemental EIR, mitigation for one species will provide protection for all. The butterfly is more specifically reliant upon the Blue Lupine, which is a plant within the coastal scrub habitat. The snail occupies a wide range of properties in Los Osos; evidence of the snail has been found at the Broderson site, the Pismo site, all along Los Osos creek and in many of the small, interior parcels of Los Osos. The Kangaroo rat was investigated at both the Pismo and Broderson sites, and no evidence of habitation was found.¹ However, many of the areas of impact are suitable habitat for the Kangaroo rat. None of the known stands of Indian knob mountain balm are located within areas potentially impacted by the construction of the sewer.

The County is proposing to purchase several acres of land (approximately 40) as compensation for loss of and disturbance to coastal scrub habitat. In addition to the purchase of land, the County has proposed a number of additional mitigation measures to further protect species of concern during construction and operation of the facility. The mitigation measures are from the EIR and from the Biological Opinion for the geotechnical testing on the Pismo and Broderson sites. Further, as part of the Estero Area Plan update, the County is proposing several programs that would protect these sensitive habitats, including a transfer of development credits program, cluster subdivisions and changes in zoning densities.

IMPACTS OF TREATMENT FACILITIES

Methodology

Both sites, Pismo and Broderson, were surveyed by biologists (on the ground and using aerial photographs), and the resulting maps of habitat types were put into a geographic information system (GIS). Acreage of different habitats were computed using GIS. The acreage shown in the tables below represent various plant communities and habitats. Not included are disturbed areas, roads and other areas which are not considered appropriate habitat. These latter areas constitute a very small portion of both sites.

¹ O'Farrell, Michael J., "Los Osos Sewer Project" Report on Survey for Kangaroo Rats, conducted May 13 through 15, 1997.

Pismo Treatment Facility Site

The treatment facility is proposed to be constructed on a triangular parcel of approximately ten acres, located near the southeast corner of the intersection of Pismo Avenue and South Bay Boulevard. The treatment facility would eliminate 6.7 acres of habitat on the site. Mitigation would be required for this 6.7 acres. There will be 3.8 acres of habitat remaining on the parcel which will not be disturbed by construction (see Table 1). Since 3.8 acres are protected on site, an additional 2.9 acres of habitat will need to be acquired elsewhere. This 2.9 acres will be acquired as part of a single 40 acre purchase that includes land for the Broderson site and the secondary impacts. A later discussion will explain how the purchase of a large parcel of comparable habitat obviates the need for a higher mitigation ratio.

Furthermore, 1.7 acres of the habitat lost is dominated by veldt grass. Since there were some shells in the veldt, it was included in the calculation of suitable habitat. It is not known whether the snails inhabited the veldt, were brought there by predators, or were transported to the site by other means.

Additional mitigation measures (as detailed in the project EIR) are proposed to protect and enhance the remaining area on the site. In addition, the County proposes to restore and protect additional area immediately surrounding the plant after construction, adding to the amount of habitat left.

Table 1: Habitat Acreage To Be Disturbed At Pismo Site

Habitat Impacted (acres)*	Description	Habitat Remaining (acres)
1.4	Chamise -- Wedgeleaf Ceanothus Chaparral	2.3
1.7**	Veldt Grass Grassland	.1
0.7	Heather Goldenbrush Coastal Scrub	.01
2.9	Dune Lupine Scrub	1.4
6.7	Remaining Habitat	3.8
	Net Loss (of which 1.7 is veldt grass)	(2.9)

Source: Fugro West, Inc.

* This is not the entire acreage of the area to be disturbed, but only that which is considered suitable habitat for the species of concern to this project.

** Note--Veldt is not suitable habitat, but the area did contain some shells

Table 2. Specific Mitigation From EIR For Pismo Site

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FSEIR #	Impact	Mitigation	Acres	Status
P-BIO-1(a)	Loss of habitat for listed species	§7 consultation		ongoing
P-BIO-1(b)		Secure compensatory acreage	2.9	use of on-site area that is not in project and restoration of disturbed areas
P-BIO-2(a)	Site disturbance	Minimize--construction control		will prepare instructions for construction
P-BIO-2(b)		Restore disturbed areas--mix of native plants		will prepare restoration plan
P-BIO-2(c)		Improve add'l land around site		will prepare restoration plan
P-BIO-2(d)		Control invasive species		will prepare maintenance plan
P-BIO-3(a)	Disturbance to special status plants	Avoid & minimize disturbance --map		mapping complete--prepare construction plan
P-BIO-3(b)		Transplant sensitive plant species		prepare plan
P-BIO-4(a)	Loss of snail habitat	Replace habitat	2.9	net loss of snail habitat
P-BIO-5(a)	Loss of Morro Blue Butterfly habitat	Replace habitat	2.9*	net loss of butterfly habitat
P-BIO-6(a)	Loss of Monarch habitat	Avoid disturbance to windrow	0	owner has since cut down windrow

*Acreage for dune lupine based on dominance of species in area. The lupine is scattered amongst the entire northern half of Pismo.

Broderson - Gravity Wells

The County proposes to construct gravity wells on an 80-acre parcel located south of Highland Avenue. The parcel contains snail habitat (live snails were found in the winter of 1997). Other species may inhabit the area as well, including the Black legless lizard and Morro blue butterfly. The southern portion of the site, up the hillside, is mostly live oak and manzanita. (See Table 3). The wells would impact 14 acres of the 80 acre parcel. Of these 14 acres, 11.3 are suitable habitat for the snail. Approximately 6.9 acres of similar habitat would remain on the site and be protected. Therefore, mitigation will be required to account for the net loss of approximately 4.4 acres of appropriate habitat and to protect the remaining area. In addition, the entire southern portion of the site will remain undisturbed. The County will leave the remaining 66 acres in a protected and open

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space condition. In addition, the County proposes to restore the area immediately south of the ponds.

Table 3: Habitat Acreage To Be Disturbed At Broderon Site

Habitat Disturbed (acres)*	Description	Habitat Remaining (acres)
.1	Chamise -- Wedgeleaf Ceanothus Chaparral	.2
.2	California Sagebrush -- Black Sage Scrub	.4
8.1	Heather Goldenbush Coastal Scrub	3.5
2.9	Dune Lupine Scrub	2.8
11.3		6.9
	Net Loss	(4.4)
Other Acreage On Site		
.5	Veldt Grass Grassland (not included in total)	1.8
1.1	Windrow (monarch butterfly)	2.4
.7	Coast Live Oak Forest/Manzanita	60 +/-
	Total Remaining Acres (Mostly Oak & Manzanita)	66

Source: Fugro West, Inc.

* This is not the entire acreage of the area to be disturbed, but that portion which is considered suitable habitat for the species of concern to this project.

Table 4. Specific Mitigation From EIR for Broderon

SFEIR #	Impact	Mitigation	Acres Lost	Status
B-BIO-1(a)	Loss of habitat for listed species (see below)	§7 consultation	11.3	ongoing
B-BIO-1(b)		Secure compensatory acreage	4.4	purchase add'l land, use of on-site area that is not in project and restoration of disturbed areas
B-BIO-2(a)	Site disturbance	Minimize--construction area		will prepare instructions for construction

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B-BIO-2(b)		Restore disturbed areas—mix of native plants		will prepare restoration plan
B-BIO-2(b)		Improve add'l land around site		will prepare restoration plan
B-BIO-2(b)		Control invasive species		will prepare maintenance plan
B-BIO-3	Elevated groundwater	none required		will monitor
B-BIO-4(a)	Disturbance to special status plants	Avoid & minimize disturbance --map		mapping complete—prepare construction plan
B-BIO-4(b)		Transplant sensitive plants		prepare plan
B-BIO-5(a)	Loss of habitat for Kangaroo Rat	Replace habitat	11.3	6.9 acres will remain—add'l 4.4 acres will be acquired
B-BIO-5(b)		Conduct surveys		First survey completed 6/97—need pre-construction survey
B-BIO-6(a)	Loss of snail habitat	Replace habitat	11.3	6.9 acres will remain—add'l 4.4 acres will be acquired
B-BIO-7	Loss of Black Legless Lizard Habitat	Replace habitat	11.3	6.9 acres will remain—add'l 4.4 acres will be acquired
P-BIO-8(a)	Loss of Morro Blue Butterfly habitat	Replace habitat	2.9*	2.8 acres will remain on the site
P-BIO-9(a)	Loss of Monarch habitat	Avoid disturbance to windrow	1.1	2.4 acres of windrow will remain on the site

* Acreage for dune lupine based on dominance of species in area. The lupine is scattered amongst the entire northern half of Broderson.

SECONDARY IMPACT AREAS

Section 7 of the Endangered Species Act, and the California Environmental Quality Act, require mitigation to be developed for both the direct and indirect impacts of a project. The direct impacts, a combined net loss of about 18 acres of habitat at the Pismo and Broderson sites, were discussed above. Indirect impacts (referred to as secondary impacts) are defined, for the purposes of this project, as habitat that would be lost from development that could occur upon completion of the wastewater facility. Much of Los Osos is currently under a moratorium imposed by the Regional Water Quality Control Board which would be lifted upon completion of the project.

Methodology

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The County Department of Planning and Building and the County Assessor's office assisted in the development of information regarding the number and acreage of parcels in Los Osos that were currently undeveloped within the wastewater prohibition area. The objective was to determine how many new residential and commercial parcels might get developed if the project were constructed. Gaylene Tupen, biologist, visited every undeveloped parcel in Los Osos (692 parcels) and assessed their habitat type in accordance with a list of thirteen identified types (listed below). The methodology is contained in Attachment 2. Four of the thirteen types were considered suitable habitat for the snail (see Table 5).²

Table 5: Habitat Codes for Undeveloped (660) Lots of the Los Osos Sewer Service Area

Code	Type	Description	Habitat Suitable For Snail
1	Coastal Dune Scrub	Contains minimal or no evidence of previous site disturbance or occurrence of veldt grass.	Yes
2	Coastal Dune Scrub	Exhibits moderate amounts of previous site disturbance or occurrence of veldt grass.	Yes
3	Coastal Dune Scrub	Exhibits substantial previous or ongoing site disturbance and presence of veldt grass.	Yes
4	Ice plant/Sea Fig	Ice plant or sea fig occurs as sole or dominant plant species.	Yes
5	Coast Live Oak Woodland.	This is generally areas with stands of numerous contiguous trees	No
6	Veldt Grass Grassland/Annual Grassland.	These areas are dominated by grass—most of them have been tilled or mowed in the past. Many of the habitats above has some veldt grass.	No
7	Disturbed/Ruderal	Ground surface significantly disturbed and contains a prevalence of ruderal species.	No
8	Agriculture	Recent cultivation	No
9	Landscaping	Planted, exotic vegetation, often adjacent to homes	No
10	Willow Scrub/Willow Woodland	Mostly adjacent to the creek and other wetlands	No

² The parcels were generally of mixed habitat, and many of the smaller ones were only partially suitable snail habitat. Nevertheless, these parcels were counted as though they were entirely suitable. This furthers the rationale for a reduced ratio of mitigation.

11	Developed	Buildings, paving, etc.	No
12	Fresh/Saltwater Marsh	Wetland areas	No
13	Coyote Brush Scrub		No

Small Parcels

Los Osos has 567 parcels, less than an acre in size, which could be built upon if the sewer were to be constructed. Of these, 172 contain habitat that may be suitable for snails (see Attachment 3). The total area of habitat located on small parcels is approximately 37 acres.

