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STAFF REPORT: APPEAL
DE NOVO COASTAL PERMIT

Appeal Number ..... **A-3-SLO-05-017, Pine Knolls Water Tanks**

Applicant..... Cambria Community Services District

Appellants ..... Commissioners Meg Caldwell and Mike Reilly; Environmental Center of San Luis Obispo (ECOSLO)/Sierra Club Santa Lucia Chapter; Ralph Covell

Local government..... San Luis Obispo County

Local Decision..... DRC2004-00093, Approved with Conditions (February 10,2005)

Project location..... Terminus of Manor Way (988 Manor Way) in the Pine Knolls neighborhood of Cambria, North Coast Planning Area, San Luis Obispo County. Water tanks will be constructed on the existing 11,000 square foot site, and an approximate 6,100 square foot expansion area from the property to the north (APN(s) 013-301-018 and portion of 013-111-005).

Project description ..... Removal of two existing 103,000 gallon water tanks; construction of two new 550,000 gallon water tanks; relocation of electrical control panel and overhead electric service; replacement of 200 linear feet of waterline and valves.

File documents..... San Luis Obispo County Certified Local Coastal Program (LCP); and San Luis Obispo County CDP Application File DRC2004-00093.

Staff recommendation... **Approval with Conditions**

Summary of Staff Recommendation

San Luis Obispo County approved a proposal by the Cambria Community Services District (CCSD) to demolish and replace two existing 103,000-gallon water tanks with two new 550,000-gallon water tanks. The new tanks are intended to provide additional water storage to meet the community's system wide fire protection, back-up emergency, and daily operational needs. The project is located at the terminus of Manor Way in the Pine Knolls residential neighborhood of Cambria, San Luis Obispo County. The CCSD proposes to construct the tanks on a site encompassing an 11,000 square foot Pine Knolls tank site owned by the CCSD, and an approximate 6,100 square foot expansion area from the property to the north (the "northeast expansion area"). The undeveloped northeast expansion area is part of a 1,644-acre area owned by Ralph Covell and covered by a conservation easement held by the Nature Conservancy

that consists of densely vegetated Monterey pine forest habitat. The CCSD initiated eminent domain proceedings in 2004 in order to secure the additional land for their proposal. The standard of review is the San Luis Obispo County certified Local Coastal Program (LCP).

The proposed project raises issues with a number of core ESHA protection policies and implementing ordinances. First, the project is inconsistent with the LCP because water tanks are not a resource dependent use allowed in ESHA. Second, the project expands development into a 6,100 square foot area that contains undisturbed Monterey pine forest habitat resulting in the permanent loss of ESHA. Third, the project would temporarily degrade the ESHA resource during construction. Fourth, the project is inconsistent with the policies of the LCP protecting rare and endangered plants and animals because it removes a significant number of sensitive Monterey pine and native Coast live oak trees, which serve as cover for other rare and sensitive wildlife species. Lastly, the project raises issues with the public facilities requirements of the LCP, which prohibit water tanks in Sensitive Resource Areas (SRA's) and ESHA's unless there is no other feasible location on or off-site the property. Based on staff research, there are feasible on and off site alternatives that would provide needed operational, emergency, and fire storage without encroaching into the pine forest ESHA.

Staff recommends that the Commission **approve with conditions** a coastal development permit for a new water tank project that protects Monterey pine forest ESHA. The 6,100 square foot northeast expansion area contains undisturbed, healthy pine forest ESHA and must be avoided. The existing 11,000 square foot Pine Knolls tank site is already disturbed and does not contain ESHA. As detailed in the findings below, there appear to be a variety of alternative tank designs that can be accommodated on the CCSD's property or off site, and that still meet the community's immediate and reasonable needs for fire, operational, and emergency water supply for existing development.

The CCSD proposal includes operational and emergency storage capacity for a future development scenario that is approximately 20% greater than that needed to support existing development and also provides for 50% greater water use for existing and future connections (termed a "quality of life increase" by the CCSD). However, the CCSD is currently enforcing a new water connection moratorium due to severe constraints in the water system. In addition, the Coastal Commission has previously identified water withdrawals from San Simeon and Santa Rosa Creeks and impacts to riparian habitat as a significant water supply issue in Cambria. The CCSD is currently evaluating a desalination project to provide additional water to the community. Although additional storage capacity may be desirable for future buildout scenarios in Cambria, this capacity has not yet been firmly established or evaluated for consistency with the LCP. Moreover, to the extent that it is needed, the design and construction of new capacity should be accomplished consistent with the LCP, including the ESHA protection policies. The CCSD has not established that additional tank capacity at the Pine Knolls location is the only way to accommodate future development water needs in the area served by the Pine Knolls tank site. Therefore, staff recommends that the permit be approved with a condition that provides a maximum storage volume of 934,000 gallons to serve existing development and requires all new development to be on the existing disturbed tank site and not encroach into the adjacent ESHA.

Although the project will need to be modified, according to a review of the project by an experienced engineer hired by the Commission with expertise in this area, it appears that there are feasible design options to provide for existing demand. A variance to LCP residential setback requirements may be

needed, and other constraints previously identified by the CCSD can be adjusted (such as reducing the maintenance area around the tanks and slightly modifying the proposed fire access road alignment and width). The County conditions related to fencing, landscape screening, lighting, tank color, cultural resources, noise, and the implementation of BMP's during construction are retained through the permit conditions. Thus, only as conditioned can the project be found consistent with the LCP.

Staff Report Contents

V. 1998 North Coast Area Plan findings on Cambria water supply
W. 2001 Periodic Review findings on Cambria water supply
X. CCSD Annual Water Production by Source
Y. Kennedy-Jenks Water Demand Discussion (*2004 Potable Water Distribution System Analysis*)
Z. Letter Report from Mike Donovan

1. Staff Recommendation on De Novo Permit

The staff recommends that the Commission, after public hearing **approve** a coastal development permit for the proposed development subject to the standard and special conditions below.

> ***MOTION:*** *I move that the Commission approve Coastal Development Permit Number A-3-SLO-05-017 pursuant to the staff recommendation.*

STAFF RECOMMENDATION OF APPROVAL: Staff recommends a **YES** vote. Passage of this motion will result in approval of the coastal development permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE THE PERMIT: The Commission hereby approves the coastal development permit on the ground that the development as conditioned, will be in conformity with the provisions of the San Luis Obispo County certified Local Coastal Program. Approval of the coastal development permit complies with the California Environmental Quality Act because feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the amended development on the environment.

2. Conditions of Approval

A. 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 on which the Commission voted on the application. 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. **Interpretation.** Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **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.

5. **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.

B. Special Conditions

1. **Revised Project Plans.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit two sets of Revised Project Plans to the Executive Director for review and approval. The Revised Project Plans shall show the following:

    a) New tank construction providing up to 934,000 gallons of water storage located entirely within the existing 11,000 square foot Pine Knolls tank site (APN 013-301-018). Encroachment off of the existing 11,000 square foot Pine Knolls tank site (APN 013-301-018) shall not exceed 5 feet and only if necessary for temporary construction and maintenance activities and if approved by the Executive Director.

    b) Access road the minimum width necessary to provide emergency access to and across the site.

    c) Replacement of approximately 200-linear ft. of buried 10-inch asbestos cement waterline and valves with 14-inch concrete coated welded steel cement-lined waterline and valves on Manor Way.

2. **Drainage, Erosion, and Sedimentation Control.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Permittee shall submit, for Executive Director review and approval, two sets of Drainage, Erosion, and Sedimentation Control Plans and that incorporate the following provisions:
    Implementation of Best Management Practices During Construction. The Drainage and Erosion Control Plans shall identify the type and location of the measures that will be implemented during construction to prevent erosion, sedimentation, and the discharge of pollutants during construction. These measures shall be selected and designed in accordance with the California Storm Water Best Management Practices Handbook and the criteria established by the San Luis Obispo County Resource Conservation District. Among these measures, the plans shall limit the extent of land disturbance to the minimum amount necessary to construct the project; designate areas for the staging of construction equipment and materials, including receptacles and temporary stockpiles of graded materials, which shall be covered on a daily basis; provide for the installation of silt fences, temporary detention basins, and/or other controls to intercept, filter, and remove sediments contained in the runoff from construction, staging, and storage/stockpile areas. The plans shall also incorporate good construction housekeeping measures, including the use of dry cleanup measures whenever possible; collecting and filtering cleanup water when dry cleanup methods are not feasible; cleaning and refueling construction equipment at designated off site maintenance areas; any the immediate clean-up of any leaks or spills.

The plans shall indicate that PRIOR TO THE COMMENCEMENT OF GRADING, the Permittee shall delineate that the approved construction areas with fencing and markers to prevent land-disturbing activities from taking place outside of these areas.

Post Construction Drainage. The drainage plan shall identify the specific type, design, and location of all drainage infrastructure and Best Management Practices (BMPs) necessary to ensure that post construction drainage from the project, including runoff from all impervious surfaces, does not result in erosion, sedimentation, or the degradation of coastal water quality. The capacity of drainage features and BMPs shall be adequate to treat, infiltrate or filter the amount of storm water runoff produced by all storms up to and including the 85th percentile, 24-hour storm event for volume-based BMPs, and/or the 85th percentile, 1-hour storm event, with an appropriate safety factor (i.e., 2 or greater), for flow-based BMPs. All drainage features shall be located outside of sensitive habitat areas and shall be limited in size and footprint to the minimum necessary to achieve effective drainage and erosion control.

The Permittee shall be responsible for implementing and maintaining drainage, erosion, and sedimentation control measures and facilities for the life of the project. This shall include performing annual inspections, and conducting all necessary clean-outs, immediately prior to the rainy season (beginning October 15), and as otherwise necessary to maintain the proper functioning of the approved system.

The Permittee shall undertake development in accordance with the approved Plans. Any proposed changes to the approved Plans shall be reported to the Executive Director. No changes to the approved Plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary

3. **County Conditions of Approval.** Except for County conditions of approval **1, 2, 13, 14, 16, 17, 18, 19, 20, 27, and 36** all conditions of San Luis Obispo County's approval of the project become conditions of this permit. All conditions of San Luis Obispo County's approval pursuant to planning authority other than the Coastal Act continue to apply.

3. De Novo Findings and Declarations

A. Project Background

Cambria is an unincorporated coastal town of approximately 6218 persons[1] located in northern San Luis Obispo County. The town, extensively subdivided into very small lots in the early part of the last century without regard to topographical or other planning constraints, is partially built out with mostly single family residential development located within hilly pine forest or along the coastal terrace that lies adjacent to the sea. Roads serving the homes in the pine forest are often narrow and steep. Although there have not been any large fires in this area for many years, the combination of dense residential uses, limited access and the forest make this a high-risk area for fire. The commercial center of the town

[1] Data from 2000 Census. Average annual growth is projected at 2.3 percent.

stretches along Santa Rosa Creek and is subject to periodic flooding.

Public services (water, sewer, and fire protection, parks) are provided by the Cambria Community Services District (CCSD) that is governed by a locally elected board. The district has struggled for years to provide water for new development in the community but has been limited by scarce local water resources. The town is currently under a development moratorium due to the lack of water supplies for additional construction. The district has also known for many years that water storage for fire protection was inadequate. The CCSD does not have water storage specifically dedicated to fire protection or emergency conditions and the District currently relies on operational storage for all of its water needs. The Commission has previously identified water supply constraints, including insufficient fire protection flows, as a significant water supply issue in Cambria. In the 1998 North Coast Plan Update, the Commission found that significant concerns existed with the CCSD's withdrawals from San Simeon and Santa Rosa Creeks and potential impacts to riparian habitat. These concerns were reiterated in the Commission's 2001 adoption of the Periodic Review of the San Luis Obispo LCP.

On October 13, 2004, Commission staff in the Santa Cruz office received notice that the Planning Director of San Luis Obispo County had issued a non-appeallable, emergency permit to the CCSD for the removal of two 103,000-gallon water tanks and the construction of two 550,000 gallon water storage tanks on the district's Pine Knoll site and adjacent land. The cause of the emergency was a 2002 planning document (Cambria Community Services Master Plan of 2002) that "identified a significant deficiency in fire storage at the Pine Knolls water tank site" and damage to the tanks from the Paso Robles earthquake in December of 2003. Prior to application for the emergency permit, the district had been in the process of obtaining a Coastal Development Permit from the County and was also prosecuting an eminent domain action against the neighboring landowner to obtain additional land (approximately 9115 square feet) for the tank site. The land to be acquired was Monterey pine forest ESHA subject to a conservation easement held by the Nature Conservancy to protect it from development.

Coastal Commission staff questioned the validity of the emergency permit because it had been known for years that fire storage in Cambria was inadequate and thus this inadequacy was not "sudden or unexpected" as required for use of the emergency permit process. Further inquiry into the state of the existing tanks revealed that they were not actually damaged by the 2003 earthquake but also that they did not meet current standards for seismic bracing so if there was another earthquake, they might fail. Commission staff advised that this information was not a valid basis for granting an emergency permit and requested that the district withdraw their request for an emergency permit and continue processing the regular permit for the project. The district refused to withdraw the emergency permit and Commission staff started proceedings to obtain an Executive Director's Cease and Desist Order against the district and the county, as the issuing agency, to stop any development under the emergency permit. (Notice Prior to Issuance of Executive Director Cease and Desist Order, Number ED-04-CD-02, October 21, 2004, see Exhibit H).

Upon receipt of the notice, the County rescinded the emergency permit (Letter from Victor Holanda, Planning Director to Sarah Christie, dated October 22, 2004, Please see Exhibit I).

On November 17, 2004, the district again submitted an application to the county for an emergency

permit to construct the tanks. (Please see letter from Bob Gresens, District Engineer to Matt Janssen, San Luis Obispo County Planning Department, Exhibit J) On November 19, 2004, the County Planning Director advised the district that he would not authorize an emergency permit for this project. Commission, county and district staff subsequently met on November 23, 2004 to discuss the project and alternatives to the project that would avoid impacts on the neighboring Pine Forest ESHA. The district asserted that none of the alternatives were feasible and, on November 29, 2004 again requested an emergency permit from the County and threatened legal action if the County did not comply. (Letter from Tammy Ruddock, District General manager to Victor Holanda, County Planning Director, Please see Exhibit K). The County did not comply with the District's request.

The Executive Director's Cease and Desist Order was issued on October 22, 2004. The district's response was to file a legal challenge to the order and to contend that, in any event, the district did not need a coastal development permit to pursue their project (Please see letter from Art Montandon, district legal counsel to Sandy Goldberg dated October 21, 2004 and response dated October 21, 2004, Exhibit L). The legal challenge was heard in San Luis Obispo Superior Court on December 17, 2004. The Commission was represented by counsel from the Attorney General's office and the district by District Counsel. The court ruled in favor of the Commission but retained jurisdiction, advising the parties to work cooperatively to secure a permit for the project in an expeditious manner.

Over the next weeks, Commission and County staff met with District staff in an effort to agree upon a project that would meet the district's needs while preserving the adjacent ESHA. A number of alternative plans were forwarded to the district (Please see Exhibit M), but none were acceptable. (Please see District response to alternatives, Exhibit N). The District did modify its original project to reduce but still not avoid encroachment into forest habitat. In the meantime, the County continued to expedite the processing of the Coastal Development Permit for the district's project. An application for the project was filed as complete on December 2, 2004 and scheduled for a January planning commission hearing. The item was initially heard on January 13, 2005 but continued to a February meeting to allow the applicant time to prepare additional information regarding the proposed changes to the conservation easement, the status of the applicant's CEQA document, and a response to Commission staff's letter of January 12, 2005 (Please see Exhibit O).

On February 10, 2005, the Pine Knolls Tank Replacement project was approved by the San Luis Obispo County Planning Commission subject to a number of conditions. (Please see Exhibit D, Local Approval) The Final Local Action Notice was received in the Santa Cruz office of the Coastal Commission on March 2, 2005. Timely appeals were filed on March 16, 2005 and the item was set for hearing at the April Commission meeting in Santa Barbara.

The project was heard by the Commission on April 14, 2005 in Santa Barbara. The Commission found that the county action on the project presented a substantial issue and took jurisdiction over the project. The de novo hearing was continued to a future meeting.

Subsequent to the Commission hearing in April, commission staff prepared a number of "follow-up" questions for the CCSD in order to address concerns expressed by the Commission at the hearing and to better understand the various constraints identified by the CCSD. (Please see Exhibits S and T, CCSD Response to Questions)

Based on the CCSD's assertion that due to the numerous, inflexible, technical constraints relevant to this project there were no alternatives to the proposed site configuration, the Commission obtained outside expertise in the area of tank construction for potable water supplies and distribution by contracting with Mike Donovan of Whitley Burchette Engineering to assist staff in developing a recommendation for the project. (Please see Exhibit Z, Letter Report from Mike Donovan). Mr. Donovan assisted staff in the preparation of the current staff report, provided a letter report and an example of alternative approaches to the site that would meet standard engineering requirements while greatly reducing or eliminating any encroachment into ESHA.

B. Project Location and Description

The proposed project is located in the town of Cambria, in the North Coast Planning Area of San Luis Obispo County. The project site is situated at the terminus of Manor Way (988 Manor Way) in the Pine Knolls residential neighborhood of Cambria. A short gravel road at the end of Manor Way provides access to the project site. The project site is bordered by single-family residences to the south and west, and open space to the north and east. See Exhibits A, B, and C for illustrative project location information.

The existing Pine Knolls tank site owned by the CCSD is approximately 11,000 square feet in size and contains two 103,000-gallon water tanks at an elevation of approximately 285-feet above mean sea level. Each tank is 24-feet in diameter and 32-feet tall. Sparse cover of annual grasses and weedy species occur on the existing tank site. Landscape trees and shrubs are located along the site's western and southern boundary, and provide some screening for the adjacent neighborhood.

The proposed project area includes the existing Pine Knolls tank site, as well as an extension of approximately 6,100 square feet of land area beyond the northeastern portion of the property (referred to as the "northeast expansion area"). Thus, the total proposed project area, including the existing tank site, is approximately 17,100 square feet. The northeast expansion area is part of a 1,644-acre area owned by appellant Ralph Covell and held in a conservation easement by The Nature Conservancy. The undeveloped northeast expansion area consists of densely vegetated Monterey pine forest. A Sensitive Resource Area (SRA) combining designation boundary line, used to identify areas with special environmental qualities, or areas containing unique or endangered vegetation or habitat resources, runs co-terminus with the northern border of the existing tank site. A Terrestrial Habitat (TH) boundary line is mapped near the property (approximately 80 to 90 feet northeast of the property line), indicating the presence of the native Monterey pine forest ESHA.

The topography of the existing Pine Knolls tank site is level and soils have been disturbed or modified for current tank use. The top 1 to 4.5 foot layer of soil consists of light brown poorly graded sand with clay, in a medium dense condition. Underlying the surface layer is 1 to 3 feet of very stiff, mottled sandy lean clay, identified as residual soil. At 2.5 to 6 feet below grade, there is bedrock (sandstone). The topography of the northeast expansion area is also relatively level, and is approximately 5-feet higher in elevation than the existing Pine Knolls tank site. The soils within the northeast expansion area have not been disturbed or modified from their natural state. These soils are classified as San Simeon sandy loam, 9 to 15 percent slopes. San Simeon sandy loam is moderately deep, moderately well drained, strongly sloping soils that occur on foothills and terraces.

The proposed project would replace the two existing 103,000-gallon welded steel tanks at the existing Pine Knolls tank site and expand the site to include two 550,000-gallon welded steel tanks. The project site will be excavated to approximately five feet below grade and soils will be re-compacted or imported to ready the site prior to preparing the tank foundations. The tank foundations will consist of steel-reinforced cast-in-place concrete. The new tanks will have approximately the same height as the existing tanks (32-foot sidewall height). Each of the two replacement tanks will have a 60-foot diameter footprint, for a total of 5,700 square feet (2,850 square feet for each tank). Other site improvements include driveways and walkways constructed of river rock and chain link security fencing. A control building (approximately 30 square feet) will be constructed to house the tank controls. In addition, the project will replace approximately 200-linear feet of buried 10-inch asbestos cement waterline and valves with 14-inch concrete coated welded steel cement-lined waterline and valves. This waterline will increase the fire flow capacity between the tanks and the distribution system. The pipeline will be installed in an existing driveway between the tank site and the end of Manor Way. Also, the project will replace an existing check valve vault with a new pressure-reducing valve vault at the end of Manor Way.

The proposed project would be constructed in several phases. The initial phase of work will involve removal of approximately the top five feet of soil, and re-compaction of fill material for the new northeastern tank. Both existing tanks will remain in service until the new northeastern tank is constructed. Construction activities include building a concrete ringwall foundation and erection of the steel tank walls, floor and roof. Tank surface preparation and coating will take place next. After the first (northeastern) tank is completed, disinfected, and brought online, the existing 103,000-gallon tanks will be taken out of service and dismantled. The second (southwestern) tank will then be constructed in the same manner as the northeastern tank. The total estimated construction time for the project is anticipated to be approximately seven to nine months. Construction time could be extended due to site conditions as a result of wet weather.

C. County-Approved Project

In summary, the County found that although the project was located within the Monterey pine forest ESHA resource, the proposed water tanks have been sited to impact the least amount of undisturbed habitat area as feasible. The County conditioned the project to include a Tree Replacement Mitigation Plan, and an onsite landscaping plan to reduce impacts to a less than significant level. The County found that the project is not dependent on the Monterey pine forest, yet is dependent on the location of this specific site. The County found that allowing the water tanks to expand into the 6,100 square foot northeastern expansion area would cause less of an impact than re-locating the project on another site. The County conditions of approval also include measures to address cultural resources, drainage, sediment and erosion control, noise, project aesthetics, air quality, and implementation of BMP's during construction. See Exhibit D for complete text of County Findings and Conditions.

D. Coastal Development Permit Findings

1. Public Works

a. Applicable Coastal Plan Policies and Ordinances

Policy 2: New or Expanded Public Works Facilities. *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. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.04.021c OF THE CZLUO].*

Policy 7: Permit Requirements. *The county shall require a permit for all public works projects located within the coastal zone except:*

a. *For maintenance or repair activities that do not result in an enlargement or expansion of the facility.*

b. *Where the development is a state university, college, public trust lands or tidelands (which require a permit from the State Coastal Commission that must meet the requirements of Chapter 3 of the Coastal Act. The county Local Coastal Program will serve in an advisory function).*

c. *For those minor projects that can be categorically exempted as provided for in the Coastal Act on account of geographic area or function per Section 30610(e) where the categorical exclusions has been approved by the county and Coastal Commission.*

d. *The installation, testing and placement in service or the replacement of any necessary utility connection between an existing service facility and any development approved pursuant to this division; provided that the county may, where necessary, require reasonable conditions to mitigate any adverse impacts on coastal resources including scenic resources.*

[THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO CHAPTER 23.03 OF THE CZLUO.]

23.08.280 Transportation, utilities and communication (S-13).

Transportation and public utility facilities identified as allowable, S-13 uses by the land use element (see Coastal Table O, Part I of the land use element) are subject to the following:

23.08.282 Airfields and landing strips;
23.08.284 Communications facilities;
23.08.286 Pipelines and transmission lines;
23.08.288 Public utility facilities;
23.08.290 Vehicle storage;
23.08.300 Electric generating plants.

23.08.288 – Public Utility Facilities: *The requirements of this section apply to Public Utility Facilities where designated as S-13 uses by Coastal Table 'O', Part I of the Land Use Element. Public Utility Facilities for other than electric and communications transmission and natural gas regulation and distribution, require Development Plan approval pursuant to Section*

23.02.034 (Development Plan).

a. ***Permit requirements.*** *In addition to the emergency repair and the general permit requirements of section 23.08.286a and b., Development Plan approval is required for any new facility or modification of any existing facility in the Agriculture, Rural Lands, Residential, Office and Professional, and Commercial land use categories. Development Plan approval is required for any new facility or modification to any existing facility which would increase the structure heights above those specified in section 23.04.124 or modify any operational standards causing an increase in any of the categories specified in chapter 23.06 of this title*

b. ***Application Contents.*** *In addition to the application materials required by Chapter 23.02, permit applications shall also include descriptions of:*

(1) The proposed design capacity of the facility; the operating schedule; and how the proposed facility interacts with incoming and outgoing utility services.
(2) Plans for any overhead or underground transmission lines, transformers, inverters, switchyards or any required new or upgraded off-site transmission facilities.
(3) Proposed erosion control measures, revegetation, screening and landscaping during construction and operation.
(4) An oil and hazardous material spill contingency plan, including a demonstration that all materials can be contained on-site.
(5) For electric and telephone centers, estimates of the non-ionizing radiation generated and/or received by the facility. These will include estimates of the maximum electric and magnetic field strengths at the edge of the facility site, the extent that measurable fields extend in all directions from the facility.
(6) The number and identification by trades of estimated construction and operation forces. If construction is estimated to take over six months, the construction workforce shall be estimated for each six-month period. The estimates shall include numbers of locally hired employees and employees who will move into the area, and a discussion of the estimated impact that employees moving into the area will have on housing, schools and traffic.

c. ***Development standards.*** *The following standards apply in addition to any that may be established as conditions of approval:*

(1) Environmental quality assurance. An environmental quality assurance program covering all aspects of construction and operation shall be submitted prior to construction of any project component. This program will include a schedule and plan for monitoring and demonstrating compliance with all conditions required by the Development Plan. Specific requirements of this environmental quality assurance program will be determined during the environmental review process and Development Plan review and approval process.

(2) Clearing and revegetation. The land area exposed and the vegetation removed

during construction shall be the minimum necessary to install and operate the facility. Topsoil will be stripped and stored separately. Disturbed areas no longer required for operation will be regarded, covered with topsoil and replanted during the next appropriate season.

(3) Fencing and screening. Public Utility Facilities shall be screened on all sides. An effective visual barrier will be established through the use of a solid wall, fencing and/or landscaping. The adequacy of the proposed screening will be determined during the land use permitting process.

*d. **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 the property. Applications for Public Utility Facilities in the above sensitive areas shall include a feasibility study, prepared by a qualified professional approved by the Environmental Coordinator. The feasibility study shall include a constraints analysis, and analyze alternative locations.*

b. Consistency with Applicable Policies

Permit Requirements

The proposed CCSD project is an expansion of existing public works water storage facility located in a residential zone. San Luis Obispo County Coastal Plan Public Works Policy 7 of the LCP requires a permit for public works projects located within the coastal zone except for (1) repair and maintenance activities that do not enlarge or expand the facility; (2) where development is a state university, public trust lands or tidelands; (3) minor projects that can be categorically exempted; and (4) the installation, testing and placement in service or the replacement of any necessary utility connection between an existing service facility and any approved development. None of these exceptions apply in this case. Thus, a coastal development permit is required.

According to Table O of the LCP, this type of development is an S-13 use, allowable but subject to the special standards and processing requirements of CZLUO Section 23.08.280 (Transportation, utilities and communication (S-13)). This ordinance section then references section 23.08.288 as the relevant ordinance for public utility facilities.

Pursuant to CZLUO Section 23.08.288, a Development Plan (coastal development permit) is required for new and expanded public works facilities in the residential land use category. On February 10, 2005 the County Planning Commission granted a Development Plan/Coastal Development Permit to the Cambria Community Services District (DRC2004-00093) in satisfaction of this LCP requirement. Other development standards required under this ordinance, such as revegetating disturbed areas and screening the site have also been addressed by the County's conditions of approval (See Exhibit D) and are incorporated into this permit except where conflicts with additional conditions of this Commission coastal permit may arise. The requirement under this ordinance regarding the development of public works facilities in environmentally sensitive habitat areas is addressed in more detail in the ESHA findings of this report (see below).

Water Storage Requirements at Pine Knolls

Public Works Policy 2 of the LCP requires that new or expanded public works projects shall be designed to accommodate but not exceed the needs generated by projected development within the urban reserve line. This policy was certified to implement the Coastal Act section 30254 requirement that public services be limited to serve urban development that is otherwise consistent with the resource protection policies of the Coastal Act and to not be growth inducing.[2] Although this water tank storage project is an upgrade of one piece of a much larger public works water system, it is nonetheless important that the design capacity of this particular facility be sized correctly, and not be growth inducing or otherwise provide capacity for new development in excess of that which could be accommodated consistent with the LCP. This sizing of this particular facility is also critical in this case given the highly constrained site proposed for the development (see ESHA finding).

Context for Water Supply Capacity Analysis

The issue of water supply in Cambria has been a significant since the early days of implementing the Coastal Act. Cambria's water is supplied by wells that pump water from Santa Rosa and San Simeon creeks. A primary concern for the Commission historically has been assuring that the pumping of these creeks to serve existing and planned development does not adversely impact riparian habitats or otherwise negatively impact groundwater sources. The South Central Coast Regional Commission approved a permit for the CCSD in the 1970s that limited future water connections in Cambria to 3800 dwelling units to assure that water withdrawals did not exceed the creek withdrawal amounts permitted by the State Water Resources Control Board (SCRCC permit 132-18). In 1981, the South Central Commission approved an amendment to this original restriction allowing up to 5250 dwelling units with water connections and 125 new water connections a year unless and until an LCP was approved specifically increasing the allowed water supply (SCRCC Permit 428-10). The basis for approval of this amendment was evidence of increased conservation and efficiency in per capita water use. When the LCP was certified in 1988, the 125 permits per year was retained but no policy was certified specifically addressing a change in total permitted residential connections. As discussed in more detail below, more recent CCSD water withdrawals from the two creeks average around 800 AF, and the total number of water connections in the community is 3,984.

More recently, the Coastal Commission has addressed the concern for water supply in Cambria in both the 1998 North Coast Area Plan LCP Update findings, and the adopted Periodic Review of the SLO County LCP (see Exhibits V and W for relevant excerpts). In both of these actions, the Commission advised that new development in Cambria not be approved absent a more serious effort to address the water supply constraints, including the provision of adequate fire storage. This also includes

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[2] Coastal Act Section 30254 Public works facilities, in relevant part, states:

> New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; . . . Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.

recommending that the riparian habitat requirements of the creeks be fully evaluated, and that the County and community complete a water management strategy with recommendations approved by the County and incorporated into the LCP. In addition, the Commission recommended that the County consider strategies to identify and achieve a reduced potential buildout of Cambria that would better protect coastal resources.

The CCSD has been moving aggressively in recent years to address the various water supply issues that it faces. In addition to producing a number of reports addressing aspects of the water supply system, the CCSD is currently implementing a moratorium on new water connections because of the severe water supply constraints in the current system. As mentioned, these constraints include inadequate fire fighting flows as well as constraints associated with water withdrawals from San Simeon and Santa Rosa Creeks. The proposed water tank project is a component of needed system-wide improvements identified by the CCSD's recent efforts. The Commission also has worked with the CCSD through several coastal development permit appeals on a "retrofit" condition to assure that new development in Cambria that is not subject to the moratorium would not require new water withdrawals from San Simeon and Santa Rosa creeks (see, e.g., A-3-SLO-02-073, Hudzinski; Monaco, A-3-SLO-02-050).

The CCSD is also evaluating a desalination project that could provide additional water supplies to the community, and is currently planning new capacity based on a buildout scenario that assumes that new development would be limited to those customers currently on the CCSD's waiting list for water (690 new connections).[3] As of 2004, there are 3,984 existing water connections and 110 potential connections that have been grandfathered into the current moratorium.

Although the CCSD's current planning assumes a more limited buildout scenario for the community, the actual capacity of any future water supply is not yet established or evaluated for consistency with the LCP. As analyzed in depth by the Commission in the Periodic Review, new development in Cambria cannot be accommodated consistent with the LCP and Coastal Act absent a new water supply and a comprehensive analysis of the coastal resource protection requirements of San Simeon and Santa Rosa creeks and underlying groundwater. The CCSD has been coordinating with the Commission in the early stages of the desal project, but the Commission has not yet evaluated the capacity and buildout questions necessarily raised by this potential project. San Luis Obispo County has also recently released a public hearing draft of proposed amendments to the Cambria and San Simeon Acres plans of the North Coast Area Plan, which the Commission anticipates reviewing in the coming months (Draft dated May 2005). Finally, the CCSD recently submitted a buildout reduction study to the Commission for review (dated May 2004).

Capacity Analysis

In the optimum situation, new public services, which are substantial public investments, would be sized to provide for future development that has been evaluated in an LCP planning context for consistency with the Coastal Act and protection of coastal resources. Typically the base water supply or wastewater treatment capacity is the most important capacity variable to assure that supply is not provided that would induce or provide for development that would adversely impact coastal resources. Secondary

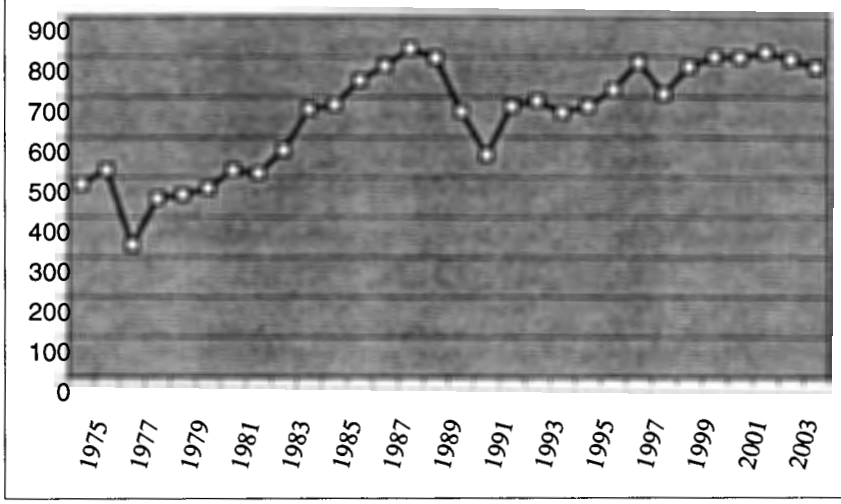
[3] The CCSD has referenced a buildout target of 4650 residential connections, and has recently indicated that this does not include 24 commercial connections also on the waitlist, in which case the total number of water connections would be approximately 4674.

components of a public service system, such as a water delivery system (pipelines) or a storage facility such as is proposed here, should also be "right-sized". Limiting the capacity of such infrastructure is an important part of assuring that the overall public service system does not provide for or induce inappropriate levels of development. That said, given that such projects are usually more costly community investments, it is important to build in sufficient future capacity for reasonably anticipated development that can be accommodated consistent with the Coastal Act and the LCP.

As discussed, currently there is inadequate water supply for new development in Cambria. A new water supply has not yet been identified and approved by the County or the Commission. Nor have appropriate updated levels of future development have been approved by the Commission as part of the certified LCP. This makes it more difficult to evaluate whether the proposed water storage project is appropriate, because its sizing is premised on a future buildout that currently cannot be supported by existing water supplies. Ideally, new water supplies and buildout projections consistent with this supply would be known before building other critical components of the public infrastructure. Were there no other coastal resource concerns raised by this project, it might be less problematic to base the capacity of the project on an uncertain future buildout scenario, particularly since the assumed buildout scenario is more limited and the project is not itself a water supply but rather a component of the delivery system. However, given the impacts of the project to ESHA (see below), the sizing of the project is of particular importance. Absent some overriding concern, the development and delivery of public service expansions to serve potential future development should not be inconsistent with other policies of the LCP or the Coastal Act. Rather, new service capacities should be designed and accomplished consistent with the LCP, such as the ESHA policies that require avoidance of ESHA. As discussed below, one way to do this might be to limit the capacity of the proposed project to that necessary to serve existing development. Before concluding this, though, more detailed analysis of water supply in relation to the project is needed.

As mentioned, Cambria pumps its water from Santa Rosa and San Simeon Creeks. As shown in Figure 1, Cambria water production has increased over time as the population and the total number of connections has increased. In recent years, water production has leveled off around 800 acre-feet per year and has decreased in the last two years (793 AF in 2003; 773 AF in 2004; see also Exhibit X).

Figure 1. Cambria Water Production (AFA)
Source: Cambria CSD



As of 2004, there were 3,984 water connections in the system (3,764 residential and 220 commercial). There is currently a moratorium on new connections, under an emergency ordinance adopted by the CCSD in 2001, and only those connections that are "in the pipeline" are potentially eligible for hooking up to the water supply system (approx. 110).

The design of the Pine Knolls Tanks project is based on a number of water storage requirements and assumptions concerning water demand in the community. The storage capacity of the tanks is a critical variable, as it determines the general sizing requirements of the tanks given other known variables such as tank elevation and height. In general, the required storage is a function of the sum total of necessary operational, emergency, and fire water storage for the area being served by the tanks ("Pressure Zone 1" in this case).

The fire storage volume requirement is a function of the types of buildings and on the ground conditions in Pressure Zone 1, as determined by fire chief and using standards of the Uniform and California Fire Codes. Pressure Zone 1 includes the East and West Villages (mostly commercial), and the residential areas of Park Hill, Moonstone Beach, Lower Happy Hill and Lower Pine Knoll. In this case, the CCSD has determined that 630,000 gallons of stored water are necessary for Pressure Zone 1 in order to meet the Fire Code requirements. This represents the amount of water necessary to sustain a water flow of 3500 gallons per minute (gpm) for 3 hours.

According to industry practice, the operational and emergency storage volumes for the Pine Knolls tank sites are a function of the maximum daily water demand for the area being served by the water storage facilities. Currently, the commercial and residential development of Pressure Zone 1 accounts for approximately 37% of community wide water demand in Cambria. This number is derived from the CCSD's recent water demand analysis that is based on a GIS modeling and identification of water

demand at various locations in the community.[4]

Operational storage is water that is available on a regular basis to serve the daily fluctuations in water use. Because the system relies on the pumping of water into the system on an on-going basis, the tanks only need to be sized to provide a certain fraction of the total daily demand (i.e. the tanks are refilling through the day as needed). The CCSD has determined that operational storage equivalent to 25% of the maximum daily demand is necessary for Pressure Zone 1. Based on the CCSD's demand analysis, necessary operational storage for existing conditions in Pressure Zone 1 is approximately 100,000 gallons (see Table below for more detail).

Emergency storage is developed using 3 considerations 1) Temporary service interruptions (planned or unplanned equipment outage, pump failures, pipeline break, etc); 2) Disasters; 3) Reliability and Diversity of Supply Sources (i.e. greater reliability and diversity of water supply sources allows smaller emergency storage requirements). Similar to operational storage, industry practice is to determine this storage volume as a function of maximum daily demand. The CCSD has determined that it needs 50% of MDD for emergency storage for Pressure Zone 1. This equates to approximately 200,000 gallons for existing conditions according to the CCSD's demand analysis. This storage would be used, for example, to allow time to repair pipeline breaks without draining the tanks or impacting the amount of water stored for fire fighting.

The Pine Knolls tank project is sized to serve a future buildout water demand in Pressure Zone 1. The CCSD considered several buildout scenarios for the community and ultimately settled on a low-end scenario that assumes that future development in Cambria would be limited to the connections remaining on the CCSD's water wait list. This includes 666 potential residential connections and 24 potential commercial connections. In conjunction with existing connections, this results in a buildout scenario of approximately 4,674 connections.[5]

The District's July 2004 Water Master Plan[6] identified a need for an additional 2.2 million gallons of water storage to meet system wide fire protection, emergency, and operational storage needs for the identified buildout level. Of this amount, 1.1 million gallons is proposed to be stored at the Pine Knolls tank site. The following chart is excerpted from the District's Master Plan Table 5-8 (pg. 39) showing the amount of water needed at the Pine Knolls site to support current development (934,000 gallons) compared to the amount of water proposed to support future development (1,128,000 gallons).