Given that these are very small parcels spread within a largely developed urban core, it is not likely that they represent significant habitat for the snail or other species compared to larger parcels located in the surrounds of Los Osos. The habitat in the core of Los Osos is highly fragmented and less likely to support viable populations of the species than the larger parcels located just outside of the urbanized area. The County, therefore, proposes to mitigate the future loss of these small parcels at the rate of 1/3 acre of suitable snail habitat for every acre of combined small parcels to be developed.

Large Parcels

Los Osos has 86 parcels, greater than one acre in size, which could be built upon if the sewer were to be constructed. Of these, 38 contain habitat that may be suitable for snails (see Attachment 3, following). The assumption in the mitigation is that each of these parcels could presently support a single family dwelling in their current status. Although many of these could be further subdivided, it is the County's position that it would not be equitable to the citizens of Los Osos to subsidize the larger parcel owner's potential for additional development. The owners of these larger parcels will need to purchase additional land (or otherwise mitigate habitat loss) in order to develop more intensely. The proposal is to allow for 1/2 acre of disturbed area on each of the 38 larger parcels (an amount of land considered reasonable for the development of a single family dwelling). The County's mitigation for larger parcels is, therefore, replacement of habitat for 19 acres of future development. The same ratio would apply to both residential and commercial zoned parcels. Again, if a property owner wanted development in excess of the 1/2 acre, they would need to participate individually in mitigation.

Morro Palisades.

There are a few very large parcels that would be included in the inventory. Most notable is the property referred to as Morro Palisades which consists of 200+ acres and is located immediately east of the Broderson infiltration site. This parcel has for many years been the object of controversy and

concern. The site is a natural for residential development. It has a gentle slope and would provide excellent views of Morro Bay and areas further up the coast. It is also designated as Kangaroo rat habitat. It is the largest privately held parcel in the USFWS targeted recovery areas. It's populated with coastal scrub habitat that had the last confirmed sitings of the Kangaroo rat.

The issue relative to this parcel is whether the development of the sewer warrants full mitigation of potential impacts from the development of this site. The County contends that the site is valuable enough to be developed without reliance on the sewer. It could, like other large residential projects in the County, proceed with a package treatment plant. In fact, more than half of the property is outside of the sewer prohibition area, and could be developed with septic systems. Furthermore, the sewer presents only one of several impediments to the development of this parcel. It would require mitigation under CEQA, and the development of its own habitat conservation plan under §10 of the Endangered Species Act. The Regional Board order is an impediment to the parcel. However, given the significant necessary intervening requirements, the full development of the Morro Palisades site is not a consequence of the sewer prohibition being lifted. Therefore, it is not appropriate for the project to bear the burden of that development's impacts. Further, larger developments will be in a better position to offer significant mitigation than to assess this cost upon the citizens of Los Osos.

PURCHASE OF ADDITIONAL LAND

Proposal. The County proposes to mitigate the loss of potential habitat resulting from the eventual development of the treatment facilities and the small and large parcels in Los Osos by purchasing land having at least 40 acres of good coastal scrub habitat. Appropriate sites would be chosen from the area surrounding Los Osos. Final site determination would depend upon potential for sale and agreement with USFWS. These sites are not discussed in this report. Given the sensitive nature of land negotiations, the County did not consider it prudent to identify specific candidate sites. If requested, however, the County is prepared to submit this information.

Quality of the purchased land. In order to meet the mitigation requirements proposed under CEQA and the Federal and State Endangered Species Acts, the land purchased would need to meet certain specifications. Since the loss of habitat to species of concern is coastal scrub, the 40 acres would need to be the same. More specifically, the scrub would need to contain between one and two acres dominated by Dune lupine, for the benefit of the Morro blue butterfly. The County proposes to meet the coastal scrub requirement and ensure that a significant population of Dune lupine exists.

Replacement ratio. In general, the County proposes to mitigate direct project impacts by purchasing land at a one acre to one acre ratio. This ratio is considered appropriate given the size of the parcel that would be acquired (approximately 40 acres) and the quality of parcels that are available. There are several parcels surrounding Los Osos which would fulfill the mitigation requirements of the sewer project. These include coastal scrub habitat that meet the criteria discussed amongst the participating agencies: large parcels, in good condition, contiguous with other

open space (including adjacent publicly protected land). In fact, all candidate parcels are within the USFWS areas proposed for protection in their recovery plan. In addition, these parcels have been identified and mapped for the San Luis Obispo Land Conservancy as part of an effort to establish a greenbelt around the community of Los Osos. This mapping has increased the confidence that the parcels have habitat suitable to provide mitigation at a 1:1 acre ratio, given their current condition and proximity to larger, protected lands.

AREA-WIDE MITIGATION

Estero Area Plan Update

The County is currently preparing a significant update of the Estero Area Plan, which is a portion of the County's General Plan. An entire section of the plan is devoted to a habitat conservation program, Section 6B. The program sets forth the County's proposal for maintaining appropriate habitat for the many rare and endangered species located in the area. The habitat conservation program is designed for the preservation of multiple species.

The proposed Estero Area Plan involves many requirements for future development. These include:

- Transfer of development credits. The TDC program will allow an owner of land to sell their development rights to the owner of another designated parcel. This allows the retention of economic value and the flexibility to save sites of significant habitat value.
- Cluster Developments. Developments in sensitive areas will be clustered in accordance with a proposed ordinance designed specifically to protective sensitive resources on parcels.
- Specific policies designed to protect sensitive habitats.

RESTORATION, LONG TERM MANAGEMENT & FUNDING

The County of San Luis Obispo will maintain in perpetuity the areas surrounding the treatment plant (Pismo) and the infiltration ponds or wells (Broderson). The maintenance includes planting of native species that make up coastal scrub habitat (especially Dune Lupine for the benefit of the Morro blue butterfly). It will include funding to control invasive species from occupying the site. Revenues generated for the operation of the sewer will be marked for the habitat maintenance.

Property purchased by the County in addition to that for the facilities will be granted in fee to an organization capable of maintaining the site in its natural condition. This may be the Land Conservancy, the State Park, or a local group formed for greenbelt conservation.

SUMMARY OF IMPACTS AND MITIGATION

The construction of the sewer facilities at the Broderson and Pismo sites will result in the loss of approximately 18 acres of habitat appropriate for the Morro shoulderband snail and other species of

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concern. Future development of small parcels (less than one acre) with suitable habitat will total approximately 37 acres of suitable snail habitat. The County is proposing a 1:1/3 replacement ratio for these parcels, or approximately 12.3 acres of land purchased for mitigation. Future development could occur on 38 larger parcels of snail habitat. The County is proposing mitigating for 1/2 acre of land on each parcel, for a total of 19 acres.

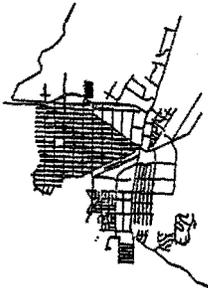
Table 6: Summary of Proposed Mitigation

Impact Area	Appropriate Habitat (acres)	No. of Parcels	Ratio	Mitigation Acres Required
Broderson	11	1		4.4
Pismo	6.7	1		2.9
Small Lots	38	172	1:1/3	12.3
Larger Parcels	208	38	1/2 acre/parcel	19
Total	262	212		38.6

The County proposes to purchase and legally protect a total of approximately 100 acres of land. Of this, approximately 40 acres will be a separate parcel aside from that of the treatment plant or ~~percolation pond~~ locations. In addition, through its planning and regulatory functions, the County will work to protect the habitat of the many special status species in the Los Osos area.

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Site Location Map

A-3-SLO-97-40
Exhibit 13, p. 12



Legend:

- Heather Goldenbrush Coastal Scrub
- California Sagebrush - Black Sage Scrub
- Dune Lupine Scrub
- Moro Manzanita Chaparral
- Chamise Chaparral
- Chamise - Wedgeleaf Ceanothus Chaparral
- Coast Live Oak Forest
- Arroyo Willow Scrub
- Creekbed
- Annual Grassland
- Hemlock - Nieramide
- Velvet Grass Grassland
- Ruderal
- Wetland
- Landscaping
- Site Boundary

PISMO AVENUE SITE HABITAT MAP

- Developed

Figure 5.3-1

Note: Legend includes habitat types that may not appear within the boundaries of this site.



TSI
Environmental Review



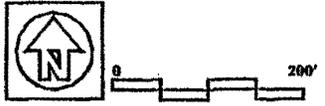
EXHIBIT NO. 13, p. 13
APPLICATION NO. A-3-SW-97-40
Biological Mitigation Proposal (cont'd)

E



Site Location Map

A-3-SLO-97-40
 Exhibit 13, p. 14



Legend:

- | | | | | | |
|---|--|-----------------------|------------------------|-------------|---------------|
| Heather Goldenbrush Coastal Scrub | Morro Manzanita Chaparral | Coast Live Oak Forest | Annual Grassland | Federal | Developed |
| California Sagebrush - Black Sage Scrub | Charnise Chaparral | Arroyo Willow Series | Horseweed - Navarretia | Windrow | Site Boundary |
| Diab Lupine Scrub | Charnise - Wadgoleaf Ceanothus Chaparral | Creekbed | Veldt Grass Grassland | Landscaping | |

BRODERSON SITE HABITAT MAP

Note: Legend includes habitat types that may not appear within the boundaries of this site.

Figure 5.3-4

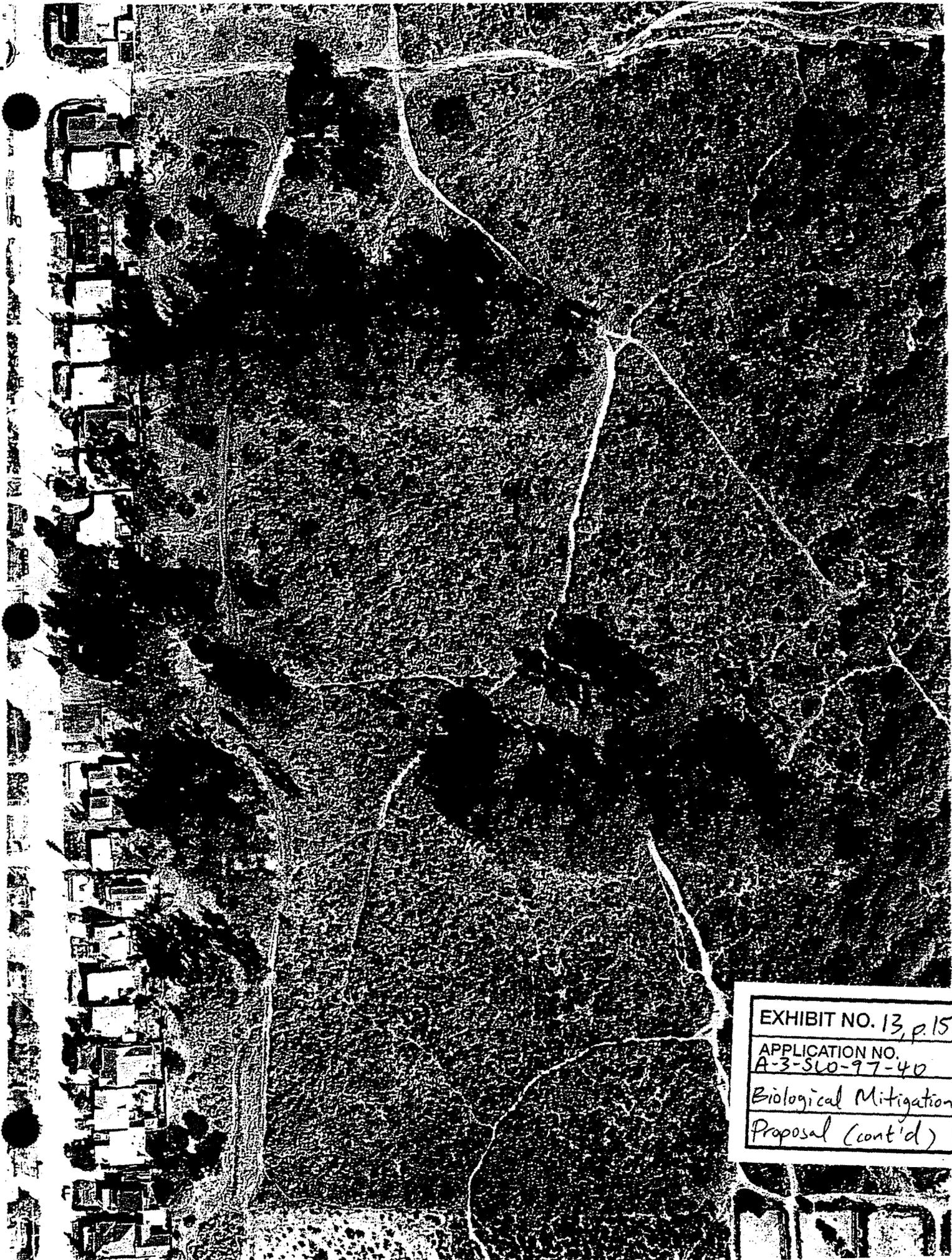


EXHIBIT NO. 13, p. 15
APPLICATION NO. A-3-SLO-97-40
Biological Mitigation Proposal (cont'd)

Los Osos Sewer Services District

Lot Status

-  Developed Lots
-  Vacant Lots < One Acre
-  Vacant Lots > One Acre
-  Public Land (PF, OS, ROW)



Source: County of San Luis Obispo,
1997; Crawford, Multari & Clark
Associates, September 30, 1997.

3000 0 3000 6000 Feet

A-3-SLO-97-40
Exhibit 13, p. 16

Attachment 1

Mitigation Monitoring Program Supplemental Program EIR CSA No. 9 Wastewater Treatment Facilities

PISMO

P-BIO-1.(a) Agency Consultation/Permitting. Project implementation would result in direct or indirect disturbance or potential take of several federal and state listed species. Project implementation would require authorization for this disturbance or potential take from both the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG). Authorization requirements are outlined below:

- **USFWS.** Authorization for take by USFWS would require either a formal consultation with USFWS pursuant to section 7 of the Endangered Species Act, or a issuance of a section 10(a)(1)(B) permit. Such a permit requires the development and implementation of a Habitat Conservation Plan (HCP). A framework for development of either a Section 10 HCP or appropriate Section 7 mitigation program has been outlined in Mitigation Measure BIO-1(b).
- **CDFG.** Authorization for take by CDFG would require a Memorandum of Understanding (MOU) and Management Authorization (MA) pursuant to Section 2050 et seq. of the California Fish and Game Code. Development of a MOU/MA would be based upon the Section 7 or Section 10 USFWS consultations discussed above.

P-BIO-1.(b) Additional Habitat Restored. Restoration of the disturbed areas of the treatment plant site will not adequately mitigate the loss of habitat for the many species described in the setting and impact discussion of this section. One approach to mitigating this impact is the restoration of additional land into suitable habitat for the local species of concern in this report. This involves securing land that has been disturbed and/or where exotic species have invaded to the exclusion of native species.

Acquisition. The land acquired should have the following qualities:

- The land should be a parcel or group of parcels containing approximately 10 to 20 acres.
- The land should be disturbed, but not developed, or otherwise in a state that is *not* a pristine native habitat; alternatively, the land could be in good condition relative to native habitats, but otherwise destined for development that would destroy the existing habitat. This may include land that is already owned by controlled a resource agency such as California Department of Parks and Recreation.
- The land should be capable of restoration to a native habitat. This would mean that the soils have not been removed or fill placed on the site that is unsuitable for the native plantings (other than small amounts). The land should be free of structures or debris, or capable of being cleared of any structures.
- The land should have primarily aeolian sand deposits; be in a stabilized condition (not mobile); and have an open canopy; be of the appropriate aspect and other meteorological conditions.
- The land should be located in a relatively rural area, and an area that is not zoned for dense development, either residential or commercial. Ideal land that meets this criteria is located around the community of Los Osos in the area under study for the greenbelt program by the Land Conservancy.
- The land should be held by the County or appropriate conservation organization in perpetuity with deeded guarantees of non-development or transfer (unless to another like organization). The protection of the land may allow for some passive public activities, such as hiking, scientific investigation, and low-impact education.

Restoration. After securing the land, the County should restore the land so that it functions as suitable habitat for many of the local species of plants and wildlife whose existence is endangered or of concern. One of the benefits of this mitigation approach is that a single program will mitigate the impacts to all or most of the species described in the setting section. Restoration of the land should include the following:

- Removal of invasive exotic plant species. This may mean removal of all plants by grading, or a program of hand labor, depending upon the condition of the land. If the amount of invasives is relatively small, the work should leave as much of the existing native vegetation intact.
- Removal of structures or debris.
- Regrading of any unnatural mounds, holes or berms previously created on the site.
- A planting program of a mixture of indigenous plant species that serve to restore the site *and* serve multiple species' needs, especially the Morro Blue Butterfly, Black Legless Lizard, and potential future re-introduction of the Morro Bay Kangaroo Rat. This will include Dune Lupine for the Morro Blue Butterfly. The final planting program should be developed in consultation with CDFG and USFWS.

An ongoing maintenance and observation program. Ideally this would be established as part of the Morro Bay Estuary program and/or in conjunction with Cal Poly (especially the Biology and Forestry and Natural Resource departments).

P-BIO-2(a). Minimize Disturbance of Coastal Scrub, Chaparral, and Coast Live Oak Woodland Habitats Located Around the Perimeter of the Treatment Plant Site During Construction. Minimize, to the extent feasible, the amount of disturbance of land beyond the actual area of development. This can be accomplished by identifying minimum activity area required, and establishing a physical construction limit beyond which equipment and storage of material would not extend.

- Clearly identify and mark the perimeter of the proposed treatment plant facility construction zone prior to and during construction onsite with highly visible temporary fencing.
- Restrict the use of all heavy equipment and vehicles to areas located inside of the identified construction zone throughout the duration of construction.
- Clearly identify and mark the proposed access route to the construction zone of the treatment plant facility, and limit all construction traffic to areas located within the identified access route.

P-BIO-2(b). Treatment Plant Buffer Area. Restore Sensitive Habitats Disturbed During the Construction Phase of the Proposed Project. Following completion of construction of the proposed treatment plant, immediately revegetate all areas located within or around the perimeter of the treatment plant facility that previously contained native vegetation and that were disturbed during construction. Revegetate only with appropriate indigenous native vegetation. At a minimum, the structure and composition of habitats restored should reflect pre-project site conditions or better. Use only native vegetation for landscaping in areas located inside of the treatment plant facility. All exotics that escape cultivation should be removed on a regular basis. All plantings should be grown from native parent stock collected onsite, and will be propagated by a native plant nursery specialist. In addition, the health and maintenance of all replacement vegetation should be monitored for a sufficient duration and frequency to ensure successful establishment of the vegetation.

P-BIO-2(c). Treatment Plant Site Additional Land. The additional land around the treatment plant site (that beyond the area disturbed) should be enhanced in its ability to provide habitat for the native species of plants and wildlife that occur or may occur in the area.

P-BIO-2(d) Control Introduction of Invasive Exotic Plants. To control introduction of invasive exotic plants on site, implement the following measures during construction and incorporate into the design guidelines of the proposed treatment plant facility, as appropriate.

- Use only clean fill material (free of weed seeds) within the construction zone of the proposed project.
- Thoroughly clean all construction equipment prior to being moved onto and used at the site.

- Prohibit planting or seeding of disturbed areas with nonnative plant species;
- Control the establishment of invasive exotic weeds in all disturbed areas.

P-BIO-3(a). Avoid or Minimize Disturbance of Special-Status Plants Located Within and Adjacent to the Perimeter of the Project Site Construction Zone. Implement the following measures prior to and during construction to avoid or minimize unnecessary disturbance of special-status plants occupying the vicinity of the project site.

- Retain a qualified botanist to conduct focused surveys for special-status plant species during the appropriate flowering periods for the various species that are known to occur or have potential to occur within the construction zone of the project site, based on the presence of suitable habitat.
- Clearly map and identify each individual or groups of special-status plants observed during the focused survey with highly visible flagging. Morro Manzanita located in the southern portion of the site should be marked with highly visible flagging and completely avoided.
- Provide instruction to construction personnel on avoiding unnecessary disturbance of areas marked with flagging and identify the locations of all groups of special-status plants.

P-BIO-3(b). Transplant Individual Special-Status Plants Located With the Construction Zone of the Treatment Plant Facility. Following implementation of BIO-3(a), individual special-status plants that are identified as occurring within the proposed construction zone for the treatment plant facility should be identified. If it is determined that avoidance or disturbance of the identified plants is not feasible, implement transplanting operations for the identified species. It should be noted that the success of transplanting is highly dependent on the specific taxon. Transplanting of some species currently occupying the site may not be as successful as for others, or may fail entirely. Therefore, prior to implementing these operations, previous case studies should be researched to determine which plants are expected to have reasonable opportunities for survival following transplantation, and determine which techniques have been successful previously. If transplanting is then determined to be a viable option for some identified special-status plants, implement the following measures:

- Avoid disturbance of the root system of each plant during transplanting.
- A plant should only be moved to a habitat that contains site conditions similar to the location previously occupied by each plant.
- Closely monitor the success of each transplanted species.

P-BIO-4(a). Replace Suitable Morro Shoulderband Dune Snail Habitat. Implement BIO-1(a), with a percentage of habitats created consisting of Coastal Scrub dominated by Heather Goldenbush. This percentage should be equivalent to the percentage of habitat disturbed. Implementation of this measure would replace habitats dominated by Heather Goldenbush, the host plant for the Morro Shoulderband Dune Snail, with habitats exhibiting similar species composition. Additionally, the non-native brown garden snail should be controlled within mitigation areas due to its role as a potential competitor. Currently, there is not sufficient information available on the habitat requirements of the dune snail to ensure successful creation of suitable habitat for this species. Therefore, creating Coastal Scrub habitat with Heather Goldenbush as a dominant, is considered to only partially mitigate for loss of potential Morro Shoulderband Dune Snail habitat.

P-BIO-5(a). Replace Suitable Morro Blue Butterfly Habitat. Implement P-BIO-1(a), with a percentage of habitats created consisting of Coastal Scrub dominated by Dune Lupine. This percentage should be equivalent to the percentage of habitat disturbed. Implementation of this measure would replace habitats dominated by Dune Lupine, the host plant for the Morro Blue Butterfly. To be successful, replacement habitat should be located adjacent to or within 1,000 feet of occupied habitat.

P-BIO-6(a). Avoid unnecessary disturbance of Windrow Habitats Located Around the Perimeter of the Construction Zone. Implement the following measures identified for protecting Windrow Habitat in the vicinity of the project site:

- Prior to commencement of project construction, place highly visible temporary fencing around the perimeters of the driplines of windrow areas near the treatment plant construction zone.
- Avoid all soil disturbance, compaction, compaction and grading activities within and adjacent to the associated dripline of windrow areas.