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[4] See *Task 3 Report. Potable Water Distribution System Analysis for Cambria Community Services District* Prepared by Kennedy/Jenks Consultants July 2004

[5] The CCSD refers to a buildout number of 4650 residential connections. According to the CSD this number does not include the 24 commercial connections currently on the waitlist. Assuming future commercial connections are limited to those on the waitlist, it appears the buildout number of total connections would be approximately 4674.

[6] *Task 3 Report. Potable Water Distribution System Analysis for Cambria Community Services District* Prepared by Kennedy/Jenks Consultants July 2004.

TABLE 5-8: EVALUATION OF EXISTING RESERVOIRS[7]

Pine Knolls

# Connections	Fire Flow Scenario (gpm)	Average Daily Demand (MGD)	Maximum Daily Demand (MGD)	Operational	Fire	Emergency	Total Required Storage (MG)
Current – 3812	2500	0.270	0.405	0.101	0.300	0.202	0.630
	3500	0.270	0.405	0.101	0.630	0.202	0.934
Future - 6700	2500	0.519	0.779	0.195	0.300	0.390	0.885
	3500	0.519	0.779	0.195	0.630	0.390	1.124
Future - 5700	2500	0.482	0.723	0.181	0.300	0.362	0.843
	3500	0.482	0.723	0.181	0.630	0.362	1.172
Future - 5250	2500	0.465	0.698	0.175	0.300	0.349	0.824
	3500	0.465	0.698	0.175	0.630	0.349	1.154
Future – 4650*	2500	0.443	0.665	0.166	0.300	0.332	0.798
	3500	0.443	0.665	0.166	0.630	0.332	1.128

*** 3984 existing connections + 666 CCSD wait list customers = 4650 future connections**

The conclusions summarized in Table 5-8 are based on the water demand analysis in the Kennedy-Jencks report (K/J). In summary, this analysis uses water production and other data from 1999, 2001, and 2003, and other assumptions to derive the Average Daily Demand (ADD) and Maximum Daily Demand (MDD), and thus the operational and emergency storage needs that combine with the necessary fire storage to determine the total volume of water storage. The analysis also presumes a 50% increase in water use per connection over current water use rates, as directed by the CCSD Board (see Exhibit Y for K/J demand discussion).

A closer examination of the water demand question suggests that the Pine Knolls tank project is oversized given the constraints inherent in the project. This is a critical concern given the need to minimize if not avoid impacts to the Monterey pine ESHA that is currently proposed to be developed for the new tank project. The most significant factor in the CCSD's storage analysis that results in higher than storage numbers than might be necessary is the assumption of a 50% increase in water use by both residential and commercial connections. This "quality of life" increase was incorporated into the water demand analysis at the request of the CCSD Board in part to provide relief to the existing customers from current water conservation measures Presumably the increase would occur as water rates were restructured or reduced and as other conservation measures were removed. As shown in Table 1 below, simply eliminating the 50% assumed increase in water consumption per connection reduces the necessary storage for Pressure Zone 1 from approximately 1.15 million gallons in scenario F3 to 0.979 million gallons in scenario F1. This reduction in volume has a significant impact on tank size. It is uncertain if people in the community will actually use more water in the future as a result of the Board directive, or if the community will continue to conserve water as it has.

Although the desire for relief from stringent water use and conservation policies is understandable,

[7] Other pressure zones/tank locations and 3 columns of the chart indicating the zone served, existing storage, and total storage deficit have been excerpted from this version for ease of presentation.

assuming a 50% increase in water use per capita is not an appropriate demand assumption, particularly given the extremely constrained water supply sources of San Simeon and Santa Rosa creeks, as well the potential impacts from other potential new water sources, such as desalination. More to the point, this assumption should not be relied upon when sizing the storage tanks for this project, particularly given the environmental sensitivity of the site. According to the CCSD's water supply analyses, it appears that per capita water use in Cambria is averaging around 114 gallons per day per capita, when the total water production for the community is considered, including commercial uses. This translates to about 90 gallons per capita for residential water use only. These numbers are within the range of water use in coastal communities in California. And while conservation efforts in Cambria are strong and likely continuing to improve, there are probably additional improvements in conservation to be had that could actually decrease water demand per capita as opposed to increasing it. Even a 5% improvement in efficiency, as opposed to a loosening of current restrictions, would help significantly with water supply and infrastructure needs.

In the alternative, it may be that there are more significant ways to reduce water consumption over existing rates. For example, the CCSD has recently analyzed the potential for implementing a water recycling effort that would store and deliver grey water to identified properties for landscaping irrigation. The CCSD's recent report on long term water supply alternatives concludes that in conjunction with more aggressive demand management (conservation), that recycled water project could produce between 162 and 184 AFA or approximately 20% of existing water production. Further study of the potential impacts of the recycled water project is also needed, though, before it could embraced as a viable water supply alternative.

A central variable to the demand projection is estimating water use rates for future development levels. The K/J analysis derives a use rate of 0.217 AFA per connection. This is a composite average of residential and commercial usage rates and is derived from projecting use data from 1999 and connection data from 2003, coupled with various assumptions about future residential occupancy. The K/J study shows that based on data from 1999, residential connections used on average 0.161 AFA while a commercial connection used an average of 0.959 AFA.

As observed by the Donovan review, CCR 64564 of Title 22 recommends that actual water use data be used whenever possible to derive water supply and storage requirements (see Exhibit Z). The K/J study is based on actual use data albeit a limited number of data points. An average water demand per "composite connection" in Cambria also can be derived using the CCSD's water production and existing connections data available since 1991. As shown in Figure 2, the total number of water connections has increased steadily until recent years. With the exception of 1991, the water use per connection has remained fairly constant, averaging 0.199 acre-feet per year per connection. A closer look at the water production rate per connection shows that it has declined in the last two years as a function of the lower water production numbers and a declining rate of new connections. Figure 3 shows that the 13 year trend line is essentially flat, and that the 13 year production rate per connection averaged 0.201 AFA if the low 1991 data point is removed. The extremely low production number for 1991 may be a function of the 1991 recession, which no doubt had an impact on the commercial and vacation home rental activity in Cambria that year.

Figure 2. CCSD Total Water Connections and Production per Connection (AFA)

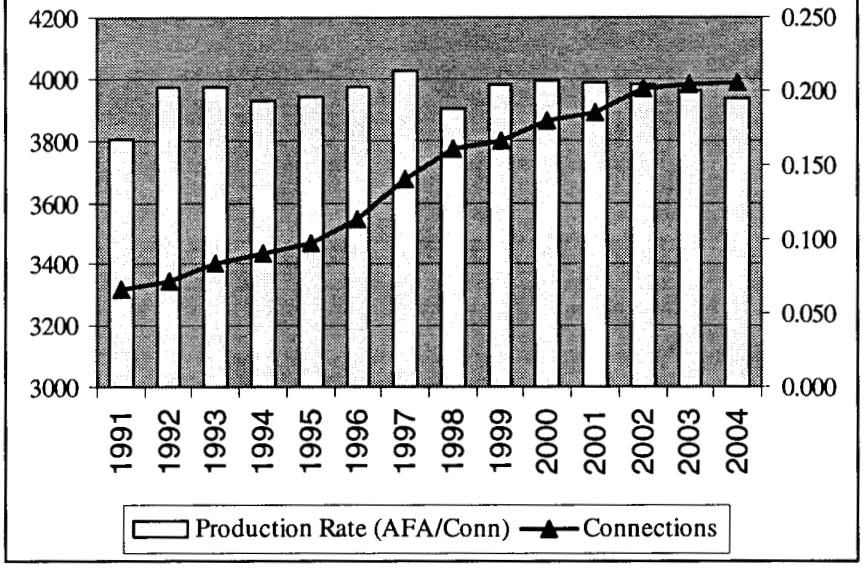

Figure 3. Cambria Water Production per Connection (AFA)

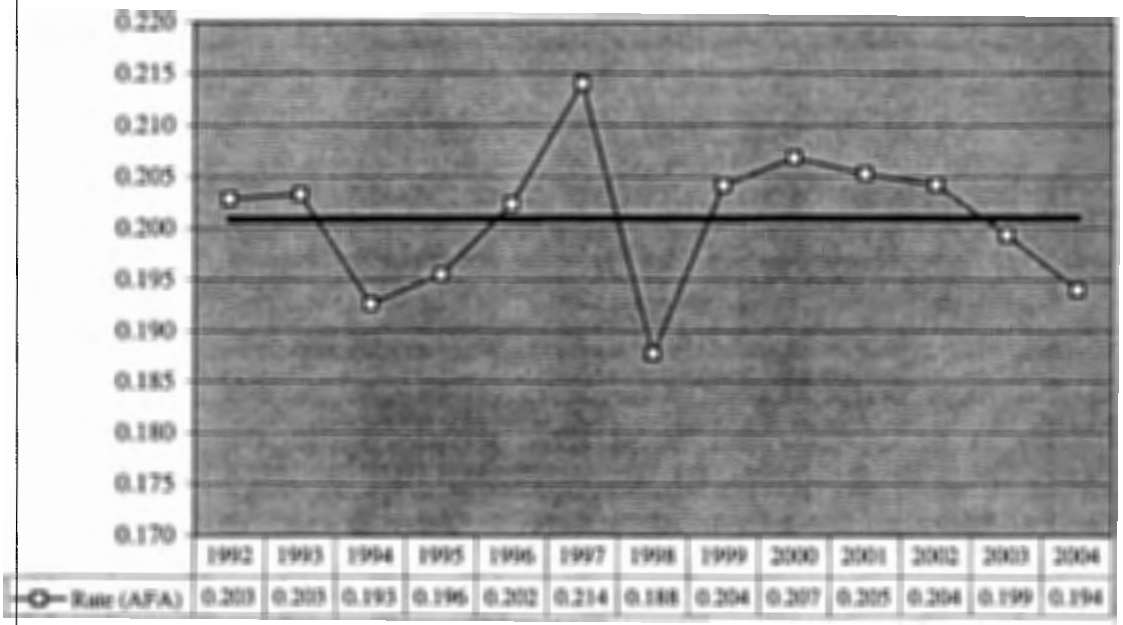

Figure 3 also may indicate a more recent decline in total water production and improvement in water efficiency, with a decline in production rate per connection from 0.207 in 2000 to 0.194 in 2004. This may also be accounted for by a slight decline in visitor-serving activity over the last several years. Data from the San Luis Obispo County Visitors and Conference Bureau show a decline in hotel occupancy rates from 69% in 2000 to 63% in 2003.[8]

Although there is a certain amount of uncertainty when attempting to derive and project water use rates for the future, the difference between the 0.201 AFA over the last 13 years and the 0.217 AFA used in the K/J demand model is significant when extended to the assumed buildout scenario of 4650 total connections. Table 1 shows that the total storage volume needed is 979,000 gallons as compared to 1.01 million gallons in the projection of the 0.217 number. This difference approaches 50,000 gallons as the quality of life increase is considered. Overall, though, the projected demand using either the average composite connection or the K/J number are in the same general range, but substantially lower than the storage requirements that are based on an assumed 50% quality of life increase in water use.

The projected storage need for Pressure Zone 1 may also be overstated because it is based on an assumption that 37% of the future buildout from the CCSD waiting list will occur in Pressure Zone 1. A brief examination of the CCSD's recent buildout reduction study suggests that the percentage of the buildout occurring in Pressure Zone 1 may be closer to 15-20% of the remaining 666 residential connections, based on an analysis of remaining buildable parcels that are either on the waitlist or potential recipients of water connection transfers. Although more detailed analysis of this factor is needed, if the allocation of the buildout to Pressure Zone 1 was substantially less than 37%, this would reduce the needed operational and emergency storage for the zone, for example, by approximately 30,000 gallons if the buildout was closer to 15%.

Table 1. Demand Scenarios and Storage Requirements for Pressure Zone 1

Scenarios: Number of Connections	Water Use per Connection (AFA)	Average Daily Demand (MGD)	Maximum Daily Demand (MGD)	Operational Storage (MG)	Fire Storage (MG)	Emergency Storage (MG)	**Total Required Storage (MG)**
Existing[9]							
E1: 3,984	0.201	0.264	0.397	0.099	0.198	0.630	**0.928**
E2: 3,984	0.217	0.286	0.428	0.107	0.214	0.630	**0.951**
Future							
F1: 4,674	0.201	0.310	0.465	0.116	0.233	0.630	**0.979**
F2: 4,674	0.217	0.335	0.503	0.126	0.251	0.630	**1.01**

[8] San Luis Obispo County Visitors and Conference Bureau, Annual Report 2003-2004.

[9] Including the 110 connections in the pipeline and/or potentially grandfathered under the moratorium results in 4,094 total connections for "existing" development. This would increase slightly the total required storage from 0.928 to 0.936 and from 0.951 to 0.960 respectively. However, with the required retrofitting condition an increase in demand is unlikely.

Future w/ 50% Quality of Life Increase per Connection							
F3: 4,674	0.302	0.465	0.698	0.175	0.349	0.630	**1.15**
F4: 4,674	0.326	0.503	0.754	0.188	0.377	0.630	**1.20**

Another factor that should be considered in projecting future water demands are potential savings from addressing current losses to the system. The K/J study assumes that the rate of unaccounted water loss in the system, due to water leaks or faulty meters, would remain constant in the future. Although the K/J study describes an unaccounted loss of approximately 20% in 1999, based on discrepancies between metered and produced water numbers, the CCSD recently indicated that current system losses are estimated at 12%. Losses of 5-10% are within the normal operating parameters of municipal systems. It may be that future reductions in demand can be gained through addressing identified system losses.

Finally, it may be that additional emergency storage or flow could be provided to Pressure Zone 1 through interzone transfers of water stored at other locations. For example, the CCSD has recently completed construction of a pipeline that could provide additional flows in an emergency from Pressure Zone 5 to Pressure Zone 1. Similarly, the current project includes a proposed valve that would allow for movement of water from Pressure 7 into Pressure 1. In either case, although perhaps not available at flows adequate to fight a fire, it could possibly be used to provide additional emergency storage, which in turn would allow for a reduction in onsite emergency storage at the Pine Knolls location (see below for more discussion).

Overall, a closer look at the demand analysis for Pressure Zone 1 indicates that the current project is designed with approximately 100-150 thousand gallons of excess storage for the future development scenario assumed by the CCSD, if one assumes that the 50% quality of life increase is not built in to the projection. Coupled with uncertainties in the system and the demand analysis, such as the success of continued demand management, addressing losses to the system, actual buildout within Pressure Zone 1, and possible use of recycled water as a new supply, it may be that less water still will be needed than is projected. For example, a limited assumption that an additional 10% reduction in water demand could be achieved would result in a reduced water storage requirement of approximately 30,000 gallons or approximately between 900,000 and 930,000 gallons of total storage.

More fundamentally, though, given the need to avoid impacts to the Monterey Pine ESHA adjacent to the site to the maximum extent feasible, it is not appropriate to size the facility based on a future hypothetical buildout that cannot currently be supported with existing water supplies, and that has not been evaluated for consistency with the LCP or the Coastal Act. Notwithstanding the use of a lower buildout scenario, or the fact that this project is a significant upgrade to the system, operational and emergency storage for future development in Pressure Zone 1 will need to be accommodated in some alternative fashion in the future. As discussed in the next finding, there may be other offsite alternatives that could potentially play a role.

c. Public Works Conclusion

The applicant is proposing a newly expanded public utility in a residential area of Cambria, however, questions remain about the needed storage volume. This raises conflict with LCP Policy 2 in particular, as it appears that the proposed facility is too large in light of current constraints and uncertainty regarding projected development within the service area. The sizing also raises other LCP policy inconsistencies, most notably those related to the project's adverse impacts to ESHA due to the proposed loss of Monterey pine forest habitat. Until a sustainable water source that is capable of serving a quantifiable level of new development is provided in Cambria, it is speculative to use a projected buildout scenario to size and design this facility. Moreover, as required by 23.08.288, alternative designs and locations must be considered to avoid impacts to ESHA. It is not necessary to provide excess storage for an uncertain future development scenario that cannot currently be supported by the existing water supply. Thus, the Commission finds the project as proposed is inconsistent with Public Works Policy 2 and CZLUO 23.08.288, as new development must be both reasonably sized and not result in adverse impacts to ESHA unless there are no feasible alternatives (see below). It is inherent in the public works policies of the LCP that the levels of new development, and thus the sizing of public facilities, must be consistent with the resource protection policies of the LCP.

2. Environmentally Sensitive Habitat Areas (ESHA)

a. Applicable Policies

The project site is located within an LCP designated Sensitive Resource Area (SRA) combining designation with a Terrestrial Habitat (TH) ESHA overlay. The following LCP policies and ordinances are relevant to the protection of environmentally sensitive Terrestrial Habitat, such as the Monterey pine forest adjacent to the CCSD property:

> ***Policy 1: Land Uses Within or Adjacent to Environmentally Sensitive Habitats:*** *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. Within an existing resource, only those uses dependent on such resources shall be allowed in the area [THIS POLICY SHALL BE IMPLEMENTED PUSUANT TO SECTIONS 23.07.170-178 OF THE COASTAL ZONE LAND USE ORDINANCE (CZLUO).]*
>
> ***Policy 29: Protection of Terrestrial Habitat.*** *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 on 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. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.176 OF THE CZLUO.]*
>
> ***Policy 30: Protection of Native Vegetation.*** *Native trees and plant cover shall be protected wherever possible. Native plants shall be used where vegetation is removed [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.176 OF THE CZLUO.]*

Policy 35: Protection of Vegetation: *Vegetation which is rare or endangered or serves as cover for endangered wildlife shall be protected against any significant disruption of habitat value. All development shall be designed to disturb the minimum amount possible of wildlife or plant habitat. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.176 OF THE CZLUO.]*

CZLUO 23.07.160 – Sensitive Resource Area (SRA): *The Sensitive Resource Area combining designation is applied by the Official maps (Part III) of the Land Use Element to identify areas with special environmental qualities, or areas containing unique or endangered vegetation or habitat resources. The purpose of these combining designation standards is to require that the proposed uses be designed with consideration of the identified sensitive resources, and the need for their protection, and, where applicable, to satisfy the requirements of the California Coastal Act. The requirements of this title for Sensitive Resource Areas are organized into the following sections:*

23.07.162	*Applicability of Standards*
23.07.164	*SRA Permit and Processing Requirements*
23.07.166	*Minimum Site Design and Development Standards*
23.07.170	*Environmentally Sensitive Habitats*
23.07.172	*Wetlands*
23.07.174	*Streams and Riparian Vegetation*
23.07.176	*Terrestrial Habitat Protection*
23.07.178	*Marine Habitats*

CZLUO Section 23.07.164(e) – Sensitive Resource Area Required Findings: *Any land use permit application within a Sensitive Resource Area shall be approved only where the Review Authority can make the following required findings:*

(1) The development will not create significant adverse effects on the natural features of the site or vicinity that were the basis for the Sensitive Resource Area designation, and will preserve and protect such features through the site design.

(2) Natural features and topography have been considered in the design and siting of all proposed physical improvements.

(3) Any proposed clearing of topsoil, trees, or other features is the minimum necessary to achieve safe and convenient access and siting of proposed structures, and will not create significant adverse effects on the identified sensitive resource.

(4) The soil and subsoil conditions are suitable for any proposed excavation; site preparation and drainage improvements have been designed to prevent soil erosion, and sedimentation of streams through undue surface runoff.

Like the SRA Combining Designation, Environmentally Sensitive Habitats also contain Required Findings (pursuant to 23.07.170(b)).

CZLUO Section 23.07.170 – Environmentally Sensitive Habitats: *The provisions of this section*

apply to development proposed within or adjacent to (within 100 feet of the boundary of) an Environmentally Sensitive Habitat as defined by Chapter 23.11 of this title, and as mapped by the Land Use Element combining designation maps.

*(b) **Required findings:** Approval of a land use permit for a project within or adjacent to an Environmentally Sensitive Habitat shall not occur unless the applicable review body first finds that:*

(1) 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.

(2) The proposed use will not significantly disrupt the habitat.

***CZLUO Section 23.07.176 – Terrestrial Habitat Protection:** The provisions of this section are intended to preserve and protect rare and endangered species of terrestrial plants and animals by preserving their habitats. Emphasis for protection is on the entire ecological community rather than only the identified plant or animal.*

a. Protection of vegetation. Vegetation that is rare or endangered, or that serves as habitat for rare or endangered species shall be protected. Development shall be sited to minimize disruption of habitat.

b. Terrestrial habitat development standards:

(1) Revegetation. Native plants shall be used where vegetation is removed.

(2) Area of disturbance. The area to be disturbed by development shall be shown on a site plan. The area in which grading is to occur shall be defined on site by readily-identifiable barriers that will protect the surrounding native habitat areas.

The LCP (CZLUO Section 23.11.030) defines "Environmentally Sensitive Habitat" as:

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 developments. They include, wetlands, coastal streams and riparian vegetation, terrestrial and marine habitats and are mapped as Land Use Element combining designations

If questions arise about the precise boundary location of any land use category or combining designation map boundary, the LCP contains procedures to resolve such questions (CZLUO Section 23.01.041c(3)).

***CZLUO Section 23.01.041 – Rules of Interpretation**: Any questions about the interpretation or applicability of any provision of this title, are to be resolved as provided by this section.*

*c. **Map boundaries and symbols**: If questions arise about the location of any land use category or combining designation boundary, or the location of a proposed public facility,*

road alignment or other symbol or line on the official maps, the following procedures are to be used to resolve such questions in the event that planning area standards (Part II of the Land use Element), do not define precise boundary or symbol location:

(3) Where a boundary is indicated as approximately following a physical feature such as a stream, drainage channel, topographic contour line, power line, railroad right-of-way, street or alleyway, the boundary location shall be determined by the Planning Department, based upon the character and exact location of the particular feature used as a boundary.

In addition, the LCP includes generalized mapping of Monterey pine terrestrial habitat, which is specifically identified as a Sensitive Resource Area (ESHA) in the North Coast Area Plan as follows:

***Monterey Pine Forests (SRA)** – Native Monterey pines occur in only a few areas along the California coast from north of Santa Cruz to Cambria and on one of the Channel Islands off the Santa Barbara County Coast. While widely grown in the Southern Hemisphere as commercial timber, the Monterey Pine occurs in only three areas of its native California. The southernmost stand in California is the 2,500 acres surrounding Cambria with another isolated 500 acres at Pico Creek. These stands are extremely important as a "gene pool" due to genetic variations found there. Relatively undisturbed strands occur on the Cambria fringe area and in isolated pockets to the north. Monterey pine forests cover most of the Cambria urban area. The larger remaining stands in undeveloped areas should be retained intact as much as possible by use of cluster development in open areas of sparse tree cover and preservation of finer specimen stands through open space easements*

Finally, CZLUO Section 23.08.288(d) addresses the development of public utility facilities in sensitive habitat areas. It states in relevant part:

***23.08.288(d) - 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 the property. Applications for Public Utility Facilities in the above sensitive areas shall include a feasibility study, prepared by a qualified professional approved by the Environmental Coordinator. The feasibility study shall include a constraints analysis, and analyze alternative locations.*

b. Resource Background - Status of the Monterey Pine Resource[10]

[10] Sources for some of the information in this section include: *Monterey Pine Forest Conservation Strategy Report*, Jones & Stokes Associates, Inc., prepared for the California Department of Fish and Game, December 1996; *Monterey Pine Forest Ecological Assessment: Historical Distribution, Ecology, and Current Status of Monterey Pine*, Jones & Stokes Associates, Inc., prepared for the California Department of Fish and Game, September 12, 1994; *Pitch Canker in California*, Andrew J. Storer, Thomas R. Gordon, David L. Wood, and Paul L. Dallara (from the Pitch Canker Task Force Web Site April 1999); *Current Status of Pitch Canker Disease in California*, CDF Tree Notes #20, July 1995; *California Forestry Note #110*, CDF, November 1995; *Pitch Canker Action Plan, Appendix D to SLO County North Coast Area Plan public hearing document*, December 1996; *Pine Pitch Canker Task Force Position Paper*, California Forest Pest Council, January 23, 1997; *RFP for "Developing Programs for Handling...Infected Pine Material within the Coastal Pitch Canker Zone..."*, CDF, December 1997; *The Cambria Forest*, Taylor Coffman, Coastal Heritage Press, 1995; *Pebble Beach Lot Program Final Environmental Impact Report*, EIP Associates, June 1997; and In situ *Genetic Conservation of Monterey*

Monterey Pine Forest ESHA in Cambria

The project site is located within the native range of Monterey pine (*Pinus radiata)* forest. Monterey pine forest is a rare and significant environmentally sensitive plant community. Within its native range, only five populations of Monterey pine forest remain in the world, three of which are in the California coastal zone: the main native stand mantling the Monterey Peninsula; the smaller stand near Año Nuevo in Santa Cruz County; the Cambria stand in North San Luis Obispo County (parts of which are the least disrupted of the remaining groves); and stands on two remote Mexican islands, Guadalupe and Cedros, off the coast of Baja. Each stand is restricted to coastal areas typified by summer fog, poor soils and mild temperatures. Although there is some uncertainty concerning the precise historical distribution of these stands, it is clear that all of them, with the exception of perhaps the Año Nuevo stand, have suffered from extensive losses and fragmentation due to development over the last 50 years. The Guadalupe Island population's survival is uncertain, with no natural regeneration for decades – the result of overgrazing by introduced goats. The three remaining California stands are also threatened by habitat loss, due to existing and proposed development (housing and resort development, golf course development, urbanization), continued fragmentation of the remaining intact forest (by roads and other development), soil compaction and erosion (road grading, recreational overuse), genetic contamination by planted non-local Monterey pines, and invasive exotic plants (genista or "broom", pampas grass, acacia, eucalyptus, etc.). Commercial logging was an issue in the past, but today is largely confined to firewood cutters and small salvage operations.

As described in the certified North Coast Area Plan, each of the three native stands in California (Año Nuevo, Monterey Peninsula, and Cambria) is geographically isolated from the others and ecologically and genetically unique. The southernmost stand in California is the 2,500 acres surrounding Cambria with another isolated 500 acres at Pico Creek. In addition to their distributional rarity, these stands are extremely important as a "gene pool" due to genetic variations found there.[11] Relatively undisturbed stands occur on the Cambria fringe area and in isolated pockets to the north. Monterey pine forest covers most of the Cambria urban area. According to biologist V.L. Holland, a comparison of the three naturally occurring mainland populations of Monterey pine shows that members of the Cambria populations have significantly larger cones than do the other populations. Along with the increased cone size there are other distinguishing features of the cones, such as larger apophyses, greater asymmetry, and larger seeds. It has also been noted that the Cambria population probably occupies the driest of the three remaining stands and that the larger cones and seeds may be an adaptation to this drier habitat. In Cambria, Monterey pines are often planted as ornamentals or to replace trees destroyed by construction activity. In the past, little attention has been paid to the source of the trees and they are often replaced from plantation stock, not from the indigenous stock. Accordingly, there is a real danger that the genes from plantation grown plants will dilute the genetic uniqueness of the Cambria pines.[12]

In recognition of this high sensitivity and uniqueness of Monterey pine, the certified SLO LCP identifies Monterey pine forest as terrestrial habitat (TH) to be treated as ESHA, and includes generalized mapping

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Pine (Pinus radiata D. Don): Information and Recommendations. D.L. Rogers. Report No. 26, Genetic Resources Conservation Program, University of California, Davis, September 2002; California Native Plant Society, "A Petition to the State of California Fish and Game Commission," August 1999.

[11] See, also, California Native Plant Society, "A Petition to the State of California Fish and Game Commission," August 1999

[12] *Biological Survey of Leffingwell Ranch Cambria, California,* V.L Holland, Ph.D., Lynne Dee Oyler, M.S., July 30, 1994

of the pine forest habitat areas known at the time of LCP certification.

Since certification of the LCP, the sensitivity of Monterey pine forest has been further recognized. In 1994 Monterey pine was included on the California Native Plant Society's (CNPS) 1B List, which includes native plants considered to be rare, threatened, or endangered.[13] CNPS also uses a system called the R-E-D Code for sensitive species that indicates the overall level of conservation concern for any particular plant, based on its rarity, endangerment, and distribution. In the case of Monterey pine, the CNPS R-E-D code is 3-3-2 (with 3 indicating highest concern) because of its limited number of restricted occurrences (only 5 locations, 3 in California), serious endangerment in California, and its rarity outside of California (but for the small pine forest populations on Guadalupe and Cedros Islands off of Baja, the R-E-D code presumably would be 3-3-3). Reflecting the high level of concern, Monterey pine has been given the highest threat ranking by the California Department of Fish and Game in its Natural Diversity Database (G1, S1.1).[14] In short, concern for the protection of Monterey pine forest is quite high. In recognition of the high conservation concern for Monterey pine, the species also was placed on the International Union for Conservation of Nature and Natural Resources Red List of threatened species in 1997.

As mentioned, the Monterey pine forests in Cambria are threatened primarily by the direct loss of habitat due to development, soil erosion, fire suppression, and the introduction of invasive exotic plants. In addition, fragmentation, pine pitch canker, genetic contamination, and loss of genetic diversity potentially threaten the forest. New development may result in the physical loss of trees as well as impacts to the overall forest habitat and species therein. Fragmentation of Monterey pine forest by continuing development can also create smaller isolated pockets of pine stands. Once a stand is fragmented, the small pockets are more subject to disease and root damage, and overall forest integrity is reduced.

In summary, native Monterey Pine forests are rare and play a special role in ecosystems, such as by providing critical habitat for other rare and unusual species. Each of the five remaining populations of Monterey pine is distinctive. The native pine stands in Cambria represent an important natural resource for California, and the world. Overall, within the native range of Monterey pine, forest habitat areas that have not been substantially developed and urbanized meet the definition of ESHA under the Coastal Act. Effective conservation of the diversity within the species requires that each native population be protected. Finally, Monterey Pine forests are demonstrably easily disturbed and degraded by human activities and developments. Therefore, within the native forest habitats, those stands of Monterey pines that have not been substantially developed and urbanized meet the definition of Environmentally Sensitive Habitat Area (ESHA) under the San Luis Obispo County certified LCP.

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[13] CNPS summarizes the status of List 1B plants as follows: "The 1021 plants of List 1B are rare throughout their range. All but a few are endemic to California. All of them are judged to be vulnerable under present circumstances or have a high potential for becoming so because of their limited or vulnerable habitat, their low numbers of individuals per population (even though they may be wide ranging), or their limited number of populations. Most of the plants of List 1B have declined significantly over the last century." *CNPS Inventory of Rare and Endangered Plants of California* (2001).

[14] G1 is a global condition ranking indicating that at the species or natural community level less than 6 viable element occurrences (Eos) OR less than 1,000 individuals OR less than 2,000 acres remain. S1.1 is the corresponding state ranking coupled with a threat ranking, in this case "very threatened".

c. ESHA Identification on the Project Site

On of the most important steps in the development review is to accurately identify the presence of ESHA within or adjacent to the development site. The LCP (CZLUO Section 23.11.030) defines "Environmentally Sensitive Habitat" as:

> *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 developments. They include, wetlands, coastal streams and riparian vegetation, terrestrial and marine habitats and are mapped as Land Use Element combining designations.*

The certified LCP generally uses a map-based system to identify areas where new development needs to be reviewed for conformance with the LCP provisions protecting ESHA. Essentially, the LCP uses "combining designations" as geographic overlays to land use designations that identify particular resources or constraints that need to be considered during the development review process. These geographic "overlays" are useful tools for generally identifying particular areas known to support sensitive habitats. In such areas, the LCP prescribes the need for more detailed project review to avoid or minimize adverse environmental impacts. As described in part on page 7-1 of the Framework for Planning:

> *Combining designations identify areas with characteristics that are either of public value or are hazardous to the public. The special location, terrain, man-made features, plants or animals of these areas create a need for more careful project review to protect those characteristics, or to protect public health, safety and welfare.*

If questions arise about the precise boundary location of any land use category or combining designation boundary, the LCP contains procedures to resolve such questions. Section 23.01.041c(3) states:

> *Where a boundary is indicated as approximately following a physical feature such as a stream, drainage channel, topographic contour line, power line, railroad right-of-way, street or alleyway, the boundary location shall be determined by the Planning Department, based upon the character and exact location of the particular feature used as a boundary.*

In this case, a number of factors were reviewed to determine if the proposed project site qualifies as Monterey pine forest ESHA. Factors to consider when making an ESHA determination include general health of the forest, loss of habitat area to development, fragmentation of habitat and increased edge effects, health and species composition of the forest understory, and connectivity to other forested areas. It is important to note that Monterey pine forest needs to be understood as a complete and dynamic habitat – understory and overstory, animals and interactions, soils and climates. A forest is a complex, interdependent web of living organisms rather than just a collective noun for a group of trees in the landscaping sense. At issue is preservation of habitat, not simply evaluation of individual tree impacts.

Biology

The existing 11,000 square foot Pine Knolls tank site owned by the CCSD does not contain sensitive habitat. The site is disturbed and contains two existing water tanks. There is sparse cover of annual

grasses and weeds with some landscape trees and shrubs planted along the sites western and southern boundaries. Two Monterey pines are located on the existing site separated from the nearby forest, and appear to have been planted as landscape screening. The Biological Assessment[15] prepared for the project states that these two trees are likely not of native stock. Coast live oaks ring the western boundary of the project site.

In contrast, the northeast expansion area is described in the Biological Assessment as being Closed-Cone Coniferous Forest, of the Monterey Pine Series. The trees are described as being of a common age structure with most trees having a diameter between 10-20 inches. The study notes that some small seedlings and saplings are also present. The Coast live oaks range from seedlings to large trees, with an average diameter of 7 inches. Common understory species observed in the Monterey pine forest within and adjacent to the project site include: toyon (*Heteromeles arbutifolia*), coffee berry (*Rhamnus californica*), snowberry (*Symphoricarpos mollis*), bracken fern (*Pteridium aquilinum var. pubescens*), California blackberry (*Rubus ursinus*), and sticky monkey flower (*Mimulus aurantiacus*).

Besides the Monterey pine, no sensitive plant or animal species were observed on the portion of the proposed project site in the Monterey pine forest. As discussed previously, the native Monterey pine (*Pinus Radiata*) is listed as Rare, Threatened or Endangered (list 1B) by CNPS. Though no other sensitive plant species were observed on the project site, suitable habitat is present for four other local sensitive plants including: Hickman's onion, Cambria morning glory, branching beach star, and Michael's rein-orchid. In addition, there is suitable habitat provided in the Monterey pine forest for six sensitive bird species including: northern harrier, white-tailed kite, Cooper's hawk, sharp-shinned hawk, long-eared owl, and loggerhead shrike.

In this case, the northeast expansion area proposed for development is in good health and relatively intact. The most fragmentation and disruption has occurred in the location of the existing tank site and the residences to the west and south. There is healthy contiguous Monterey pine forest habitat, and thus habitat connectivity, primarily to the north and east of the subject property. The aerial photo attached as Exhibit C is extremely helpful in showing connectivity to other forested areas. Even smaller stands of Monterey pine forest may be considered ESHA if the health of the stand is good, particularly if there is a healthy understory with a strong assemblage of other native and sensitive plant species present. The rare and special plant species present on the project site, combined with a healthy understory and good tree condition indicate the health of the project site stand is optimal. It should also be noted that this particular forest stand is part of a conservation easement held by The Nature Conservancy to be protected from development. Finally, the Commission's ecologist visited and evaluated the site on November 11, 2004 and concurs with the finding that the site contains environmentally sensitive Monterey pine forest habitat.

Maps

The LCP maps show an SRA combining designation boundary line running co-terminous with the property boundary of the CCSD's existing 11,000 square foot property. Slightly offset from the SRA boundary, the LCP maps show a Terrestrial Habitat boundary line (see Exhibit B).

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[15] Biological Assessment, Cambria Community Services District Mitigated Negative Declaration Pine Knolls Tank Site Cambria, San Luis Obispo county, California. Prepared by Jennifer Langford, May 2004.

As described previously, the LCP generally uses a map based system to identify areas where new development needs to be closely reviewed for conformance with the LCP provisions protecting ESHA and uses "combining designations" as geographic overlays that identify particular resources or constraints that need to be considered during the development review process. The CCSD has questioned whether or not this area is within ESHA. Clearly, the LCP maps do not necessarily provide a precise or an up-to-date accurate depiction of the Monterey pine forest resource, as it exists on the ground today in any particular case. But this reality is contemplated by the LCP through the applicable rules of interpretation. The LCP rules of interpretation CZLUO Section 23.01.041c(3) states:

> *c. Map boundaries and symbols: If questions arise about the location of any land use category or combining designation boundary, or the location of a proposed public facility, road alignment or other symbol or line on the official maps, the following procedures are to be used to resolve such questions in the event that planning are standards (Part II of the Land Use Element), do not define precise boundary or symbol location:*
>
> > *(3) Where a boundary is indicated as approximately following a physical feature such as a stream, drainage channel, topographic contour line, power line, railroad right-of-way, street or alleyway, the boundary location shall be determined by the Planning Department, based upon the character and exact location of the particular feature used as a boundary.*

In this case, the particular physical feature used as the boundary for the mapped SRA (combining designation) *is* the Monterey pine forest terrestrial habitat (TH). Therefore, to the extent there may be a question about the location of the TH boundary in this case, under the LCP the identification of the mapped SRA Monterey pine forest boundary is to be based on where the resource is actually on the ground. Thus, even though the existing SRA maps of the Monterey pine habitat on the tank site don't correspond directly with actual resources, the LCP directs that this discrepancy be resolved based on the physical features of the resource that is mapped – i.e. the sensitive resource boundary is determined by actual on-the-ground forest habitat conditions.

It should be noted that the County of San Luis Obispo supports an ESHA determination for the project site. Early in the development review process with the County, at a March 31, 2004 meeting between John Hofschroer (SLO County Planning) and Robert Gresens (CCSD), Mr. Hofschroer cited the LCP's Rules of Interpretation (Section 23.01.041c) in making the determination the EHSA boundary included the proposed project site.[16] Moreover, the Planning Commission in its approval of the project also found that the proposed project was within Monterey pine forest ESHA.