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RIP-BIO-1(a). Agency Consultation/Permitting. Implement P-BIO-1(a). Complete appropriate consultation and authorization with USFWS and CDFG.

RIP-BIO-2(a). Minimize Disturbance of Coastal Scrub, Chaparral, and Oak Woodland Habitats Located Around the Perimeter of the Treatment Plant Site During Construction. Implement measures identified in P-BIO-2(a), along with the following measures identified for protecting Coast Live Oaks in the vicinity of the project site:

- Prior to commencement of project construction, place highly visible temporary fencing around the perimeters of the driplines of all Coast Live Oaks located near the treatment plant construction zone.
- Avoid all soil disturbance, compaction, compaction and grading activities within and adjacent to the associated dripline of each individual Coast Live Oak.

RIP-BIO-4(a). Avoid or Minimize Disturbance of Special-Status Plants Located Within and Adjacent to the Perimeter of the Project Site Construction Zone. Implement measures identified in P-BIO-3(a).

RIP-BIO-4(b). Transplant Individual Special-Status Plants Located With the Construction Zone of the Treatment Plant Facility. Implement measures identified in P-BIO-3(b).

RIP-BIO-5(a). Replace Suitable Morro Bay Kangaroo Rat Habitat. Implement measures identified in P-BIO-1(a), and replace with habitats similar to those existing on site prior to project implementation. The substrate, topography, and plant species composition should be similar to those habitats that currently exist at the project site and areas that are known to provide suitable habitat for Morro Bay Kangaroo Rat, such as in portion of the Essential Habitat area.

RIP-BIO-5(b). Conduct Pre-Construction Surveys For Morro Bay Kangaroo Rat. Immediately prior to construction, conduct surveys for Morro Bay Kangaroo Rat within the vicinity of the proposed treatment plant facility, to determine if habitats are currently occupied and identify what protective measures, if any, should be implemented prior to construction.

RIP-BIO-7. Replace Suitable Black Legless Lizard Habitat. Implement measures identified in P-BIO-1(a).

RIP-BIO-8. Replace Suitable Morro Blue Butterfly Habitat. Implement P-BIO-1(a), with a percentage of habitats created consisting of Coastal Scrub dominated by Dune Lupine. This percentage should be equivalent to the percentage of habitat disturbed. This would replace Dune Lupine habitats, the host plant for the Morro Blue Butterfly.

RIP-BIO-9(a). Avoid unnecessary disturbance of Windrow Habitats Located Around the Perimeter of the Construction Zone. Implement the following measures identified for protecting Windrow Habitat in the vicinity of the rapid infiltration ponds:

- Prior to commencement of project construction, place highly visible temporary fencing around the perimeters of the driplines of windrow areas near the treatment plant construction zone.
- Avoid all soil disturbance, compaction, compaction and grading activities within and adjacent to the associated dripline of windrow areas.

Attachment 2

Gaylene Tupen

Consulting Biologist

July 29, 1997

Chris Clark
Crawford, Multari & Clark Associates
641 Higuera Street, Suite 202
San Luis Obispo, CA 93401

Attention: Mr. Chris Clark

Subject: Occurrence of Potential Habitats for Morro Shoulderband Snail Located Within the Proposed Service Area of the Los Osos Sewer Project. Los Osos, California.

Dear Mr. Clark:

This letter provides a description of methods used for identifying potential habitats for Morro shoulderband snail (*Helminthoglypta walkeriana*) located within the proposed service area boundaries of the Los Osos Sewer Project. Identification of various habitats for Morro shoulderband snail within the service area boundaries was conducted using information gathered during the July 22 and 23, 1997 site visits, review of assessor's maps indicating undeveloped parcels (660) within the service area, and interpretation of recent aerial photographs. Specific methods used for identifying various habitats of undeveloped areas and determining the suitability of existing habitats for Morro shoulderband snails is described below.

Prior to commencement of the July 22 and 23, 1997 site visits, a numeric coding system for the various habitat types expected to occur within the service area was established. The coding system focused on the occurrence of habitats considered potentially suitable for Morro shoulderband snails. For the purpose of this study, potential habitat for Morro shoulderband snail was assumed to include any area containing a prevalence of vegetation characteristic of Coastal Dune Scrub communities. Various plants considered characteristic of Coastal Dune Scrub communities and that commonly occur in areas occupied by shoulderband snails include the following: heather goldenbush (*Ericameria ericoides*), black sage (*Salvia mellifera*), dune buckwheat (*Eriogonum parvifolium*), California sagebrush (*Artemisia californica*), dune lupine (*Lupinus chamissonis*), sea fig (*Carpobrotus chilensis*), iceplant (*Mesembryanthemum* spp.) and croton (*Croton californicus*). In addition, areas containing a prevalence of sea fig or iceplant were assumed to provide potential habitat for shoulderband snails, and were assigned a separate numeric code. The structure and composition of Coastal Dune Scrub communities of the Los Osos/Baywood park areas can vary considerably due to a variety of factors including the presence of invasive exotic species such as veldt grass (*Erharta calycina*) and previous or ongoing site disturbance, such as mowing or grading. Therefore, the coding system identifies three categories of Coastal Dune Scrub which range from areas containing little or no evidence of previous site disturbance or occurrence of veldt grass, to communities with substantial evidence

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of previous or ongoing disturbance and occurrence of veldt grass or other invasive exotic species. Table 1 identified the habitat coding system followed during the site visits of the service area of the Los Osos sewer project. Various habitats considered potentially suitable for Morro shoulderband snail are identified with an "*".

TABLE 1
Habitat Codes for Undeveloped (660) Lots of the Los Osos Sewer Service Area

1. *Coastal Dune Scrub- Contains minimal or no evidence of previous site disturbance or occurrence of veldt grass.
2. *Coastal Dune Scrub- Exhibits moderate amounts of previous site disturbance or occurrence of veldt grass.
3. *Coastal Dune Scrub- Exhibits substantial previous or ongoing site disturbance and presence of veldt grass.
4. *Iceplant/Sea Fig - Iceplant or sea fig occurs as sole or dominant plant species.
5. Coast Live Oak Woodland.
6. Veldt Grass Grassland/Annual Grassland.
7. Disturbed/Ruderal -Ground surface significantly disturbed and contains a prevalence of ruderal species.
8. Agriculture
9. Landscaping/Planted Vegetation.
10. Willow Scrub/Willow Woodland.
11. Developed.
12. Freshwater Marsh/Salt Marsh.
13. Coyote Brush Scrub.

Using the assessor's map to locate all potential undeveloped lots within the service area, each identified lot was viewed from an adjacent right-of-way and an numeric code was assigned and subsequently identified on the map. Many lots observed contained a mosaic of habitat types or portions of the habitat types observed exhibited varying amounts of degradation. For the purpose of this study the numeric code assigned to any given lot was thereby based on the dominant vegetation type observed from the right-of-way and identified through review of the aerial photograph. Portions of various lots could not be viewed from adjacent rights-of-way due to in part to the size and configuration of the lots. In these instances, the vegetation type of areas that could not be observed was inferred from observations of existing adjacent vegetation and through the interpretation of aerial photographs.

The primary purpose of this study was to determine the amount of potential Morro shoulderband snail habitat located within the proposed sewer service area boundaries, including the amount of habitat that may be considered somewhat degraded but would potentially support shoulderband snails. Therefore, all lots within the service area that contained any plants characteristic of dune scrub communities were classified as Coastal Dune Scrub to ensure that all potential habitats for shoulderband snails were identified and quantified during the study.

Please contact me if you have any questions regarding the methods used for conducting this study.

Sincerely,

Gaylene Tupen

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Attachment 3

Los Osos Sewer Service Area
Vacant Parcel Habitat -- Revised Worksheet

Habitat on Parcels Less Than One Acre in Size

Category	# of Parcels	Acres	Description/Key
	4672	1019.2	Improvements over \$10,000 (i.e. developed)
1	12	4.3	Coastal Dune Scrub-little or no evidence of disturbance or occurrence of veldt grass
2	40	8.2	Coastal Dune Scrub-moderate amount of disturbance or occurrence of Veldt Grass
3	77	17.9	Coastal Dune Scrub-substantial disturbance (mowing, grading) or Veldt Grass (degraded)
4	43	6.6	Ice Plant
Total	172	37.0	Land suitable for Morro Shoulderband Dune Snail
Land in Service Area Not Suitable for Snail Habitat or Not in Program			
5	36	6.8	Coast Live Oak Woodland
6	66	16.0	Veldt Grass grassland or annual grassland - Veldt Grass appears dominant
7	122	19.0	Disturbed / Ruderal - ground surface significantly disturbed. Ruderal vegetation is dominant.
8	0	0.0	Agriculture
9	67	13.4	Landscaping / Planted Vegetation
10	7	1.4	Willow Scrub
11	35	5.4	Developed
12	3	1.2	Freshwater or Salt Marsh
13	5	1.2	Coyote Brush Scrub - Coyote Brush occurs as only shrub
14	54	6.4	Unclassified
Total	395	70.8	Land/parcels not in mitigation program or not suitable habitat

Habitat on Parcels Greater Than One Acre in Size

Category	# of Parcels	Acres	Description/Key
1	10	95.1	Coastal Dune Scrub-little or no evidence of disturbance or occurrence of veldt grass
2	9	18.6	Coastal Dune Scrub-moderate amount of disturbance or occurrence of Veldt Grass
3	17	92.3	Coastal Dune Scrub-substantial disturbance (mowing, grading) or Veldt Grass (degraded)
4	2	2.1	Ice Plant
Total	38	208.1	Land suitable for Morro Shoulderband Dune Snail
Land in Service Area Not Suitable for Snail Habitat or Not in Program			
5	8	11.2	Coast Live Oak Woodland
6	15	23.4	Veldt Grass grassland or annual grassland - Veldt Grass appears dominant
7	10	37.3	Disturbed / Ruderal - ground surface significantly disturbed. Ruderal vegetation is dominant.
8	1	2.5	Agriculture
9	12	23.6	Landscaping / Planted Vegetation
10	2	4.3	Willow Scrub
11	0	0.0	Developed
12	0	0.0	Freshwater or Salt Marsh
13	0	0.0	Coyote Brush Scrub - Coyote Brush occurs as only shrub
14	0	0.0	Unclassified
Total	48	102.3	Land/parcels not in mitigation program or not suitable habitat

Habitat on Public Land (PF, OS, ROW)

Category	# of Parcels	Acres	Description/Key
1	0	0.0	Coastal Dune Scrub-little or no evidence of disturbance or occurrence of veldt grass
2	0	0.0	Coastal Dune Scrub-moderate amount of disturbance or occurrence of Veldt Grass
3	4	10.3	Coastal Dune Scrub-substantial disturbance (mowing, grading) or Veldt Grass (degraded)
4	3	2.2	Ice Plant
Total	7	12.5	Land suitable for Morro Shoulderband Dune Snail
Land in Service Area Not Suitable for Snail Habitat or Not in Program			
5	4	2.3	Coast Live Oak Woodland
6	1	3.8	Veldt Grass grassland or annual grassland - Veldt Grass appears dominant
7	1	0.7	Disturbed / Ruderal - ground surface significantly disturbed. Ruderal vegetation is dominant.
8	0	0.0	Agriculture
9	3	3.6	Landscaping / Planted Vegetation
10	6	3.4	Willow Scrub
11	3	17.7	Developed
12	7	26.1	Freshwater or Salt Marsh
13	2	2.2	Coyote Brush Scrub - Coyote Brush occurs as only shrub
14	5	22.2	Unclassified
Total	32	82.0	Land/parcels not in mitigation program or not suitable habitat