The issue of reconciling outdated or imprecise LCP maps with actual resource conditions was detailed in the Commission's review of the Periodic Review of the San Luis Obispo County LCP adopted by the Commission in July 2001. The County has recently responded to the Commission's concern in their most recent Periodic Review Implementation LCP amendment submittal to the Commission (SLO-MAJ-1-03). In that submittal, which the Commission certified on February 20, 2004 and that is now in effect, the County incorporated the Commission's suggested modification that more specifically and directly references the rules of interpretation for resolving questions regarding projects which may be appealed to

[16] January 27, 2005 Revision to the Initial Study/Mitigated Negative Declaration

the Coastal Commission based on the location of development within a Sensitive Resource Area. As stated by the Commission's findings on page 37 of SLO-MAJ-1-03 (Phase 1 Periodic Review Implementation) the purpose of this modification was to clarify that "the location of development in relationship to sensitive resource areas must be determined in accordance with the actual location of the resource, rather than a depiction on a map". Specifically, the LCP states in significant part:

> ***CZLUO Section 23.01.043(c) - Appealable development.*** *As set forth in Public Resources Code Section 30603(a) and this title, an action by the County on a permit application, including any Variance, Exception, or Adjustment granted, for any of the following projects may be appealed to the California Coastal Commission:*
>
> *i. Development approved between the sea and the first public road paralleling the sea, or within 300 feet of the inland extent of any beach (or of the mean high tide line of the ocean where there is no beach), whichever is the greater distance, as shown on the adopted post-certification appeals maps.*
>
> *ii. Approved developments not included in subsection c(1) of this section that are proposed to be located on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, stream, or within 300 feet of the top of the seaward face of any coastal bluff as shown on the adopted post-certification appeals maps.*
>
> *iii. Developments approved in areas not included in subsection c(1) or c(2) that are located in a Sensitive Coastal Resource Area, which includes:*
>
> *(i) Special marine and land habitat areas, wetlands, lagoons, and estuaries mapped and designated as Environmentally Sensitive Habitats in the Local Coastal Plan.*
>
> ...
>
> *The procedures established by Section 23.01.041 c. (Rules of Interpretation) shall be used to resolve any questions regarding the location of development within a Sensitive Coastal Resource Area (underline added).*

In conclusion, the Commission finds that the Monterey pine forest habitat that exists on the project site is ESHA under the SLO LCP and, moreover, does constitute mapped Terrestrial Habitat to be protected pursuant to the policies cited above.

ESHA Identification Conclusion

Native Monterey pine stands only occur in five relatively small and separate locations. Native Monterey pine forest habitat is rare and seriously at risk in California, and is nearly non-existent outside of California. Monterey pine is included on CNPS's 1B List because of its status. For these reasons, the proposed project's location in an area of Monterey pine forest habitat requires that an ESHA determination be made. As discussed above, there are a number of factors that should be evaluated to determine whether the proposed project site is ESHA. These factors include evaluating the general health of the forest on the project site, assessing the level of fragmentation and level of development in and around the project site, describing the health and species composition of the forest understory, and

examining the level of connectivity of the project site to other nearby forested sites.

All of these factors support the designation of the northeast expansion area as ESHA. The property is contiguous with large tracts of remaining undeveloped Monterey pine forest protected under a conservation easement and supports rare and sensitive plant and animal species. The presence of seedlings on the project site indicates a healthy forest where Monterey pine regeneration is taking place. After carefully weighing all the above factors, it has been determined that the site is ESHA.

d. Impacts to Monterey Pine Forest ESHA

As described above, the northeast expansion area is located entirely within an ESHA. The proposed project impacts approximately 6,100 square feet of ESHA habitat for public utility development that is not dependent on the Monterey pine forest. Structural development within this area will result in a permanent loss of habitat. Additional adverse impacts will result from site preparation during construction and subsequent use of the site. Constructing water tanks on this site will result in a significant disruption and destruction of environmentally sensitive forest habitat areas on the site. The loss of healthy habitat areas as a result of new development, particularly those protected from development through conservation easements, will have negative effects on the biological continuance of the identified Monterey pine forest.

e. Inconsistencies

The CCSD proposes to develop 550,000 gallon water tanks and other associated site improvements within ESHA. This project is inconsistent with core policies and ordinances of the San Luis Obispo LCP and should not be approved as currently designed. The LCP requires that development within or adjacent to ESHA shall not disrupt the resource and only those uses dependent on the resource shall be allowed. As established in the above findings, the northeast expansion area is located within Monterey pine forest ESHA and the proposed development is not resource dependent. Furthermore, the applicant has not demonstrated that the project can be developed without significantly disrupting and adversely impacting the sensitive Monterey pine forest habitat in this area. Therefore, this development is inconsistent with the applicable LCP policies and ordinances protecting ESHA.

f. Alternatives

Notwithstanding the ESHA prohibitions of the LCP, CZLUO Section 23.08.288(d) does provide a potential limited exception for necessary utilities. This section prohibits public utility facilities in SRA's and ESHA's unless there is no other feasible location on or off-site the property. A feasibility study must be conducted that analyzes constraints and alternative locations. In early December, Commission staff prepared a number of alternative site concepts for the existing 11,000 square foot site that would provide most or all of the storage sought by the district (see Exhibit M). The district reviewed these alternatives and rejected them all based on certain constraints that they have identified. To provide additional technical review the Commission hired Mike Donovan, an experienced engineer with expertise in water distribution systems and storage tank design. Based on his review, it appears that there are feasible onsite and possibly off site design options to address each of the identified constraints (see Exhibit Z for a discussion and graphic depiction of additional conceptual designs). The analysis that follows shows that a project can be built with some minor adjustments notwithstanding the

constraints the CCSD has identified.

1) 1,100,000 gallons of water storage. The district identifies the need for an additional 2.2 million gallons of storage to meet system wide fire protection, emergency, and operational storage needs. Of this amount, 1,100,000 gallons is proposed at the Pine Knolls site to serve Pressure Zone 1 of the District's water distribution system. This amount of storage will provide roughly half of the projected system wide fire storage, emergency, and operational storage needed to adequately serve the town. Future projects on other district sites will ultimately provide the remaining 1,100,000 gallons identified by the CCSD as the needed volume.

As discussed in the Public Works finding, it appears that the Pine Knolls tank project is oversized in light of the severed resource constraints of the location. More important, it is not necessary to provide storage capacity for a speculative amount of future development that cannot be supported by existing water supplies when that capacity involves significant impacts to ESHA. Other alternatives for providing for the likely limited future development potential in Pressure Zone 1 have not been exhausted. To the extent that new development in this zone might be feasible in the near future, due to an identified increase water supply in the community, it is not clear that alternative mechanisms such as new storage locations, interzone transfers, lot retirement, or perhaps transfer of water connections could not play a role in the accommodation of such future development (see below also).

2) Multiple tanks. Although the district had earlier explored a design that placed one, large, 1,100,000 million gallon, concrete tank wholly on the existing 11,000 square foot site, this alternative was rejected because of maintenance considerations (the whole single tank would need to be down for maintenance) and because it could not be built while leaving both of the existing tanks in place. The CCSD states that two tanks of the same size are preferred for overall system reliability. When one tank is removed from service, the operational and emergency storage is used in the remaining on-line tank for operations.

Utilizing multiple tanks makes operational sense, but whether two or more tanks are built does not appear to make a difference. In this case, using two tanks of the same size doesn't allow for efficient use of the site. Because two tanks are larger in overall size, it is not possible to build one and keep the existing tanks on-line at the same time. Alternatives using more than two tanks would meet the CCSD's concern for maintenance and construction flexibility. For example, although more expensive, a three tank configuration requires less site area and offers the district an advantage that only one-third of the site storage volume is out of service during major maintenance events. With a three tank scenario, the first tank could be constructed within the existing property boundary and be used while the existing tanks are demolished and the other two tanks are constructed.

The use of multiple tanks appears to be a reasonable operational solution. Moreover, the use of three tanks rather than two has clear advantages. Constructing three tanks allows for two-thirds of total storage capacity to be available when one other tank is off-line. Most importantly, a three tank alternative results in much less impact on ESHA due to the ability to sequence construction and minimize if not avoid encroachment into the forest.

3) Existing Tanks to remain during construction. Currently, there are two 103,000-gallon tanks on the site. The district would like to maintain this water storage until at least one of the new tanks is built

and brought online. Given the location of the existing tanks, maintaining service of them during construction severely limits design options on the site. The district has stated that it does not want to locate temporary tanks that would allow the early removal of the existing tanks on or off site due to cost. The CCSD's original one tank design did contemplate a temporary tank to address this constraint.

The Commission concurs that a temporary tank option is not feasible. A temporary tank would have to be a minimum of 200,000 gallons to ensure continuity in water service during construction. Staff has researched temporary water storage tanks and it appears that they are not made big enough to serve this purpose. Also, constructing a temporary tank only to be removed shortly thereafter seems inefficient and cost prohibitive.

There is clearly a need to maintain water service during construction. The Commission's consulting engineer has provided a drawing of a three tank alternative with sequencing to allow the existing tanks to remain during construction (see Exhibit Z). This alternative also provides sufficient "lay-down" areas for equipment and materials during construction. In sum, both existing tanks can remain in operation while a new tank is constructed and can be accomplished within the confines of the existing tank site if construction is carefully sequenced.

4) Tank height. Tank height cannot exceed 32' (water height of 29.5') due to the hydraulics of the water system. (Boyle Engineering letter to Bob Gresens, District Engineer, dated February 4, 2005, page 6.) Higher tanks would, according to the district, create unacceptable water pressure problems in part of the system that could not be alleviated by pressure reducing valves or other mechanisms. According to the district, tanks cannot be buried or partially buried due to system hydraulics and poor water circulation within the buried portion of the tank. According to the district, all tanks must also be the same height. Tank height is very important in this case because the existing site is relatively small at 11,000 square feet and the ability to construct taller tanks would allow more storage by going vertical rather than using scarce site space with larger diameter tanks.

The Commission's expert agrees with the CCSD's conclusions that tank height cannot exceed 32'. According to Mr. Donovan, raising the water levels in the tanks significantly above the existing tank level would necessitate replacing the pumps and motors at the San Simeon wells and would raise the water pressure in the entire pressure zone by the same amount. For every 1-foot increase in tank height, the static pressure increases by 0.433 pounds-per-square-inch (psi). Hence, an increase in tank height of 10-feet corresponds to a net increase of 4.33 psi (10-feet X 0.433psi/ft = 4.33 psi). Mr. Donovan states that higher pressures in the zone are likely to cause other problems (e.g. pipe breaks and water heater leaks) in the distribution system. From a seismic perspective, taller, narrower tanks are more subject to overturning during an earthquake and would require significantly greater structural design elements than are required for the proposed tanks.

In sum, the Commission concurs that the water tanks should not exceed 32'. Raising or lowering the tanks in an attempt to reduce the project's area requirements does not appear to be feasible. While this remains a critical consideration, it is still possible to accommodate a reduced project with 32' tall tanks on the existing site that would serve existing development in Pressure Zone 1. For example, the three 42' diameter tank concept design shown in Exhibit Z would provide approximately 930,000 gallons of water, which is approximately the identified need for existing development in Pressure Zone 1.

5) Maintenance area around tanks. The district states that a minimum of 12' is needed around the tanks for constructability, ongoing maintenance, and safety. The district also identifies a need to separate the tanks (both existing and new) by 12' to avoid undermining the existing tanks while constructing the new tanks. The tanks will also need to be maintained after they are built. Water tanks must be painted on the interior and exterior approximately every 10 to 15 years depending upon corrosion and wear of the paint. The district states such painting operations require the use of air compressors for sandblasting; lifts; and scaffolding. The district states that a pickup truck pulling such equipment will need to be able to maneuver completely around each tank. Hauling off of sand will also be necessary out of tank access hatches. In addition, the district identifies the need for an ambulance to be able to traverse around the tanks in the event a worker is injured.

Clearance around tanks on a small site greatly affects the size of tanks placed on the site and thus the storage capacity. A larger clearance area around the tanks also increases the amount of encroachment into the adjacent forest. The method of construction chosen by the CCSD requires a greater distance between tanks than other methods. The CCSD has cited the need to maintain 12' between tanks to avoid undermining the existing tanks while constructing the new tanks. The CCSD's consultants are recommending excavating several feet of soil and re-compacting the site with engineered fill. According to the Commission's consulting engineer, "over-excavating" can be avoided by using piers or piles to support the tanks. According to Mr. Donovan, this method of construction allows tanks to be as little as a few feet apart.

Also regarding constructability, the CCSD indicates that a seismic perimeter grade ring is needed for each tank. The grade ring is 2' wide and extends roughly 1' outside of the tank diameter to accommodate anchor bolts connecting the steel tank to the grade ring. The grade ring is to be roughly 1' above natural grade. Staff was told that the elevated foundation was to ensure that the anchor bolt connection did not corrode. Use of this anchoring technique adds 4' to the effective diameter of the tanks and also requires a 16' space between the tanks in order to maintain a 12' flat area for maintenance vehicles. According to the Commission's consulting engineer, a six-inch raised section would provide the same benefit. In this case, the use of stainless steel anchor bolts would obviate the need for more than a 1-inch raised concrete grade ring. Lowering the grade ring in this fashion would allow a wider access road between the tanks. Also according to Mr. Donovan, some coastal agencies have standardized the use of stainless steel for structural details such as this because of the long-term reduction in maintenance requirements due to salt atmosphere corrosion.

Staff has researched general maintenance issues and it appears that this criterion may be more flexible. The district itself gives various minimum clearances as meeting their needs. The environmental documents prepared by the district state that a 5' to 8' walkway would be developed around the tanks (Initial Study/Mitigated Negative Declaration, January 27, 2005 Revision, page 9). In other conversations, the figure of 10' to 12' has been given. In the district's response to alternatives proposed by Commission staff, they have stated that 12' is insufficient and that 15.5' is actually needed between tanks (12' between tank foundations that extend 1'9' beyond the tank). This figure conflicts with other figures ranging between 12'-15' given by the district at various times. Finally, a recent water tank replacement project in Los Osos shows a clearance of 8' around 42-6' tall tanks, and one proposed in Sand City shows clearances as small as 3' and 5' around 425,000 gallon tanks (see Exhibit Q). Clearly, a reasonable amount of room is needed to perform maintenance and from a practical standpoint 8 to 10

feet is adequate to stage the hydraulic lift and other equipment needed for painting and other maintenance based on information from various sources. It is not clear that this amount of space is required around the entire perimeter in order to adequately maintain the tanks. Therefore, a reduction in the district's most conservative estimate of 15' can be supported.

Regarding safety, the CCSD wants to be able to drive an ambulance completely around each tank. While this may be optimal from an emergency response standpoint, it appears to exceed normal standards of care and is not necessary to provide adequate emergency response to the tank site. Emergency responders will typically park the ambulance and gain access to an injured person with a stretcher or some other device. Therefore, there appears to be some flexibility with this requirement.

In conclusion, using a pier foundation allows the tanks to be located only a few feet apart. Using a pier foundation obviates the need for "over-excavation" and a larger tank foundation. The use of alternative hardware precludes the need for an elevated foundation. There also appears to be some flexibility in the needed distance around tanks for ongoing maintenance. The revised alternative concept outlined by Mr. per Donovan allows for 11.5-12 feet between the tanks and thus greater use of the site for water storage.

6) Access Road. The district states that an access road, a minimum of 12', but preferably 15', with three-foot buffers on both sides (for a total of 18 feet) is needed across the south property boundary to allow a fire truck and bulldozer access to the adjacent forest in the event of fire. The purpose of this road is to provide heavy equipment and emergency response vehicles with direct access to the forest margin. No additional roads are proposed off district property within the forest.

The District and the local Fire Chief assert that this fire access road *through* the tank site is required by Section 902.2.1 and 902.2.2.1 of the California Fire Code (CCR Title 24, Part 9) as adopted by the CCSD. The relevant sections are as follows:

> *902.2.1* ***Required access.*** *Fire apparatus access roads shall be provided in accordance with Sections 901*[17] *and 902 for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45720mm) from fire apparatus access as measured by an approved route around the exterior of the building or facility. See also 902.3 for personnel access to buildings)* ***EXCEPTIONS: 1. When buildings are completely protected with an approved automatic fire sprinkler system, the provisions of 902.2.1 and 902.2.2 may be modified by the chief.***
>
> ***2.When access roads cannot be installed due to location on the property, topography, waterways, non negotiable grades or other similar conditions, the chief is authorized to require additional fire protection as specified in section 1001.9.***
>
> ***3.When there are not more than two Group R, Division 3 or Group U occupancies, the requirements may be modified by the chief.***
>
> *More than one fire apparatus road shall be provided when it is determined by the chief that a*

[17] The full text of Sections 901 and 902 of the Fire Code are attached as Exhibit Z.

single road might be impaired by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.

For high piled combustible storage, see Section 8102.6.1

For required access during construction, alteration or demolition of a building, see Section 8704.2

902.2.2.1 ***Dimensions*** *Fire apparatus roads shall have an unobstructed width of not less than 20feet (6096mm) and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115mm).*

Vertical clearances or widths shall be increased when, in the opinion of the chief, vertical clearances or widths are not adequate to provide fire apparatus access.

The Applicant is proposing a fire access **through** the Pine Knolls site to dead end at the eastern property boundary adjacent to undeveloped forest land. A careful reading of the preceding sections of the fire code indicate that the fire road access requirements apply to access **to** new facilities or buildings. In this case, the access pursuant to these regulations would be **to** the new tank storage, which is the new development that is being proposed. No development is proposed on the adjacent forested land and thus fire access pursuant to Section 902.2.1 is not required to this property. The fire access to the new facilities on the Pine Knoll site is already provided by Manor Way, which meets the criteria for access set out in Section 902.2.22.1. Manor Way is at least 20' wide, has vertical clearance over 13'6'' and is within 150' of all of the facilities proposed on the Pine Knoll site as conditioned by this permit. Even if fire access through the property was required, the sizing could be modified by the chief based on the Exceptions to 902.2.1 or Section 103.1.3 of the California Fire Code which states;

103.1.3 ***Practical Difficulties****. The chief is authorized to modify any of the provisions of this code upon application in writing by the owner, lessee or a duly authorized representative where there are practical difficulties in the way of carrying out the provisions of the code, provided that the spirit of the code shall be complied with, public safety secured and substantial justice done. The particulars of such modification and the decision of the chief shall be entered upon the records of the department and a signed copy shall be furnished to the applicant.*

The fire access road proposed by the CCSD is useful, however, as it allows fire engines to get roughly 100 feet closer to the adjacent forest to fight a fire and provides bulldozer access to cut firebreaks between the trees and nearby residences. The problem is that the size and location of the fire access road occupies a large portion of the site leaving less area for water storage. Staff has evaluated a number of on-site alternatives in an attempt to accommodate the fire access road. The most obvious is to reconfigure the road to take up less space. One example provided by the Commission's consulting engineer is to re-locate the road through the center of the property with tanks on either side (see Exhibit Z). With this alternative the road exits the property roughly 20 feet to the north of the district's desired location. The biggest advantage of this alignment is that it provides for a more efficient use of the site and provides additional room for access during construction. As shown in the alternative drawing there are two "pinch points" along the access road between water tanks where only 12' is provided. Otherwise, this alternative provides more than 18' of road width for almost the entire length. As shown

in a road radius and turning diagram provided by Mr. Donovan, this road could be engineered to accommodate a fire truck and bulldozer.

The only other way to access this portion of the forest would be to use Bridge Street. Bridge Street can provide emergency response access east of the project site. The problem with this route is that the area is heavily forested with fairly steep and rugged terrain. While access is possible from Bridge Street, the difference is in the amount of emergency response time required to access this portion of the forest.

In conclusion, minimal modifications to the road width and alignment will provide an adequate fire road onsite and at the same time will free up space for more water storage. While not optimal, alternative fire access for this area of forest could be accessed using Bridge Street. Revisions to the fire access road do not conflict with the Fire Code because the Fire Code does not require this road.

7) Residential Zoning Setbacks. The district states that the setbacks they are required to observe for the project (assuming 30' tall tanks) are based on the standards of Title 23.04.110 and would require 16' setbacks all around the property as a commercial or industrial use located next to residentially zoned land. The proposed use is a public services utility, not a commercial or industrial use and, thus this section of the zoning ordinance would not apply to the project. The site is zoned residential single-family (RSF) and normal setbacks in Tract 112 of Pine Knolls are 25' front yard, 5' side yard and 10' rear.

Setbacks from the property line greatly influence the size and placement of the tanks. The concept of setbacks was developed as a modern planning tool to provide noise buffering, access to light, and visual, and physical space between neighboring uses. The use of setbacks is thus employed to reduce conflicts among neighbors by providing for reasonable privacy from adjacent noise and views thereby allowing greater enjoyment of individual developments. In this case, setbacks for the purposes of privacy from views into the yards and homes of neighbors from the Pine Knolls site and noise generated by the proposed development are less of a concern because water tanks are not inhabited nor are they noisy. The primary issue for this project is the impact of views of the tanks from adjacent properties because the tanks will be as tall as the tallest house permitted in the zone district and, as with a new house, will be visible. The areas of most concern would be the west and south property boundaries because existing single-family homes are located on these adjacent parcels. The proposed tanks will thus be visible from the backyard of one property and the side yard of another. The east and north boundaries are less important from a perspective of concern for adjacency of development, because this land is part of a 1,644-acre holding and is subject to a conservation easement that does not allow development.

Many property owners face the dilemma of new development on adjacent vacant lots or the more common trend of the replacement of a small house on an adjacent lot with a much larger one. Aside from noise and visual privacy impacts, these changes introduce new structures into the viewshed of neighboring homes thus changing the appearance of the immediate neighborhood. Although water tanks currently are located on the site, the new development will be more intense. In this particular case, the use of fencing and landscaping with fast growing plant materials trained for vertical growth take up little room and can provide adequate visual buffering from the backyard and side yard view of the neighbors. As many people do when a larger home is built next to them, the neighbors may also wish to consider adding additional landscaping along the relevant property lines. As discussed earlier, there are no doubt a number of other alternatives that could be prepared by engineers and landscape architects that would

provide reasonable visual relief from the new tanks as well.

As discussed in the preceding paragraphs of his report, it will be more consistent with the policy direction of the LCP to allow some flexibility in the set backs, particularly when the planning objectives of the setbacks can be met by proper fencing and landscaping as detailed in the preceding paragraph, in order to preserve ESHA and to maximize water storage on this site.

Offsite Alternatives

In addition to the onsite alternatives analyzed above, CZLUO Section 23.08.288(d) requires that offsite alternatives also be analyzed. A number of offsite alternatives were evaluated in an effort to identify areas or mechanisms other than additional tank capacity at Pine Knolls to address the identified water need. These included: 1) distribution system upgrades to address hydraulic constraints; 2) water storage tanks dedicated only to fight fires as a way to address limited space on the Pine Knolls tank site; 3) the use of "localized" water treatment to overcome water quality concerns; and 4) the use of pressure zone interactions to assist in water supply and fire protection. In each case, the district dismissed the alternative because they were determined to be either: infeasible, not recommended, not practical, or not acceptable.

Examination of the water system analysis provided to the Commission raises questions about this conclusion that other offsite alternatives are not feasible to address future water storage needs in Cambria. As explained by the CCSD, the capacity planned for the Pine Knolls site is based on fire flow to fight two major fires in Pressure Zone 1, serve future development at a level approximately 20% greater than existing development, and provide emergency water flows for this future level of development.

As just discussed, it appears feasible to provide sufficient water storage on the Pine Knolls site to provide adequate fire flows, operational, and emergency storage for existing development in Pressure Zone 1 without impacting ESHA. One possible option for additional storage that is dismissed by the CCSD is increased tank capacity at other tank sites. The feasibility study submitted by the CCSD dismisses this option in part because the "distribution system capacity is inadequate to provide sufficient fire flow...." If sufficient fire flow capacity is already provided at Pine Knolls, though, distribution capacity is not needed for fire flows but rather for operational and/or emergency flows to Pressure Zone 1. It is not clear that such an alternative is infeasible. Indeed, the CCSD's water plan describes existing pressure valves (such as the check valve between zone 1 and zone 7) and recommends a new pressure valve that could provide for the movement of water from other pressure zones into zone 1. For example, on page 54, the plan recommends a new pressure valve to move water from zone 5 to zone 1 to address the possible emergency situation of simultaneous fires in zones 5 and 1. Moreover, the current project calls for installation of a pressure reducing valve that allows two directional water flow between Pressure Zone 7 and Pressure Zone 1 and visa-versa. According to discussions with the district's consulting engineer, if the tank water level at Pine Knolls were to drop and pressure is reduced to dangerously low levels, water could be transferred from Pressure Zone 7 to Pressure Zone 1 at a rate of up to 100 gallons per minute (personal communication with Mike Nunley of Boyle Engineering 3/30/05). As stated by the CCSD General Manager in a recent response to questions (May 11, 2005 from Tammy Rudock), assuming that even half of the 332,000 gallons of emergency storage could be

stored elsewhere (at Stuart Street for example), the diameter of the tanks could be reduced by roughly 4 feet. It is unclear why such system dynamics and upgrades would not address the potential shortfall in operational and/or emergency capacity in Pressure Zone 1.

The CCSD also observes that other tank sites are "mapped ESHA" and thus additional capacity at these sites is not feasible. However, no site specific analysis of each tank site, including an assessment of actual resource constraints on the ground, has been provided.[18] Thus, it has not been established that there is insufficient water storage capacity on other tank sites.

Finally, it is not clear that the feasibility of new alternative tank sites within the community has been completely evaluated. For example, the Water Plan discusses the possibility of a tank in the vicinity of the new Cambria school. Commission Staff has researched this location and based on topographic maps it appears this area is at the same elevation as the Pine Knolls site (285 feet above sea level) and therefore meets the most critical system hydraulic requirement. The CCSD dismisses this alternative because of pipeline restrictions placed on the permit by the Coastal Commission to address growth inducement. The purpose of these restrictions was to guard against growth-inducing pipeline extensions outside of the urban area. Although further evaluation would be needed, this permit could be amended to provide tanks and pipelines for necessary water storage for existing and planned development within the urban area while still maintaining the purpose of the permit issued by the Commission.

g. Alternatives Conclusion

In conclusion, the Commission finds that a correctly sized project to serve existing users can fit on the project site along with an adequate fire access road to access the forest east of the site. The preceding discussion of alternatives shows that there is some flexibility in the various constraints and that there is a least one concept alternative, outlined in the review by Mr. Donovan, that meets most of the district's requirements and that does not require permanent encroachments into the adjacent habitat. Compromise on some of the criteria, such as the space between tanks, setbacks, and the overall width of the access road, will be needed to provide for a project that will fit on the existing site and meet the district's current needs. Some of the criteria articulated by the district, such as tank height and elevations, are less subject to flexibility than others. Finally, the CCSD has not conclusively established that there are not other feasible offsite alternatives to address the potential storage shortfall for future development.

Therefore, the project is conditioned to revise the site plan to maintain all development within the boundaries of the existing site (Special Condition 1), and not encroach into the adjacent ESHA except as minimally required to provide temporary construction and maintenance. Storage for the future buildout scenario that is still speculative can be found elsewhere and at a future time. In order to meet the public facility and ESHA protection requirements of the LCP, the project must be limited in size and location so as not to require ESHA impacts for future development that cannot currently be accommodated consistent with the LCP. As conditioned, the project will be consistent with the ESHA policies and ordinances of the LCP.

[18] The CCSD has submitted a site plan for the Stuart Street tank site.

3. Water Quality

a. Applicable Policies

Coastal Watersheds Policy 10: Drainage Provision

Site design shall ensure THAT drainage does not increase erosion. This may be achieved either through on-site drainage retention, or conveyance to storm drains or suitable watercourses. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PUSUANT TO SECTION 23.05.034 OF THE CZLUO.]

CZLUO Section 23.05.044 – Drainage Plan Preparation and Content:

*a. **Basic drainage plan contents:** Except where an engineered drainage plan is required, a drainage plan is to include the following information about the site:*

(1) Flow lines of surface waters onto and off the site.

(2) Existing and finished contours at two-foot intervals or other topographic information approved by the County Engineer.

(3) Building pad, finished floor and street elevations, existing and proposed.

(4) Existing and proposed drainage channels including drainage swales, ditches and berms.

(5) Location and design of any proposed facilities for storage or for conveyance of runoff into indicated drainage channels, including sumps, basins, channels, culverts, ponds, storm drains, and drop inlets.

(6) Estimates of existing and increased runoff resulting from the proposed improvements.

(7) Proposed erosion and sedimentation control measures.

(8) Proposed flood-proofing measures where determined to be necessary by the County Engineer

b. Analysis

The project is located in the Pine Knolls neighborhood of Cambria. The topography of the Pine Knolls area is varied with numerous ridges, gullies, and steep slopes. The topography of the existing site is level and soils have been compacted or modified for current uses. The upper 1-4.5 feet of soil consists of light brown poorly graded sand with clay, in a medium dense condition. Underlying the surficial soil is 1-3 feet of very stiff, mottled sandy lean clay. At 2.5 – 6 feet below grade, there is hard rock sandstone.

As proposed, topsoil would be removed and impervious surfacing would cover the vast majority of the project site (steel tanks, foundations, access paths, building, retaining walls, concrete swales, etc). According to plans submitted by the Applicant, development would change storm flow off the property by redirecting it to the southwest property corner through concrete swales and directed onto Manor Way.

The project has the potential to have adverse impacts to the watershed through the proposed alteration of natural drainage patterns, and contributing sediments and pollutants to coastal waters. Construction activities can adversely impact coastal water quality by discharging debris and pollutants into watercourses, and by causing erosion and sedimentation through the removal of vegetation and the movement of dirt. The increase in impervious surfaces that will result from the project will also impact coastal water quality by altering natural drainage patterns and providing areas where for the accumulation of pollutants that will eventually be carried into coastal waters by storm water.

c. Water Quality Conclusion

In order to comply with Policy 10 and Section 23.05.044 of the Coastal Zone Land Use Ordinance, a drainage, erosion, and sedimentation control plan is required by Special Condition 3 to ensure that site drainage will be effectively managed during and after construction. With this condition, the project complies with all applicable LCP drainage and water quality protection provisions. As such, and only as conditioned, the Commission approves the project and finds it consistent with the San Luis Obispo Certified LCP.

4. Archaeology

a. Applicable Policies

Archaeology Policy 1: *The County shall provide for the protection of both known and potential archaeological resources. All available measures, including purchase, tax relief, purchase of development rights, etc., shall be explored at the time of a development proposal to avoid development on important archaeological sites. Where these measures are not feasible and development will adversely affect identified archaeological or paleontological resources, adequate mitigation shall be required. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD].*

Archaeology Policy 4: *Development shall require a preliminary site survey by a qualified archaeologist knowledgeable in Chumash culture prior to a determination of the potential environmental impacts of the project. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.106 OF THE CZLUO].*

Archaeology Policy 6: *Where substantial archaeological resources are discovered during construction of new development, or through non-permit related activities (such as repair and maintenance of public works projects) all activities shall cease until a qualified archaeologist knowledgeable in the Chumash culture can determine the significance of the resources and submit alternative mitigation measures. [THIS POLICY SHALL BE IMPLEMENTED PUSUANT TO SECTION 23.05.140 AND 23.07.106 OF THE CZLUO.]*

CZLUO Section 23.07.104 states:

23.07.104 Archaeologically Sensitive Areas:

To protect and preserve archaeological resources, the following procedures and requirements

apply to development within areas of the coastal zone identified as archaeologically sensitive.

a. Archaeologically sensitive areas. The following areas are defined as archaeologically sensitive:

(1) Any parcel within a rural area which is identified on the rural parcel number list prepared by the California Archaeological Site Survey Office on file with the county Planning Department.

(2) Any parcel within an urban or village area which is located within an archaeologically sensitive area as delineated by the official maps (Part III) of the Land Use Element.

(3) Any other parcel containing a known archaeological site recorded by the California Archaeological Site Survey Office.

b. Preliminary site survey required. Before issuance of a land use or construction permit for development within an archaeologically sensitive area, a preliminary site survey shall be required. The survey shall be conducted by an archaeologist knowledgeable in Chumash Indian culture and approved by the Environmental Coordinator. The purpose of the preliminary site survey is to examine existing records and to conduct a preliminary surface check of the site to determine the likelihood of the existence of resources. The report of the archaeologist shall be submitted to the Planning Department and considered in the evaluation of the development request by the applicable approval body.

c. When a mitigation plan is required. If the preliminary site survey determines that proposed development may have significant effects on existing, known or suspected archaeological resources, a plan for mitigation shall be prepared by the archeologist. The purpose of the plan is to protect the resource. The plan may recommend the need for further study, subsurface testing, monitoring during construction activities, project redesign, or other actions to mitigate the impacts on the resource. The mitigation plan shall be submitted to and approved by the Environmental Coordinator, and considered in the evaluation of the development request by the applicable approval body.

d. Required finding. A land use or construction permit may be approved for a project within an archaeologically sensitive area only where the applicable approval body first finds that the project design and development incorporates adequate measures to ensure protection of significant archeological resources.

e. Archeological resources discovery. In the event archeological resources are unearthed or discovered during any construction activities, the standards of Section 23.05.140 of this title shall apply

b. Analysis

Archaeology Policies 1, 4, and 6 require surveys within designated archaeologically sensitive areas, protection of any resources that were identified, and protection of resources discovered during construction.

A surface survey was performed as part of the Applicant's Initial Study (Gibson, 2004). According to the study, no prehistoric or historic cultural materials were identified within the proposed project site. Although the possibility of subsurface archaeological resources are considered low due to the absence of surface resources, buried archaeological resources could be impacted during subsurface excavation activities.

c. Archaeology Conclusion

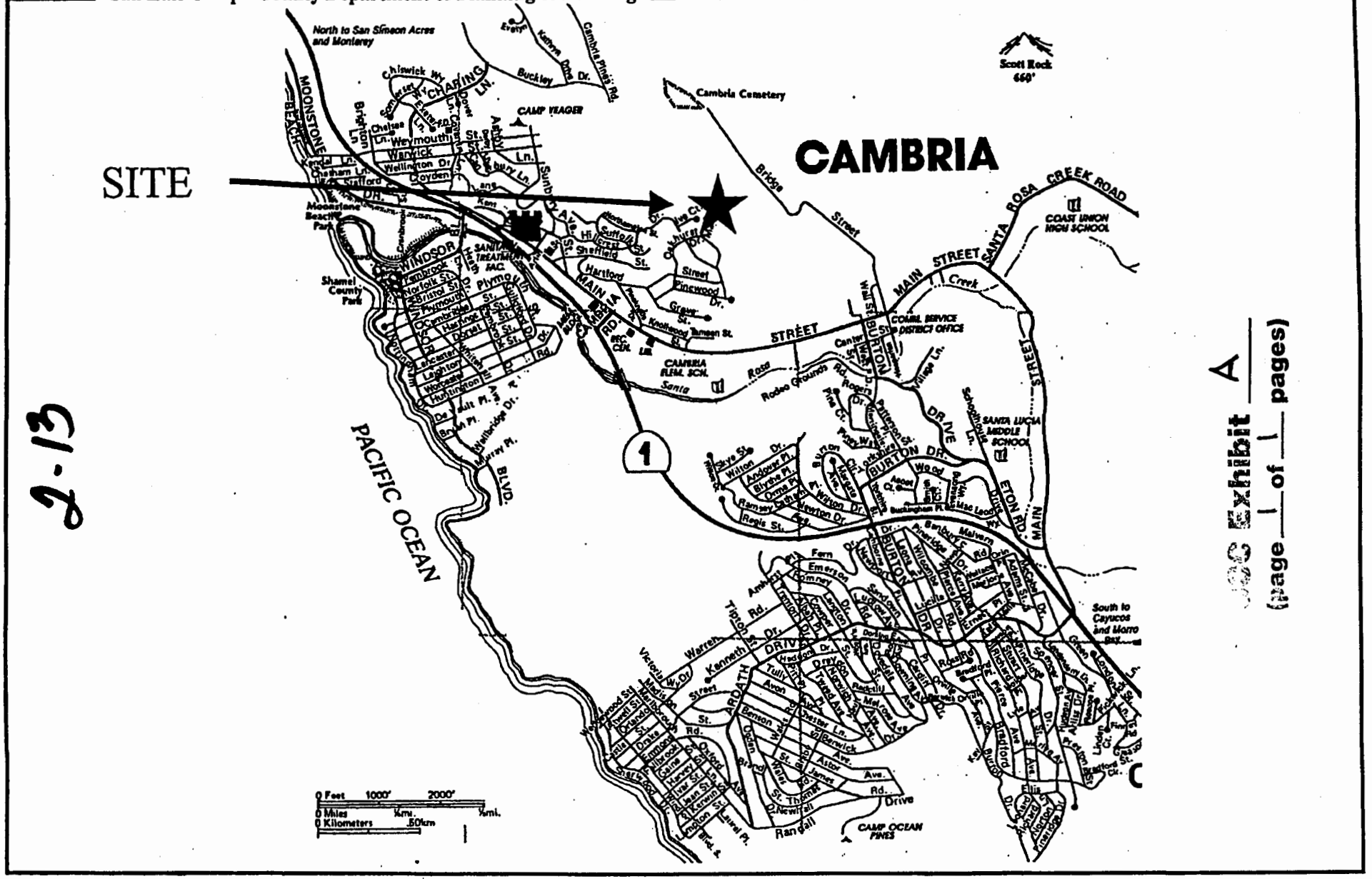
Because buried archaeological resources could be impacted during subsurface excavation activities, Special Condition 4 of this permit retains the County condition related to cultural resources (County Condition #26). If archaeological resources are discovered at the project site during any phase of construction, work must cease until appropriate experts are notified so that the discovered materials may be recorded by a qualified archaeologist and proper disposition of artifacts may be accomplished. Only as conditioned is the project consistent with the LCP.

E. California Environmental Quality Act (CEQA)

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 any applicable requirements of 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 available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of Resources as being the functional equivalent of environmental review under CEQA. This staff report has analyzed the environmental impacts posed by the project and identified changes to the project that are necessary to reduce such impact to an insignificant level. Based on these findings, which are incorporated by reference as if set forth herein in full, the Commission finds that only as modified and conditioned by this permit will the proposed project avoid significant adverse effects on the environment within the meaning of CEQA.

San Luis Obispo County Department of Planning & Building

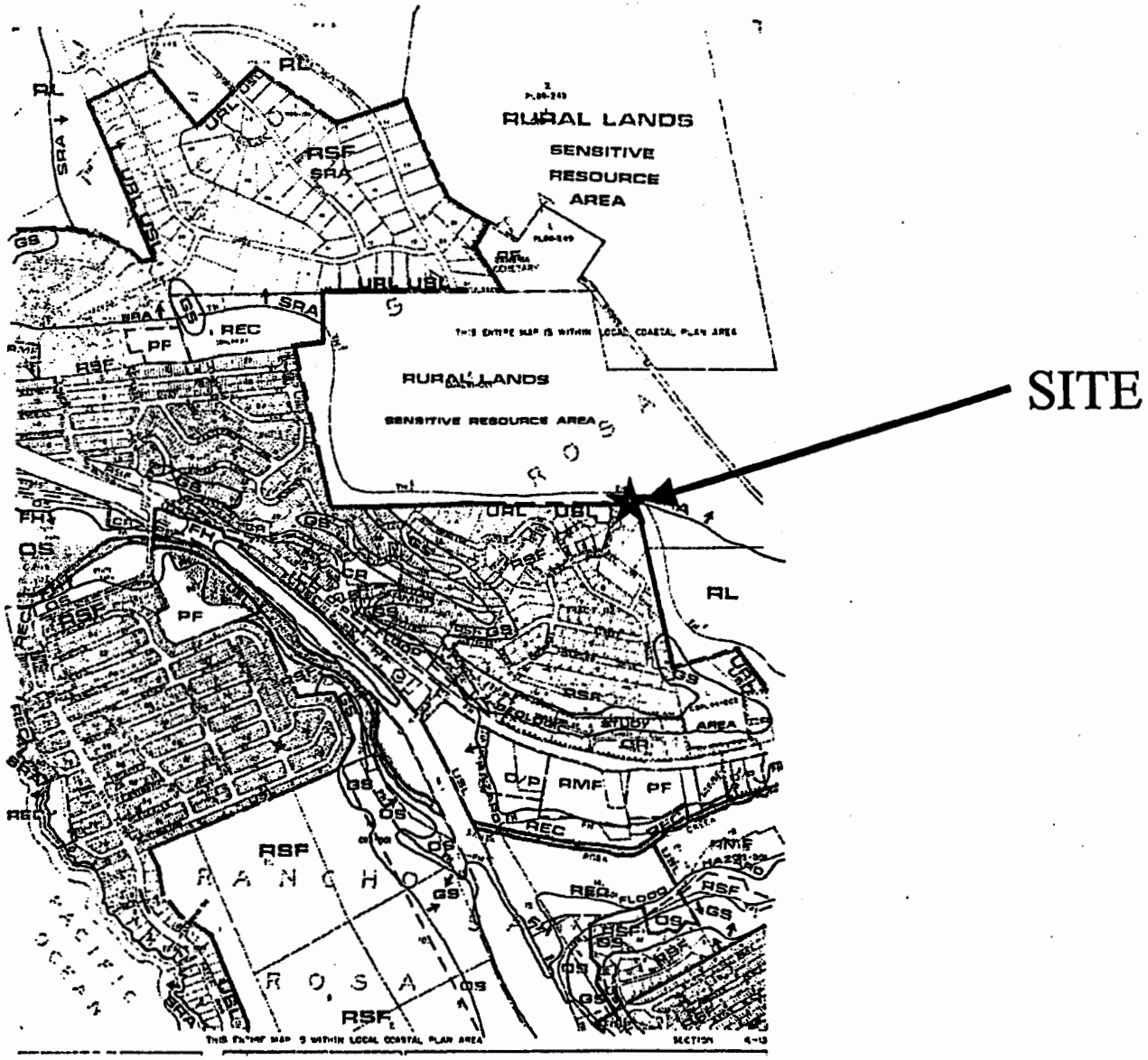


2-13

Exhibit A
(page 1 of 1 pages)

Project	Exhibit
Conditional Use Permit CCSD/DRC2004-00093	Vicinity Map

San Luis Obispo County Department of Planning & Building



2-14

CCC Exhibit B (page 1 of 1 pages)

Project

Conditional Use Permit
CCSD/DRC2004-00093

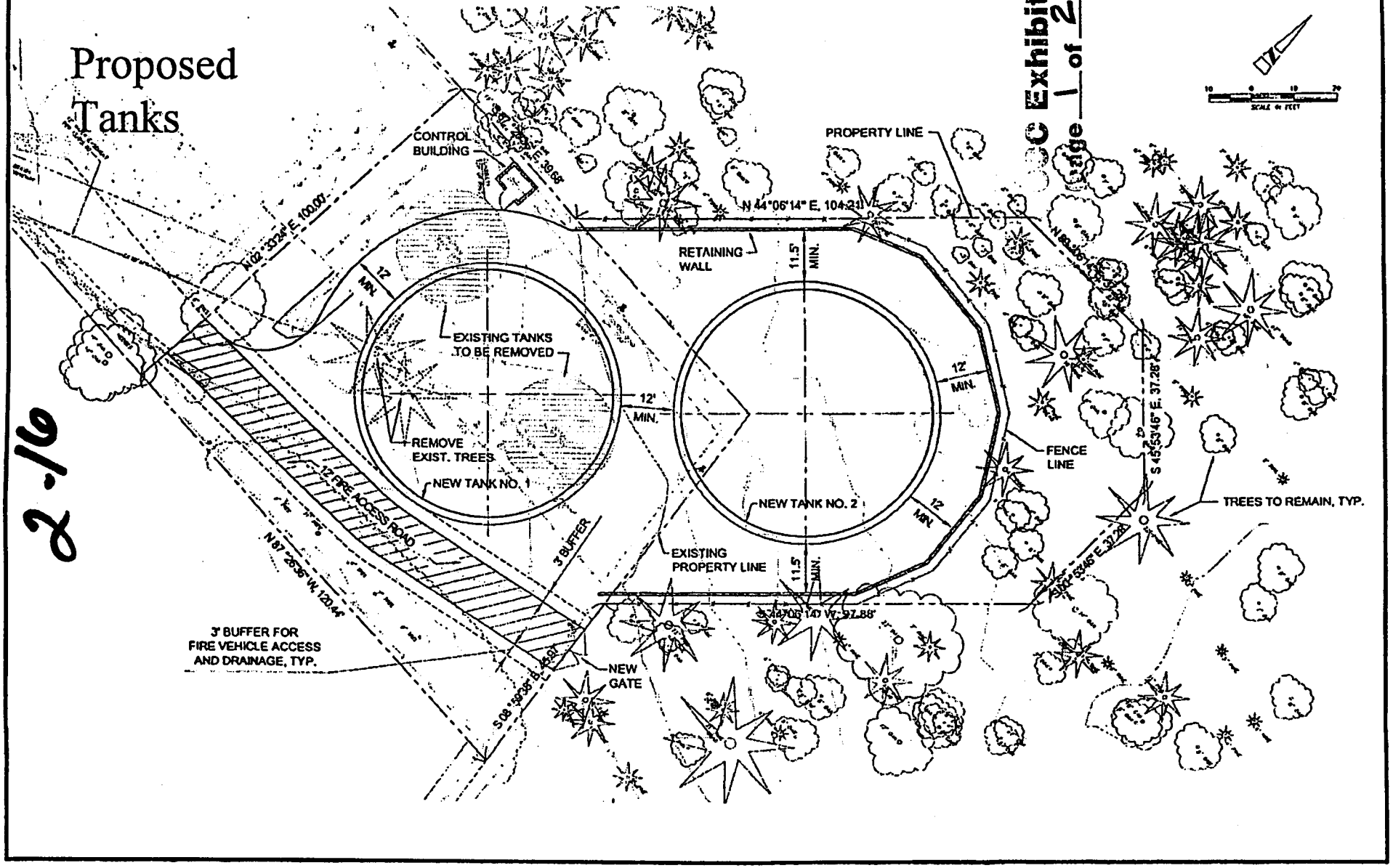
Exhibit

Land Use Category Map – *Residential Single Family & Rural Lands*

San Luis Obispo County Department of Planning & Building

C Exhibit 1 of 2 pages)

2-16



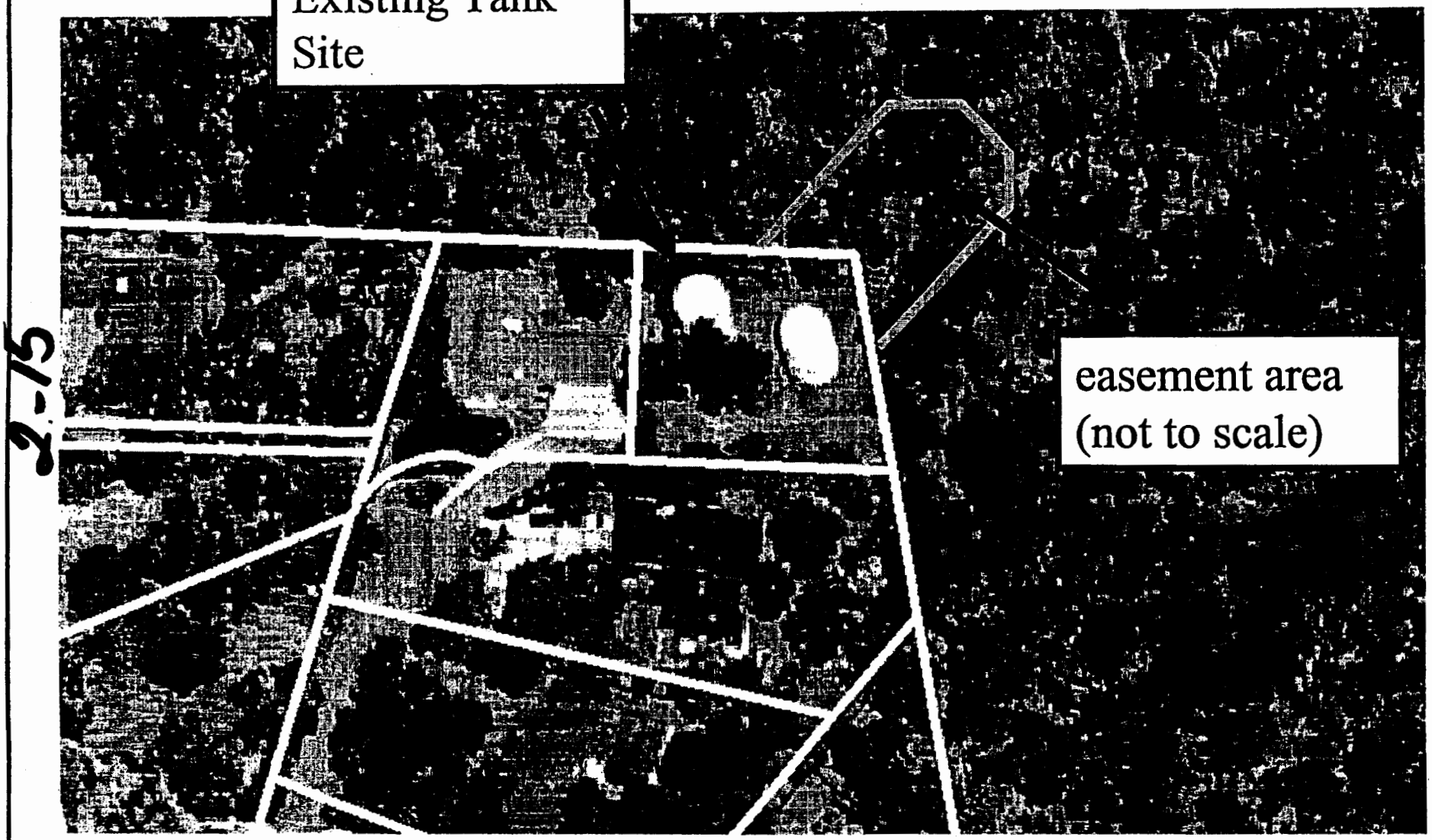
Project

Conditional Use Permit
CCSD/DRC2004-00093

Exhibit

Proposed Site Plan-Alternative # 4

San Luis Obispo County Department of Planning & Building



2-15

Project
Conditional Use Permit
CCSD/DRC2004-00093

Exhibit
Vicinity Map

→ CCC

SAN LUIS OBISPO COUNTY

DEPARTMENT OF PLANNING AND BUILDING

VICTOR HOLANDA, AICP
DIRECTOR

FINAL LOCAL ACTION NOTICE

REFERENCE # 3-SLO-05-081
APPEAL PERIOD 3/3-3/16/05

RECEIVED
MAR 02 2005
CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

February 17, 2005

CCSD
Attn: Robert Gresens
P. O. Box 65
Cambria, CA 93428

Ralph Covell
5694 Bridge Street
Cambria, CA 93428

Ken Bornholdt
1303 Higuera St.
San Luis Obispo, CA 93401

NOTICE OF FINAL COUNTY ACTION

HEARING DATE: February 10, 2005

SUBJECT: Cambria Community Services District - County File No. DRC2004-00093

LOCATED WITHIN COASTAL ZONE: YES

The above-referenced application was approved by the San Luis Obispo County Planning Commission. A copy of the findings and conditions are being sent to you, along with the Resolution of approval.

This action is appealable to the Board of Supervisors within 14 days of this action. If there are Coastal grounds for the appeal there will be no fee. If an appeal is filed with non-coastal issues there is a fee of $578.00. An appeal to the Board of Supervisors must be made to the Planning Commission Secretary, Department of Planning and Building.

This action may also be appealable to the California Coastal Commission pursuant to regulations contained in Coastal Act Section 30603 and the County Coastal Zone Land Use Ordinance 23.01.043. These regulations contain specific time limits to appeal, criteria, and procedures that must be followed to appeal this action. The regulations provide the California Coastal Commission 10 working days following the expiration of the County appeal period to appeal the decision. This means that no construction permits can be issued until both the County appeal period and the additional Coastal Commission appeal period have expired without an appeal being filed.

Exhaustion of appeals at the county level is required prior to appealing the matter to the California Coastal Commission. This second appeal must be made directly to the California Coastal Commission Office. Contact the Commission's Santa Cruz Office at (831) 427-4863 for further information on their appeal procedures.

CCC Exhibit D
(page 1 of 12 pages)

If the use authorized by this Permit approval has not been established or if substantial work on the property towards the establishment of the use is not in progress after a period of twenty-four (24) months from the date of this approval or such other time period as may be designated through conditions of approval of this Permit, this approval shall expire and become void unless an extension of time has been granted pursuant to the provisions of Section 23.02.050 of the Land Use Ordinance.

If the use authorized by this Permit approval, once established, is or has been unused, abandoned, discontinued, or has ceased for a period of six (6) months or conditions have not been complied with, such Permit approval shall become void.

If you have any questions regarding these procedures, please contact me at (805) 781-5611. If you have questions regarding your project, please contact your planner at (805) 781-5600.

Sincerely,

LONA FRANKLIN, SECRETARY
COUNTY PLANNING COMMISSION

(Planning Department Use Only)

Date NOFA copy mailed to Coastal Commission: after February 25, 2004

Enclosed:
X Staff Report
X Findings and Conditions

PLANNING COMMISSION
COUNTY OF SAN LUIS OBISPO, STATE OF CALIFORNIA

Thursday, February 10, 2005

PRESENT: Commissioners Bob Roos, Eugene Mehlschau, Sarah Christie, Chairperson Doreen Liberto-Blanck

ABSENT: None

RESOLUTION NO. 2005-002
RESOLUTION RELATIVE TO THE GRANTING
OF A DEVELOPMENT PLAN/COASTAL DEVELOPMENT PERMIT

WHEREAS, The County Planning Commission of the County of San Luis Obispo, State of California, did, on the 10th day of February, 2005, grant a Development Plan/Coastal Development Permit to CAMBRIA COMMUNITY SERVICES DISTRICT to allow for (a) the replacement of two existing 103,000-gallon water tanks with two new 550,000-gallon water tanks; (b) relocating an existing control panel and overhead electric service; (c) the removal of approximately 26 pine and 24 oak trees, and replanting of **59** Monterey pine trees and **114** Coast live oak trees in the designated replacement area on the West Ranch. (d) This project shall be consistent with the approved site plans, landscape plans, and elevations dated January 5, 2005 (AKA Alternative # 4 involving the use of 6,000 square feet of undisturbed ESHA). (e) Maximum Height for the project is **35'** as measured from average natural grade. This height limit includes all structures associated with the tanks including but not limited to: railings, stairs, vents, or any other mechanical/non-mechanical equipment on top of the tank. (f) The replacement of approximately 200-linear ft. of buried 10-inch asbestos cement waterline and valves with 14-inch concrete coated welded steel cement-lined waterline and valves. Site excavation which will include removing approximately 5 ft of material below grade and either native soil will be re-compacted or imported materials will be placed on the site prior to preparing the foundation. Land Use Category: Residential Single Family. The property is located in the county at the terminus of Manor Way (988 Manor Way), in the Pine Knolls residential neighborhood in the community of Cambria, in the North Coasta planning area. APN: 013-301-018 and a portion of APN 013-111-005. Supervisorial District #2. County File No. DRC2004-00093.

WHEREAS, the Planning Commission, after considering the facts relating to such application, approves this Permit based on the Findings listed in Exhibit A.

WHEREAS, the Planning Commission, after considering the facts relating to such application, approves this Permit subject to the Conditions listed in Exhibit B.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission of the County of San Luis Obispo, State of California, in a regular meeting assembled on the 10th day of February, 2005, does hereby grant the aforesaid Permit No. DRC2004-00093.

If the use authorized by this Permit approval has not been established or if substantial work on the property towards the establishment of the use is not in progress after a period of twenty-four (24) months from the date of this approval or such other time period as may be designated through conditions of approval of this Permit, this approval shall expire and become void unless an extension of time has been granted pursuant to the provisions of Section 23.02.050 of the Land Use Ordinance.

If the use authorized by this Permit approval, once established, is or has been unused, abandoned, discontinued, or has ceased for a period of six months (6) or conditions have not been complied with, such Permit approval shall become void.

On motion of Chairperson Liberto-Blanck, seconded by Commissioner Mehlschau, and on the following roll call vote, to-wit:

AYES: Chairperson Liberto-Blanck, Commissioners Mehlschau, Roos

NOES: None

ABSENT: None

ABSTAIN: Commissioner Christie

the foregoing resolution is hereby adopted.

_____/s/ Doreen Liberto-Blanck_____
Chairman of the Planning Commission

ATTEST:

_/s/ Lona Franklin_____
Lona Franklin, Secretary,
County Planning Commission

Exhibit D
(Page 4 of 12 pages)

Exhibit D
(p. 5 of 12 pages)

FINDINGS - EXHIBIT A
DRC2004-00093

Environmental Determination

A. A previously completed Mitigated Negative Declaration, dated June 8, 2004, and adopted July 22, 2004 (and amended on January 27, 2005) completed by Cambria Community Services District acting as the lead agency, finds that there is no substantial evidence that the project may have a significant effect on the environment. Mitigation measures are proposed to address aesthetics, biology, cultural, air quality, geology and soils, and are included as conditions of approval. The County, acting as a responsible agency, is using the Mitigated Negative Declaration and will make it's own findings pursuant to CEQA Guidelines Section 15096.

Development Plan

B. The proposed project or use is consistent with the San Luis Obispo County General Plan because the use is an allowed use and as conditioned is consistent with all of the General Plan policies. The following are specific findings in the general plan for which the project shall be in compliance with:

Coastal Plan Policies

1. Coastal Plan Policy 1 - Land Uses Within or Adjacent to Environmentally Sensitive Habitats: Development adjacent to locations of environmentally sensitive habitats shall not significantly disrupt the resource. This project site is located within an Environmentally Sensitive Habitat Area (ESHA). The existing tank site does not contain sensitive undisturbed habitat area, but the 6,000 square foot easement area does contain sensitive undisturbed habitat. The project as proposed has been sited to impact the least amount of undisturbed habitat area feasible (approximately 6,000 square feet). The portion of sensitive habitat area that will be impacted shall be replaced. The project is conditioned to include a tree replacement mitigation plan, and an on site landscaping plan which will reduce impacts to ESHA to a less than significant level.

2. -Coastal Plan Policy 29 - Protection of Terrestrial Habitats: Only uses dependent on the sensitive resources shall be permitted within the identified sensitive habitat portion of the site. In addition, development adjacent to ESHA 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. This proposed project site includes the current tank site which is located on a disturbed site that does not contain ESHA, as well as the 6,000 square foot easement area which is not disturbed and does contain ESHA. This proposed project is not dependent on the Monterey Pine Forest, however is dependent on the location of this specific site. The proposed project is dependent on this specific site because there is existing infrastructure that connects this tank site to the community-wide water system which is gravity fed from this specific tank location. If another site were to be chosen, it may trigger the replacement of all the existing lines within the community which will create a much greater impact to sensitive resources throughout the community. Allowing the tanks to expand on the existing tank site, and on a portion of the 6,000 square foot easement will be far less of an impact then re-locating the project on another site. All impacts topines and oaks shall be replaced to reduce impacts to a less than significant level. The project has been sited and designed to reduce impacts to ESHA as much as possible. 3. Coastal Plan Policy 30 - Protection of Native Vegetation: Native trees and plant cover shall be protected wherever possible. The project as proposed will remove approximately 26 Monterey Pine trees and 24 Coast Live Oaks (both of which are native species) and will replace them with the same species at an off site location (West Ranch). The project is

conditioned to include a tree replacement mitigation plan which will reduce impacts to a less than significant level.

4. Coastal Plan Policy 35 - Protection of Vegetation: The proposed tanks are sited to impact the least amount of habitat and vegetation as feasible. The project is conditioned to include mitigation which will reduce impacts to a less than significant level. This mitigation includes a tree replacement mitigation plan which proposes to replace removed pines at a 2:1 ratio and oaks at a 4:1 ratio. All pines within 20 feet of construction activities shall also be mitigated on a 1:1 ratio, and the oak trees located near construction activities shall be replaced at a 2:1 ratio. The project as proposed has been designed to reduce impacts to vegetation to a less than significant level.

Coastal Zone Land Use Ordinance

5. Sensitive Resource Area Required Findings pursuant to 23.07.164 e: Any land use permit application within a Sensitive Resource Area shall be approved only where the review authority can make the following required findings:
   a. The development will not create significant adverse effects on the natural features of the site or vicinity that were the basis for the Sensitive Resource Area designation, and will preserve and protect such features through the site design. The project as proposed meets this finding and will not create a significant adverse effect on the Monterey Pine Forest because a mitigation plan is required to reduce impacts to a less than significant level.
   b. Natural features and topography have been considered in the design and siting of all proposed physical improvements. This project meets this finding because it is located on a site that is relatively flat, is located in an existing residential neighborhood that is developed, includes a landscape and tree replacement plan, and the applicant has reduced the footprint to the greatest amount feasible (see Boyle feasibility study and response to the CCC letter dated 1/12/05.
   c. Any proposed clearing of topsoil, trees, or other features is the minimum necessary to achieve save and convenient access and siting of proposed structures, and will not create significant adverse effects on the identified sensitive resource. This project meets this finding because it has been designed to minimize impacts to the Monterey Pine Forest as much as feasible and locate the new tanks as close to the existing tanks as possible.

6. Environmentally Sensitive Habitats Required Findings pursuant to 23.07.170 b: Approval of a land use permit for a project within or adjacent to an Environmentally Sensitive Habitat shall not occur unless the applicable review body first finds that:
   a. 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. The proposed project is consistent with this required finding because it will replace all impacted and removed sensitive species.
   b. The proposed use will not significantly disrupt the habitat. This project is located in a developed residential neighborhood on the existing tank site, and the minimum amount of sensitive habitat area to the north-east. The project is conditioned to include a tree replacement mitigation plan which will reduce impacts to a less than significant level.

7. Public Utility Facilities pursuant to 23.08.288 d: The Coastal Zone Land Use Ordinance requires the approval body make a finding that there is no other feasible location on or off-site the property when a project is proposed within an ESHA. This project is dependent upon this specific site because this tank site is in a location where existing infrastructure exists which allows the water to be gravity fed to the community-wide water system. Re-location of the tank site may require replacement

of all water lines throughout the community which will include a much greater impact to environmentally sensitive habitat, and the fiscal impact of relocation will eliminate the possibility of this project entirely.

C. The proposed project (alternative # 4) is the most feasible project that meets most of the project's objectives within the known constraints existing on the site and mandated on the site by permitting agencies

D. As conditioned, the proposed project or use satisfies all applicable provisions of Title 23 of the County Code.

E. The establishment and subsequent operation or conduct of the use will not, because of the circumstances and conditions applied in the particular case, be detrimental to the health, safety or welfare of the general public or persons residing or working in the neighborhood of the use, or be detrimental or injurious to property or improvements in the vicinity of the use because the project as proposed does not generate activity that presents a potential threat to the surrounding property and buildings. This project is subject to Ordinance requirements designed to address health, safety and welfare concerns. This project will also benefit the general public's safety because it will increase the water storage for fighting fires in the community during the fire season. According to the Boyle feasibility study the existing tanks are too small and their seismic integrity is challenged.

F. The proposed project or use will not be inconsistent with the character of the immediate neighborhood or contrary to its orderly development because it is located within an existing developed residential neighborhood, and will replace two existing water tanks. There will be no greater impact to the character of the neighborhood then exists today, and in fact will be better because the new tanks will be safer by being constructed to more robust standards.

G. The project will not result in substantial detrimental effects of the enjoyment and use of adjoining properties.

H. The proposed project or use will not generate a volume of traffic beyond the safe capacity of all roads providing access to the project, either existing or to be improved with the project because the project is located on a road constructed to a level able to handle any additional traffic associated with the project.

8. Intrusion into the conservation easement is necessary as demonstrated by the Boyle feasibility study and CCSD's response to the Coastal Commission's letter dated January 12, 2005 because the project helps to resolve critical health and safety issues within the community of Cambria.

Exhibit D
8 of 12 pages

CONDITIONS OF APPROVAL - EXHIBIT B
DRC2004-00093

1. This permit authorizes:
   A. The replacement of two existing 103,000-gallon water tanks with two new 550,000-gallon water tanks.
   B. Relocating an existing control panel and overhead electric service.
   C. The removal of approximately 26 pine and 24 oak trees, and replanting of **59** Monterey pine trees and **114** Coast live oak trees in the designated replacement area on the West Ranch.
   D. This project shall be consistent with the approved site plans, landscape plans, and elevations dated January 5, 2005 (AKA Alternative # 4 involving the use of 6,000 square feet of undisturbed ESHA).
   E. Maximum Height for the project is **35'** as measured from average natural grade. This height limit includes all structures associated with the tanks including but not limited to: railings, stairs, vents, or any other mechanical/non-mechanical equipment on top of the tank.
   F. The replacement of approximately 200-linear ft. of buried 10-inch asbestos cement waterline and valves with 14-inch concrete coated welded steel cement-lined waterline and valves.
   G. Site excavation which will include removing approximately 5 ft of material below grade and either native soil will be re-compacted or imported materials will be placed on the site prior to preparing the foundation.

Aesthetics

2. Construction staging shall be designated as far as possible from existing single-family homes, however construction staging shall not impact any more Monterey Pine or Oak trees then those identified in condition 1.C. above.

3. Construction areas shall be maintained to minimize unnecessary debris piles.

4. Construction areas shall implement dust control measures (i.e. watering).

5. **Prior to any ground disturbing activities** the applicant shall submit a tank color board to the Department of Planning and Building for review and approval.

6. Any lighting proposed on site shall be shielded to keep all light on site and shall not emit any direct light offsite.

7. **Prior to any ground disturbing activities,** a fencing and screening plan shall be submitted for review and approval. Public Utility Facilities shall be screened on all sides. An effective visual barrier will be established through the use of a solid wall, fencing and/or landscaping.

Air Quality

8. Water trucks or sprinkler systems shall be utilized in sufficient quantities to prevent airborne dust from leaving the project site. Increased water frequency shall be required whenever wind speeds exceed 15mph. Reclaimed (nonpotable) water shall be used.

9. All dirt stockpile areas shall be covered or sprayed daily as needed. Dirt stockpiles shall not be located to impact healthy pine or oak trees.

10. All disturbed soil areas shall be revegetated and stabilized after construction activities are complete, and reviewed and approved by the County Department of Planning and Building.

11. Streets shall be swept at the end of each day if visible soil material is carried onto adjacent paved roads.

Exhibit D
9 of 12 pages

Biological Resources

12. Permeable materials shall be used for driveways, walkways, and roads.

13. **Prior to any ground disturbing activities,** a Replanting Mitigation Plan shall be prepared that includes the location of the restoration site and, the type, size and location of vegetation to be planted. The replanting plan shall state the density of planting and avoid overcrowding. The plan shall also include information on weed control and irrigation. The plan shall require that oak tree seedlings are caged from browsing animals and that all new plants are being weeded regularly. The plan shall also include yearly monitoring for no less than three years or until vegetation is successfully established. This mitigation plan shall be reviewed and approved by the San Luis Obispo County Planning and Building Department.

14. The applicant shall limit tree removal to no more than 26 healthy pine trees having a eight inch diameter or larger at four feet from the ground and no more than 24 oak trees having a six inch diameter or larger at four feet from the ground. Construction plans shall clearly delineate all trees within 50 feet of the proposed project, and shall show which trees are to be removed or impacted, and which trees are to remain unharmed.

15. **Prior to any ground disturbing activities,** the applicant shall fence the proposed area of disturbance and clearly tag which trees are to be removed or impacted. The trees tagged in the field shall be consistent with the trees delineated on the construction plans. Tree removal, grading, utility trenching, compaction of soil, or placement of fill shall not occur beyond the fenced disturbance area. **The fencing shall remain installed until the project is complete.**

16. **Prior to operation of the new facility,** the applicant shall demonstrate that the easement on the neighboring property (APN 013,111,005) has been reduced to meet the minimum site necessary to construct alternative # 4.

17. Pine and oak trees removed as a result of the construction and site disturbance activities shall be replaced at a 2:1 ratio for the pine trees and at a 4:1 ratio for the oak trees. Trees that are not proposed for removal, but are being impacted as a result of construction shall be replaced at a 1:1 ratio for pine trees and at a 2:1 ratio of oak trees. Monterey pine replacement trees shall be in-kind and one gallon saplings grown from the Cambrian stand; *Pinus radiata macrocarpa*. Replacement Coast live oak trees shall also be at least one gallon container sizes.
    A. Removed trees: There are **twenty-six (26)** Monterey pine trees being removed, and **twenty-four (24)** Coast live oak trees are being removed as a result of construction activities.
    B. Impacted trees: There are **seven (7)** Monterey pine trees proposed to be impacted, and **nine (9)** Coast live oak trees proposed to be impacted
    C. Replacement Pines: A total of **59** Monterey pine trees shall be replanted.
    D. Replacement Oaks: A total of **114** Coast live oak trees shall be replanted.

18. **Within 90 days of issuance of the land use permit,** the replacement trees required in Condition #14 above shall be planted. These newly planted trees shall be maintained until successfully established. This shall include caging from animals (e.g., deer,

rodents), periodic weeding and adequate watering (e.g., drip-irrigation system). If possible, planting during the warmest, driest months (June through September) shall be avoided. In addition, standard planting procedures (e.g., planting tablets, initial deep watering) shall be used.

19. Once the replacement trees have been planted, the applicant shall retain a qualified individual (e.g., landscape contractor, arborist, nurseryman, botanist) to prepare a letter stating the above planting and protection measures have been completed. This letter shall be submitted to the Department of Planning and Building for review and approval.

20. To promote the success of the new trees, the applicant shall retain a qualified individual (e.g., arborist, landscape architect/ contractor, nurseryman) to monitor the new trees until successfully established, on an annual basis, for no less than three years. The first report shall be submitted to the County Environmental Coordinator one year after the initial planting and thereafter on an annual basis until the monitor, in consultation with the County, has determined that the newly planted vegetation is successfully established. The applicant and successors-in-interest agree to complete any necessary remedial measures identified in the report and approved by the Environmental Coordinator.

21. The applicant recognizes the above mentioned measures and agrees to minimize trimming of the remaining pine and oak trees. If trimming is necessary, the applicant agrees to either use a skilled arborist or apply accepted arborist's techniques when removing limbs. Unless a hazardous or unsafe situation exists, trimming shall be done only during the winter for deciduous species. Smaller trees (6 inches diameter and smaller) within the project area are considered to be of high importance, and when possible, shall be given similar consideration as larger trees.

22. Wherever soil compaction from construction has occurred within drip lines of trees, the compacted root zone area shall be aerated by using the following techniques: Injecting pressurized water, careful shallow ripping that radiates out from the trunk (no cross root ripping), and/or other techniques approved by a qualified professional.

23. To prevent or reduce the spread of disease from pine pitch canker, bark beetles or other diseases affecting the forest, the following measures shall be followed if native oaks and Monterey pine are removed from the site:

    A. Infected or contaminated material shall not be transported to areas that are free of the disease.

    B. When cutting or pruning a diseased tree, tools shall be cleaned with a disinfectant before using them on uninfected branches or other trees.

    C. Disease and insect buildup shall be avoided by prompt removal and disposal of dead pine material by either burnings (where and when allowed), burying, tarping with clear plastic for six months, or chipping. If material is chipped, it shall be left as a thick layer on site.

    D. Plant material shall be covered or enclosed when it is taken off site to avoid dispersal of contaminated bark beetles.

24. Native evergreen trees and shrubs shall be used to screen the tank from the adjacent residential neighborhood. Proposed native plants to be utilized for landscaping shall include: Monterey cypress (Cupressus macrocarpa), coast redwood (Sequoia sempervirens), Pacific wax myrtle (Myrica californica), coffeeberry (Rhamnus

californicus) and pink winter currant (Ribes sanguineum). If Monterey pines are used, they shall be of "local stock" and not from out of area sources.

25. The construction zone and a zone within 30 feet from the project limits shall be monitored the following spring after construction for the presence of invasive exotic plant species. If present, these species shall be treated and follow-up monitoring and treatments shall occur until the incidence of these plants is similar or less than the incidence (cover) of the adjacent undisturbed area.

Cultural Resources

26. In the event archaeological resources are unearthed or discovered during any construction activities, the following standards apply:
    A. Construction activities shall cease and the Environmental Coordinator and Planning Department shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may be accomplished in accordance with state and federal law.

    B. In the event archaeological resources are found to include human remains, or in any other case where human remains are discovered during construction, the County Coroner is to be notified in addition to the Planning Department and Environmental Coordinator so that proper disposition may be accomplished.

Geology and Soils

27. An erosion control plan shall be prepared in accordance with Section 23.05.036 of the County of San Luis Obispo Coastal Zone Land Use Ordinance. The erosion control plan shall outline methods that shall be implemented to control erosion from graded or cleared portions of the site, including but not limited to:
    A. Placing sandbags where appropriate along the perimeter of a project site prior to initial grading if grading is to be undertaken during the rainy season (October 15 through April 15).

    B. Minimizing the length of time that soils lie exposed.

    C. Revegetating graded areas in a manner approved by the County Department of Planning and Building.

    D. Sediment and erosion control measures shall be implemented during project construction in accordance with Section 23.05.036 (d) of the County Coastal Zone Land Use Ordinance. These measures include slope surface stabilization and erosion and sedimentation control devices.

Noise

28. Construction activities for the proposed project shall be limited to the hours between 7 am and 9 pm Monday to Friday and 8 am to 5 pm Saturday to Sunday in accordance with Section 23.06.042 of the Coastal Zone Land Use Ordinance.

29. The CCSD shall provide notification to residences within 300 feet of planned construction activities, which also includes the overall duration of the various construction stages. The notification shall also describe the noise abatement measures that have been taken, and shall include a phone number for residents to call.

30. During all site preparation, grading and construction, the CCSD shall require the construction contractors to maintain and operate all equipment consistent with the manufacturers' specifications.

31. The CCSD shall ensure that construction equipment includes available noise suppression devices and properly maintained mufflers to the most feasible extent. Construction noise shall be reduced by using quiet or "new technology" equipment , particularly the quieting of exhaust pipes by use of improved mufflers where feasible. All internal combustion engines used at the project site shall be equipped with the type of muffler recommended by the vehicle manufacturer. In addition, all equipment shall be maintained in good mechanical condition so as to minimize noise created by faulty or poorly maintained engine, drive-train and other components.

32. Staging of construction equipment and unnecessary idling of equipment within 200-feet of residences shall be avoided whenever feasible.

On-going conditions of approval (valid for the life of the project)

33. This land use permit is valid for a period of 24 months from its effective date unless time extensions are granted pursuant to Land Use Ordinance Section 23.02.050 or the land use permit is considered vested. This land use permit is considered to be vested once a construction permit has been issued and/or substantial site work has been completed. Substantial site work is defined by Land Use Ordinance Section 23.02.042 as site work progressed beyond grading and completion of structural foundations; and construction is occurring above grade.

34. All conditions of this approval shall be strictly adhered to, within the time frames specified, and in an on-going manner for the life of the project. Failure to comply with these conditions of approval may result in an immediate enforcement action by the Department of Planning and Building. If it is determined that violation(s) of these conditions of approval have occurred, or are occurring, this approval may be revoked pursuant to Section 23.10.160 of the Land Use Ordinance.

Public Utility Facilities Development Standards

35. Prior to any site disturbance the applicant shall submit an environmental quality assurance program covering all aspects of construction and operation. This program shall include a schedule and plan for monitoring and demonstrating compliance with all conditions required by the Development Plan.
36. **Prior to any site disturbance**, the applicant shall prepare an engineered drainage plan to be reviewed and approved by the County Department of Public Works.

STATE OF CALIFORNIA – THE RESOURCES AGENCY

Arnold Schwarzenegger, Governor

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060
(831) 427-4863
HEARING IMPAIRED: (415) 904-5200

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT

Please review attached appeal information sheet prior to completing this form.

SECTION I. Appellant(s):

Name, mailing address and telephone number of appellant(s):
Commissioner Meg Caldwell, Chair, and Commissioner Mike Reilly
California Coastal Commission
45 Fremont St., Suite 2000
San Francisco, CA 94105 (415) 904-5200

SECTION II. Decision Being Appealed

1. Name of local/port government:
San Luis Obispo County

2. Brief description of development being appealed:
Request by Cambria Community Services District to remove two existing 103,000 gallon water tanks; and construct two new 550,000 gallon water tanks on existing tanks site which will be expanded to include a 6,100 square foot area on an adjacent property protected by a conservation easement. Proposal includes the removal of approx. 26 pine and 24 oak trees.

3. Development's location (street address, assessor's parcel number, cross street, etc.:
988 Manor way, Pine Knolls neighborhood, Cambria APN 013-301-018 and 013-111-005

4. Description of decision being appealed:

a. Approval; no special conditions: _____
b. Approval with special conditions: XX
c. Denial: _____

Note: For jurisdictions with a total LCP, denial decisions by a local government cannot be appealed unless the development is a major energy or public works project. Denial decisions by port governments are not appealable.

TO BE COMPLETED BY COMMISSION:

APPEAL NO: A-3-SLO-05-017
DATE FILED: 3-16-05
DISTRICT: Central Coast

RECEIVED
MAR 16 2005
CALIFORNIA COASTAL COMMISSION CENTRAL COAST AREA

CCC Exhibit E
(page 1 of 6 pages)

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (PAGE 2)

5. Decision being appealed was made by (check one):

a. ___ Planning Director/Zoning Administrator

c. _X_ Planning Commission

b. ___ City Council/Board of Supervisors

d. ___ Other: _____

6. Date of local government's decision: February 10, 2005

7. Local government's file number: DRC2003-00093

SECTION III Identification of Other Interested Persons

Give the names and addresses of the following parties: (Use additional paper as necessary.)

a. Name and mailing address of permit applicant:
Cambria Community Services District
P.O. Box 65
Cambria, CA 93428

b. Names and mailing addresses as available of those who testified (either verbally or in writing) at the city/county/port hearings (s). Include other parties which you know to be interested and should receive notice of this appeal.

(1) Matt Janssen, Planner
SLO County Planning & Building Dept.
County Government Center, San Luis Obispo, CA 93408

(2) Environmental Center of San Luis Obispo/Sierra Club, Santa Lucia Chapter
1205 Nipomo Street
San Luis Obispo, CA 93401
P.O. Box 15755
San Luis Obispo, CA 93406

(3) Ralph M. Covell
5694 Bridge St.
Cambria, CA 93428

(4) Greenspace, The Cambria Land Trust
P.O. Box 1505
Cambria, CA 93420

SECTION IV. Reasons Supporting This Appeal

Note: Appeals of local government coastal permit decisions are limited by a variety of factors and requirements of the Coastal Act. Please review the appeal information sheet for assistance in completing this section which continues on the next page.