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Attachment 4

Open Space Protection

1. **Clustered Development.** Wherever standards in this chapter call for clustering or concentrating development to protect identified sensitive features, land divisions and development shall comply with the following:
 - a. **Reports.** When required by the Coastal Zone Land Use Ordinance or the Planning Director, a biological or other applicable report that addresses identified sensitive feature(s) shall be prepared by a qualified professional approved by the Environmental Coordinator. The report shall make recommendations regarding compliance with the following standards b through i., in addition to any applicable requirements of the Coastal Zone Land Use Ordinance.
 - b. **Development Location.** Development in land divisions and other development projects shall be located away from identified sensitive features in areas most suitable for development.
 - c. **Multiple Sensitive Features.** Where there is conflict between objectives of protecting various identified sensitive features, development shall be located to protect/avoid the following features to the maximum extent feasible, in order of greatest emphasis. As a result, some sensitive site features may receive a higher level of protection than others.
 - i. Areas subject to hazards.
 - ii. Environmentally and archaeologically sensitive areas.
 - iii. Visually sensitive areas.
 - d. **Setbacks.** Development shall be sufficiently set back/buffered from identified sensitive features. Development shall comply with the minimum setbacks from environmentally sensitive habitats that are required in this plan and the Coastal Zone Land Use Ordinance, as applicable.
 - e. **Extent, Intensity of Development.** The number of dwelling units, intensity of development and site coverage shall be consistent with protection of identified sensitive site features.
 - f. **Permanent Protection of Sensitive Features.** Identified sensitive site features shall be permanently protected as open space through building controls, mitigation agreements, easements, participation in a transfer of development credits (TDC) program, or other means.
 - g. **Open Space.** Where appropriate to protect biological resources, including wildlife migration corridors, open space areas or parcels shall consist of larger, contiguous areas that connect, where feasible, to adjacent open spaces areas. This is preferred to smaller, disconnected pockets of open space. Required open space areas shall be in rough proportionality to the impacts of the project on sensitive site features.
 - h. **Cluster Options.** Land divisions shall be designed so that resulting development complies with the preceding standards using any of the following options. Development resulting from use of options (2) through (4) shall fully and permanently protect identified sensitive features without causing adverse environmental impacts:
 - (1) Cluster land division standards in Chapter 4 of the Coastal Zone Land Use Ordinance.
 - (2) Cluster land division standards of the Coastal Zone Land Use Ordinance, but with an open space parcel(s) smaller than required.
 - (3) Conventional land division standards in Chapter 4 of the Coastal Zone Land Use Ordinance.
 - (4) Any applicable standards for common interest developments and planned developments in this plan and in the Coastal Zone Land Use Ordinance.

2. Environmentally Sensitive Areas--Clustered Development and Habitat Protection Required.

- a. Cluster or concentrate development in the least sensitive portions of the site in order to protect and sustain the following sensitive features:
- (1) Sensitive Resource Areas and Environmentally Sensitive Habitats as shown in the Land Use Element and Local Coastal Plan.
 - (2) Ecologically significant areas of riparian woodland, riparian scrub, oak woodland, coastal sage scrub, and maritime chaparral communities as defined in the Final EIR for the Estero Area Plan Update and as confirmed in a biological report for proposed development.
 - (3) Rare, endangered or threatened species as listed by federal or state agencies or as defined in the State *CEQA Guidelines*.
 - (4) Other significant stands of vegetation, such as Bishop pine, eucalyptus, and cypress that do not need to be removed due to hazardous condition or restoration/enhancement of native habitat.
- b. Development shall not significantly disrupt or cause significant adverse environmental impacts on the preceding sensitive features, and shall be consistent with biological continuance of the habitat.

SUMMARY OF FINDINGS

Following is a summary of the significant findings and conclusions from this comparative analysis of the proposed County and Community wastewater plans for the Los Osos area. The organization of the findings corresponds to the sequence of information as outlined in the Scope of Work and as it is presented in the body of the report.

WATER QUALITY EVALUATION

Nitrate Loading

The County Plan provides far more assurance of the ability to correct the existing groundwater nitrate problem than is offered under the Community Plan. Only with the most optimistic (and, in our opinion, unsupportable) projection of a 3 mg/L nitrogen effluent quality from the AIWPS facility would the Community Plan achieve an equal basin-wide improvement in groundwater nitrate levels as provided under the County Plan.

- Under the County Plan, the results of nitrate loading analysis indicate:
 - overall, the upper aquifer will reach 10 mg/L NO₃-N in about seven years and 7 mg/L in approximately 23 years;
 - the west sub-basin (Los Osos Area) will reach 10 mg/L NO₃-N in about five years and 7 mg/L in approximately 17 years;
 - the east sub-basin (Baywood Park Area) will reach 10 mg/L NO₃-N in about nine years and 7 mg/L in approximately 30 years.
- Under the Community Plan, as proposed, the NO₃-N levels in the west sub-basin, and for the upper aquifer as a whole, will likely be reduced to 10 mg/L or less, but achievement of 7 mg/L as an NO₃-N objective is unrealistic.
- Under the Community Plan, if all wastewater is recharged at the Broderson site (i.e., none to irrigation or Los Osos Creek), similar reduction in groundwater nitrate levels will be achieved basin-wide and in the west sub-basin as with the proposed distribution of wastewater disposal.
- Average nitrate levels in the eastern portion of the upper aquifer (Baywood Park) will decline under the Community Plan to less than 8 mg/L (as N), but "plumes" of high (>10 mg/L) nitrate-nitrogen are likely to remain in the groundwater in the immediate areas where septic systems are retained.

EXHIBIT NO. 14
APPLICATION NO. A-3-S10-97-40
Summary of Findings from Questa Engineering Corporation's Comparative Analysis

Total Dissolved Solids

There is little, if any difference between the County Plan and the Community Plan relative to total dissolved solids (TDS) loading, due to the fact that, with the exception of sludge disposal via hauling, all salts will be retained in the basin. The differences will be in the geographical distribution of TDS within the upper aquifer.

- Under the County Plan, the salts will be concentrated in the west sub-basin from recharge of the large volumes of treated wastewater at the Broderson site, causing significant rise in TDS levels in the west sub-basin. Levels in the east sub-basin will improve as compared to current levels.
- Under the Community Plan, there will also be a rise in TDS levels in the west sub-basin, but to a lesser extent than under the County Plan. TDS levels in east sub-basin will also improve under the Community Plan, but to a lesser extent than under the County Plan.
- Potentially, the most significant effect on TDS levels would be from the proposed recharge of the deep aquifer (via Los Osos Creek) as proposed under the Community Plan. This aspect of the plan would have the effect of introducing relatively high TDS water directly into the Los Osos water supply aquifer, which would be undesirable.

Coliform Bacteria

Both projects have the ability to correct the bacteriological problems associated with existing on-site wastewater disposal systems. However, there will be continuing risks of bacteriological contamination with elements of both projects.

- The most significant threat of contamination under the County Plan is from the sewage collection system, specifically "exfiltration" (i.e., leakage) from gravity sewers. The effect of collection system leakage in Los Osos, should it occur, would likely be insignificant in comparison with the existing septic system discharges, which in many cases are in direct continuity with groundwater.
- The Community Plan will minimize bacteriological contamination through STEP collection of wastewater, but risks of individual pump and collection system failure and the challenge of maintaining water-tight septic tanks in a high groundwater environment will contribute to an ongoing risk of STEP unit flooding and overflows with resultant groundwater and/or surface water contamination.
- The Community Plan proposes to retain on-site disposal for nearly 44 percent of the DUEs. Discharges from these remaining individual septic systems will continue to present many of the same bacteriological risks to groundwater that currently exist in Los Osos, although to much less of an extent due to abandonment of systems in the high groundwater region. This factor causes the Community Plan to be judged as posing a greater risk of groundwater contamination from bacteria and other pathogens.

TECHNICAL FEASIBILITY

County Treatment Plant

- The design of the Phase I County wastewater treatment facilities is generally appropriate for the project as it is currently configured. Relatively minor opportunities may exist to reduce the Phase I cost, specifically deleting the facilities for adding an external carbon source for nitrogen removal to levels lower than can be achieved by the Modified Ludzack-Ettinger process.
- The proposed use of the ML-E process is capable of meeting the 7 mg/L total nitrogen level specified in the Draft Waste Discharge Requirements for this project.
- The change to gravity dry wells for effluent disposal increases the required level of treatment to include tertiary effluent filtration. It is recommended that the process designers give serious consideration to the new "fuzzy filter" effluent filtration process for possible cost savings.
- With the conversion from percolation ponds to gravity wells for effluent disposal, emergency storage for this project should be increased to three days or more.

Community Treatment Plant - AIWPS

While there are no fundamental flaws in the theory of the AIWPS, there are practical problems that can limit the performance of the process including: (1) the inability to remove algae from the treated effluent; (2) the characteristics of the wastewater which may limit the ability of the process to remove nitrogen; (3) the inability to control events that may lead to thermal overturns; and (4) the inherent variability of the process relative to the restrictive discharge requirements. Based upon these potential serious operational and compliance problems and the lack of any long-term, full-scale operating data to validate the process, it would be very risky and inappropriate to utilize the proposed AIWPS for the Los Osos project - especially given the limited resources of the community.

Should the decision be made to go forward with an AIWPS project the following drawbacks of this system should be understood:

- The system is very unlikely to be able to achieve compliance with Title 22 tertiary treatment requirements for water recycling (i.e., unrestricted reclamation use) or recharge via Los Osos Creek on a consistent basis due to turbidity levels.
- The Dissolved Air Floatation (DAF) process for removal of algae solids will require a high level of operator attention and control, and massive doses of polymer. Large polymer doses will be required in the proposed design to produce a minimum effluent quality suitable for disposal via surface spreading only (i.e., percolation ponds).
- Subsurface disposal/recharge of AIWPS effluent via gravity wells (per current County Plan) is not advisable due to the serious potential for biofouling (i.e., clogging). Recharge should

be limited to free access percolation basins (per former County Plan), where routine maintenance and restoration of the soil infiltration surface is feasible.

- Although the AIWPS produces only small amounts of primary sewage sludge, large volumes of bio-solids from the DAF-Filtration process will be generated. Provisions will have to be added for handling and disposal of this secondary sludge; this has not been addressed in the Community Plan.
- Attainment of a 3 mg/L total nitrogen level in the effluent (proposed as a key feature of the Community Plan) is not realistic. Given the high concentration of total nitrogen in septic tank effluent and process limitations, the effluent nitrogen concentration is more likely to be in the range of 8 to 12 mg/l.

There are clear advantages to the use of the AIWPS in rural settings where land area is not a constraint and where the treated water can be used for irrigation (e.g., St. Helena, Hollister, Bolinas). The process has low energy requirements and can be visually and environmentally attractive. However, the over-riding demand to comply with strict nitrogen removal requirements and to produce tertiary-level effluent quality for groundwater recharge and/or reuse make the AIWPS an inappropriate choice for the Los Osos situation.

Collection System

- The County Plan proposes approximately 50 miles of conventional gravity sewers that will be problematic and expensive to install due to the predominance of loose sands throughout Los Osos. Despite good construction methods, the sewers will be a continuing source of inflow and infiltration in the high groundwater regions of the collected area. Excessive flow can lead to periodic hydraulic overload problems at the treatment facility.
- The Community Plan proposes to retain existing septic tanks for primary treatment and utilizes septic tank effluent pumping (STEP) and small diameter shallow pressure sewers to obviate some of the shortcomings of the County Plan. Some septic tank replacement (an estimated 20 percent) and electrical service upgrading must be anticipated. STEP systems inherently include more customer-District interaction and will require easements for inspection (at least once/year) and equipment maintenance.