CCC Exhibit E
(page 2 of 6 pages)

State briefly your reasons for this appeal. Include a summary description of Local Coastal Program, Land Use Plan, or Port Master Plan policies and requirements in which you believe the project is inconsistent and the reasons the decision warrants a new hearing. (Use additional paper as necessary.)

See Attached.

Note: The above description need not be a complete or exhaustive statement of your reasons of appeal; however, there must be sufficient discussion for staff to determine that the appeal is allowed by law. The appellant, subsequent to filing the appeal, may submit additional information to the staff and/or Commission to support the appeal request.

SECTION V. Certification

The information and facts stated above are correct to the best of my/our knowledge.

Signed: MR Caldwell
Appellant or Agent

Date: March 16, 2005

Agent Authorization: I designate the above identified person(s) to act as my agent in all matters pertaining to this appeal.

Signed: _____

Date: _____

CCC Exhibit E
(page 3 of 6 pages)

State briefly your reasons for this appeal. Include a summary description of Local Coastal Program, Land Use Plan, or Port Master Plan policies and requirements in which you believe the project is inconsistent and the reasons the decision warrants a new hearing. (Use additional paper as necessary.)

See Attached.

Note: The above description need not be a complete or exhaustive statement of your reasons of appeal; however, there must be sufficient discussion for staff to determine that the appeal is allowed by law. The appellant, subsequent to filing the appeal, may submit additional information to the staff and/or Commission to support the appeal request.

SECTION V. Certification

The information and facts stated above are correct to the best of my/our knowledge.

Signed: _____
Appellant or Agent

Date: March 16, 2005

Agent Authorization: I designate the above identified person(s) to act as my agent in all matters pertaining to this appeal.

Signed: _____

Date: _____

CCC Exhibit E
(page 4 of 6 pages)

Reasons for Appeal: San Luis Obispo County Coastal Development Permit DRC2004-00093 (Cambria Community Services District – Pine Knolls Water Tank Replacement Project)

The County approved project is for the removal of two existing 103,000 gallon water tanks, the construction of two new 550,000 gallon water tanks, and the relocation of an existing electrical control panel with overhead electric service. The new water tanks are proposed to be located on the existing tank site, which will be expanded to include a 6,000 square foot area on the adjacent property to the north that is heavily forested and protected by a conservation easement. The project will include the removal of approximately 26 pine and 24 oak trees. The project is located at the terminus of Manor Way (998) Manor Way in the Pine Knolls residential neighborhood of Cambria, in the North Coast Planning Area (APN 013-301-018 and a portion of APN 013-111-005).

The project is inconsistent with the policies and ordinances of the San Luis Obispo County Local Coastal Program, as detailed below.

1. **Environmentally Sensitive Habitat Area (ESHA)**

   - **Coastal Plan Policy 1 for Land Uses Within or Adjacent to Environmentally Sensitive Habitats.** Policy 1 requires that development within or adjacent to ESHA shall not significantly disrupt the resource. The project site is located within ESHA. The proposed project will expand the existing tank site into a 6,000 square foot easement area that contains undisturbed sensitive Monterey pine forest habitat. The project will remove a significant number of trees and results in the permanent loss of ESHA, which is inconsistent with LCP Policy 1.

   - **Coastal Plan Policy 29 for Protection of Terrestrial Habitats.** Policy 29 requires that only uses dependent on the sensitive resource shall be allowed within the identified sensitive habitat portion of the site. In addition, development adjacent to ESHA 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. The project utilizes a 6,000 square foot conservation easement area containing undisturbed Monterey pine forest ESHA. This project is inconsistent with Policy 29 because water tanks are not dependent on the Monterey pine forest and will significantly degrade the area.

   - **Coastal Plan Policy 30 for Protection of Native Vegetation.** Policy 30 requires that native trees and plant cover be protected wherever possible. The proposed project will remove approximately 26 Monterey pine trees and 24 Coast live oaks (both of which are native species). The project is inconsistent with this LCP policy because it appears that the project can be re-designed to be located on an already disturbed portion of the site and avoid tree removal.

   - **Coastal Plan Policy 35** for Protection of Vegetation. Policy 35 requires that vegetation which is rare or endangered or serves as cover for endangered wildlife shall be protected against any significant disruption of habitat value. The LCP requires that new development be designed to disturb the minimum amount possible of wildlife or plant habitat. In addition to the unnecessary removal of sensitive Monterey pine trees, the project will have adverse effects on sensitive bird species

that live and nest in the Monterey pine forest (e.g. Cooper's hawk, northern harrier, white-tailed kite, sharp-shinned hawk, long-eared owl, and loggerhead shrike). The county approved project will remove all of the trees within the approx. 6,000 square foot easement area, significantly disrupting the habitat.

- **Environmentally Sensitive Habitat (ESHA) Required Findings** – CZLUO Section 23.07.170(b) requires that specific findings be made for projects within or adjacent to ESHA including: a) There will be no significant negative impact on the identified sensitive habitat and the proposed project will be consistent with the biological continuance of the habitat. The project is inconsistent with this required finding because it will permanently remove Monterey pine forest ESHA. While offsite mitigation is proposed, negative impacts to the biological continuance of the species and habitat onsite will occur; b) The proposed project will not significantly disrupt the habitat. The proposed project is inconsistent with the required findings because excessive tree removal and permanent habitat loss will significantly disrupt the sensitive Monterey pine forest habitat.

2. **Sensitive Resource Area (SRA) Required Findings** - CZLUO Section 23.07.164(e) requires that specific findings be made for projects within a SRA. including: a) the development will not create significant adverse impacts on the natural features of the site or vicinity that were the basis for the SRA designation, and will preserve and protect such features through the site design. The project as proposed does not meet this finding and will have adverse impacts to the surrounding Monterey pine forest; b) Natural features and topography have been considered in the design and siting of all proposed physical improvements. The project does not meet this finding because it appears that the project can be re-designed to avoid encroachment into adjacent ESHA; c) Any proposed clearing of topsoil, trees, or other features is the minimum necessary to achieve safe and convenient access and siting of proposed structures, and will not create significant adverse effects on the identified sensitive resource. The project does not meet this finding because clearing of topsoil (grading), and tree removal has not been minimized. The permanent loss of Monterey pine forest ESHA will have an adverse effect of the resource.

3. **Public Utility Facilities** – CZLUO Section 23.08.288(d) prohibits public utility facilities in Sensitive Resource Areas (SRA's) and Environmentally Sensitive Habitat Areas (ESHA's) unless the approval body make a finding that there is no other feasible location on or off-site the property. This finding cannot be made because there appears to be at least one other feasible less environmentally damaging alternative exists. Thus, the County approved project is inconsistent with CZLUO 23.08.288(d).

STATE OF CALIFORNIA—THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA COASTAL COMMISSION

CENTRAL COAST DISTRICT OFFICE
725 FRONT STREET, SUITE 300
SANTA CRUZ, CA 95060-4508
VOICE (831) 427-4863 FAX (831) 427-4877

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT

Please Review Attached Appeal Information Sheet Prior To Completing This Form.

SECTION I. Appellant(s)

Name: ECOSLO

Mailing Address: 1204 Nipomo St

City: San Luis Obispo Zip Code: 93401 Phone: (805) 544-1777

SECTION II. Decision Being Appealed

1. Name of local/port government:

San Luis Obispo County Department of Planning and Building

2. Brief description of development being appealed:

San Luis Obispo County Planning Commission approval of a request by the Cambria Community Services District to construct two 550,000 gallon water tanks in a Monterey pine forest habitat designated as ESHA under the LCP.

3. Development's location (street address, assessor's parcel no., cross street, etc.):

5694 Bridge St.
Cambria, CA 93428

4. Description of decision being appealed (check one.):

☒ Approval; no special conditions

☐ Approval with special conditions:

☐ Denial

Note: For jurisdictions with a total LCP, denial decisions by a local government cannot be appealed unless the development is a major energy or public works project. Denial decisions by port governments are not appealable.

TO BE COMPLETED BY COMMISSION:

APPEAL NO: A-3-SLO-05-017

DATE FILED: 3-16-05

DISTRICT: Central Coast

CCC Exhibit F (page 1 of 5 pages)

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 2)

5. Decision being appealed was made by (check one):

- ☐ Planning Director/Zoning Administrator
- ☐ City Council/Board of Supervisors
- ☒ Planning Commission
- ☐ Other

6. Date of local government's decision: February 10, 2005

7. Local government's file number (if any): DRC2004-00093

SECTION III. Identification of Other Interested Persons

Give the names and addresses of the following parties. (Use additional paper as necessary.)

a. Name and mailing address of permit applicant:

Cambria Community Services District
P.O. Box 65
Cambria, CA 93428

b. Names and mailing addresses as available of those who testified (either verbally or in writing) at the city/county/port hearing(s). Include other parties which you know to be interested and should receive notice of this appeal.

(1) ECOSLO (Environmental Center of San Luis Obispo)
by Pamela Heatherington, Executive Director
1204 Nipomo Street
San Luis Obispo, CA 93401

(2) Ralph M. Covell
5694 Bridge St.
Cambria, Ca 93428

(3)

(4)

CCC Exhibit F
(page 2 of 5 pages)

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 4)

SECTION V. Certification

The information and facts stated above are correct to the best of my/our knowledge.

Pamela Heatherington Executive Director ECOSLO
Signature of Appellant(s) or Authorized Agent

Date: February 23, 2005

Note: If signed by agent, appellant(s) must also sign below.

Section VI. Agent Authorization

I/We hereby authorize _____
to act as my/our representative and to bind me/us in all matters concerning this appeal.

_____
Signature of Appellant(s)

Date: _____

CCC Exhibit F
(page 3 of 5 pages)

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (Page 3)

SECTION IV. Reasons Supporting This Appeal

PLEASE NOTE:

- Appeals of local government coastal permit decisions are limited by a variety of factors and requirements of the Coastal Act. Please review the appeal information sheet for assistance in completing this section.
- State briefly your reasons for this appeal. Include a summary description of Local Coastal Program, Land Use Plan, or Port Master Plan policies and requirements in which you believe the project is inconsistent and the reasons the decision warrants a new hearing. (Use additional paper as necessary.)
- This need not be a complete or exhaustive statement of your reasons of appeal; however, there must be sufficient discussion for staff to determine that the appeal is allowed by law. The appellant, subsequent to filing the appeal, may submit additional information to the staff and/or Commission to support the appeal request.

1. The project is inconsistent with San Luis Obispo Coastal Zone Land Use Ordinance Sections 23.07.170-178. In particular, the permit is inconsistent with the following Sections.

23.07.170.178 (b) Required Findings: Approval of a development for a project within or adjacent to an environmentally sensitive habitat shall not occur unless the applicable review body finds that:

(1) There will be no significant negative impact on the identified sensitive habitat and the proposed use will be consistent with the biolocial continuance of the habitat.

(2) The proposed use will not significantly disrupt the habitat.

(3) (e)(1) New development within or adjacent to the habitat will not significantly disrupt the resource.

(2) New development within the habitat shall be limited to those uses dependent on the resource.

2. The CCSD rejected alternative configurations for its development which would avoid significant disruptions of resources, as required by LCP policy, and would have required removal of far fewer trees in the area mapped as sensitive habitat.

3. The project is located in the ESHA and thus violates California Public Resources Code Section 30240 (a), which states:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

CCC Exhibit F
(page 4 of 5 pages)

SIERRA CLUB
FOUNDED 1892

Santa Lucia Chapter
P.O. Box 15755
San Luis Obispo, CA 93406
(805) 543-8717
www.santalucia.sierraclub.org

March 14, 2005

Pam Heatherington
ECOSLO
1204 Nipomo St.
San Luis Obispo, CA 93401

Dear Ms. Heatherington,

The Santa Lucia Chapter of the Sierra Club would like to be included in ECOSLO's appeal to the Coastal Commission of the County's decision to permit construction of water storage tanks by the Cambria CSD in an ESHA protected by a conservation easement.

The Chapter originally reported the CSD's imminent intent to violate the Coastal Act to the Coastal Commission and has testified on the issue before the Planning Commission. We would be pleased to testify along with ECOSLO before the Coastal Commission.

Best,

Andrew Christie
Chapter Coordinators, Santa Lucia Chapter

TE OF CALIFORNIA—THE RESOURCES AGENCY
:ALIFORNIA COASTAL COMMISSION
ENTRAL COAST DISTRICT OFFICE
5 FRONT STREET, SUITE 300
ANTA CRUZ, CA 95060
(831) 427-4863

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT

Please review attached appeal information sheet prior to completing this form.

SECTION I. Appellant(s):

Name, mailing address and telephone number of appellant(s):

RALPH M. COVELL
5694 BRIDGE ST.
CAMBRIA, VA 93428

(805) 927-3398
Zip Area Code Phone No.

SECTION II. Decision Being Appealed

1. Name of local/port government:
San Luis Obispo County Department of Planning and Building

2. Brief description of development being appealed:
Request by Cambria Community Services District for a Development Plan/Coastal Development Permit for the removal of two existing 103,000 gallon water tanks, and the construction of two new water tanks. One tank to be located on approximately 6,000 sq. ft easement and requires removal of 50 trees in ESHA.

3. Development's location (street address, assessor's parcel number, cross street, etc.:
APN 013.301.018 and a portion of 013.111.005

4. Description of decision being appealed:

a. Approval; no special conditions: _____
b. Approval with special conditions: X
c. Denial: _____

Note: For jurisdictions with a total LCP, denial decisions by a local government cannot be appealed unless the development is a major energy or public works project. Denial decisions by port governments are not appealable.

TO BE COMPLETED BY COMMISSION:

APPEAL NO: A-3-SLO-05-017
DATE FILED: 3-16-05
DISTRICT: Central Coast

RECEIVED
MAR 07 2005
CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

CCC Exhibit G
(page 1 of 4 pages)

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (PAGE 2)

5. Decision being appealed was made by (check one):

a. ___ Planning Director/Zoning Administrator

b. ___ City Council/Board of Supervisors

c. _X_ Planning Commission

d. ___ Other: _____

6. Date of local government's decision: February 10, 2005

7. Local government's file number: DRC2004-00093

SECTION III Identification of Other Interested Persons

Give the names and addresses of the following parties: (Use additional paper as necessary.)

a. Name and mailing address of permit applicant:
Cambria Community Services District
1316 Tamson Drive, Suite 201
Cambria, CA 93428

b. Names and mailing addresses as available of those who testified (either verbally or in writing) at the city/county/port hearings (s). Include other parties which you know to be interested and should receive notice of this appeal.

(1) _____

(2) _____

(3) _____

(4) _____

SECTION IV. Reasons Supporting This Appeal

Note: Appeals of local government coastal permit decisions are limited by a variety of factors and requirements of the Coastal Act. Please review the appeal information sheet for assistance in completing this section which continues on the next page.

CCC Exhibit G
(page 1 of 4 pages)

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT (PAGE 3)

State briefly your reasons for this appeal. Include a summary description of Local Coastal Program, Land Use Plan, or Port Master Plan policies and requirements in which you believe the project is inconsistent and the reasons the decision warrants a new hearing. (Use additional paper as necessary.)

SEE ATTACHED

Note: The above description need not be a complete or exhaustive statement of your reasons of appeal; however, there must be sufficient discussion for staff to determine that the appeal is allowed by law. The appellant, subsequent to filing the appeal, may submit additional information to the staff and/or Commission to support the appeal request.

SECTION V. Certification

The information and facts stated above are correct to the best of my/our knowledge.

Signature of Appellant(s) or Authorized Agent

Date 3/7/05

NOTE: If signed by agent, appellant(s) must also sign below:

SECTION VI. Agent Authorization

I/We hereby authorize _____ to act as my/our representative and to bind me/us in all matters concerning this appeal.

Signature of Appellant(s)

Date _____

CCC Exhibit G
(page 1 of 4 pages)

ATTACHMENT
TO
APPEAL FROM COASTAL PERMIT
DECISION OF LOCAL GOVERNMENT
OF
RALPH M. COVELL

San Luis Obispo County Department of Planning and Building
File No.: DRC2004-00093

The Decision of the Planning Commission may be appealed to the Coastal Commission pursuant to 14 California Administrative Code § 13111 and 13573 because the local government charged a fee for the filing of the appeal.

The project contemplated by the Cambria Community Services District (CCSD) and approved by the San Luis Obispo County Department of Planning and Building is incompatible with the San Luis Obispo Local Coastal Program (LCP) for the following reasons:

1. The project is inconsistent with San Luis Obispo Coastal Zone Land Use Ordinance Sections 23.07.170-178. In particular, the permit is inconsistent with the following Sections:

23.07.170-178 (b) Required Findings: Approval of a development for a project within or adjacent to an environmentally sensitive habitat shall not occur unless the applicable review body finds that:
(1) 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.
(2) The proposed use will not significantly disrupt the habitat...
(3) (e)(1) New development within or adjacent to the habitat will not significantly disrupt the resource.
(2) New development within the habitat shall be limited to those uses dependent on the resource.

2. The CCSD rejected alternative configurations for its development which would avoid significant disruption of resources, as required by LCP policy, and would have required removal of far fewer trees in the area mapped as sensitive habitat.

3. The project greatly exceeds water storage volume required to meet potential fire hazards in the CCSD territory and the taking of Environmentally Sensitive Habitat Area (ESHA) property is not justified, as required by the LCP.

4. The project is located in ESHA and thus violates California Public Resources Code Section 30240 (a), which states:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

CCC Exhibit G
(page 1 of 4 pages)

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *GOVERNOR*

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400

SENT VIA FACSIMILE AND
REGULAR AND CERTIFIED MAIL

October 21, 2004

San Luis Obispo County Department of Planning and Building
Vic Holanda, Director
County Government Center
San Luis Obispo, CA 93408
(Certified Mail No.7004 1160 0003 4567 4501)

Cambria Community Services District
Tammy Rudock, General Manager
PO Box 65
Cambria, CA 93428
(Certified Mail No. 7004 1160 0003 4567 4518)

Subject:	**Notice Prior to Issuance of Executive Director Cease and Desist Order No. ED-04-CD-02**
Location:	Terminus of Manor Way (988 Manor Way) in the Pine Knolls residential neighborhood of the unincorporated community of Cambria. (APN 013-111-005).
Violation Description:	Proposed development consisting of the removal of 27 pine trees and 34 oak trees, the demolition of two existing 103,000 gallon water tanks, and the construction of two new 550,000 gallon water tanks in Environmentally Sensitive Habitat Area (ESHA) as mapped in the Coastal Zone Land Use Plan (CZLUP), and improper issuance of Emergency Coastal Development Permit ZON2004-00225.

CCC Exhibit H
(page 1 of 9 pages)

Dear Mr. Holanda and Ms. Rudock:

The purpose of this letter is to give you notice that the Executive Director of the Coastal Commission intends to issue a Cease and Desist Order addressing unpermitted development on 988 Manor Way in the unincorporated community of Cambria (APN 013-111-005). If issued, the Executive Director Cease and Desist Order would direct the County to rescind the emergency permit and the Cambria Community Sevices District (CCSD) to cease and desist from performing or maintaining unpermitted vegetation removal, grading, trenching and stockpiling of soils, gravel, fill, boulders, landscaping, signs fencing or other materials, and the removal and replacement of existing water storage tanks.

The Commission is authorized to take this action pursuant to Section 30809 of the Coastal Act which provides:

> *(a) If the executive director determines that any person or governmental agency has undertaken, or is threatening to undertake, any activity that (1) may require a permit from the commission without securing a permit or (2) may be inconsistent with any permit previously issued by the commission, the director may issue an order directing that person or govemment agency to cease and desist.* ***The order may also be issued to enforce any requirements of a certified local coastal program*** *or port master plan, or any requirements of this division which are subject to the certified program or plan, under the following circumstances:....*
> *(3) The local govemment or port goveming body is a party to the violation. (Emphasis added).*

While we acknowledge the high importance of this project to the CCSD and the community, the water supply situation in Cambria being addressed by this project does not qualify as an emergency under the Coastal Act or the LCP. The County and the CCSD should have processed the project as a non-emergency coastal development permit so that the public notice and the hearing process that are typically required, including possible Coastal Commission appellate review, could take place. As we have discussed, we are hopeful that the County and the CCSD will agree to initiate a full coastal development permit review as soon as possible so that the necessary public reviews can take place while still allowing the CCSD to move forward expeditiously. We understand that the County is willing to expedite calendaring and processing of this item. We are, of course, willing to do anything we can to help expedite this, as well.

If the County and the CCSD do not voluntarily rectify the current situation, the Cease and Desist Order will be issued to the County and CCSD to enforce the requirements of the certified local coastal program. This development is about to be undertaken without the required authorization in a properly issued coastal development permit (CDP). Section 30600(a) of the Coastal Act states that, in addition to obtaining any other permit required by law, any person wishing to perform or undertake any development in the

coastal zone must, with certain exceptions not applicable in this case, obtain a CDP. "Development" is defined by Section 30106 of the Coastal Act (Act) as follows:

> *"Development" means, on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials; change in the density or intensity of use of land...change in the intensity of use of water, or of access thereto...and the removal or harvesting of major vegetation other than for agricultural purposes...*

The proposed development clearly constitutes "development" within the meaning of the above-quoted definition and therefore requires a CDP.

Although the County issued an emergency permit (County file number ZON2004-00225) for the referenced development on October 8, 2004, to the Cambria Community Services District (CCSD), the emergency permit was not issued in compliance with Section 23.03.045 of the Land Use Ordinance (LUO) of the San Luis Obispo County Local Coastal Program (LCP). The replacement and expansion of existing water tanks to meet an historically identified deficiency in water storage capacity for fire flows does not meet the definition of an emergency under the LCP or the Act. Section 23.03.045 of the County's LUO defines an emergency as follows:

> *"For the purposes of this section, an emergency is a sudden, unexpected occurrence demanding immediate action to prevent or mitigate loss or damage to life, health, property or essential public services."*

An "emergency" permit under either the Coastal Act or the LCP is intended to cover situations which are sudden or unexpected, and is not intended to cover long range community infrastructure planning projects. In this case, the emergency permit was issued despite the fact that the proposed activity is not required in response to a sudden, unexpected occurrence. Thus, the project does not meet the definition of an emergency under the County's LCP or the Act. In addition, it appears that the project will lead to the destruction of mapped ESHA protected under the LCP.

Cambria has historically grappled with the issue of water shortages for both domestic and fire fighting purposes. Water shortages are well-documented in the Commission's Staff Report for the North Coast Area Plan Update in late 1997, the Periodic Review of the County's LCP, conducted in 2000-2001, and have been the subject of numerous community meetings, public hearings and media accounts. The stated justification in the CCSD's Emergency Permit Application, dated 9/29/04, is a three year old declaration by the CCSD of a water shortage emergency condition. The capacity of the Pine Knolls water tanks may not be optimum to fight a large fire in this section of Cambria, but this condition has been recognized by the County, the CCSD, the Coastal Commission and the public for several years. It is not sudden or unexpected that this situation exists in October 2004. The County's longstanding, forgoing knowledge of Cambria's water

supply issues by definition precludes the CCSD from qualifying for an emergency permit for the purpose of planned expansion of their infrastructure.

County staff has indicated that any project to improve the District's fire-fighting capability could qualify as an "emergency." By logical extension, this could include expansion of other water storage tanks, installation of new tanks, firebreaks, pipelines, impoundments and significant vegetation clearance. This interpretation by the County is extremely overbroad. As noted above, to qualify as an emergency, the situation must be, at a minimum, "a sudden, unexpected occurrence demanding immediate attention to prevent or mitigate loss or damage to life, health, property or essential public services." (Section 23.03.045).

The District's emergency permit application also states that "...the existing tanks are inadequate for resisting seismic forces," and that "...the existing tanks had inadequate seismic restraint." However, District did not identify any structural damage to the tanks as a result of the December 22, 2003 earthquake, magnitude 6.0. While the addition of seismic restraints may be appropriate, the tanks were not damaged by the recent earthquake, therefore replacement with stronger tanks is not required in response to an "emergency" – i.e., a "sudden, unexpected occurrence." (If the tanks had sustained seismic damage and posed an eminent threat to public health and safety, the appropriate response under the permitting procedures and resource protection policies of the LCP and the Act would be to issue an emergency permit for temporary structural reinforcement, while pursuing replacement or redesign as part of the regular CDP process.)

In addition, the emergency permit application states that it is necessary to allow "start of construction prior to the rainy season as well as the onset of the 2005 bird nesting season." The emergency permit was issued only one week before the beginning of the rainy season, which has now begun (as of October 15). The project is expected to require many months of construction – all of which will be occurring during the rainy season. The need to remove the 61 trees (which are mapped ESHA in the CZLUP) before birds can begin their nesting activities does not constitute an emergency under the LCP. The District simply desires to avoid postponing construction until after the nesting season. However, this desire does not transform the project – replacement of the water storage tanks – into an immediate action that is demanded due to a sudden, unexpected occurrence.

Finally, the non-emergency nature of this activity is reflected in the preceding actions and public process leading up to the issuance of the permit for this specific project, which commenced over a year ago. The CCSD received a draft soils engineering report and a draft Phase I archeological report in August and September of 2003, and circulated a Notice of Intent to Adopt a Negative Declaration (Negative Declaration) in February of 2004.

Emergency Permit is inconsistent with San Luis Obispo County's LCP

We are acting to compel compliance with San Luis Obispo County's LCP provisions, specifically emergency permit provisions contained in 23.03.045, and ESHA protection provisions contained in 23.07.170-178. We have determined that the emergency permit ZON2004-0025 was improperly issued for the following reasons:

The San Luis Obispo County CZLUO Section 23.03.045 a. defines an emergency as "...a sudden, unexpected occurrence demanding immediate action to prevent or mitigate loss or damage to life, health, property or essential public services."

This permit is inconsistent with Section 23.03.045 because there has been no sudden, unexpected occurrence that demands immediate action. The staff report for Permit ZON2004-00225 states that the nature of the emergency is a declared water shortage emergency condition declared by the Cambria Community Services District on November 16, 2001, nearly three years prior to the issuance of the emergency permit. This clearly does not meet the definition of an emergency as a "sudden, unexpected occurrence demanding immediate action" under the County's own definition. In addition, Cambria's water shortage has been the subject of much public discussion and debate for several years prior to the November 15, 2001 declaration by the CCSD. No matter the severity of the situation, it can hardly be characterized as "sudden and unexpected."

The permit application cites as the probable consequence of failing to take action as "The potential spread of fire from an uncontrolled structural fire to the surrounding forrest (sic) could lead to a major conflagration. A larger and/or more localized earthquake than the December 22, 2003 event could also cause the tanks to fall. Redesign of the project in response to neighborhood concerns raised during the CEQA review process also led to the current late season bid. An emergency permit will prevent further delay by allowing start of construction prior to the rainy season as well as the onset of the 2005 bird nesting season."

The threat of a potential fire (or any generalized potential for a natural disaster, such as an earthquake, lightning strike, tidal wave, etc.) does not constitute an emergency under the County's LCP or the Coastal Act, particularly now that fire season has ended and the rainy season has begun. Grading and significant vegetation removal during the wet season will likely further damage surrounding habitat and water quality through surface runoff and erosion. The desire to avoid project delays by removing trees before bird nesting activities commence does not meet the test of an emergency under the LCP or the Coastal Act.

This permit is inconsistent with Section 23.03.045 (3) of the County's LUO, which requires the Planning Director to "...verify the facts, including the existence and nature of the emergency, insofar as time allows. When reasonable, the Director shall also

consult with the California Coastal Commission regarding claims of emergencies. ***This is critically important when a proposed action may result in development on lands that are within the permit jurisdiction of the California Coastal Commission."*** (emphasis added.)

A regular coastal development permit for this project is within the permit appeal jurisdiction of the Commission. The County did not contact the Commission to consult when it received the application for an emergency permit. The first notice the Commission received about the application was the Final Local Action Notice October 13, 2004, after the County had already approved the emergency permit. On one occasion prior to approval of the emergency permit, County staff placed a call to Commission staff to mention that the possibility of pursuing an emergency permit had been raised. During this discussion, Commission staff informed County staff that the tank replacement project *did not meet the LCP requirements for an emergency permit.* CCSD representatives mentioned the tank replacement project to Commission staff, but did not indicate that they had already applied to the County for an emergency permit.

This permit is inconsistent with Section 23.03.045 (5)(i), which requires that the work can and will be completed within 30 days unless otherwise specified by the terms of the permit. County planning staff and the Mitigated Negative Declaration indicate that the total construction time for the project is approximately 9 months.

This permit is inconsistent with Section 23.03.045 (5)(iii), which requires the Planning Director to find that the work proposed would be consistent with the requirements of the certified Local Coastal Program. The project is clearly inconsistent with SLO County CZLUO Sections 23.07.170-178. In particular, the permit is not consistent with, at a minimum, the following Sections:

> *23.07.170-172 (b) Required Findings: Approval of a development for a project within or adjacent to an environmentally sensitive habitat shall not occur unless the applicable reviewing body first finds that:*
> *(1) 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.*
> *(2) The proposed use will not significantly disrupt the habitat....*
> *(3) (e)(1) New development within or adjacent to the habitat will not significantly disrupt the resource.*
> *(2) New development within the habitat shall be limited to those uses dependent on the resource.*

The County's emergency permit does not contain findings that the project complies with these requirements for approval; nor does it appear that such findings could be made. Moreover, the Negative Declaration recommended approval of an alternative configuration of the replacement tanks that would avoid significant disruption of

resources, as required by the above LCP policy, and would likely only require removal of 2 trees in the area of mapped ESHA. These are issues that must be addressed in a regular coastal development permit application *before* the permanent destruction of 61 trees in an area that is ESHA.

History of the Violation Investigation

On October 7, 2004, a San Luis Obispo County resident forwarded an article by Kathe Tanner, published that day in the San Luis Obispo County Tribune News, stating that the Cambria Community Services District was preparing to construct a new water tank at the Pine Knolls site in Cambria, and tree removal could commence that weekend. The resident was concerned about the number of trees that would be removed by the project, and wondered why no coastal development permit had been issued.

On October 8, 2004, Commission staff met with CCSD Directors and staff on another matter in the Santa Cruz office that same day. When staff inquired about this project, the CCSD representatives assured them that they will be seeking a coastal development permit before commencing any grading or tree removal.

The same day, on October 8, 2004, the San Luis Obispo County Planning Director issued emergency permit ZON2004-00225.

On October 13, 2004, the Commission received a Final Local Action Notice of a "Non-Appealable Action and Construction Activities" for the above mentioned property, pursuant to the issuance of an Emergency Permit.

On October 18, 2004, Commission staff e-mailed County and CCSD about the emergency permit issuance. Commission staff left two messages at the CCSD office, and talked with County planning staff. County staff responded via e-mail with explanation of the County's action on the permit.

October 19, 2004, CCSD staff called CCC staff, and agreed to fax more information. CCSD staff e-mailed a copy of the emergency permit application.

October 20, 2004, CCC staff met with CCSD staff. CCSD staff was advised that CCC was preparing to issue a Notice of Intent to file a Cease and Desist Order. CCC staff also notified County staff.

Executive Director Cease and Desist Order Process

Section 30809(a) of the California Coastal Act (Division 20 of the Public Resource Code) authorizes the Executive Director to issue an order directing a person or a governmental agency to cease and desist if that person has undertaken, or is threatening to undertake, any activity that may require a permit without securing a permit. In addition, 30809 provides that an *"...order may be also issued to enforce any*

requirements of a certified local coastal program or port master plan, or any requirements of this division which are subject to the jurisdiction of the certified program or plan, under any of the following circumstances:... (3) The local government or port governing body is a party to the violation."

The removal of vegetation, grading, excavating, placement of stockpiled material, boulders, signs, drainage devices, landscaping, and fencing on the subject property constitute development which requires a CDP. Since this development does not meet the requirements for the issuance of an emergency permit under the Coastal Act or the County of San Luis Obispo certified Local Coastal Program, and will be performed in an area in which the Commission has permit jurisdiction through the coastal development permit appeal process, the performance of this development requires a regular CDP from the County. The County has issued an emergency permit for the development at the Pine Knolls Tank Site and Cambria by the Pines Sea Ranch although the requirements under the LCP for issuing an emergency permit are not met. Thus, the County has failed to enforce the requirements of the LCP and is a party to the violation of the LCP. Moreoever, CCSD does not have a valid permit authorizing the development and is threatening to undertake development that does not comply with the LCP.

If issued, the Executive Director Cease and Desist Order will direct the CCSD to refrain from conducting the proposed development without securing a valid CDP. In addition, it will direct the County of San Luis Obispo to cease and desist from failing to follow the requirements of their certified local coastal program, and to rescind Permit ZON2004-0225. Violations of the Coastal Act may give rise to penalties under the Coastal Act. A violation of an ED Cease and Desist Order may result in penalties and damages, subject to Sections 30820, 30821.6, and 30822 of the Coastal Act (PRC Division 20 §30809(b)(3)).

Section 30809(b) of the Coastal Act states:

> *The cease and desist order shall be issued only if the person or agency has failed to respond in a satisfactory manner to an oral notice given in person or by telephone, followed by a written confirmation, or a written notice given by certified mail or hand delivered to the landowner or the person performing the activity.*

Section 13180(a) of Title 14 Division 5.5 of the California Code of Regulations defines the term "satisfactory manner" with regard to Section 30809(b) of the Coastal Act as being, in part, "a response which is made in the manner and within the timeframe specified in the notice." **To prevent the issuance of the Executive Director Cease and Desist Order to you, you must provide assurances by telephone by 12 Noon, October 22, 2004 and confirmed in writing by 12 Noon, October 25, 2004 (this confirmation should be provided by telephone to Sarah Christie at (916) 747-1164 and followed by a written confirmation via facsimile to Sarah Christie at (415) 904-5235 and regular mail at the address listed on the letterhead) that:**

1. The Cambria Community Services District will refrain from conducting any of the development authorized in Emergency Permit (ZON2004-00225) unless and until the development is authorized in final action on a regular coastal development permit.

2. The County of San Luis Obispo Planning and Building Department will comply with the requirements of the LCP, and has rescinded Emergency Permit ZON2004-00225.

3. If the CCSD desires further consideration of this project it will apply for a coastal development permit following the procedures set forth in CZLUO Section.

The Executive Director Cease and Desist Order may be subject to such terms and conditions as the Executive Director may determine are necessary to avoid irreparable injury to any area within the jurisdiction of the Commission, pending action by the Commission under Section 30810 and 30811 of the Coastal Act (which grants the Commission the authority to issue Cease and Desist and Restoration Orders). Executive Director Cease and Desist Orders issued under Section 30809 of the Coastal Act are effective upon issuance, and last for a period of 90 days. These Executive Director Cease and Desist Orders may also be followed up by a Cease and Desist Order or Restoration Order or both issued by the Commission pursuant to Section 30810 and 30811 of the Coastal Act, which will have a longer effective period.

We look forward to your cooperation in this matter. If you have any questions regarding this letter or the enforcement case, please call Sarah Christie (916) 747-1164 or send correspondence to the attention of Ms. Christie at the address listed on the letterhead.

Sincerely,

Peter Douglas (JS)

Peter Douglas
Executive Director

cc: Lisa Haage, Chief of Enforcement, CCC
Sarah Christie, Statewide Enforcement Analyst, CCC
Sandy Goldberg, Staff Counsel, CCC
Nancy Cave, Northern CA Enforcement Supervisor, CCC
Charles Lester, Deputy Director, CCC

SAN LUIS OBISPO COUNTY
DEPARTMENT OF PLANNING AND BUILDING

VICTOR HOLANDA, AICP
DIRECTOR

RECEIVED
OCT 2 2 2004
CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

October 22, 2004

Ms. Sarah Christie
Statewide Enforcement Analyst
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Subject: **Notice Prior to Issuance of Executive Director Cease and Desist Order No. ED-04-CD-02**

Dear Ms. Christie:

We are in receipt of your letter of October 21, 2004 regarding the potential for a Cease & Desist Order on the Cambria Community Services District (CCSD) Pine Knolls Replacement Tank Emergency Permit (ZON2004-00225). We understand the contents and requirements of your letter.

We agree to meet the requirements of item #2 on page 9 of your letter and have rescinded our Emergency Permit as of the date of this letter. We will also inform CCSD of the requirements of items 1 and 3. However, we have no direct control over these two items, and assume you will contact CCSD directly to guarantee their implementation.

Thank you for your attention to this matter. If you have additional questions or comments, don't hesitate to call or e-mail Matt Janssen at (805) 781-5104/*mjanssen@co.slo.ca.us*.

Sincerely,

Victor Holanda

Victor Holanda, AICP
Planning Director

c: Matt Janssen, Planning and Building
Tim McNulty, County Counsel
Shirley Bianchi, District Two Supervisor
Tammy Rudock, CCSD General Manager

CCC Exhibit 1
(page 1 of 1 pages)

CAMBRIA COMMUNITY SERVICES DISTRICT

1316 Tamson Drive, Suite 201 • P.O. Box 65 • Cambria CA 93428
Telephone (805) 927-6223 • Facsimile (805) 927-5584

November 17, 2004

Attn: Matt Janssen
Department of Planning & Building
County Government Center
San Luis Obispo, CA 93408

Subject: Pine Knolls Tank Replacement Project – Revised and Updated Emergency Permit Application

Dear Mr. Janssen,

As requested by our Board of Directors during its special meeting of November 10, 2004, I am forwarding this letter along with an updated Emergency Permit Application. Please note that attachment A to this letter provides new information on our existing Pine Knolls tanks that further quantifies and supports our need for an emergency permit. Based on steel thickness measurements we obtained in September of this year, we had Boyle Engineers perform a structural analysis of the existing Pine Knolls tanks. From their analysis, we have learned the tanks are in imminent danger of collapse during an earthquake. In addition, we are not able to operate our water system based on the six-foot maximum operating level they have recommended. Therefore, we believe this additional information further documents the emergency condition that we are under.