On-Site Wastewater Management Program

- The County Plan does not provide specific details regarding the organization and management of the proposed On-site Wastewater Management Program for areas to retain septic systems. As compared with the Community Plan, a smaller portion of the properties will retain on-site wastewater disposal. Those properties that retain on-site disposal are larger lots and have adequate land area and conditions for septic system upgrades and replacement. An on-site management program in these areas should not present any special difficulties.
- The Community Plan outlines an ambitious program for on-site wastewater management. The proposal is for the District to inspect, repair/replace and maintain all systems installed after

1978. Furthermore, the District will assume responsibility for the older (pre 1978) systems after initial inspection and owner-financed repair ensures that each system meets State and County requirements. Many properties that will retain on-site disposal under the Community Plan have limited available area for replacement and system upgrade. Consequently, enforcement of upgrade requirements will be difficult. The planning and liabilities associated with District-financed improvements on private properties will also be an on-going challenge that may absorb considerable resources and become a source of conflict and animosity within the community.

Other Community Project Elements

1. Irrigation with Recycled Water

- The proposal in the Community Plan to produce and distribute recycled water from the AIWPS facility has questionable feasibility due to the unlikely ability to meet Title 22 tertiary treatment standards.
- The proposed use of recycled water for irrigation of the Sea Pines Golf Course is precluded by an existing approved housing project (Monarch Grove Development) that, in conjunction with the existing Sea Pines Hotel, proposes to use the golf course for this purpose.

2. Los Osos Creek Discharge

- Seasonal release of treated effluent to Los Osos Creek from the AIWPS facility is presently deemed infeasible due to expected high effluent nitrogen levels and likely inability to meet Title 22 treatment standards for direct recharge.
- The ability to implement a creek discharge project is constrained by the severe channel instability and bank erosion problems in the reach of Los Osos Creek under consideration.
- Additional biological and creek channel stability analysis and mitigation measures, as well as groundwater modeling, will likely be required if seasonal discharge to Los Osos Creek is pursued.

3. **Harvest Wells.** The development of "harvest wells" under the Community Plan proposes to recover water from the shallow upper aquifer for use in the municipal drinking water supply for Los Osos. This project element, as proposed, is considered infeasible due to a probable conflict with water well protection requirements under the "Drinking Water Source Assessment and Protection (DWSAP) Program", under preparation by the Department of Health Services and due to be adopted by the State of California in 1999.

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Exhibit 14, p.5

REGULATORY COMPLIANCE

Order No. 83-13

- The County Plan complies with RWQCB Order 83-13 and meets the clear intent of the Order.
- Under the Community Plan, there will be a continued threat of nitrate and bacteriological contamination of groundwater in violation of Order 83-13 due to the retention of a large number of on-site wastewater disposal systems, many of which incorporate deep seepage pit disposal.

Draft Waste Discharge Requirements

- Compliance with the proposed Waste Discharge Requirements as articulated in Draft Order 97-8 can be expected under the County Plan.
- Compliance with the Draft WDRs is doubtful under the Community Plan due to the likelihood that the AIWPS facility cannot meet the effluent limit of 7 mg/L for total nitrogen. In addition, localized high nitrate concentrations (in excess of 10 mg/L) will continue to exist in high-density areas that will retain on-site disposal if the Community Plan is implemented.

Title 22 - Reclamation Standards for Recharge and Recycling Projects

- Both the County Plan (utilizing gravity wells) and the Community Plan (assuming percolation ponds) have the potential to meet specific Title 22 Regulations with regard to wastewater treatment, recharge site conditions and timing and amount of recovery by drinking water wells.
- The elements of the Community Plan that call for recycling of treated wastewater for park/golf course irrigation and for Los Osos Creek discharge are considered infeasible at this time due to the expected inability of the AIWPS facility to meet Title 22 requirements for tertiary recycled water. The effluent produced by the County-proposed facility would comply with Title 22 standards for either of these uses; and this represents a potential future disposal/reuse option under the County Plan.

BIOLOGICAL RESOURCES EVALUATION

- Both the County Plan Pismo site and the Community Plan treatment site lack conclusive and quantifiable information regarding the actual occurrence and subsequent severity of impacts on the special status plants and wildlife taxa. When comparing the two sites, this analysis must rely on comparisons of the amount of suitable habitat which would be impacted. Development of the Pismo site, at eight acres, would result in approximately 33 percent of the impacts of developing the 25-acre Community treatment site.

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Exhibit 14, p. 6

- Although the County and Community Plans differ in details in their approach to wastewater collection, the approximate footprints and system routes are roughly similar, although the Community collection system is smaller. Given that the collection systems will run through urban lots and along street rights of way, impact to biological resources can be considered similar and insignificant for both projects.
- Since the disposal sites are adjacent to one another, the sites contain fairly equivalent suitable habitat for all of the special status species. Development of the County Plans' gravity wells, at an initial six acres with an estimated 0.12 acres of disturbance in each subsequent year, would result in lower impacts than developing ten acres of percolation ponds, which is anticipated to be required for AIWPS effluent under the Community Plan.
- In addition to the percolation ponds, the Community Plan also contains a component for dry season disposal within Los Osos Creek. The feasibility of creek disposal/recharge under the Community Plan remains questionable due to effluent quality concerns. However, even if it were to be implemented, it would be a seasonal disposal alternative and therefore would not reduce the total acreage required at the Broderson disposal site.
- Both plans lack a clear demonstration of how impacts would be successfully mitigated. Without proper planning, implementation of either wastewater treatment plan could be critical to long-term conservation of biological resources of the area. A more detailed habitat mitigation and monitoring plan will need to be prepared for whichever project is ultimately selected.

GROUNDWATER RESOURCES EVALUATION

- High groundwater levels are a problem in certain residential areas. Although the Community Plan tailors its wastewater collection to address this problem, the County Plan is superior because of the more extensive provision of sewers.
- To the extent that maintenance of the current distributed pattern of recharge is desirable, the Community Plan will provide for greater local recharge of groundwater.
- In comparing wastewater disposal/recharge at the Broderson site, the Community Plan (assumed to rely on percolation ponds) presents an advantage because of its reliance on established recharge methods, wider distribution of recharge, and a lower overall volume of recharge.
- The County Plan would reduce flow to Baywood Marsh and increase flow to Pecho Marsh and Sweet Springs Marsh. The Community Plan, without harvest wells, would alter the flows to these marshes to a lesser extent.
- If harvest wells are not considered, the Community Plan is superior because it provides the least disruption to existing conditions of no salt water intrusion. The use of harvest wells,

however, could induce salt water intrusion depending on the specific configuration and operation of this aspect of the project.

- The County Plan is superior in protecting the quality of the groundwater largely because it provides more extensive sewerage and greater protection of the deep aquifer that is the major source of drinking water supply.
- The Community Plan, if it can be implemented entirely as proposed, is generally preferred on issues related to groundwater quantity.

ARCHEOLOGICAL RESOURCES EVALUATION

- The Los Osos/Baywood Park area is documented as having high sensitivity for heritage resources. Both Plans (County and Community) would potentially affect archeological sites throughout the study area.
- The Pismo treatment plant location appears to have more cultural resource sensitivity than the property under consideration by the Community Plan, although heritage data bases for each property are not comparable.
- Use of a pressurized STEP collection system significantly reduces potential impacts to heritage resources as compared to the conventional sewer system due to reduced excavation requirements.
- There are indications that a STEP collection system would result in reduced monitoring costs and possibly mitigation costs due to less disturbance to the ground and shorter construction time.
- The Community Plan collection system area coverage would cause less potential impacts than the County Plan.
- Recycling and deep aquifer recharge of treated effluent (to the extent that it can help preclude future importation of water) would involve less impacts than construction of a water pipeline from external sources.

ECONOMICS AND PROJECT FEASIBILITY

Capital Costs

The total estimated construction capital costs for the County's wastewater treatment facilities is \$58.9 million. This cost includes estimates for sewer connection/septic tank decommissioning costs of approximately \$6 million which would be assumed by property owners. Financing for the capital improvements would involve the sale of bonds, funds from a State Revolving Fund loan, and project fund earnings. The long-term (30-year) assessment costs per unit are estimated to be approximately

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Exhibit 14, p. 8

\$67 per month. Financing for sewer connection costs are estimated to be about \$30 per month for a period of ten years.

The total estimated construction capital cost of the wastewater facilities proposed by the Comprehensive Resource Management Plan (CRMP) is estimated to be \$38.5 million. The Plan identified the State Revolving Fund as the only source of funding proposed for the project. The State has indicated that its loans: (1) are not available for certain types of costs, such as land and contingencies; and (2) contain restrictions on funds used for purposes such as planning, design, and construction management. As a result of these limitations on financing, the Plan-proposed facilities have an unmet funding need for \$8.8 million. The Plan's estimated monthly cost of \$38.75 per unit would be increased dependent on the nature and extent of financing obtained to fund land and contingency costs. The Plan would not result in additional costs for sewer connection financing by individual property owners.

Operation and Maintenance Costs

Estimated operation and maintenance costs for the County wastewater facilities are \$1.2 million per year. Estimated monthly costs per unit would total \$18.57. For a 50-year period, the present value of this annual cost stream is \$25.3 million. Construction and operation and maintenance costs would total \$84.2 million. Operation and maintenance costs per connected unit would be \$22.54. Over an assumed 50-year period, the present value of the annual operation and maintenance costs would be \$39.7 million. Construction and operation and maintenance costs would total \$78.2 million to \$80.2 million. The per unit monthly costs for this proposal would be lower resulting from a larger community base served by the facilities.

Economic Risks

- Delays in the implementation of either wastewater treatment proposal would result in increased construction costs and, most likely, higher finance costs. Since the initial cost proposal for construction of wastewater facilities in 1987, estimated construction costs have increased by approximately \$1 million (1998 dollars) per year. Finance costs have decreased in the past 15 years; however, in consideration of the currently low interest rates, the risk of higher finance costs would increase over a prolonged period of delay in project implementation.
- The economic risks associated with operation of the two different types of wastewater treatment facilities are dissimilar. While normal operations would meet the State's water quality criteria for effluent discharge, operational problems and failures of the County wastewater facilities could result in administrative fines totaling thousands of dollars per incident or on a daily basis. Mechanical problems would need to be remedied in over a short-term (days) period.
- Economic risk attached to the CRMP proposed facilities would center on the ability to meet State water quality parameters after construction of the project. Failure to meet the State standards could result in the State imposing additional infrastructure requirements on the Community to correct the operational problems. The capital expenditures in this event would

most likely be an order of magnitude greater than the fines imposed for incident-based violations.

- Specific financing risk attached to the CRMP proposal entails the availability of the existing assessment district as a financing vehicle for the development of the wastewater facilities. In the event that the current assessment district is not available and the formation of a new assessment district is required, the approval of financing will be subject to the voting provisions of Proposition 218. There is a risk associated with the approval of levied assessments by two-thirds of the property owners in the Los Osos area.
- With the formation of a new assessment district, there is some question as to the disposition of the "acquired value" of the work performed to date under the present assessment district. If it is used by CRMP planning and design, the proposed financing may need to provide for the acquisition of this "asset."

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CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT OFFICE

725 FRONT STREET, SUITE 300

SANTA CRUZ, CA 95060

(831) 427-4863

HEARING IMPAIRED: (415) 904-5200

**Th14a****MEMORANDUM****October 21, 1998**

TO: Commissioners and Interested Parties

FROM: Charles Lester, District Manager
Steve Monowitz, Coastal Planner

RE: ***Appendix A to the Staff Report for Item Th14a of the November 1998 Coastal Commission Agenda (Los Osos Wastewater Treatment Project Comparative Analysis, Coastal Development Permit Application No. A-3-SLO-97-40)***

Attached is Appendix A to the staff report for the Los Osos Wastewater Treatment Project, which provides a comparative analysis of the wastewater treatment project proposed by San Luis Obispo County and the alternative proposed by the Solution Group. Relevant correspondence and reference materials are listed below. Copies of these materials can be obtained by contacting the Central Coast District Office. They will also be available for review at the November 5, 1998 Commission meeting in Agoura Hills.

List of Correspondence and Reference Materials

1. Draft Comprehensive Comparative Analysis of Alternative Wastewater Treatment Plans for Los Osos, Questa Engineering Corporation, May 21, 1998
2. Comprehensive Comparative Analysis of Alternative Wastewater Treatment Plans for Los Osos [Final Summary of Findings and Response to Comments], June 5, 1998
3. Selected Portions of the Environmental Impact Report Final Supplement for Morro Shores Tract 1643 (Tract 959), prepared by the Office of the Environmental Coordinator, County of San Luis Obispo, September 1992
4. Letter from Solution Group to Commission Staff regarding Los Osos Community Plan Evaluation, June 9, 1998
5. Memo from Coastal Commission Staff to Representatives of the Working Group and to Questa Engineering regarding Minutes from Meeting of June 12, 1998 Regarding the Nitrate Loading Issue [meeting notes from Gary Karner attached], June 17, 1998
6. Memo from Commission Staff to San Luis Obispo County regarding Results of June 8, 1998 Coastal Commission Hearing on the Los Osos Wastewater Treatment Project, June 19, 1998

23. Letter from Oswald Green, LLC to the Solution Group regarding Nitrogen Removal by proposed AIWPS Facility at Los Osos, CA, July 21, 1998
24. Fax Memo from Solution Group to Commission Staff regarding Agenda/Info at Orking Meeting of July 23, 1998, July 22, 1998
25. Letter from the Solution Group to Commission Staff regarding Los Osos Wastewater Treatment Project Community Plan Environmental Mitigation
26. Memo from Commission Staff to Representatives of the Los Osos Working Group and Questa Engineering regarding Draft Agenda for the 7/23/98 Meeting of the Los Osos Working Group, July 22, 1998
27. Memo from the Solution Group to Commission Staff regarding County Engineer Tim Nanson's letter of July 16, 1998
28. Memo from the Solution Group to Commission Staff regarding Los Osos Wastewater Treatment System Progress Report, July 26, 1998
29. Memo from the Solution Group to Commission Staff regarding Community Plan Comparative Present Values, July 26, 1998
30. Memo from the Solution Group to Commission Staff regarding Project Description Community Plan Los Osos Wastewater Treatment System, July 26, 1998
31. Letter from Metcalf & Eddy to Tim Nanson, County Engineer, regarding Los Osos Wastewater Project Dry Well Relocation Analysis, July 27, 1998
32. Memo from Oswald Green, LLC to Solution Group regarding Response to Questions and Comments from Questa Engineering Corporation in their letter of July 10, 1998 to Mr. Charles Lester, California Coastal Commission Regarding Oswald Green's Pre Treatment Depot for Los Osos Step System Septage, July 28, 1998
33. Letter from Metcalf & Eddy to San Luis Obispo County Engineering Department Regarding Los Osos Wastewater Treatment Project Nitrogen Removal Process, July 31, 1998
34. Letter from Commission Staff to the U.S./ Fish and Wildlife Service and the California Department of Fish and Game regarding Comparison of Environmental Impacts and Mitigations Associated with Alternative Wastewater Treatment Systems for Los Osos, San Luis Obispo County, July 31, 1998
35. Letter from the Solution Group to Commission Staff regarding Los Osos RCMP Revised Conceptual Site Plan, August 7, 1998
36. Memo to U.S. Fish and Wildlife Service from Commission Staff regarding Additional Information Regarding Los Osos Wastewater Treatment Alternatives, August 26, 1998
37. Letter from the Solution Group to Commission Staff regarding Los Osos Wastewater Treatment Project / Community Plan / Environmental Mitigation - Addendum, September 15, 1998

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plant, and thereby could have a greater adverse impact on sensitive habitats than the County project in terms of the quantity of sensitive habitat impacted.

With respect to disposal facilities, the Solution Group alternative proposes a reduced service area, which requires a disposal facility that is approximately one-half the size of the disposal facility proposed under the County project, and allows for a proportional reduction in impacts to sensitive habitats. Based on an estimated footprint of 3.5 acres for the County's well facility (please see page 41 of the staff report), impacts to sensitive habitats could be reduced by approximately 1.75 acres under the Solution Group alternative. However, the reduced service area proposed under the Solution Group alternative does not comply with RWQCB Order 83-13, and therefore can not be considered a viable alternative pursuant to Coastal Act Section 30412 and LCP Policy 9 for Public Works.

Pursuit of the Solution Group alternative also has the potential to result in significant delays to the implementation of a wastewater treatment project for the Los Osos area. Any delay or failure in the attempt to eliminate the use of individual septic systems in this area will allow adverse impacts to groundwater and water resources associated with the use of individual septic systems to persist. These impacts include a decline in the health and biological productivity of the Morro Bay National Estuary due to increasing levels of nitrates and bacteria.

The potential for the Solution Group treatment system to result in a larger area of habitat disturbance at the treatment site, and the adverse impacts to marine habitats associated with any further delay to the implementation of a wastewater treatment project, outweigh the environmental benefits of reducing the size of the disposal facilities by 1.75 acres, even if such a reduction complied with RWQCB requirements. As a result, the County project is environmentally preferable, and more consistent with LCP requirements, than the currently proposed Solution Group alternative.

Economic Feasibility

Neither the San Luis Obispo County LCP nor the Coastal Act include treatment works standards allowing for Commission review of the costs of *this* project. (Staff notes that pursuant to Public Resources Code Section 30241e, the Commission may consider the cost of any public service or facility expansion if impacts on the continued viability of agricultural land is an issue. Agriculture is not an issue with this project.) Project costs are only an issue as they relate to the Commission's consideration of alternatives intended to maximize consistency with LCP and Coastal Act requirements; such alternatives must be economically feasible in order to be considered. Thus, the Commission's consideration of economic issues is limited to the question as to whether a preferable alternative, in terms of LCP and Coastal Act conformance, is economically feasible. In this case, the Solution Group alternative is not preferable in terms of LCP and Coastal Act conformance.

Nonetheless, questions and concerns regarding economic issues has been a major source of controversy throughout the history of this project, and have been raised during the Commission review of the County's project. This comparative analysis includes a discussion of the economic issues in order to facilitate a complete and accurate understanding of the economic issues associated with the County project and the Solution Group alternative.

To facilitate an independent and comprehensive comparison, staff of the Coastal Commission has worked with representatives from the County of San Luis Obispo, the Solution Group, the Regional Water Quality Control Board, and other interested parties in a forum referred to as the "Los Osos Working Group" (Working Group). Beginning in January, 1998, the Working Group has met numerous times in an effort to define the specific parameters of the comparison, select a consultant with the ability to undertake the comparison, and discuss the conclusions reached by the selected consultant.

On February 4, 1998, the Commission staff released a Request for Proposals to undertake the Comparative Analysis that included a scope of work developed in coordination with the Working Group. On February 26, 1998, the Working Group unanimously selected the proposal submitted by Questa Engineering Corporation (Questa). The San Luis Obispo County Board of Supervisors agreed to fund this study in March 1998, and the County Engineering Department entered into a contract with Questa soon after. A draft report was published by Questa on May 21, 1998, and followed by a public comment period which concluded on May 29, 1998. The final report, which includes the draft report and a response to comments received, was hand delivered at the June 8, 1998 Coastal Commission hearing.

At the June 1998 meeting, the Commission continued the De Novo hearing due to procedural and substantive concerns affecting the Commission's ability to determine the environmentally preferable, feasible alternative. The reduced time frame for responding to the draft analysis, the lack of adequate opportunity for involved parties to review the final document prior to the hearing, and the failure of the consultant to identify the technical problems with the alternative earlier in the process as a "fatal flaw" subject to the review of the working group, were procedural factors resulting in the continuance.

Substantively, the Commission expressed the need to obtain and consider the input of experts more familiar with the treatment method proposed by the Solution Group in order to determine its feasibility. In addition, the need for a more complete analysis of the difference in habitat impacts between the two projects was identified as an important information item necessary to identify the environmentally preferable alternative. Other substantive concerns included the need to have a better understanding of the cost breakdown of the County project, and to further pursue opportunities to avoid impacts to sensitive habitat (i.e., locating the disposal wells in existing roadways). The adequacy of the County's mitigation proposal, particularly with respect to the mitigation of secondary impacts, and whether the mitigation proposal was adequately defined, was another substantive issue raised by the Commission.

Since the June 1998 hearing, the Commission staff has facilitated 4 meetings of the working group in an attempt to resolve these outstanding issues. A primary focus of these meetings was the issue of technical feasibility -- whether the Solution Group proposal could effectively address the water quality problems of the Los Osos area. These discussions delved into the assumptions and methodologies involved in the evaluation of nitrate loading, as well as other technical issues including the handling of algae, sludge, and odor issues. Other issues debated at these meetings, relative to both projects, included economic costs and means of financing, environmental impacts and mitigation measures, and consistency with legal requirements (e.g., California Environmental Quality Act). Written correspondence submitted by Working Group participants since the June 1998 hearing are available by request at the Commission's Central Coast Office (831-427-4863).

required for the County project would be required for the Solution Group Alternative (i.e., 30 wells).

Finally, it should be clarified that the Solution Group alternative does not currently include the development of multi-family and senior housing, medical offices, a government center, and other public facilities that have been illustrated in the conceptual site plans for this alternative. While such development may be pursued in the future, it is not a component of the current Solution Group proposal.

III. COMPARISON OF ENVIRONMENTAL IMPACTS

While neither the County project nor the Solution Group alternative will completely avoid impacts to environmentally sensitive habitat areas, they differ in the amount of habitat area that will be impacted, and the location of these impacts. The previous comparative analysis completed by the Questa Engineering Corporation did not adequately resolve how these differences compare in terms of complying with the LCP's directive to minimize impacts on sensitive habitat areas.

Impacts to archaeological resources during installation of collection systems can be effectively addressed by permit conditions that will ensure compliance with LCP requirements. Similarly, environmental impacts associated with the disposal of sludge under either project are not expected to be significant or inconsistent with LCP requirements.

Thus, the following analysis focuses on the differences between the impacts to sensitive habitat areas posed by both projects.

A. Comparison of Treatment Plant Impacts

Biological investigations for the County project (i.e., the 1997 SEIR and the 1998 Biological Mitigation Proposal) indicate that the treatment plant will eliminate 6.7 acres of sensitive habitat that consists of 2.9 acres of Dune lupine scrub, 0.7 acres of Heather goldenbrush scrub, and 1.4 acres of Chamise - Wedgeleaf ceanothus chaparral. The remaining 1.7 acres of this habitat area is dominated by the non-native invasive veldt grass. Although veldt grass is not typically considered suitable habitat for sensitive species, it is considered as potential habitat in this case because shells of the federally endangered Morro shoulderband snail were found in the veldt. It is not known if the snails inhabited the veldt, or were transported there by predators or other means.