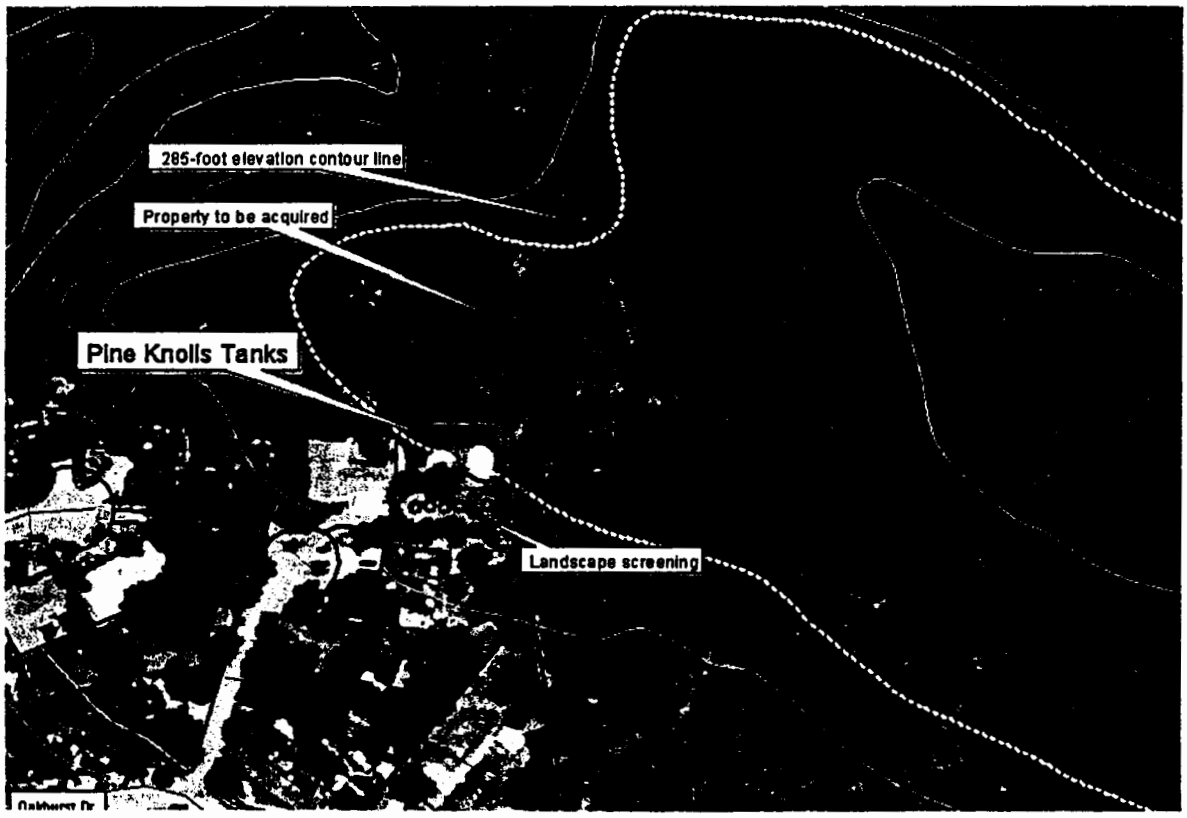
We also wish to clarify the following:

- Why the current tank location is necessary.
- The CEQA process we followed.
- A comparison of ESHA area impacts with the prior concrete tank design.
- Why we believe we are exempt from the "Public Lot process."
- Why time is of the essence in allowing us to proceed under an emergency permit.

Why the current tank location is necessary. The current tank location ties to three criteria: elevation; lay out of the existing distribution system; and, water quality. The existing tanks were constructed around 1960 and have a floor elevation of approximately 285 feet above sea level. Because these are a part of an overall gravity feed distribution system, the elevation of the water surface in the tanks determines the delivery pressures at our fire hydrants and service taps. The larger diameter pipes in the system are routed to the existing tanks site from the main supply pumps. The larger pipe diameters are needed in this part of the system due to the higher flow velocities into and out of the tanks each day, as well as during fire events. Water quality is also a concern in determining the location of storage tanks. Turnover rate, or how often the tanks fill and empty throughout the course of the day is a good indicator of how fresh the water is once it enters the distribution system. Because the Pine Knolls tanks are located closer to the center of demand in the system, they have a relatively frequent turnover rate.

Therefore, the existing Pine Knolls site is ideally located for elevation, existing pipeline locations, as well as overall water quality.

Please also note that we responded to an earlier County question on this issue in our response to comments that were made a part of our July 22, 2004 public CEQA hearing. In essence, the 285-foot contour line that controls the vertical elevation of our tanks runs further into the surrounding ESHA. Therefore, we chose to use an area that is contiguous with our existing tanks to minimize disturbance to the ESHA. The following figure further illustrates this point by showing the 285-foot contour line.



CEQA process followed. Our District went through two CEQA reviews that resulted in the current project. The first reviews were on a custom, cast-in-place concrete tank. This earlier design concept had significant limitations:

- The concrete tank required removing an existing tank from service in order to build one-half of the structure at a time. This would severely limit our existing operation during construction because we are already short of capacity. In view of the more recent seismic analysis information, operating on one tank is even more severely limited than we had first imagined.
- The old concept placed massive, 32-foot high walls near the neighboring residences. One neighbor has repeatedly expressed her fear from having the tank so close to her house. Even

CCC Exhibit J
(page 2 of 4 pages)

though we do not agree with her opinion on the concrete tank's safety, we cannot argue with what she is feeling. Having the new tanks further away, help to alleviate her fears.

- There was no room to stage construction with the concrete tank concept. Therefore, it required permanent and temporary easements in the Covell property to maneuver around the northern and eastern boundaries during construction. Construction equipment, construction staging, and excavations would have impacted these areas.
- The old tank concept cut off an emergency vehicle access to the surrounding woods.

As the result of public comments we received, our Board elected not to adopt the mitigated negative declaration for the concrete tank during its March 2004 Board meeting. The design was subsequently modified to the current two-steel tank arrangement that had its CEQA review hearing on July 22, 2004. The current project's mitigated negative declaration was adopted during this second CEQA hearing. Among the mitigations, we are committed to replanting the number of Pine trees and Coast live oaks required under condition 17 of the previously issued October 8, 2004 emergency permit. The current steel tank project is also much more conducive to maintaining existing operations. For example, the contractor can build Tank 2 first, place it in service, and then demo the existing tanks before building tank 1. This provides a far superior means for coordinating construction with existing operations.

A comparison of ESHA area impacts with the prior concrete tank design. To assist your review, we developed attachments to this letter showing the areas disturbed by both the previous concrete tank design concept, as well as the current steel tank design. Attachment B is from the PowerPoint presentation I made during the November 16, 2004 Planning Commission meeting. The two slides I have included show both the old and new tank layouts. With the old concrete design concept, the area of impact into the ESHA was about 7,350 square feet. With the current steel tank design, the impact into the ESHA is 9,115 square feet, or approximately 1,765 square feet more (0.04 acres). Attachment C to this letter further illustrates the areas in question. A shown, the impact into the ESHA is reshaped by the current steel tank design, with certain areas no longer being impacted.

Within the 1,765 square foot area identified in Attachment C, there are approximately five Monterey Pine trees and nine Coastal live oaks requiring removal. For discussion purposes, we also looked into ways to equate the ESHA areas between both the old and new designs. Attachment D is very close in allowing this to happen by shifting the tank locations, modifying the outer retaining wall location, and adding "bump ins" into the tank site area. Although we would prefer to keep the current layout, this at least shows one possible solution to the concern over the ESHA area. In addition, and as mentioned at your October 28, 2004 Planning Commission meeting, we are willing to set aside an ESHA area behind our existing Leimert tank site. This area is contiguous with the same-forested area surrounding the Pine Knolls tanks and is further illustrated in Attachment E. The area proposed as an offset was also shown to the Coastal Commission staff on November 3, 2004 during their tour of the area. If an offset ESHA area approach is acceptable, we would prefer to keep the current Pine Knolls tank project layout the same. Keeping the design as is allows us to proceed more expeditiously with our contractor and does a better job of addressing our neighbor's fears over the proximity of the tank to her residence. As I suggested during the October 28, 2004 Planning Commission meeting, the offset area could be added as a condition to the emergency permit.

Exemption from the Public Lot process. As mentioned during the November 16, 2004 Planning Commission meeting, we believe the Government Code Section 66428 allows our agency to be exempt

from this requirement. *Because of the time urgency and public safety that is at risk, we strongly urge* your planning director to exempt our public entity from this process. Attachment F contains an annotated copy of Government Code section 66428 for your convenient reference.

Time Urgency. Since the October 8, 2004 Emergency Permit was first issued, we lost critical construction time in which to complete key construction activities on a new tank prior to both the heavy, January rainy season, as well as well as the February to August bird nesting season. If we could obtain another emergency permit, we would push our contractor to complete their earthwork and foundation on a new tank prior to the end of this year. In order to do so, we will need your approval within the next week. We have also asked our engineer to investigate means for seismically restraining the existing tanks. However, we are at a point where a new tank could be built in about the same time as the seismic restraints. Therefore, we believe it is everyone's best interest to allow our steel tank project to proceed under an emergency permit.

In closing, we appreciate your assistance on the emergency permit. We strongly believe that an emergency exists, we have abided by CEQA, we have been responsive to public concerns, we are providing mitigations that address the ESHA concerns, and are willing to work with you further in making sure the project proceeds promptly. Should you have any questions on this request, do not hesitate to call me.

Sincerely,

Robert C. Gresens

Robert C. Gresens
District Engineer

Attachments:

A – November 3, 2004 letter by Boyle Engineers summarizing seismic analysis of the existing Pine Knolls tanks
B - Layout slides from November 16, 2004 PowerPoint presentation to Planning Commission
C - Annotated aerial photo illustration showing layout of prior design concept easement areas within ESHA versus current steel tank layout
D - *Annotated aerial photo showing layout with moved tanks to approximate the same ESHA area impact* between prior design concept and current design.
E - Potential ESHA offset area at Leimert tank site
F - Copy of Government Code section 66428 highlighted to show exemption for government entities.
G – Updated Emergency Permit application

CAMBRIA COMMUNITY SERVICES DISTRICT

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November 29, 2004

Victor Holanda
Planning Director
San Luis Obispo Planning and Building
County of San Luis Obispo
County Government Center
San Luis Obispo, California 93408

Subject: Pine Knolls Water Tanks Project

Dear Mr. Holanda:

Thank you and others for participating in the telephone conference last Tuesday, November 23, 2004. The participants from San Luis County included Pat Beck, Matt Janssen, and Deputy County Counsel James Orton. Coastal Commission staff included Lisa Haage, Chief of Enforcement; Diane Landry, Jonathon Bishop; and Sandra Goldberg, Staff Counsel. The CCSD's participation included Arther R. Montandon, District Counsel; Steve Kaufman Attorney from Richards, Watson & Gershon; Bob Gresens, District Engineer; Jim Adams, Water Systems Supervisor; Tammy Rudock, General Manager; and Mike Nunley and Cesar Romero, Boyle Engineering, who have been analyzing the alternative construction possibilities of the Pine Knolls Tanks. I believe our exchange of information and ideas assisted us all to more clearly understand each other's concerns and positions.

The CCSD representatives have, throughout the process of getting the Pine Knolls Tanks reconstructed, proactively attempted to respond to all of the County's and the Coastal Commission's concerns. We have provided all of our information and directed our staff and consultants to be available to immediately respond to any questions and develop additional analysis and information to assist County and Coastal Commission staff in evaluating the emergency Cambria is facing and the project designs that could effectively eliminate the immediate danger to all of our citizens and the environment. The CCSD has spent thousands of staff and consultant hours and hundreds of thousands of dollars attempting to resolve our differences. This collaborative approach to intergovernmental

cooperation, though sometimes trying, almost always results in a product that is better for the constituencies we all serve. Unfortunately, that has not been the case for the Pine Knolls Water Tanks project.

Justification for an Emergency Permit

We have discussed the immediate and real danger facing our constituents and the environment. CCSD staff throughout this process provided unrefuted evidence that an extraordinary emergency presently exists in Cambria. The facts we presented are summarized as follows.

Fire Danger. Since the CCSD's Board of Directors' declaration of a Water Code Section 350 water shortage emergency three years ago, it has as the law requires, been working diligently on the projects needed to end the emergency.

The declaration was based upon two factual findings: 1) that there was not a dependable water supply for current and future growth; and 2) that by applying national fire standards Cambria's water storage was 2,000,000 gallons short of what is needed to provide adequate water to fight fires. Please note that calculation of this shortfall was based upon two assumptions that are not correct. These are that the current water storage tanks are always full and that Cambria does not have a unique topography or significant combustible flora that significantly increases fire danger. The reality is that the water tanks are seldom full, due to the fact that the CCSD's customers use the same water used to fight fires, and Cambria exists on a series of rolling hills, in and surrounded by a forest, with many diseased trees. To further aggravate the fire danger the County and the Coastal Commission over many years have approved many wooden structures that are built very close together. The close proximity of the existing structures coupled with a relatively high fuel load from vegetation significantly increases our fire danger. Due to this significant fire safety problem, the CCSD Board of Directors directed staff to prioritize its limited funds and effort towards increasing water storage to minimize this fire danger.

The recognition of the fire safety problem is one thing, the process to decide what to do and how to pay for it is much more difficult. The first step taken was to evaluate the integrity and operation of the water delivery system. Needed upgrades to the CCSD's pipe delivery system were identified and made first. The existing 200,000-gallon capacity Pine Knolls tanks were chosen as the CCSD's first storage replacement project because the Pine Knolls tanks are the most critical storage facility in the entire CCSD's water storage and delivery system. The CCSD staff believes replacement at this location was the best option. The CCSD could reuse an existing tank site, which is at the best elevation to deliver gravity fed water and not relocate its water mains, many of which are located in ESHAs. Other sites were considered and rejected due to functionality, the additional negative impact on the environment, and extra costs.

The proposed project will increase the capacity of the tanks from 200,000 gallons to 1,100,000 gallons of water, less than half of the additional water storage needed by

Cambria. The tanks would continue to be located at the highest point of the water system to enable the gravity feed of water to all of the other storage tanks. The gravity feed of water not only avoids excessive energy use, it provides a viable water source that will not be rendered useless during an emergency, where the energy to run pumps may be lost. Water from the Pine Knolls tanks is delivered to all of the other water storage tanks. The elevated location and capacity of these tanks are critical to the effective operation of Cambria's whole water delivery system. When the Pine Knolls tanks are upgraded the other water storage tanks could then be upgraded to provide the additional 1,100,000 gallons of water storage needed to fight fires.

If the Pine Knolls tanks are not upgraded to increase water storage capacity immediately, a fire could significantly impact the safety and health of the whole community and local environment. If a fire starts during peak customer water usage and cannot be contained in the original structure the CCSD will not have enough water to fight the fire even if all its wells are pumping at full capacity. If the fire involves more than two structures and the current water storage tanks are full the CCSD will not have enough water to fight the fire even if all of its wells are pumping at full capacity. If a forest fire starts, like the Strawberry Canyon fire a year ago, and the fire department cannot suppress it before it spreads, the CCSD will not have enough water to fight the fire even if all of its wells are pumping at full capacity. Under any of these very possible scenarios the whole community of Cambria and its forests would burn to the ground.

Danger Posed by Earthquakes. It was only in the past few weeks that the CCSD was made aware of the specific current seismic capacity of the Pine Knolls Tanks. In their current condition, these thirty-two foot tall tanks are only seismically safe up to a water level of six feet. As you were told by the CCSD's water operations staff, the CCSD water system cannot operate if the Pine Knolls tanks are at that level. Daily domestic demand will cause the system to intake air even if all of the CCSD's wells are pumping at full capacity. The intake of air will cause significant damage to customer water pipes and to the CCSD's water infrastructure system. If this damage occurs, the CCSD will not be able to deliver water to its customers or to fight fires. The repair of this pipe damage would result in the significant disruption to the environment since many of the CCSD's pipes that would need to be repaired are in or near ESHAs and would cost a significant amount of money. To avoid the fire danger, the infrastructure system damage, and the potential environmental damage, the CCSD is currently operating these tanks at water levels that make them seismically unsafe, despite the threat of an earthquake.

The dangers of a sudden earthquake that will damage these tanks are very real. We experienced a catastrophic earthquake a year ago with an epicenter ten miles from Cambria. It damaged similar water storage tanks thirty miles east of Cambria. We believe the CCSD's tanks were spared damage this time because the earthquake occurred at a time when the water levels were low.

The State Legislature has recognized the significant danger of an earthquake in California at any time. (See Government Code Sections 8871, 8878.51). In Government Code

Section 8899.10 the California Legislature specifically finds that, "...the citizens of California live under the constant shadow of death, personal injury, and property damage from earthquakes." On November 26, 2004, there were 17 earthquakes in the Cambria area, two of which are considered "big earthquakes" by the United States Geographical Survey. One was a 3.2 magnitude earthquake four miles from Parkfield and the larger was a 3.4 magnitude earthquake nine miles from San Simeon. Just yesterday, on November 28, 2004 there was an even larger 4.2 magnitude earthquake seven miles from Parkfield.

If a significant earthquake damages the Pine Knolls tanks there will be damage to the surrounding neighborhood and to the downstream neighborhood. There would not be enough water storage to provide for the daily sanitary needs of the entire community. All damaging earthquakes significantly increase the fire danger and there would be no water to fight a fire, and as stated above the community and its surrounding forest would burn to the ground.

As the CCSD Board, staff, and consultants have stated over and over again the situation is a serious emergency that requires immediate action to protect life, property, and the environment.

Project Development

CCSD staff and consultants believe that the modified two-tank design is environmentally superior, will cause the least disruption to the forest habitat, and will minimize the time the community and forest will be in danger because it can be built now. As you know the CCSD staff and consultants have:

1. Designed the original concrete tank project relying on a map acquired from County's web site. Although the boundaries of this map were incorrect from our discussions with County planning, the Coastal Commission staff still refers to a similar mapped ESHA boundary. For example, the modified two steel tank layout avoids much of the ESHA area identified by the "TH" boundary shown on the Commission's drawing K13.
2. Provided 15 copies of the Initial Study/Mitigated Negative Declaration to the state clearinghouse on June 8, 2004, advertised the current design's Notice of Intent to Adopt a Negative Declaration in The Tribune newspaper on July 15, 2004, and fully noticed the project's July 22, 2004 public hearing.
3. Conducted the CEQA hearing and approved the current design during a televised public meeting.
4. Conducted applicable environmental review and considered and approved a mitigated negative declaration at two televised public meetings. The significant mitigations were approved after comments from the County and State Fish and Game were received
5. Awarded the bid to a contractor at a televised public meeting.

6. Adopted a resolution at a televised public meeting authorizing the commencement of a Superior Court action to acquire an additional 9,115 square feet of property.
7. Acquired a right to possess the extra 9,115 square feet after two hearings before the court.
8. Received an ECDP from the County to commence construction in a time frame to minimize impact on the surrounding habitat.
9. Told the contractor to be ready to proceed.
10. Pursuant to the County's ECDP process the CCSD filed an application for a CDP within 30 days of the granting of the ECDP.

After all of the CCSD's very public effort to address Cambria's emergency situation the Coastal Commission issued a Cease and Desist Order and the County purported to revoke the ECDP.

Second ECDP

In the interest of cooperating with the County and the Coastal Commission staff, and to remedy the emergency facing Cambria, the CCSD applied for a second ECDP with more information supporting the emergency and a modified two-tank design.

We discussed your November 19, 2004, letter that denied the CCSD's second application for an Emergency Coastal Development Permit ("ECDP") for the reconstruction of the Pine Knolls water storage tanks. The letter states that the denial was based upon the need for a submittal of a "Public Lot" application and that a feasible project exists with less impact to the Environmentally Sensitive Habitat Area ("ESHA").

The CCSD included a modified two-tank design in its second application reducing the amount of land needed for the tanks to approximately the area needed to construct the original square tank considered by the CCSD (7,000 square feet). County and Coastal Commission staff stated that they would not approve this modified two-tank project for an ECDP and could not recommend it for a regular Coastal Development Permit ("CDP") and that the original square tank was environmentally superior.

County and Coastal staff stated that the only ECDP that could be approved is for the seismic retrofit of the existing tanks to meet the CCSD's current water storage needs despite the fact that these retrofitted tanks will only provide two thirds of their previous capacity or 133,333 gallons of storage capacity. This will severely increase the danger of the current fire emergency. We have estimated that this will take at least six months, cost over $100,000 dollars for tanks that will be torn down, and result in tanks with one third less water capacity to fight a fire. In this same amount of time the CCSD could have one of the modified two tanks project constructed, adding 550,000 gallons of water storage for Cambria.

While these inadequate retrofitted tanks are serving Cambria you suggested that the CCSD design a square tank project that will fit on the land currently owned by the

CCSD, conduct the required environmental review, process a County Public Lot application, and if this application is approved by the Planning Director and the County Subdivision Review Board, after any appeals to the Board of Supervisors and the Coastal Commission, and if the project is still viable and doesn't require redesign or subsequent environmental review, the CCSD could apply to the County for a CDP to be considered by the County Planning Commission. If the CDP is granted, the Planning Commission's decision could be appealed to the Board of Supervisors and then to the Coastal Commission. If the CDP survives all appeals, and there are no lawsuits, the CCSD may then publicly bid the project, and construct the tanks. We estimate that this process, without lawsuits, will take over two years to get the square tank into service. All this time the community and the environment will continue to be in extreme danger of a catastrophic fire.

The square tank design has significant impacts on the mapped ESHA. Since the CCSD will have to tear down the tanks it spent over $100,000 retrofitting to construct your preferred square tank. County and Coastal Staff recommended that the project include temporary water storage tanks (200,000 gallons) to serve Cambria, placed in or near the ESHA until the new square tank can be put into service. The CCSD's consultants have concluded that this overall design will require the destruction of over 12, 000 square feet of the forest habitat. The CCSD's modified two-tank design will only require 5,000 square feet. It was County and Coastal Commission staff's opinion that this option was environmentally superior because the habitat would grow back. Our consultants state that it could take decades for the habitat to grow back and that our modified design is environmentally superior.

Finally, since the Pine Knolls tanks play such a critical roll in the entire CCSD distribution system, it is also important to provide two tanks as opposed to one for reliability. For example, the current two-tank design concept allows taking one tank out of service for maintenance activities. Typically, tanks of this type are painted about once every 15 years. Having two tanks at this location allows for periodic painting as well as any unforeseen maintenance needs. Therefore, concepts discussed during the November 23, 2004 telephone conference suggesting one single tank do not provide an acceptable level of reliability.

Legal Issues

Though CCSD staff did not argue legal issues during our telephone conference, we disagree with many of the legal positions of the County and Coastal Commission.

First, we dispute that the modified Pine Knolls tank project is in a mapped ESHA. We have obtained the map adopted by the County and approved by the Coastal Commission from Coastal Commission staff. It places the ESHA one hundred feet from the CCSD's jurisdictional border. We designed the project to avoid any significant impact on the ESHA. No one has provided the CCSD with proof that this mapped ESHA incorporated by a land use ordinance has ever been moved. If it is modified it legally requires an official act of "equal dignity." In other words, since it was adopted by ordinance and

approved by the Coastal Commission, it must under go the same process to be amended. We can find no proof that the map given to us by the Coastal Commission Staff to design the Pine Knolls tanks was ever amended.

Second, Coastal Commission staff has stated that the CCSD's acquisition of land through condemnation is a development because it is a "land division" (Public Resources Code Section 30106). As we stated, the CCSD is acquiring the Pine Knolls expansion site in Superior Court through its powers of eminent domain. Currently the CCSD only has an order of possession for the site. This court process is superior to your statutory requirement that land divisions require a CDP. See Wells Fargo Bank vs. Town of Woodside, 33 Cal. 3rd 379 (1983). To avoid any continued argument that this is a land division we have amended our pleadings to condemn only an easement. This is done at the suggestion of Coastal Commission staff. It will also allow the CCSD to abandon any portion of the easement it does not need due to the modified design pursuant to a summary statutory abandonment process.

The County has taken the position that the CCSD's Superior Court acquisition of property is subject to the Subdivision Map Act as implemented by SLO County Code pursuant to SLOCC 21.02.010 and requires a "Public lot" determination by the Planning Director. The County's position is that all land conveyed to or from a governmental agency has to go through this process. If the CCSD's acquisition is subject to the County's ordinance it requires a LCP. (SLCCC 21.01.010).

As stated by CCSD staff during our telephone conference call, this lot is subject to the SLOCC 21.02.010, why weren't the CCSD's 500+ lot transfers in the past three years subject to the "Public Lot" process? In addition, the Subdivision Map Act places the burden on the County, based upon substantial evidence, to find that a parcel map is required. (Government Code Section 66428). It is the County's burden to demonstrate based on substantial evidence that the CCSD is subject to the Subdivision Map Act.

If the County takes this legal position for easements, such as the one the CCSD is acquiring through eminent domain we ask to see all the "Public Lot" determinations for County easements for the past six months before we reconsider applying for a Public Lot determination. In addition, it is the CCSD's position that it is not subject to this ordinance due to the rationale stated in Wells Fargo Bank vs. Town of Woodside, 33 Cal. 3rd 379 (1983). In addition the CCSD is not a "Subdivider" and this acquisition is not a "Subdivision" under the Act. (Government Code Sections 66423, 66424, and 66426.5, see also, 75 Ops. Atty. Gen. 136 (1992) citing Morris vs. Reclamation District No. 108, 17 Cal. 2nd 43 (1941), which held public agencies and public officers are not subject to the Subdivision Map Act).

Coastal staff also stated that the CCSD could not file and maintain an action for a "taking" of its property. Inverse condemnation is a viable cause of action available to the CCSD against the County and the Coastal Commission. In Marin Municipal Water District vs. City of Mill Valley, 202 Cal. App. 3rd 1161 (1988), the court citing the

California Supreme Court held, "...a public entity whose property has been damaged by another public entity suffers no less a taking merely because of its public entity status." The CCSD is protected by Public Resources Code Section 30010, which prohibits the County and Commission from taking or damaging private property without just compensation. As such, the CCSD should enjoy the same deference given to single-family houses and other structures the County and Commission have approved in and near ESHA's for the past 30+ years.

Even without the deference given single-family development the CCSD is proposing an ESHA dependant use compatible with the ESHA that does not have a significant impact on the ESHA pursuant to Public Resources Code Section 30240. The Pine Knolls tanks are dependant of the ESHA's elevation to provide the gravity feed required for public safety. The tanks are not only compatible with the ESHA, their existence protects the ESHA from total destruction by fire. The use is not new. It is two water storage tanks that replace two water storage tanks. There are no occupied structures and there is not a more environmentally benign use next to the ESHA of concern.

We additionally believe that the focus on ESHA has unduly overlooked the other provisions of the LCP, which carry equal, and perhaps even more important, weight in the case of this water storage facility. Hazard Policy 9 (page 11-4) provides: "Fire hazard areas shall be defined as those having potential for catastrophic fire. The county shall designate and show on the Hazards maps those high risk fire areas as delineated by the State Division of Forestry . . . THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO CHAPTER 23.05.082 OF THE CZLUO.]" Section 23.05.082, entitled "Fire Safety Standards," in turn, provides: "In areas where fire protection is provided by another official agency (e.g., a community services district, etc.), new uses shall comply with such fire safety standards as required by the fire protection agency." (Emphasis added.) CCSD is the fire protection agency in this instance, and this project is necessary to comply with the fire safety standards required by the District. This policy is mandatory; it cannot be ignored. Under settled rules of statutory construction, it must be harmonized or "balanced" with the ESHA policy in the LCP, but also applied in a way that is most protective coastal resources. This project does exactly that. Thus, the project complies with the requirements of the LCP governing emergency permits. It has had public comment. The emergency nature of the project requiring immediate action is heightened by the recent Boyle Engineering report (11/2/04), which now constrains the District's ability to store water in the existing tanks to a water level of six feet to avoid seismic safety problems. As previously indicated in our application, the work must proceed now to avoid the heavy rainy season in January, as well as the onset of the 2005 bird nesting season."

Also, neither the County nor the Commission has followed their procedures for revocation of the first emergency permit. The CCSD considers the first ECDP issued to be in full force and effect until each agency goes through the substantive and procedural due process required to revoke a development permit. We intend to fully participate in

the required process and will appeal each adverse action. For example, the CCSD staff and consultants will appear at the January 2005 SLO County Planning Commission hearing as required by the ECDP process and present the CCSD's position as set forth in this letter.

Conclusion

Finally, we have worked diligently with you and the Coastal staff and cooperated with all agencies to expeditiously build a much needed project, which will reduce the fire and earthquake danger to Cambria, in a manner that serves all environmental interests. It has always been our opinion that Government Code Section 53091 exempts the CCSD from applying for and obtaining a CDP. Nothing in the information submitted by Ms. Goldberg or Ms. Christie has changed our position that the CCSD is exempt. They cite no binding legal authority that supports their position that the CCSD is exempt from the CDP process if it builds a water storage facility. We have spoken to representatives from other special districts and members of ACWA that have successfully refused to obtain a LCP for the facilities enumerated in Government Code Section 53091. Subsequent research has only confirmed our position that LCP's and related ordinance are local zoning ordinances. Yost vs. Thomas, 36 Cal. 3rd 561 (1984).

We request that you immediately reconsider issuance of the emergency permit for the environmentally superior modified two tank version of the Pine Knolls Tanks project. If County does not issue it by December 6, 2004 we will be required to take immediate steps to protect our citizens and our environment from the very real dangers of a catastrophic earthquake and fire and construct the modified alternative with all haste and pursue all available remedies in court.

Sincerely yours,

Tammy A. Rudock
General Manager

C: Board of Directors
Arther R. Montandon, District Counsel
Bob Gresens, District Engineer
Charles Lester, Deputy Director, CCC
Matt Janssen, SLO County Supervising Planner
Lisa Haage, Coastal Commission Chief of Enforcement
Sandy Goldberg, Staff Counsel, CCC
Steve Kaufman, Attorney, Richards, Watson & Gershon
Diane Landry, CCC

CCC Exhibit K
(page 9 of 9 pages)

CAMBRIA COMMUNITY SERVICES DISTRICT

1316 Tamson Drive, Suite 201 • P.O. Box 65 • Cambria CA 93428
Telephone (805) 927-6223 • Facsimile (805) 927-5584

October 21, 2004

Sandra Goldberg
Attorney at law
California Coastal Commission
45 Fremont Street # 2000
San Francisco, CA 94105-2219

Subject: Cambria Community Services District, Pine Knolls Water Tank Reconstruction Project

Dear Ms. Goldberg:

Thank-you for taking time to speak with me. This project is very important for the fire safety of the Cambria community including the coastal habitats your agency is charged with protecting. We have worked diligently to insure that all environmental concerns have been addressed. If this project is not commenced soon it will be delayed for over a year due to the environmental habitat concerns. We have contacted the County staff and been informed that the fastest they could process a permit would be four months and that approval could be appealed to your Commission, delaying it another two to three months.

As I stated, my research has indicated that the CCSD is not required to apply for a Coastal Development Permit. If you have any authority to the contrary please inform me as soon as possible so I can give the proper advice to the District Board. My opinion is based upon Government Code Section 53091, which states:

> (a) Each local agency shall comply with all applicable building ordinances and zoning ordinances of the county or city in which the territory of the local agency is situated.
> ....
>
> (d) Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency.
>
> (e) Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production ....

The CCSD's project is the reconstruction of a water storage facility, which is exactly the type of project this statute was meant to protect. The Attorney General has opined this exception to be applicable to special districts that supply water and provides an "absolute exemption" for local agencies that are constructing, "...facilities for the production, generation, storage,

treatment, or transmission of water." (78 Ops. Atty. Gen. 31, 1995). This "absolute exception" was reconfirmed in the legislative history to a 2002 amendment (SB 1711) to Government Code Section 53091.

The issue is whether this exception is applicable to exempt the CCSD from obtaining a Coastal Development Permit required by the California Coastal Act, Public Resources Code 30000, et seq. and the laws enacted to implement this Act. As I stated to you on the phone, I could not find a law, case, or Attorney General Opinion that specifically addresses this issue.

The County of San Luis Obispo has a certified Local Coastal Plan ("LCP") implemented through its "Coastal Land Use" ordinance, Title 23 of the San Luis County Code. (It is located at http://www.sloclerkrecorder.org/CountyCode/_DATA/TITLE23/index.html on their website). This ordinance looks and is applied as a zoning ordinance. It is even titled a "Land Use" ordinance. See also, Public Resources Code Sections 30512, 30512.1, 30512.2, and 30513 that specifically state these are "land use" and "zoning" ordinances.

I looked at the Coastal Act to see if it empowered the County or the Coastal Commission to enact a law or regulation that would require a development permit from a local agency for a water storage facility thus overriding the exception in Government Code Section 53091. These are the statutes I found relevant to my analysis.

Public Resources Code 30005.5 states:

> Nothing in this division shall be construed to authorize any local government, or to authorize the commission to require any local government, to exercise any power it does not already have under the Constitution and laws of this state or that is not specifically delegated pursuant to Section 30519.

Since, under the "laws of the state" the County cannot require a land use or building permit from the CCSD for a water storage facility, I reviewed Public Resources Code Section 30519 to see if the authority exists there to require a permit for a water storage facility and I could find no such delegation of authority. That statute does state, in applicable part:

> (a) Except for appeals to the commission, as provided in Section 30603, after a local coastal program, or any portion thereof, has been certified and all implementing actions within the area affected have become effective, the development review authority provided for in Chapter 7 (commencing with Section 30600) shall no longer be exercised by the commission over any new development proposed within the area to which the certified local coastal program, or any portion thereof, applies and shall at that time be delegated to the local government that is implementing the local coastal program or any portion thereof.

This statute requires a mandatory delegation of Commission permitting authority after certification of the LCP. The Commission's remaining authority is to hear certain appeals pursuant to Public Resources Code Section 30600. An enforcement action can only be initiated and an appeal can only be heard if a Coastal Development Permit is required.

CCC Exhibit L
(page 2 of 9 pages)

Even prior to the approval of the LCP the Coastal Act, specifically Public Resources Code Section 30600.5, required the Commission to delegate its Coastal Development Permit authority to the County prior to certification of the LCP after the effective date of the statute, 1982. Public Resources Code Section 30600 states as delegated, the County cannot require a Coastal Development Permit from the CCSD. It states, in relevant part:

> b) (1) Prior to certification of its local coastal program, a local government may, with respect to any development within its area of jurisdiction in the coastal zone and consistent with the provisions of Sections 30604, 30620, and 30620.5, establish procedures for the filing, processing, review, modification, approval, or denial of a coastal development permit. Those procedures may be incorporated and made a part of the procedures relating to any other appropriate land use development permit issued by the local government.
>
> (2) A coastal development permit from a local government shall not be required by this subdivision for any development on tidelands, submerged lands, or on public trust lands, whether filled or unfilled, or for any development by a public agency for which a local government permit is not otherwise required. (Emphasis added).

As such, even before certification of the LCP the County was without authority to require the CCSD to apply for a Coastal Development Permit. I have concluded that the CCSD is not required to apply for a Coastal Development Permit. We remain willing to cooperate and provide any information we have to assist you and the Commission staff in reviewing our project. Please respond with any authority that will assist me in my analysis and advice.

Sincerely yours,

Arther R. Montandon
District Counsel

Cc. Board of Directors
Tammy Rudock, General Manager

CCC Exhibit L
(page 3 of 5 pages)

STATE OF CALIFORNIA—THE RESOURCES AGENCY

DIANE

ARNOLD SCHWARZENEGGER, GOVERNOR

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400

October 21, 2004

By Telecopy and Mail

Arther R. Montandon, District Counsel
Cambria Community Services District
1316 Tamson Drive, Suite 201
P.O. Box 65
Cambria, CA 93428

Re: Pine Knolls Water Tank Reconstruction Project

Dear Mr. Montandon:

I am writing in response to your letter dated October 21, 2004. Due to prior commitments, I have had limited time to locate the materials that respond to your arguments. The Coastal Commission does not agree that Cambria Community Service District ("CCSD") is not required to obtain a coastal development permit from San Luis Obispo County for the above-referenced project. I am enclosing an Attorney General Opinion – 65 Ops. Cal. Atty. Gen. 88 (1982) – that determined that a local government that is implementing a Local Coastal Program ("LCP") certified by the Coastal Commission has permitting authority over state agencies and counties, that are otherwise exempt from local regulation. The same analysis applies with respect to local government permitting authority over a water district. The Coastal Act provides that any person undertaking development in the coastal zone must obtain a coastal development permit. The definition of person under the Coastal Act is very broad and includes water districts. The Act states:

30111. "Person" means any individual, organization, partnership, limited liability company, or other business association or corporation, including any utility, and any federal, state, local government, or special district or an agency thereof.

The language you quote in your letter from Public Resources Code section 30600*(b)* only deals with coastal development permits issued by a local government *prior to certification of an LCP*. There is no similar restriction on permitting jurisdiction of a local government that is implementing a *certified* LCP, such as San Luis Obispo County.

I have also enclosed the following relevant documents for your review: a Memorandum on this issue from Santa Barbara Office of County Counsel dated September 10, 2001; correspondence to the City of San Buenaventura dated September 8, 1999 regarding local government jurisdiction over state agencies; and a letter dated January 9, 2003 to the Bureau of Reclamation that addresses a project on federal property carried out by the Carpinteria Valley Water District that was approved in a coastal development permit that Santa Barbara County issued to the Water District.

In addition, I have enclosed excerpts from two Coastal Commission Permit Staff Reports regarding coastal development permits that a local government issued to water districts (Coastside County

Exhibit L
(page 4 of 9 pages)
5

Water District and Leucadia County Water District) that were appealed to the Coastal Commission. Our records indicate that local governments implementing an LCP certified by the Coastal Commission routinely exercise their jurisdiction to require coastal developments from water districts, such as CCSD.

Finally, please note that if your assertion that CCSD does not need a coastal development permit *from the County* was correct (which we do not believe is the case), CCSD is not exempt from the California Coastal Act and would need to apply for a coastal development permit from the state Coastal Commission. This has not occurred.

Please provide these materials to the District Board for their consideration. Thank you.

Sincerely,

Sandra Goldberg

SANDRA GOLDBERG
Staff Counsel

Enclosures

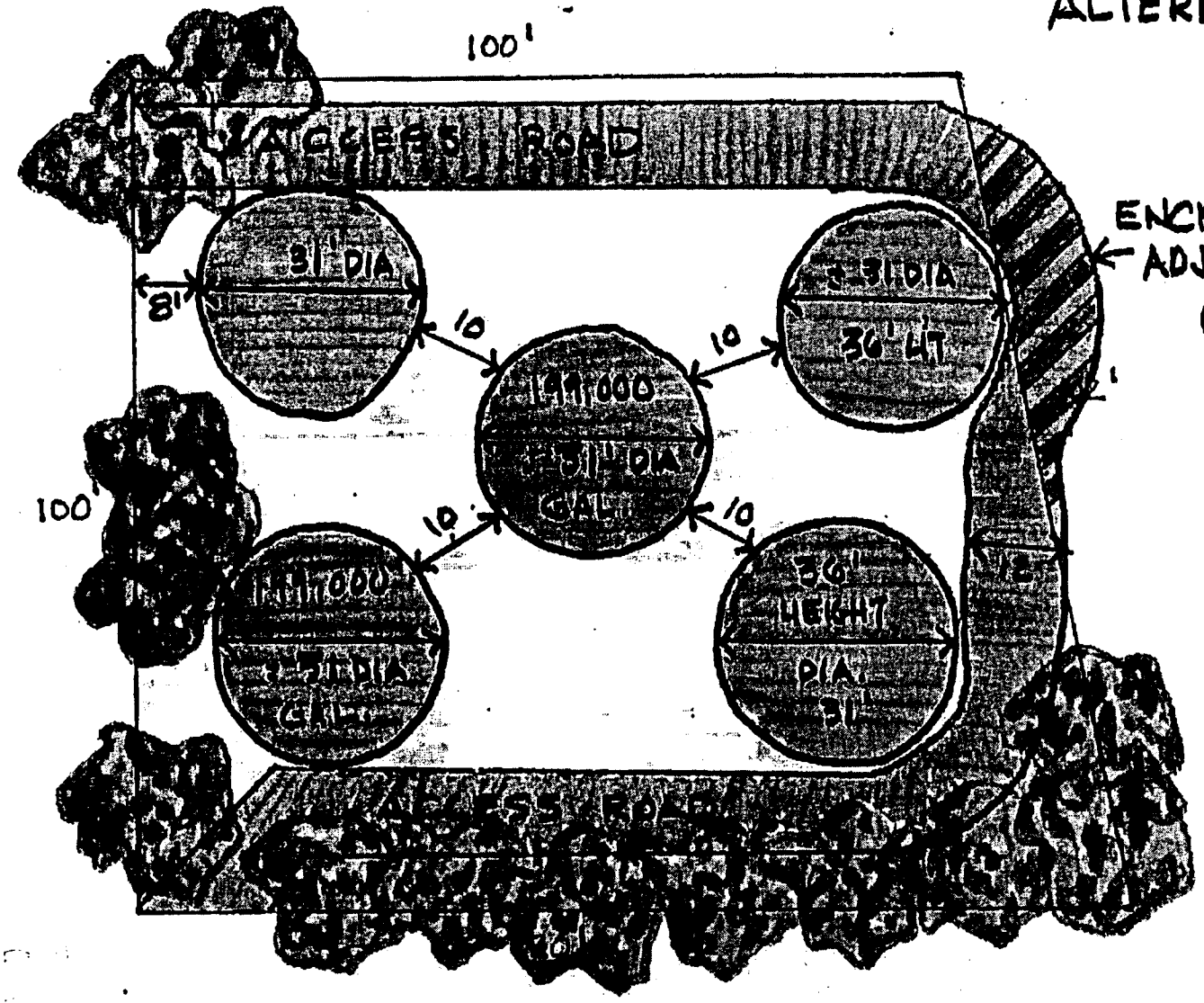
ALTERNATIVE A

1,055,000 GALLON STORAGE ALTERNATIVE
ONE 50' DIAMETER + THREE 30' DIA. TANKS

N

Exhibit M
(page 1 of 4 pages)

ALTERNATIVE B



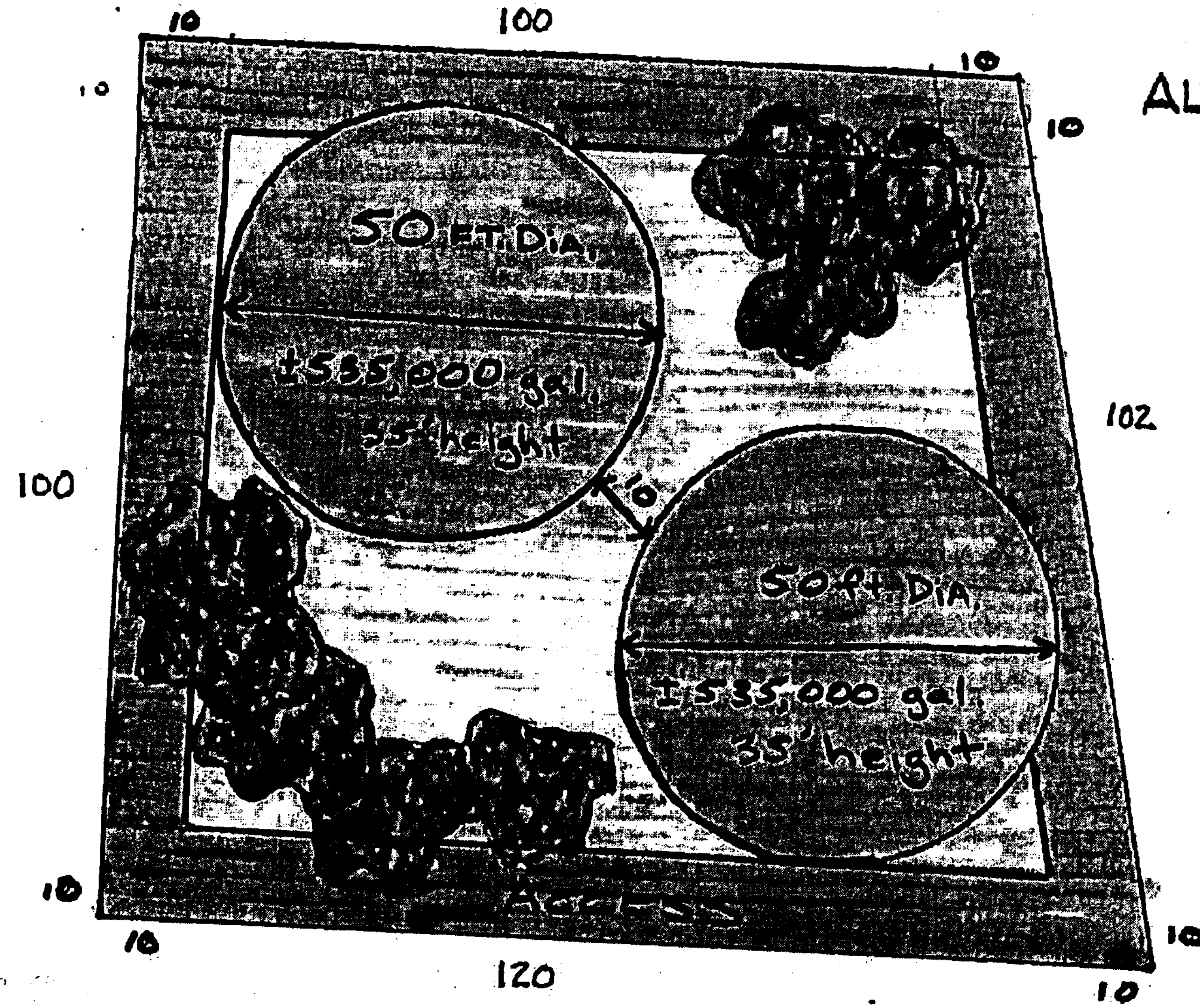
ENCROACHMENT ONTO ADJACENT PROPERTY (±400 SQ FT)

↑ NORTH

1,000,000 GALLON STORAGE ALTERNATIVE
FIVE ±31' DIAMETER TANKS

20 SCALE
DEC. 1. 2004 DSC

ALTERNATIVE C



CCSD SITE ALTERNATIVE
TWO 50' TANKS
1,070,000 GALLONS STORAGE

N

20 SCALE

Exhibit E-1
page 8 of 9 pages
3 OF 4

ALTERNATIVE D

N

TWO TANK ALTERNATIVE
1,000,000 GALLONS STORAGE

CCC Exhibit M
(page 1 of 1 pages)
4 of 4

	CCSD Review Comments		
	Regarding Capacity	*Regarding Hydraulics*	*Regarding Layout*
meter tanks ameter tank	Volume shown on CCC sketch = 1,060,000 gallons However, at a 29.5 foot maximum water depth, the 30' diameter tanks shown reduce to 156,000 gallons each, & the 50' diameter tank shown reduces to 433,000 gallons Therefore, the total volume is only 901,000 gallons, which is 200,000 gallons less than what is needed.	Cannot operate tanks with two different heights due to hydraulics. To match the existing distribution system hydraulics, the maximum water depth cannot exceed 29.5 feet.	* Access road at entrance too sharp for emergency vehicles * Access road moved away from trails used by Fire Dept. * Layout violates CZLUO 23.04.110 side setback for a commerci site next to a residential land use. The 35-foot high tank is app from the western property line. Min required is 18 feet. * Layout violates CZLUO by having a tank height greater than 3 * Inadequate clearance allowed around north side of larger tank. * Side setback for 36' high tank is only 10 feet, where CZLUO 2 would require 18 feet. * No landscape screening could occur between house to north a 35 foot high tank (violates CZLUO 23.04.100). * Doesn't satisfy requirment for minimum 12-ft clearance betwee foundations will extend approximately 1'-9" beyond tank shell.
oot diameter	Volume shown on CCC sketch = 1,000,000 gallons, which is 100,000 gallons short of what is needed. However, at a 29.5 foot maximum depth, the volume of the 31' diameter tanks shown reduces to 166,500 gallons each. Therefore, the total volume is only 832,500 gallons, which is 267,500 gallons short of what is needed.	To match the existing distribution system hydraulics, the maximum depth cannot exceed 29.5 feet. At the 36-foot height shown, there is no freeboard, which is needed to prevent damage during an earthquake. Freeboard would add 2.5 feet to the height shown, making the tanks 38.5' high.	* Access road at entrance too sharp for emergency vehicles * Access road moved away from trails used by Fire Dept. * Layout violates CZLUO 23.04.110 side setback for a commerci site next to a residential land use. A 38.5 foot high tank would 19 feet of setback versus the 8 feet shown. * Layout violates CZLUO by having a tank height greater than 3 * Construction of new tanks would undermine existing tanks * Distances shown between tanks inadeqate for construction & p * Doesn't satisfy requirment for minimum 12-ft clearance betwee foundations will extend approximately 1'-9" beyond tank shell.
er tanks	Volume shown on CCC sketch = 1,070,000 gallons, which is 30,000 gallons short of what is needed. However, at a 29.5 foot max. water surface, the 50' diameter tanks shown reduce to 433,000 gallons each Therefore, the total volume is only 866,000 gallons, which is 234,000 gallons short of what is needed.	To match the existing distribution system hydraulics, the maximum depth cannot exceed 29.5 feet.	* Access road at entrance too sharp for emergency vehicles * Access road moved away from trails used by Fire Dept. * 10-foot wide access road inadequate * Layout violates CZLUO 23.04.110 side setback for a commerci site next to a residential land use. The 35-foot high tank is app from the western property line. Min required is 18 feet. * Inadequate clearance allowed around north side of northweste * Inadequate clearance allowed around east side of southeasten * No landscape screening could occur between house to west ar northwestern 35-foot high tank (violates CZLUO 23.04.100). * No landscape screening could occur between house to south a southeastern 35 foot high tank (viloates CZLUO 23.04.100). * Cannot maintain existing tank operations during construction * Separation between tanks inadaquate. * Doesn't satisfy requirment for minimum 12-ft clearance betwee foundations will extend approximately 1'-9" beyond tank shell.
er tank &, r tank	Volume shown on CCC sketch = 1,006,000 gallons, which is 94,000 gallons short of what is needed. However, at a 29.5 foot max water depth, the 60' diameter tank reduces to 624,000 gallons, and the 40' diameter tank shown reduces to 277,000 gallons Therefore, the total volume is only 901,000 gallons, which is 200,000 gallons less than what is needed.	Cannot operate tanks with two different heights due to hydraulics. To match the existing distribution system hydraulics, the maximum depth cannot exceed 29.5 feet.	* Access road at entrance too sharp for emergency vehicles * Access road moved away from trails used by Fire Dept. * 12-foot wide access road inadequate along south side next to f * Layout violates CZLUO 23.04.110 side setback for a commerc site next to a residential land use. The 30-foot high tank is app from the western property line. Min required is 18 feet. * Inadequate clearance allowed around west side of southweste construction & maintenance. * Inadequate clearance allowed around north and east sides of t construction & maintenance. * Southwestern tank layout violates CZLUO 23.04.108 by not ha front setback. * No landscape screening can occur between the 30-foot high s and houses to the west and south (violates CZLUO 23.04.100) * Cannot maintain existing tank operations during construction * Separation between tanks inadaquate. * Cannot maintain operations when larger tank is removed from

CCC Exhibit N
(page 1 of 1 pages)

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

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

January 12, 2005

Tammy Rudock, General Manager
Cambria Community Services District
1316 Tamson Dr., Suite 201
P.O. Box 65
Cambria, CA 93428

Subject: ***Pine Knolls Tank Replacement Project***

Dear Ms. Rudock:

Thank you for taking the time to meet with Coastal Commission staff regarding replacement of the Pine Knolls water tanks. We acknowledge the complexity of the project and appreciate the opportunity to continue working with the District on a project that protects sensitive resources and meets the community's water storage needs. As we discussed in our last meeting on January 7, 2005, we are writing this letter to identify information and technical analyses that we believe are necessary to fully evaluate the District's current proposed tank replacement project. We appreciate the District's willingness to consider project design changes to avoid impacts to the forest resources bordering the District's current tank site. However, we remain concerned that the District has not fully considered every feasible and reasonable opportunity to avoid impacts to the forest while still meeting the community's water supply needs.

As we understand it, according to the District there are at least four constraints that are critical to the design and operation of the tank site and the new water tanks, and that preclude further redesign to avoid impacts to the forest. These are: 1) the volume of water storage needed; 2) water surface elevation in the tanks; 3) the need for fire access; and 4) construction phasing/maintenance. The comments and questions below are grouped into sections based on these four constraints.

Volume of Water Storage Needed

According to your letter of November 29, 2004 Cambria's water storage is 2 million gallons short of what is needed to provide adequate water to fight fires. More recently, the District has stated that the deficit may be even greater. Please provide the relevant "national fire standards" and any other standards used as the basis for this evaluation and calculations used to determine the current fire storage deficit. Overall, we would appreciate receiving the technical documentation and analyses supporting the District's conclusion that the only feasible way to address Cambria's water supply needs is by locating 1.1 million gallons of storage on the Pine Knolls site.

More specifically, with respect to the Pine Knolls tank site, the proposed project will increase the capacity of the tanks from 200,000 gallons to 1,100,000 gallons of water. While Coastal Commission staff understands the need to develop additional water storage to overcome deficiencies in the system, the need for 1.1 million gallons of water at the Pine Knolls site remains unclear. Table 5-8 of the 2004 Potable Water Distribution Analysis shows the fire storage requirement at Pine Knolls to be 630,000 gallons. The current proposal exceeds this

CCC Exhibit O
(page 1 of 4 pages)

requirement by adding additional daily working storage and emergency reserves. Therefore, the required storage volume appears to be based on future demand conditions at a projected level of community buildout, rather than only the volumes needed to meet current system deficiencies. We feel it is important to differentiate between how much water is needed currently, versus that which is needed to support future community buildout. Why do the operational and emergency reserves also need to be increased to such a large degree? Please provide the technical analysis and supporting documentation for the proposed emergency storage of 300,000 gallons. It was mentioned at the December 29, 2004 meeting in Cambria by Ms. Rudock that the storage requirement calculations on pages 39 and 40 of the Potable Water Distribution Analysis are not accurate. In addition to providing the technical analysis supporting the needed volumes of water, please provide the revised calculations and reason for any changes.

Is the current double tank 1.1 million gallon proposal the only way to meet the overall system requirements? During our December 29, 2004 meeting in Cambria, other storage alternatives were discussed. One idea was to reduce the amount of storage at Pine Knolls, thereby eliminating the need to encroach into ESHA, and supplement the reduction with added storage at other tank sites (i.e. Stuart Street and Leimert). In the case of the Leimert tank site, the District has raised issue over added storage due to water quality concerns. Is it possible to overcome the water quality concerns with water treatment and/or periodic controlled "flushing/turning over" of the tank? Also, please address the possibility of having water storage tanks dedicated only to fight fires. If feasible, where could they be located within the current distribution system? In previous discussions, the District dismissed these particular alternatives because they involve extensive system upgrades. Please describe in detail the alternative system upgrades that would be needed to implement these storage alternatives, including cost estimates. The District has stated that other existing tank sites are also highly constrained and located in Environmentally Sensitive Habitat Areas. Please provide a description and general site plan for each of the other tank sites.

In addition, the Potable Water Distribution Analysis (Pg. 42) states that "pressure zone interaction may be adjusted to provide more pressure and flow to a particular zone, if needed, and may be an alternate method of assisting a zone with storage supply and fire protection." The Executive Summary (ES-2) states, "Adjustments in pressure reducing stations at Charing and Stuart Street could be made to connect zones and maintain storage in higher zones." Please describe the different pressure zone interactions that have been analyzed, such as adjusting, combining, or separating pressure zones to assist in water supply and fire protection. Please address the feasibility of using such methods to address fire protection needs while reducing the need for storage at the Pine Knolls site.

Water Levels/Elevations

One way to limit encroachments into the forest would be to use taller and narrower tanks. The District has stated that raising the tank elevation is infeasible and would change head pressures to the detriment of the distribution system. Please examine the end user impacts of increases in head pressure (from increasing the highest tank elevation by 2, 5 and 10 feet, for example), provide estimates of the number of end users whose water pressure would increase beyond levels you deem acceptable, and possible end user modifications that could be implemented to alleviate these conditions for operational service. Could distribution system upgrades, such as adding pressure release valves or increasing delivery pipe diameters, be installed to handle increased system pressures? If so, how many of them would be needed and where in the

system could they be installed? How would such changes affect the operation and functioning of the current distribution system? Does the system currently rely on pressure valves to regulate the distribution of water? Is it feasible to sink taller, narrower tanks on the site, potentially coupled with the use of pumps when use of the entire tank volume may be necessary, to provide fire and emergency water supply? Could a taller tank be designed to include a baffle system at the upper elevation of the tank that would release water into the lower portion of the tank so as not to ever exceed a 29' operating level?

Emergency Fire Access Road

The current proposal includes an emergency fire access road near the southern property boundary. The fire emergency road is 12' wide with 3' buffers on either side. Please describe the width and buffers for the existing fire access. Please explain the purpose of the fire access road (under what circumstances and how would it be used?) and provide the technical data/fire codes that support the need for a fire access road of this size, configuration, and location. Are other locations/configurations of this access feasible? For example, it appears from the submitted site plan that the access road could be moved further towards the southern property boundary. Or, could the fire access road be reconfigured to run parallel with the western property boundary? Commission staff believes that both of these alternatives could free up additional space allowing the tanks to be removed from the forest area and onto the existing disturbed tank site. Please explain why such alternatives are not feasible. Is it feasible to design a fire access road that also serves a drainage function to resolve constraints posed by existing drainage patterns (e.g. by using a small retaining wall to direct drainage away from adjacent properties)?

In addition, there has been discussion of the need for the fire responders to access the informal path or trail that is immediately east of the current tank site. It is unlikely that these paths will maintain their current configuration if the tank storage site encroaches into the forested area immediately to the north, as this would then provide a path that would dead end into the fencing around the tanks. Please explain the functioning of the fire access in light of possible future site changes.

Construction Phasing and Operations

Another major design constraint according to the District is the need to maintain at least 200,000 gallons of water storage at the site while the project is being constructed. The District asserts that both existing tanks must remain online during construction of the first replacement tank. Please explain why this is the case and whether there are any feasible alternatives for providing temporary water supply at other locations or through temporary reallocations of water within the system. It has been discussed on numerous occasions with the County and the District that one way of overcoming this constraint is to use a temporary water storage tank during construction. A temporary water tank built within the districts property would allow one tank to be taken out of service, thereby freeing up additional onsite space. Based on the site plans provided, it appears that a temporary tank could be accommodated on the existing Pine Knolls tank site. In a letter dated November 29, 2004 the District states that their consultants concluded that the use of temporary tanks would require the destruction of over 12,000 square feet of forest habitat. Please provide the data to support this contention. A second concern with respect to a temporary tank is that it would require construction of a permanent foundation and could not be placed on gravel. Please explain why the temporary tank would require a more

permanent foundation than is available now. Please address whether it is feasible to provide a temporary water tank on site or at another location.

Lastly, we would like to better understand the long-term operation and maintenance requirements, as this information relates to setbacks, distance necessary around the tanks, and the like. Please describe in detail all maintenance requirements, including the type and operating specifications of the equipment needed for maintenance (e.g. the stated need for a scissor lift for painting) and any regulatory requirements that may dictate maintenance constraints. In addition, please provide a current construction schedule for the project.

We look forward to continuing to coordinate our review of the project with the County and CCSD. As more information is developed, and as the County's coastal development permit process proceeds, we may have additional questions and information needs. We have made this project a high priority for the agency and will continue to allocate staff as necessary to expedite processing of the project. We remain hopeful that by continuing to work together that we can identify a feasible project that meets the water supply needs of the community and the habitat protection requirements of the County's LCP. If you have any questions regarding these comments or wish to discuss them further, please contact me at 831-427-4863.

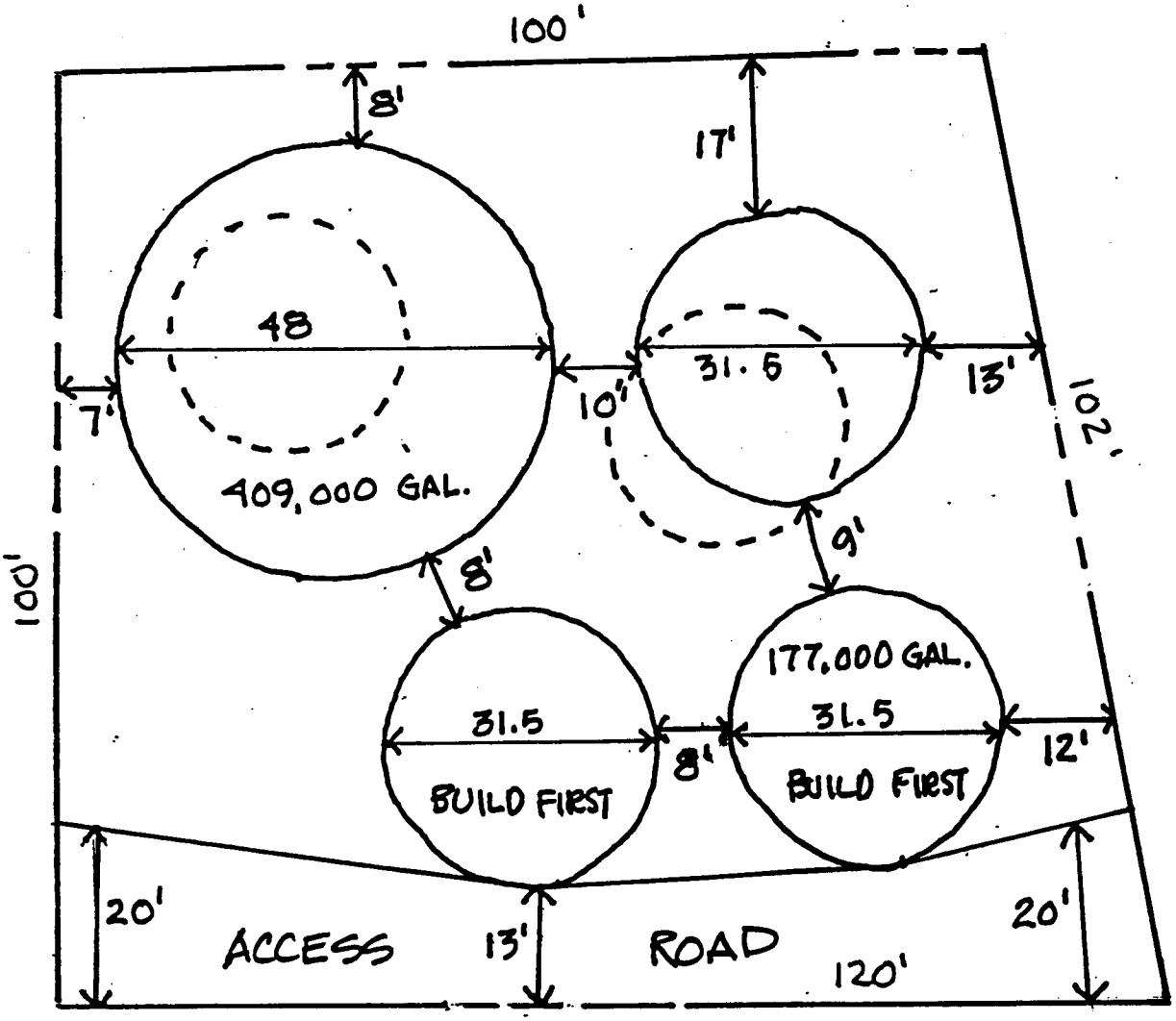
Sincerely,

Charles Lester
By GB

Charles Lester
Deputy Director
Santa Cruz District Office

Cc: Matt Janssen, SLO County Planning and Building

CCC Exhibit O
(page 1 of 1 pages)



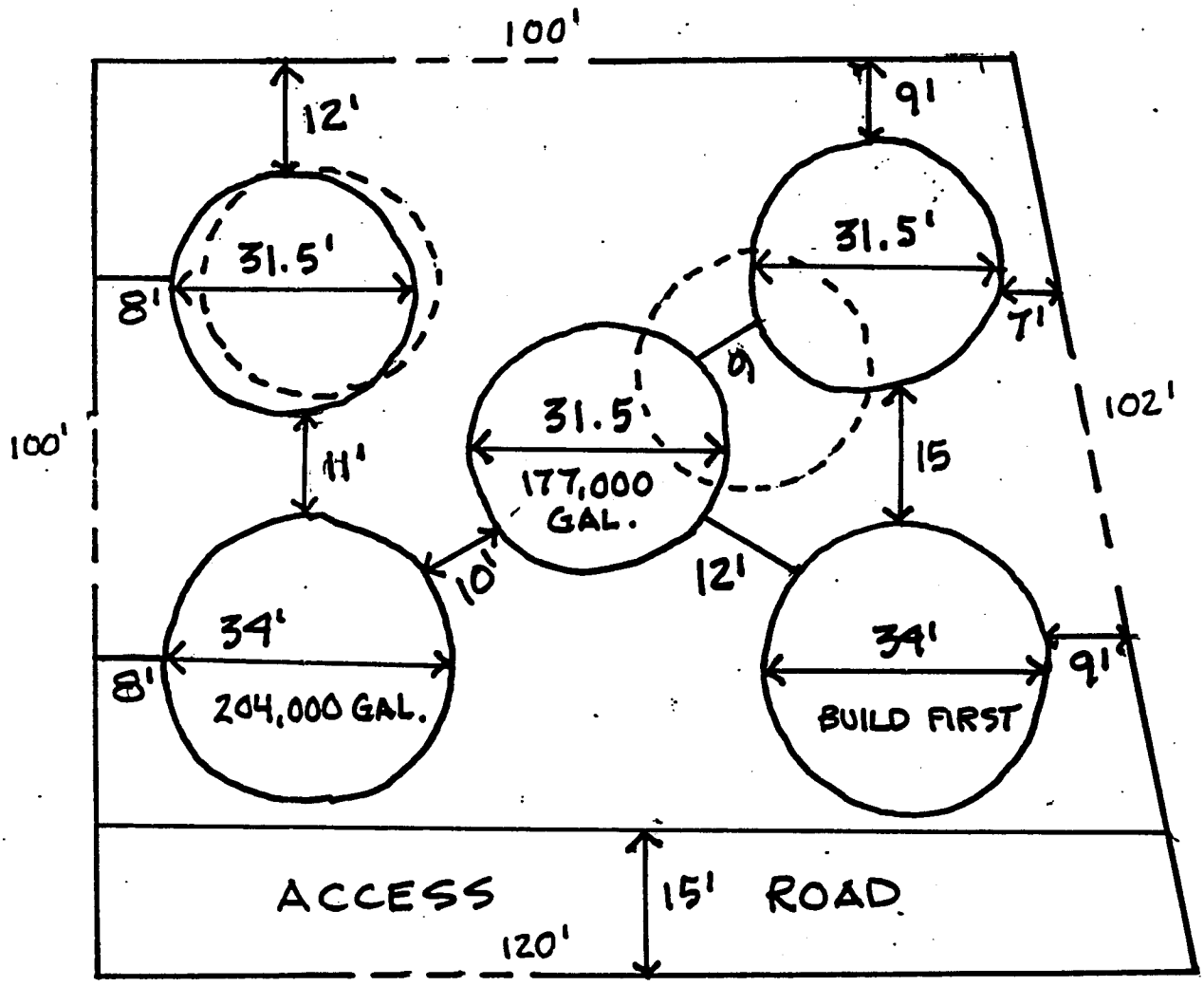
REVISED ALTERNATIVE "A"

Four Tanks (all 29.5' water depth, overall height 32')

- **One 48' diameter tank, 409,000 gallon capacity**
- **Three 31.5' diameter tanks, 177,000 gallon capacity each**
- **Total water storage capacity 940,000 gallons**

Existing tanks shown by dotted line
20 scale (1 inch equals 20 feet)

CCC Exhibit P
(page 1 of 5 pages)



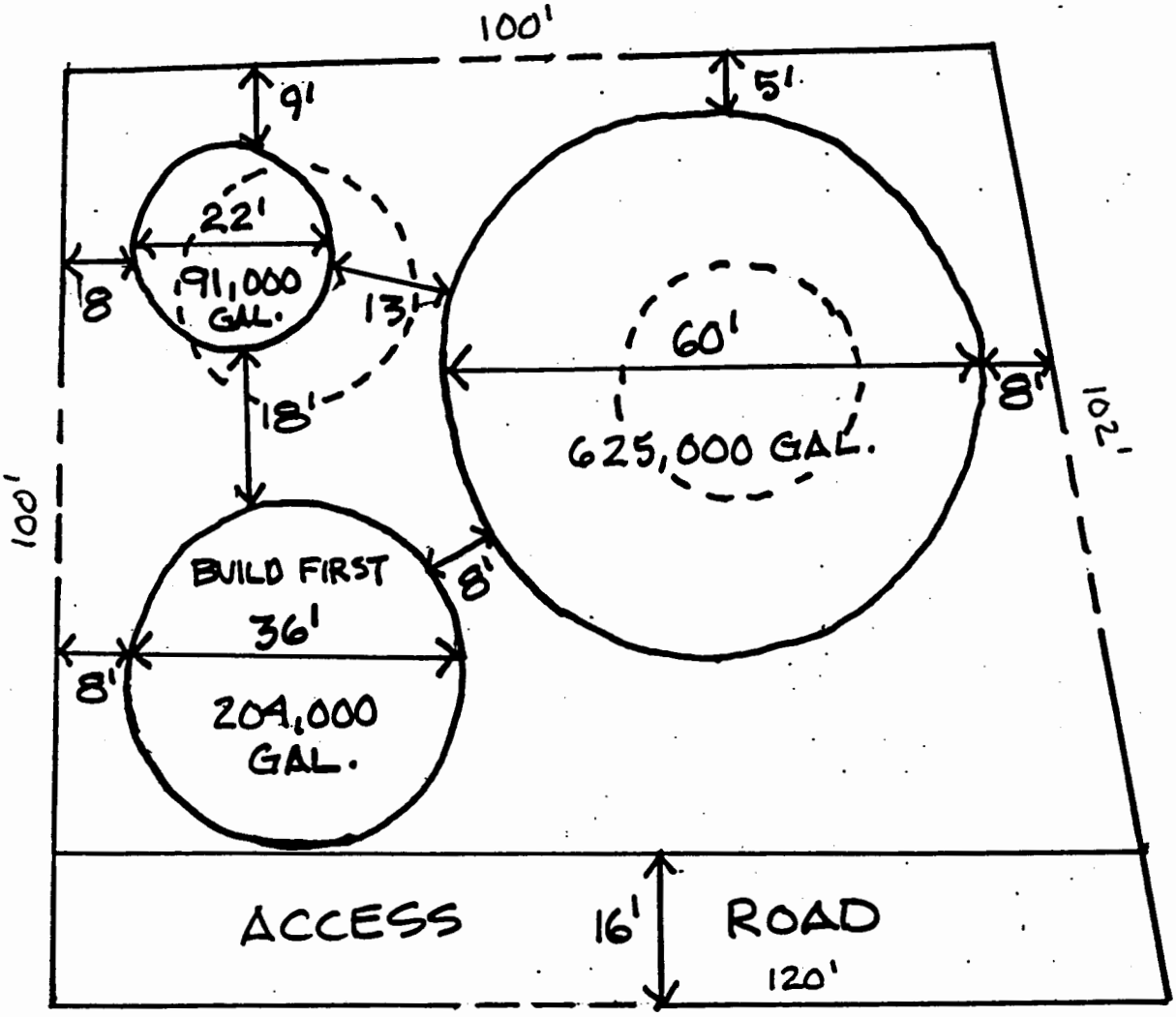
REVISED ALTERNATIVE "B"

Five Tanks (all 29.5' water depth, overall height 32')

- **Three 31.5' diameter tanks, 177,000 gallon capacity each**
- **Two 34' diameter tanks, 204,000 gallons capacity each**
- **Total water storage capacity 939,000 gallons**

Existing tanks shown by dotted line
20 scale (1 inch equals 20 feet)

CCC Exhibit P
(page 2 of 5 pages)



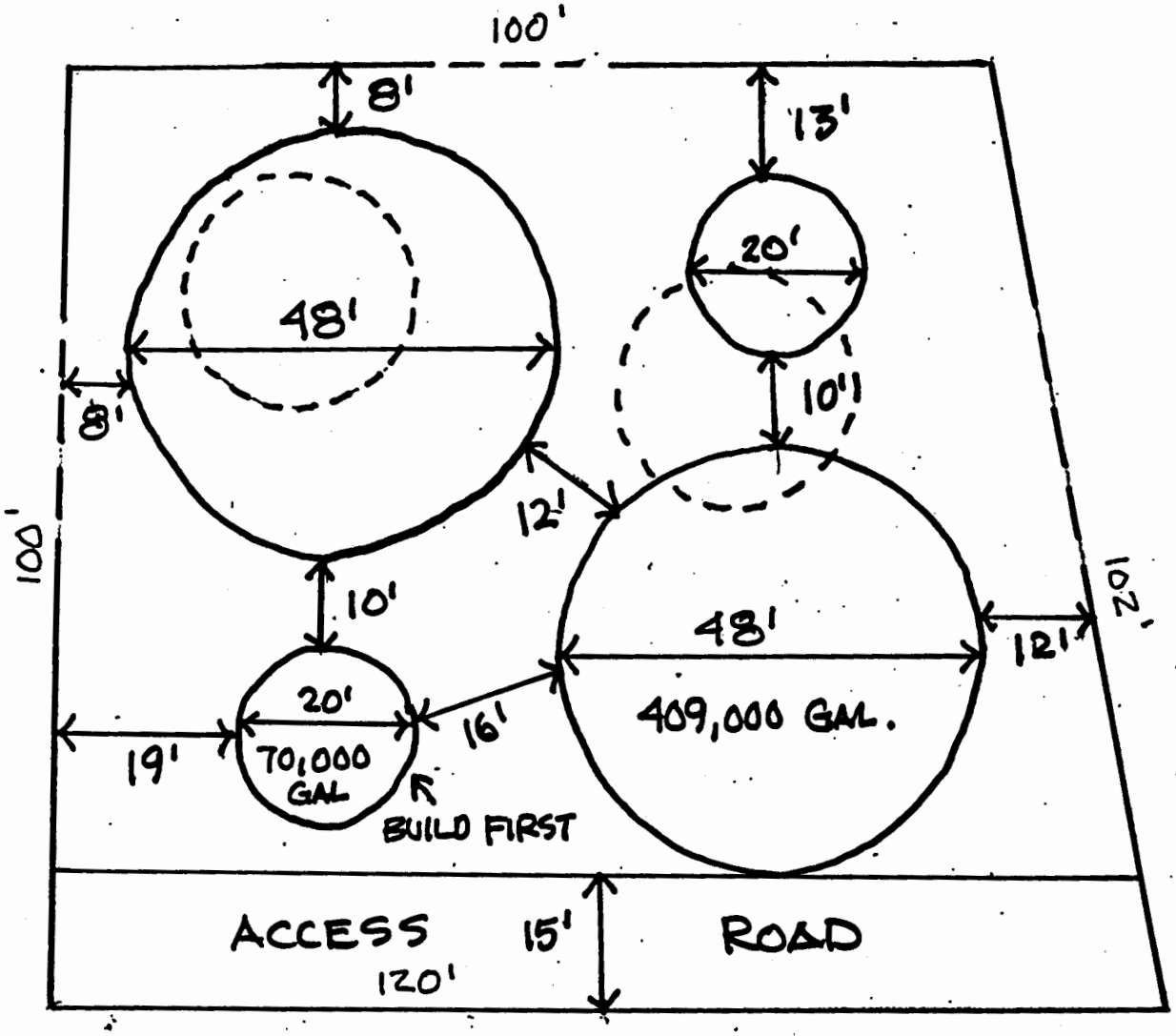
REVISED ALTERNATIVE "D"

Three Tanks (all 29.5 water depth, overall height of 32')

- **One 60' diameter tank, 625,000 gallons capacity**
- **One 35' diameter tank, 204,000 gallon capacity**
- **One 22' diameter tank, 91,000 gallon capacity**
- **Total water storage capacity 920,000**

Existing tanks shown by dotted line
20 scale (1 inch equals 20 feet)

OCC Exhibit P
(page 1 of 5 pages)

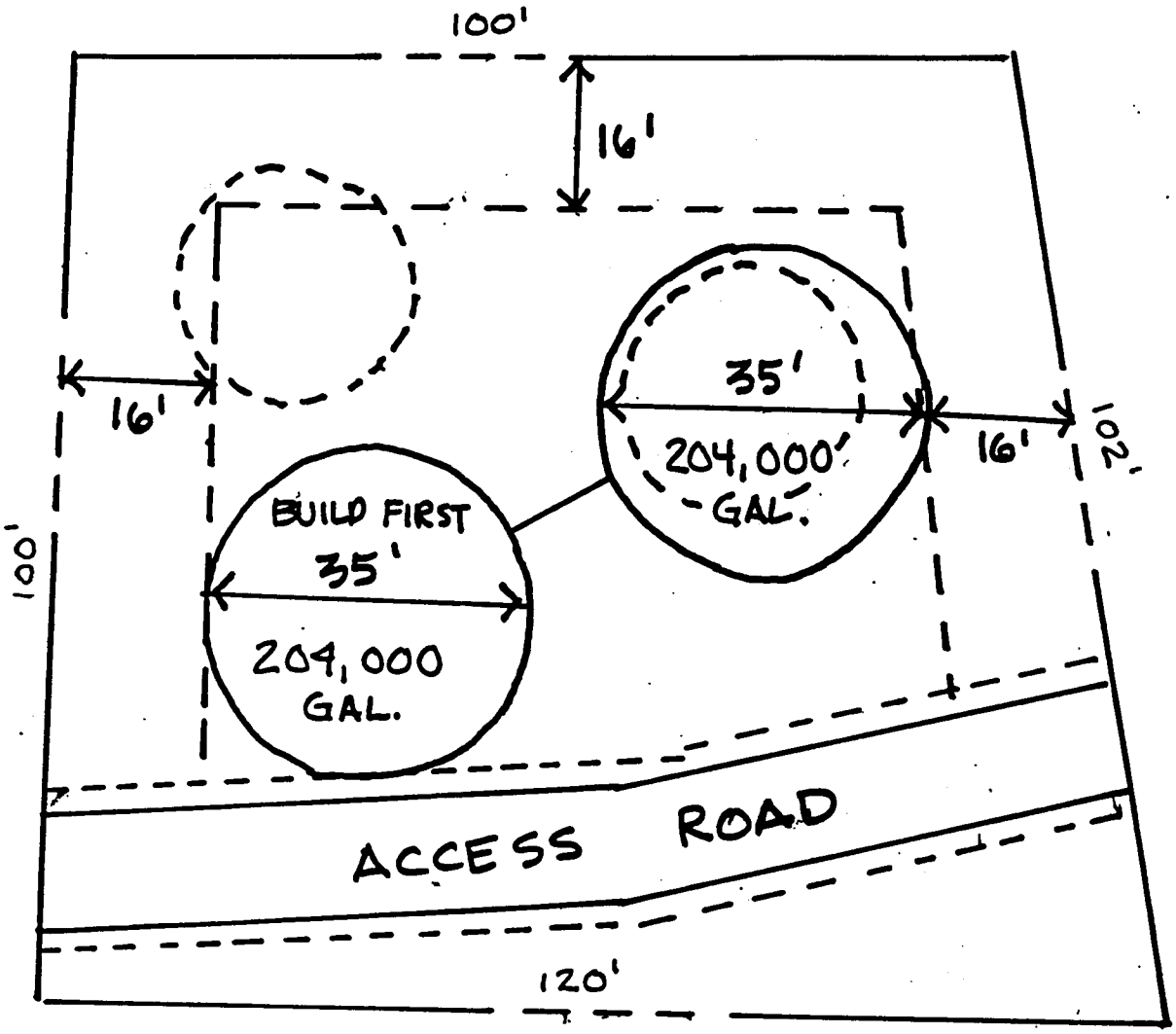


REVISED ALTERNATIVE "C"