There has not been an equivalently detailed biological investigation of the site on which the Solution group proposes to locate the alternative treatment system. It is estimated that this facility will have an overall footprint of approximately 31 acres, 17 acres of which will be occupied by the wastewater treatment ponds. An additional 3.5 acres of the will be used for other development associated with the treatment system (a septage depot, algal settling ponds and drying beds, filtration systems). The remaining 10.5 acres of the treatment site will primarily be used as detention basins for stormwater runoff, and as playfields when weather/drainage conditions permit. Although the 10.5 acres of detention basin development is not a component of the treatment facility, they are an essential component to locating the facility in this location, which receives large volumes of storm water runoff from surrounding areas.

Solution Group has assumed that habitat for this species is limited to the portions of the site which contain dune scrub habitat (estimated to be 5.5 acres). However, there is the potential that portions of the site degraded by veldt grass or other exotic plants may provide potential habitat for the Morro shoulderband snail, as is the case with the County treatment site.

With respect to the comparative quality of the two treatment proposals, both the County treatment site and the Solution Group treatment site represent degraded habitat areas that are surrounded by land uses that diminish their long-term habitat values. The Draft Recovery Plan for the Morro shoulderband snail prepared by the U.S. Fish and Wildlife Service (USFWS) in 1997 does not identify either the County site or the Solution Group site as a Conservation Planning Area (Exhibit 5). While the County treatment site is in closer proximity to a Conservation Planning Area identified by the Draft Recovery Plan, it is not assigned any sort of conservation designation. The Solution Group treatment site, while being more isolated from Conservation Planning Areas, is designated as an "Other Habitat Area", indicating that it may have some important habitat values, but is not a high priority for acquisition.

In recent discussions, USFWS staff have stated that the Solution Group site is no longer identified as an "Other Habitat Area" in the soon to be released Final Recovery Plan. Based upon these discussions, it appears that neither treatment plant site is considered by USFWS as a high priority for the long-term conservation of the Morro shoulderband snail and other rare native plants, due to the fact that they both represent degraded habitat in close proximity to existing development.

In conclusion, impacts to sensitive habitats associated with treatment plant construction appear to be generally equivalent for both projects, in terms of the quality of the habitat that would be impacted. Both projects would locate the treatment systems on parcels on which native habitat values have been diminished by exotic invasive vegetation and surrounding land uses. Neither of the treatment plant sites are considered to be important to the long-term conservation of the sensitive species that would be affected. The Solution Group treatment alternative, however, would require more land area than the County treatment plant, and thereby could have a greater adverse impact on sensitive habitats than the County project in terms of the quantity of sensitive habitat impacted.

B. Comparison of Effluent Disposal Impacts

Both projects propose to utilize gravity wells for the disposal of treated effluent (although the Solution Group asserts that the use of wells should be dependent upon further investigation of their performance, especially with respect to the potential for the surfacing of effluent downslope of the wells). The County project proposes up to 60 wells on the Broderson site, which, as detailed on page 41 of the staff report, will impact approximately 3.5 acres of this 80-acre site.

The Solution Group has indicated its intention to locate the disposal wells in the existing roadway rights-of-way adjacent to the Broderson site, if feasible. If this is not feasible, the Solution Group will locate the wells on the Broderson site. As discussed on page 38 of the staff report, locating the wells within existing roadways has been determined to be infeasible. Thus, it is expected that the Solution Group proposal will also involve the installation of disposal wells on the Broderson site.

difficult. A description of the County mitigation proposal, and an analysis of its compliance with LCP policies, is provided on pages 45-51 of the accompanying staff report.

Overall, the County's biological mitigation proposal includes the restoration and preservation of portions of the treatment plant and disposal sites that will not be required for project facilities. At the treatment plant site, this equates to preservation/restoration of approximately 3.7 acres of dune scrub habitat. At the disposal site, approximately 76.5 acres will be preserved/restored. About 10.5 acres of this area will be preserved and restored as coastal scrub habitat, and the remaining 66 acres will be preserved as Coastal live oak and Manzanita habitat. In addition, the County proposes to purchase land having at least 40 acres of good coastal scrub habitat. Due to the sensitive nature of land negotiations, the County has not identified potential sites for this purchase. The mitigation proposal, however, does state that the 40 acres would be composed of large parcels, in good habitat condition, and contiguous with other open space areas. The County proposal states that all candidate parcels are within areas designated for protection by the Draft Recovery Plan for the Morro shoulderband snail.

As proposed by the Solution Group, the 5.5 acres of coastal dune scrub habitat that will be lost as a result of the proposed wastewater treatment system will be mitigated by the protection of an equivalent habitat area. Options to carry out this measure include: revegetating and protecting portions of the treatment site that will not be impacted by the treatment system; or, acquiring, revegetating and protecting 5.5 acres of coastal dune scrub habitat either on a 26.7 acre parcel adjacent to the treatment site or on another site acquired to mitigate impacts at the disposal site (discussed below).

The type of biological mitigation that will be provided by the Solution Group to compensate for habitat impacts of the disposal facilities is dependent upon whether the disposal wells are located in existing roadway rights-of-way, or on the Broderson site. If the wells can be located in existing roadways (the preferred option), then the Solution Group would purchase and preserve the northern 100 acre portion of the Morro Palisades site, adjacent to the eastern boundary of the Broderson site. If the wells must be located on the Broderson site, then the biological mitigation would be generally equivalent to that offered under the County project: preservation and restoration of the portions of Broderson site that will not be impacted by disposal facilities (approximately 78.25 acres as compared to 76.5 acres under the County project); and, the acquisition and protection of an appropriate 40 acre mitigation site.

As previously noted, and as discussed on page 38 of the staff report, locating the wells within existing roadways has been determined to be infeasible. Thus, the mitigation proposal offered by the Solution Group is generally equivalent to the mitigation proposal put forth by San Luis Obispo County.

D. Other Environmental Considerations - Length of Time Required to Implement Project Alternatives

The relatively small decrease in terrestrial habitat impacts (approximately 1.75 acres) at the Broderson site that could result under the Solution Group alternative needs to be considered in context with ongoing impacts to sensitive aquatic habitats associated with the continued use of individual septic systems (e.g., shellfish beds that have been closed due to excessive bacteria levels). Further pursuit of the Solution Group alternative has

IV. TECHNICAL ISSUES

To ensure that LCP policies calling for the protection of water resources are effectively achieved, the Comparative Analysis of the County project and the Solution Group alternative completed by Questa evaluated which of these proposals would best achieve water quality objectives. Questa's analysis concluded that the County Plan provides far more assurance of the ability to correct the existing groundwater nitrate problem than is offered by the Community Plan (i.e., the Solution Group Alternative).

As presented at the Commission hearing of June 8, 1998, the primary factor leading to this conclusion was that the level of wastewater treatment expected to be realized through the Solution Group treatment system was found to be unrealistic. While the Solution Group had expected that treated effluent would have a concentration of 3 mg/L of nitrogen, the wastewater engineers comparing the two projects believe that a nitrogen concentration ranging between 8 and 12 mg/L would be more likely. In addition, Questa's analysis also identified that even if a nitrogen concentration of 3 mg/L in the treated wastewater could be consistently realized under the Solution Group alternative, the RWQCB's objective of reducing nitrate levels throughout the groundwater basin to 7 mg/L would not be realized. This is due to the larger area of the Community that would remain on septic systems when compared to the County project. In comparison, the report states that the County project will be able to achieve this objective in 17 to 30 years. Other aspects of the Solution Group alternative identified by the Draft Comparative Analysis published by Questa in May 1998, which in Questa's opinion made it inferior to the County project in terms of protecting water resources, included:

- The proposed treatment system is susceptible to uncontrollable process imbalances (e.g. cloudy days which limit photosynthesis, windy conditions which turnover pond contents, and seasonal shifts in algal species) that can reduce the ability to remove nitrogen;
- areas where septic systems are retained would result in "plumes" of groundwater with nitrogen concentrations in excess of 10 mg/L, the drinking water limit, and poses greater risks of groundwater contamination from bacteria and other pathogens; and,
- the proposed recharge of the deep aquifer via Los Osos creek would have the undesirable affect of introducing relatively high loads of total dissolved solids (TDS) directly into the aquifer from which Los Osos obtains its drinking water.

Questa's Draft Comparative Analysis also identified elements of the Solution Group Plan which raised serious questions regarding its technical feasibility, and its ability to comply with water quality regulations. These included:

- unresolved issues regarding the handling and disposition of coagulated biosolids that result from the proposed treatment process; and
- the quality of the treated wastewater would be unlikely to meet requirements that would allow for its use as irrigation water or for disposal to Los Osos Creek.

VI. ECONOMIC FEASIBILITY

As previously noted, neither the San Luis Obispo County LCP nor the Coastal Act include treatment works standards allowing for Commission review of the costs of this project. Project costs are only an issue as they relate to the Commission's consideration of alternatives intended to maximize consistency with LCP and Coastal Act requirements; such alternatives must be economically feasible in order to be considered. Thus, the Commission's consideration of economic issues is limited to the question as to whether a preferable alternative, in terms of LCP and Coastal Act conformance, is economically feasible. In this case, the Solution Group alternative is not preferable in terms of LCP and Coastal Act conformance.

Nonetheless, questions and concerns regarding economic issues has been a major source of controversy throughout the history of this project, and have been raised during the Commission review of the County's project. This comparative analysis includes a discussion of the economic issues in order facilitate a complete and accurate understanding of the economic issues associated with the County project and the Solution Group alternative.

As presented by the project proponents, the County project will have a total cost of approximately \$68,068,444, and the Solution Group Alternative will cost \$57,732,895. The accuracy of the total cost of the County project has been, and remains, a major source of controversy, notwithstanding the efforts of the Working Group to resolve this issue. The Solution Group estimates that the total cost of the County project is \$103,277,525. In Questa Engineering's final evaluation, the total cost of the County project was estimated to be \$84,224,08, and the cost of the Solution Group alternative was estimated to be \$78,182,989. In the opinion of the Commission staff, the final cost estimates provided in Questa Engineering's June 5, 1998 Response to Comments represent a reasonably accurate and objective approximation of overall costs for both projects.

To determine the capital cost of the County project, Questa reviewed the Modified Engineer's Report (as revised in June 1997), which provides a detailed cost estimate for the project. This report was an essential component to the formation of the assessment district required to finance the project. As presented by this report, cost estimates were divided into two principal categories: pre-construction costs and construction costs.

Pre-construction costs, which include general project costs, assessment district costs, property acquisition/rights-of-way, and pump discount, have been calculated by the County to be \$14,432,444. An additional financing cost of \$6,188,000 was estimated by the County, but subsequently reduced to \$3,655,484 (a reduction of \$2,532,516) by the County's bond underwriter. According to the Questa report, this difference stems from lower reserve and bond insurance costs in the underwriter's estimate.

Construction costs for the County project included: the construction of collection, treatment, and disposal facilities; contingencies; construction management; and environmental monitoring. The County calculated these costs at \$47,636,000.

Taken together, pre-construction and construction costs for the County project are \$68,068,444 as calculated by the County, and \$65,535,928 with the reduced financing cost estimated by the underwriter. These are capital costs only; one-time sewer

economic feasibility by the State Water Resources Control Board. Impacts to local residents will be considered as part of this analysis.