Four Tanks (all 29.5 water depth, overall height of 32')

- **Two 48' diameter tanks, 409,000 gallons capacity each**
- **Two 20' diameter tanks, 70,000 gallons capacity each**
- **Total water storage capacity 958,000 gallons**

Existing tanks shown by dotted line
20 scale (1 inch equals 20 feet)



ALTERNATIVE "E"

Site plan complies with all CCSD criteria for set backs, clearances, access road, tank height, and water depth levels

- **Two 35' diameter tanks (29.5 water depth, overall height 0f 32')**
- **Tank capacity of 204,000 gallons each**
- **Total water storage 408,000 gallons**

Existing Tanks shown by dotted line
20 scale (1 inch equals 20 feet)

SAND CITY WATER STORAGE TANKS

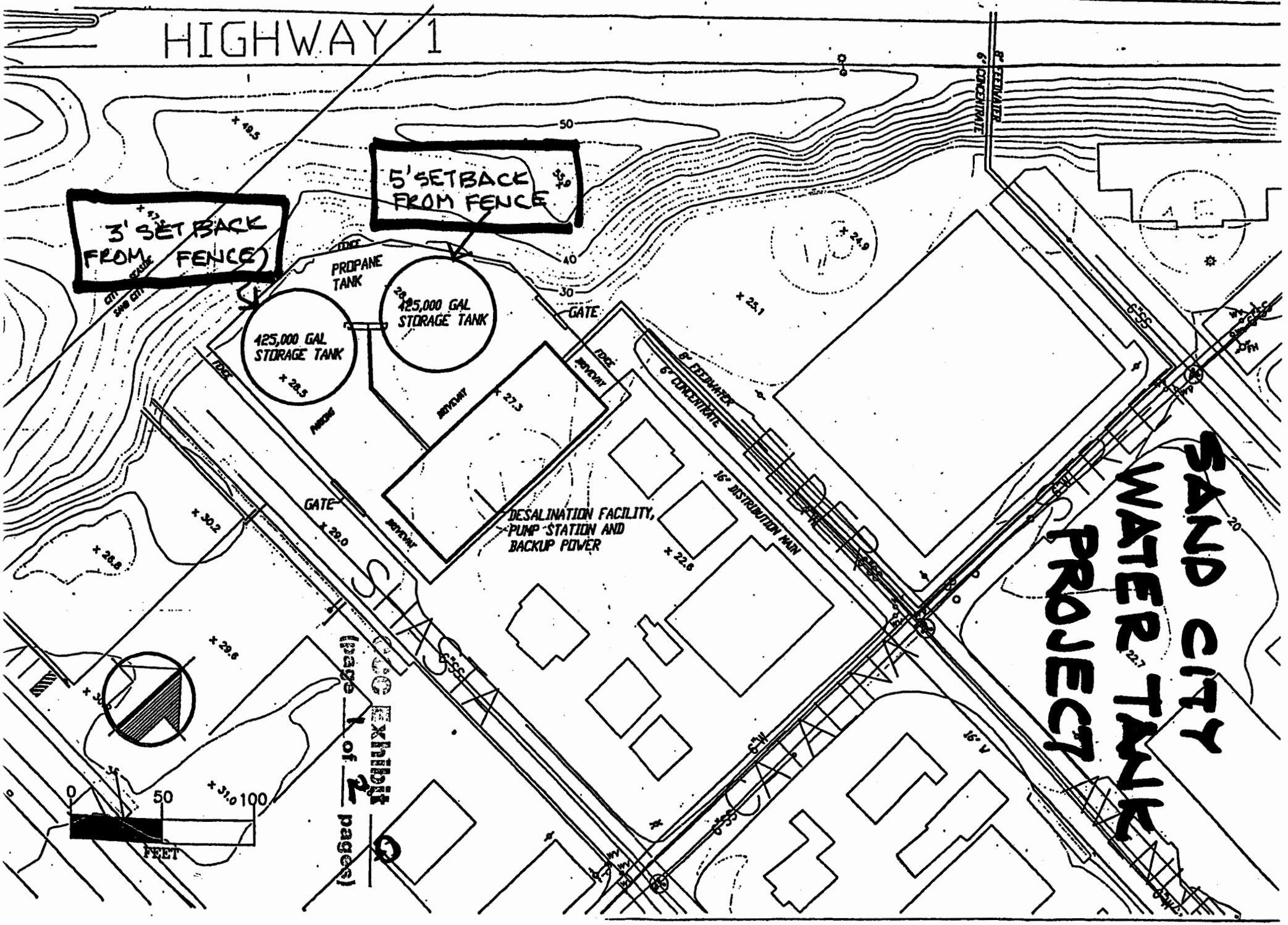
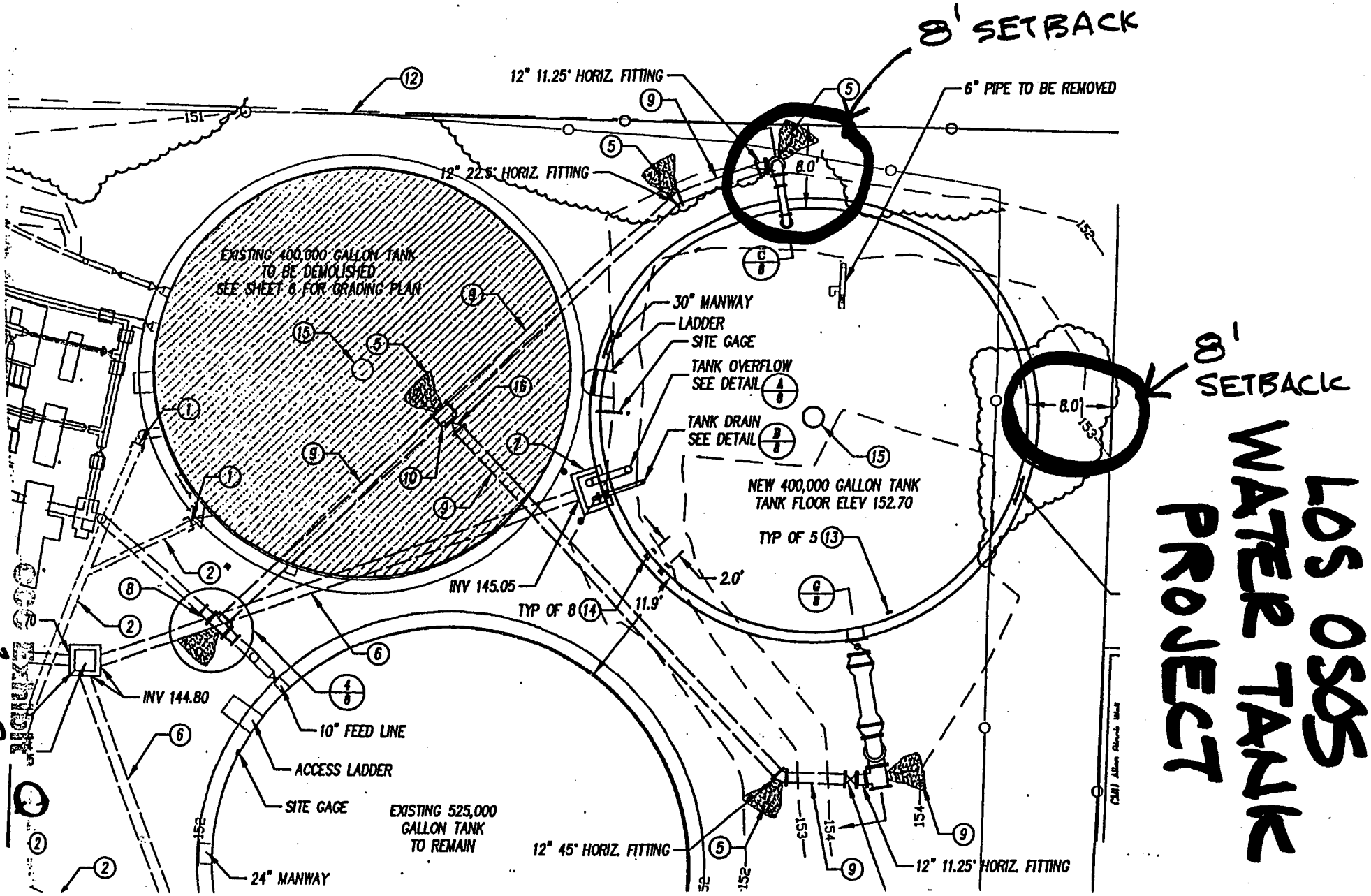


Exhibit 1 (page 1 of 2 pages)

LOS OSOS WATER STORAGE TANKS



LOS OSOS WATER TANK PROJECT

ATTACHMENT Q (2 of 2 pages)

Cambria Community Services District
Pine Knolls Reservoir Replacement Project
Responses to California Coastal Commission Comments/Questions of January 12, 2005

Item No.	CCC Comment/Question	CCSD Response
1.	First paragraph, last sentence: "... we remain concerned that the District has not fully considered every feasible and reasonable opportunity to avoid impacts to the forest while still meeting the community's water supply needs."	1A. The CCSD has revised the design twice in response to comments received well after its July 22, 2004 CEQA hearing on this project. Design Revision 4 has reduced the impact into the area northeast of the existing site to well below those of all prior designs. This impact area is now down to 6,100 square feet, which is also well under the typical 1 to 5 acre residential lot that the Coastal Commission has historically permitted in nearby mapped ESHA areas to the north. The CCSD has also reviewed suggestions by Coastal Staff and has summarized those on Attachment 1 to this summary. Attachment 2 to this summary also shows the remaining tank sites. Unlike the Pine Knolls replacement project site, all of the other sites are clearly within mapped ESHA areas. 1B. Referring to this project as meeting "water supply" needs is misleading. The replacement tanks are needed for storage related to daily operations and fire fighting. Unlike a seasonal storage reservoir that stores winter rainfall, they do not increase the community's "supply" of water.
2.	Third paragraph, page 1: "Please provide the relevant "national fire standards" and any other standards used as the basis for this evaluation and calculations used to determine the current fire storage deficit Overall, we would appreciate receiving the technical documentation and analysis supporting the District's conclusion that the only feasible way to address Cambria's water supply	2A .Please see Table 5-1 on page 31 of the District's July 2004, Task 3 Potable Water Distribution System Analysis(Water Master Plan), a copy of which was delivered to the Coastal Commission offices on October 20, 2004, and can also be found posted on the CCSD web site at cambriacsd.org. Page 31 includes Table A-III-A-I from the 2000 Uniform Fire Code.

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	needs is by locating 1.1 million gallons of storage on the Pine Knolls site."	2B. Also see section I.B. *Tank Volume Requirement*, paragraph 2,of the Pine Knolls Reservoir Replacement Feasibility Study for additional discussion on the evaluation of Zone 1 fire storage deficit. The feasibility study also describes design criteria, site evaluations, conceptual design alternatives, and constraints analysis for the Pine Knolls replacement project. 2C. Most of the larger commercial buildings are located within pressure Zone 1, the Zone served directly by the Pine Knolls tanks. These structures have the highest fire flows that correspondingly require the greatest volume for fire storage. A combination of aerial imagery, discussions with the Cambria Fire Chief, and review of the Uniform Fire Code resulted in 3,500 gallons per minute and three hours duration for the minimum allowable fire storage in Zone 1. 2D. See prior comment 1B regarding "supply needs."
3.	Page 1, last paragraph: "Table 5-8 of the 2004 Potable Water Distribution Analysis shows the fire storage requirement at Pine Knolls to be 630,000 gallons. The current proposal exceeds this requirement by adding additional daily working storage and emergency reserves. Therefore, the required storage volume appears to be based on future demand conditions at a projected level of community buildout, rather than only the volumes needed to meet current	3A. Please see section I.B. *Tank Volume Requirement*, paragraphs 1-4, of the Pine Knolls Reservoir Replacement Feasibility Study for a discussion on the requirements for operational, emergency, and fire storage volumes in potable water tanks. 3B. Table 5-8 of the Water Master Plan report shows the total volume required for the current customers with a 3,500 gpm fire flow scenario as 0.934 million

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	system deficiencies. We feel it is important to differentiate between how much water is needed currently, versus that which is needed to support future community buildout. Why do the operational and emergency reserves also need to be increased to such a large degree? Please provide the technical analysis and supporting documentation for the proposed emergency storage of 300,000 gallons."	gallons. This Table also contains multiple scenarios for the number of residential connections. The replacement project is being based on the 4,650 existing and future residential connections scenario and a 3,500 gpm fire flow scenario. This results in a total storage need of 1.128 million gallons (rounded to 1.1). The difference in storage volume for the existing CCSD wait list is therefore .194 million gallons. Of this amount, 0.065 million gallons is for operational storage, and 0.129 is for emergency storage. Sections 2.1.3 through 2.1.4 of the water master plan report also provide more detailed discussion on the development scenarios analyzed. The 4,650 scenario is in alignment with a past CCSD Board directive, and an August 2000 advisory ballot on a proposed desalination project. The 4,650 scenario is also less than what is currently permitted by an existing 1981 California Coastal Commission development permit. To achieve this lowered development goal, the CCSD is also completing a detailed build-out reduction plan.
4.	Page 2, first paragraph: "It was mentioned at the December 29, 2004 meeting in Cambria by Ms. Rudock that the storage requirement calculations on pages 39 and 40 of the Potable Water Distribution analysis are not accurate. In addition to providing the technical analysis	4A. A redlined copy of Table 5-8 is attached. Corrections were noted to better correlate with the durations shown on Table A-III-A-I of the Uniform Fire Code Table. For example, the 2500 gpm fire flow scenario correlates with a 2-hour duration. The fire storage volume is calculated at 2*2500*60, or

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	supporting the needed volumes of water, please provide the revised calculations and reason for any changes."	.300 million gallons. For the 3500 gpm fire flow, the UFC table requires three hours duration (3*3500*60, or 0.630 million gallons). In the line on Table 5-8 for the Pine Knolls tanks replacement, no corrections are required for the 3,500 gpm fire flow scenario and 4,650 residential connection scenario. 4B. Please also see section I.B. *Tank Volume Requirement*, paragraph 5,of the Pine Knolls Reservoir Replacement Feasibility Study for a discussion on Table 5-8 of the District's July 2004 Water Master Plan.
5.	Page 2, second paragraph: "Is the current double tanks 1.1 million gallon proposal the only way to meet the overall system requirements?"	5. Please see response numbers 1A, 1B, 2A, 2B, and 2C.
6.	Page 2, second paragraph: "In the case of Leimert tank site, the District has raised issue over added storage due to water quality concerns. Is it possible to overcome the water quality concerns with water treatment and/or periodic controlled "flushing/turning over" of the tanks?"	6A. As indicated in the CCSD Water Model Calibration and Leimert Fire Protection Analysis, dated July 2004, the District has had concerns with meeting their required chlorine residual with the existing Leimert tank capacity of 120,000 gallons. Additional capacity would increase the residence time of water in storage, resulting in lower chlorine levels and stagnant water concerns. Additional "localized" water treatment to mitigate the water quality concerns is not practical nor acceptable to CCSD. 6B. In addition to water quality concerns, the existing larger diameter pipelines are routed to the Pine Knolls tank and not the Leimert site. Larger pipelines are needed for the higher fire flow rates associated with

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		the lower, Pine Knolls (Zone 1) pressure zone and structures. 6C. Besides the disruption to the community and ESHA areas from extensive re-plumbing of the existing distribution system to reach the Leimert tank site, that tank site is already within a mapped ESHA. Use of the Leimert site will result in more impact to mapped ESHA than the current design revision 4 Pine Knolls project alternative.
7.	Page 2, third paragraph: "Also please address the possibility of having water storage tanks dedicated only to fight fires. If feasible, where could they be located within the current distribution system?"	7. Due to water quality concerns, a water storage tank dedicated solely for fire storage is not feasible. See our response to CCC comment/question no. 6A above for further discussion regarding water quality concerns, treatment, and operations. A separate system solely for fire fighting is also not feasible for Cambria; the fire hydrants and customer services all connect to same water lines that are buried within the community's streets, right-of-ways, and easements.
8.	Page 2, third paragraph: "In previous discussions, the District dismissed these particular alternatives because they involve extensive system upgrades. Please describe in detail the alternative system upgrades that would be needed to implement these storage alternatives, including cost estimates."	8A. Reasons for not using the Leimert site are described in response numbers 2C, 6A, 6B, and 6C. In addition, a preliminary estimate for placing a cross country pipeline from Pine Knolls to Leimert would require impacting approximately 56,000 square feet of mapped ESHA. 8B. Reasons for not using the Stuart Street site are similar to those given for not using the Leimert site. The Stuart Street tank site is also located within a mapped ESHA (See Attachment 2). The existing District property at this site is also not large enough to accommodate the additional volume needed. The

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		elevation at the Stuart Street site is also 154 feet higher than the existing Pine Knolls site. At one point in the master plan development, the CCSD had considered routing pipes through the new Coast Union Elementary School site for a new Zone 2 reservoir site along a hill southeasterly of that project. However, this idea was dropped after learning of existing restrictions placed on the school site by the Coastal Commission that do not allow water pipelines to cross a surrounding easement.
9.	Page 2, paragraph 2: "The District has stated that other existing tank sites are also highly constrained and located in Environmentally Sensitive Habitat Areas. Please provide a description and general site plan for each of the other tanks sites."	9. Please see Attachment 2.
10.	Page 2, paragraph 3: "Please describe the different pressure zone interactions that have been analyzed, such as adjusting, combining, or separating pressure zones to assist in water supply and fire protection. Please address the feasibility of using such methods to address fire protection needs while reducing the need for storage at the Pine Knolls site."	10A. Please see sections I.A and C. *Design Criteria* of the Pine Knolls Reservoir Replacement Feasibility Study for a discussion on the District's pressure zones and the critical nature of Zone 1 (zone served by Pine Knolls). 10B. Attachment 2 shows the eight pressure zones that make up the CCSD distribution system. Existing topography dictates where the zone boundaries occur. Figure 2-6 (Hydraulic Profile) of the Water Master Plan further illustrates the elevations for each pressure zone grid and corresponding service

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		tank. A few smaller areas that are isolated by topography are served through pressure regulating valves. Examples include a pressure zone 6 to 8 connection (Charing); and, a pressure zone 4 to 5 connection (Stuart Street). However, service through a pressure control valve is discouraged for larger service areas because they waste energy and are susceptible to mechanical failure. When they do fail, pressures can exceed the design limits of existing pipelines, meters, and service lines. For example, most water system components are designed to an American Water Works Association standard pressure of 150 psi. To provide some margin of safety, the maximum system pressure recommended by the Water Master Plan was 120 psi (See page 30). Pressures that could result from dropping pressure though the higher Stuart Street tanks into Zone 1 could be as high as 190 psi. To avoid the risk of major pipeline failures, a pressure-zone-specific gravity feed tank system is preferred for the larger pressure zone service areas. 10B. It should also be noted, simply modifying the pressure zone interactions, by themselves, will not provide the required fire flow protection to Zone 1.
11.	Page 2, bottom paragraph: "Please examine the end user impacts of increases in head pressure (from increasing the highest tank elevation by 2,5, and	11A.. Please see section IV.B *Hydraulic Constraints* of the Pine Knolls Reservoir Replacement Feasibility Study for a discussion on the hydraulic characteristics and constraints at the Pine Knolls

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	10 feet, for example), provide estimates of the number of end users whose water pressure would increase beyond levels you deem acceptable, and possible end user modifications that could be implemented to alleviate these conditions for operational service."	site. 11B. For every 1-foot increase in tank height the static pressure increases by 0.433 pounds-per-square inch. Hence, an increase in tank height of 10-feet corresponds to a net increase of 4.33 psi as follows: 10-feet x 0.433 psi/ft = 4.33 psi. Increasing the water elevation within the Pine Knolls tanks has a ripple effect throughout the entire system. With Zone 1, the lower service elevations were already above the maximum recommended limit of 120 psi.(See comment 10B) Therefore, and in view of the age of the existing pipes and services, increasing the water depth was not recommended. An increase in elevation also creates more pumping head for each of the existing wells pumps. This in turn lowers the pumping rates of each well pump. In addition to avoiding high pressures in the lower portions of the pressure zone, tall narrow tanks provide a wider range of service pressures as they operate. Larger spans of operating pressures can be particularly troublesome for customers in the upper portions of the service zone as their water pressure varies throughout the day. For the above reasons, no increase in water elevation within the tanks was deemed to be appropriate.

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12.	Page 2, bottom paragraph, continued to top of page 3: "Could distribution system upgrades, such as adding pressure release valves or increasing delivery pipe diameters, be installed to handle increased system pressure? If so, how many of them would be needed and where in the system could they be installed? How would such changes affect the operation and functioning of the current distribution system?"	12A. Increasing delivery pipe diameters typically increases system pressures. Reducing pipe diameters typically reduces system pressure by virtue of increased frictional head loss (pressure loss). The restriction to flow posed by the reduced pipe diameters acts as a "bottleneck" in the system reducing the system's fire flow capacity. 12B. See earlier response 10B.
13.	Page 3, first paragraph: "Does the system currently rely on pressure valves to regulate the distribution of water?"	13. There are no "pressure valves" in the CCSD's existing potable water system. There are however three (3) functional pressure reducing valve (PRV) stations in the Cambria water system. These include the Ardath/Madison, the Parkhill/Windsor, and the Ellis & Norton PRV stations. Also see earlier response 10B.
14.	Page 3, first paragraph: "Is it feasible to sink taller, narrower tanks on the site, potentially coupled with the use of pumps when use of the entire tank volume may be necessary, to provide fire and emergency water supply? Could a taller tank be designed to include a baffle system at the upper elevation of the tank that would release water into the lower portion of the tank so as not to ever exceed 29' operating level? "	14A. Please see section IV.B *Hydraulic Constraints* of the Pine Knolls Reservoir Replacement Feasibility Study for a discussion on the hydraulic characteristics and constraints at the Pine Knolls site. 14B. As indicated in section I.A *Design Criteria*, paragraph 3, of the feasibility study, the two existing Pine Knolls tanks represent one of the most critical components of the District's water distribution system. Hence, gravity flow from the tanks is the only feasible "fail-safe" method of providing fire protection to Zone 1. The dependence on fire pumps to "lift" water from Pine Knolls tanks in the event of a fire presents many problems as described by the following:

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		• Water quality will be a concern due to poor circulation, lack of turnover, and resulting stagnation within the buried portion of the tank. • Mechanical failure and/or power failure of pumps during a fire event in Zone 1 will leave the East and West Village downtown areas without adequate and accessible fire storage protection. • PG&E often cuts off power to an entire area during a major wild fire due to fallen power lines. Therefore, a gravity feed system is the most reliable and preferred means for fighting fires. Cambria is particularly at risk from this happening due to the prevalence of overhead power lines and their close proximity to trees. 14C. The baffled tank concept, as described by the CCC, is not structurally, hydraulically, nor operationally feasible.
15.	Page 3, second paragraph: "Please describe the width and buffers for the existing fire access. Please explain the purpose of the fire access road (under what circumstances and how would it be used?) and provide the technical data/fire codes that support the need for a fire access road of this size, configuration, and location. Are other locations/configurations of this access feasible? Or could the fire access road be reconfigured to run parallel with the western property boundary? Commission staff believes that both of these alternatives could free up additional space allowing the tanks to be removed from the forest area and onto the existing disturbed tank site. Please explain why such alternatives are not feasible. Is it feasible to design a fire access road that also serves a	15A. Please see section IV.C *Site Constraints* of the Pine Knolls Reservoir Replacement Feasibility Study for a brief discussion on the fire access at Pine Knolls tanks. 15B. The fire access road was reviewed in detail with the Cambria Fire Chief. The existing emergency access will serve as a strike area during a wild fire event for fire crews as well as heavy equipment. Heavy equipment could include bulldozers that may be required in creating a firebreak between the wooded area and adjacent residents. The existing access road has historically been used for responding to injuries, medical emergencies, and small fires. The wooded area contains several trails that attract

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	drainage function to resolve constraints posed by existing drainage patterns (e.g. by using a small retaining wall to direct drainage away from adjacent properties)?”	hikers and mountain bikers. The existing gate alignment was also chosen by the Fire Chief to allow laying fire lines along some existing trails, and to also avoid impacting existing trees to the north and south. 15C. Section 902 of the 2001 California Fire Code specifies fire access roads to be 20 feet wide. However, the Cambria Fire Chief has allowed an exception for a 12-foot minimum roadway with 3-foot wide shoulder access due to the special circumstances and desire to conserve land area. The shoulder access is needed to allow doors to open on emergency vehicles, access to side panel emergency equipment storage areas, and fire hoses. 15D. Due to the minimum required design turning radius of 50 feet for fire and rescue vehicles, it is not possible to reconfigure the access road to run parallel with the western property boundary. 15E. Also see Attachment 1 for a summary of related concerns associated with earlier lay out concepts proposed by Coastal Commission staff.
16.	Page 3, third paragraph: “In addition, there has been discussion of the need for the fire	16. The current Design Revision 4 alternative allows for continued access to the trails.

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	responders to access the informal path or trail that is immediately east of the current tank site. It is unlikely that these paths will maintain their current configuration if the tank storage site encroaches into the forested area immediately to the north, as this would then provide a path that would dead end into the fencing around the tanks. Please explain the functioning of the fire access in light of possible future site changes."	
17.	Page 3, bottom paragraph: "Another major design constraint according to the District is the need to maintain at least 200,000 gallons of water storage at the site while the project is being constructed. The District asserts that both existing tanks must remain online during construction of the first replacement tank. Please explain why this is the case and whether there are any feasible alternatives for providing temporary water supply at other locations or through temporary reallocations of water within the system."	17A. Please see response No. 2B. 17B. Please see sections I.A and C. *Design Criteria* of the Pine Knolls Reservoir Replacement Feasibility Study for a discussion on the critical fire protection function of the Pine Knolls site. 17C. Please see section I.B *Tank Volume Requirment* of the Pine Knolls Reservoir Replacement Feasibility Study for a discussion on the components of tank volume, their calculation, and their purpose. It should be noted, the current combined maximum capacity at the Pine Knolls site is approximately 206,000 gallons. As stated in the afore mentioned section of the Feasibility Study, the required operational storage for the new tanks is approximately 166,000 gallons. The resulting difference barely provides a fraction of the required emergency storage (332,000 gallons) and none of the required fire storage (630,000 gallons). Hence, to maintain existing operations a minimum volume of 206,000 gallons is required during construction. Reducing the existing storage volume any further during construction is not an option.

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		17D. There are no feasible alternatives for providing temporary water supply at other locations or through temporary reallocations of water within the system. Please see response Nos. 6, 7, 8, 9, and 10.
18.	Page 3, bottom paragraph: "Based on the site plans provided, it appears that a temporary tank could be accommodated on the existing Pine Knolls tank site. In a letter dated November 29, 2004 the District states that their consultants concluded that the use of temporary tanks would require the destruction of over 12,000 square feet of forest habitat. Please provide the data to support this contention."	18A. As indicated in section III.A *Alternative 1-Concrete Tank with Offsite Temporary Storage* of the Feasibility Study, a minimum of 6,750 square feet in construction and maintenance easements in addition to approximately 3,090 square feet for a temporary tank will be required for the construction of this alternative. This results in an impact to the area northeast of the existing tank site of 9,840 square feet. Please see the "Original Concrete Tank Concept" site plan included as an attachment to the Feasibility Study. The current Design Revision 4 requires only 6,100 square feet in this same area.
19.	Page 4, top paragraph: "A second concern with respect to a temporary tank is that it would require construction of a permanent foundation and could not be placed on gravel. Please explain why the temporary tank would require a more permanent foundation than is available now. Please address whether it is feasible to provide a temporary water tank on site or at another location."	19A. Please see section III.A *Alternative 1-Concrete Tank with Offsite Temporary Storage,* paragraph 4, for a description on the temporary tank's foundation. These requirements are based on a seismic analysis conducted by Boyle Engineering and summarized in a letter to the CCSD dated November 3, 2004, and titled *Seismic Issues – Existing Pine Knolls Tanks.* 19B. Locating a temporary tank on the existing Pine Knolls site is not feasible. As indicated in Section IV.C of the Feasibility Study, emergency access to

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		an access gate along the eastern property line must be maintained for the Cambria Fire Department. In addition, as indicated in Section III.D of the Feasibility Study, paragraph 1, a minimum of at least 12-feet is needed between tank foundations in order to avoid undermining an operational tank during the excavation of existing poorly consolidated soil that must be removed below each newly constructed tank. It should also be noted, substantial temporary construction laydown (staging) area will be required for the construction of the new tanks. An on-site temporary tank would only serve to congest the already "tight" site by limiting fire access and reducing the laydown area available for use.
20.	Page 4, second paragraph: "Lastly, we would like to better understand the long-term operation and maintenance requirements, as this information relates to setbacks, distance necessary around the tanks, and the like. Please describe in detail all maintenance requirements, including the type and operating specifications of the equipment needed for maintenance (e.g. the stated need for a scissor lift for painting) and any regulatory requirements that may dictate maintenance constraints. In addition, please provide a current construction schedule for the project."	20A. Please see Section IV.A. *Construction Sequencing* of the Feasibility Study for a brief discussion on the anticipated sequence of construction. 20B. Not counting setback requirements outlined in the Coastal Zone Land Use Ordinance, long term operations and maintenance require the minimum clearances shown on the Design Revision 4 layout drawing. Besides the initial construction clearances required, the tanks will need to be painted on the interior and exterior approximately every 10 to 15 years depending upon corrosion and wear of the paint system. Such painting operations require the use of air compressors for sandblasting; lifts, and scaffolding that could require a tank to be out of

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		service for about 6 to 8 weeks. The areas shown allow a pickup truck pulling such equipment to maneuver around each tank. Hauling off of sand will also be necessary out of access hatches. In addition, the need for an emergency response could occur at the tank ladder access areas should a worker become injured. Therefore, allowing room for an ambulance to traverse around the tanks facilitates emergency response operations. Also see comment 20E. 20C. As shown on the *Current Concept (Design Rev. 4)*, a minimum of 3 feet separation between the new perimeter retaining wall and the proposed fence line is required for constructability. A retaining wall system utilizing cast-in-place concrete piles and concrete planks will be required to provide this tight offset. 20D. Please see Section III.D of the Feasibility Study, paragraph 1, for a discussion regarding minimum separation between tank foundations. 20E. Vehicle access around the tanks is the criteria used for determining the minimum distance required around the perimeter of the new tanks. Based on Exhibit 2-2 *Minimum Turning Radii of Design Vehicles* of the AASHTO Greenbook publication titled *A Policy on Geometric Design of Highways and Streets, 5th Edition,*

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		it was determined that the minimum design turning radii for maintenance vehicles were as follows: a. Passenger car (19-ft long, assumed steering angle is 31.6°): • Minimum design turning radius = 24 feet • Maximum front overhang radius = 25.5 feet b. Single unit truck (30-ft long, assumed steering angle is 31.7°): • Minimum design turning radius = 42 feet • Maximum front overhang radius = 43.5 feet It should be noted, the actual design vehicle is a full-size pickup truck. The truck is larger than the passenger car, but smaller than the single unit truck described above. The passenger car design turning radii are adequately accommodated on the current Design Rev. 4 Tank Site Plan. However, the single unit truck design turning radii are not fully accommodated on the same tank site plan. Based on this analysis, the minimum clearance of 12 feet between the outer edge of the new tank foundations and the front face of the retaining walls is recommended as shown on the current Design Rev. 4 Tank Site Plan.

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CALIFORNIA
COASTAL COMMISSION
CENTRAL COAST AREA

CAMBRIA COMMUNITY SERVICES DISTRICT
P.O. Box 65 • Cambria, CA 93428 • Telephone: (805) 927-6223 • Fax: (805) 927-5584

DATE: May 11, 2005

TO: Members and Alternates, California Coastal Commission
Peter Douglas, Executive Director
Charles Lester, Deputy Director
Jonathon Bishop, Coastal Program Analyst

FROM: Tammy Rudock, General Manager

RE: CDP A-3-SLO-05-017, CCSD Water Tanks Replacement
Response to Additional Questions by Coastal Commission Staff Regarding Pine Knolls Tanks Replacement Project

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The Cambria Community Services District ("CCSD") provides the following responses *(in green)* to the Coastal Commission staff's additional questions received April 20, 2005.

Constraints:

Allocation of water:

Please Confirm:

- 630,000 gallons of storage is fire requirement for Pressure zone 1.

Affirmative, as defined and stipulated in Table A-III-A-1 of the 2001 edition of the California Fire Code and the 2000 edition of the Uniform Fire Code for Type V non-rated structures over 17,000 square fee in size, and as per prior responses:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *As confirmed by Peter Douglas, Executive Director, on page 41 of the transcript from the April 14, 2005, Coastal Commission meeting;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*
- *In the peer review report by retired Fire Chief Gerald Simon, as presented to Coastal Commission staff and commissioners for the April 14, 2005, Coastal Commission meeting;*
- *Acknowledged and accepted in Coastal Commission staff report dated March 30, 2005, on page 10, paragraph 3;*

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- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, CCSD Water distribution system service map, CCSD system schematic, Table A-III-A-1 of the 2000 Uniform Fire Code, and professional engineering analysis of Coastal Commission staff alternative designs;*
- *In the CCSD PowerPoint presentation dated January 13, 2005, presented to SLO County Planning Commission and provided to Coastal Commission staff;*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff;*
- *In a meeting held in Cambria on December 29, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff;*
- *In a telephone discussion on December 7, 2004, between Fire Chief Bob Putney and Coastal Commission staff;*
- *In a telephone conference call on December 6, 2004, among CCSD staff and Coastal Commission staff;*
- *In the November 29, 2004, response to telephone conference held on November 23, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff;*
- *At the November 3, 2004, Pine Knolls tanks site visit by Coastal Commission staff; and*
- *At the October 20, 2004, meeting between District Engineer Bob Gresens and Coastal Commission staff in Santa Cruz.*

- Identified operational and emergency water storage at Pine Knolls site is for Pressure zone 1 only; other tank locations serve other pressure zones and also have their own allocated fire storage.

Affirmative, as per prior responses:

- *Acknowledged and accepted in Coastal Commission staff report dated March 30, 2005, on page 29, paragraph 5;*
- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, CCSD Water distribution system service map, CCSD system schematic, Table A-III-A-1 of the 2000 Uniform Fire Code, detailed response to Coastal Commission questions, and professional engineering analysis of Coastal Commission staff alternative designs;*
- *In the CCSD PowerPoint presentation dated January 13, 2005, presented to SLO County Planning Commission and provided to Coastal Commission staff;*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff;*
- *In a meeting held in Cambria on December 29, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff;*

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- *In a telephone conference call on December 6, 2004, among CCSD staff and Coastal Commission staff;*
- *In the November 29, 2004, response to telephone conference held on November 23, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff;*
- *At the November 3, 2004, Pine Knolls tanks site visit by Coastal Commission staff; and;*
- *At the October 20, 2004, meeting between District Engineer Bob Gresens and Coastal Commission staff in Santa Cruz.*

- Therefore, total Avg daily demand for community is the sum of ADD from each tank location (e.g., 0.270+0.356+.067+.034=.727 for existing)

Affirmative for existing conditions, as per prior discussions:

- *In a meeting held in Cambria on December 29, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff; and*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff.*

- Does it follow that the Pine Knolls tank site must store approximately 37% of the total ADD? (0.270/.727=.37)

Affirmative.

Water demand projections:

- Please explain the derivation of the Average Daily Demand and Max. Daily Demand for the Pine Knolls site for existing conditions and buildout scenario 4650. For example:

  Average daily demand is only one factor to consider when determining the appropriate water storage needed for a water system. Maximum daily demand is more appropriate since it provides the maximum expected use of water from the storage facility. Title 22 of the California Code of Regulations Section 64564 sets forth an accepted method to determine the maximum daily demand and the needed water storage volume, without the provision for fire flow. Water system use records are then used, and if they are inadequate, the charts in this Section should be utilized. Applying the charts, Cambria is currently short well over 1,000,000 gallons in storage capacity for its current customers. The capacity, in excess of Fire Code mandated storage at the Pine Knolls tanks, is significantly less than what is set forth in Title 22 and is within the jurisdiction of the Department of Health Services. (Health and Safety Code § 116325).

  -Does the 0.270 mgd presume a 50% increase over current residential usage?

  No, as per discussions in a meeting held in Cambria on December 29, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff.

-Does the 0.270 mgd presume a 50% increase over current commercial usage?

No, as per discussions in a meeting held in Cambria on December 29, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff.

-Does the 0.433 mgd for future scenario 4650 presume a 50% increase over current commercial usage?

The .443 mgd average daily demand includes a 50% increase for both residential and commercial use. This also ensures compliance with an existing Coastal Development Permit condition (CCC permit #428-10) that at least 20-percent of the CCSD permitted capacity be reserved for "public commercial or recreational uses." (Note: The figure of 0.433 mgd stated above is an error.)

-Does the 0.433 mgd for future scenario 4650 presume a 50% increase over current commercial usage?

This is a duplicate question; see prior comment.

- How many existing residential and commercial connections are there currently?

There are approximately 3,764 residential connections, plus approximately 20 residential apartments that are billed as two commercial connections. Therefore, there are approximately 3,784 residential housing units when compared to the 5,250 permitted total of existing Coastal Development Permit # 428-10. The total number of commercial connections is 217.

- How many residential and commercial connections are "in the pipeline" not subject to the water emergency?

As of March 14, 2005:

Single-family residential connections:

With existing intent to serve letters	*9*
Potential from grandfathered connections	*35*
With connection permits, waiting on meter installation	*8*
Subtotal potential new SFR	*52*
Existing SFR connections from tear downs (part of 3,784).	*7*
Subtotal SFR	*59*

Multi-family residential connections:

With existing intent to serve letters	*10*
Potential from grandfathered connections	*3*
With connection permits, waiting on meter installation	*2*
Subtotal MFR	*15*

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Commercial connections

With existing intent to serve letters..... 5
Potential from grandfathered connections..... 6
With connection permits, waiting on meter installation..... 1
Subtotal commercial 12

Affordable housing (with CCSD Board approval)..... 24

TOTAL 110

- How many residential and commercial connections are on the waiting list that forms the basis of the 4650 connections buildout scenario?

  The CCSD is the agency responsible for determining water connections, and its Wait Lists contain the following:

  Residential connections on existing CCSD wait list 666
  Commercial connections on existing CCSD wait list..... 24
  690

- How many residential and commercial connections on the waiting list are located in Pressure zone 1?

  Information is not available by pressure zone. However, the majority of the future commercial connections will occur in pressure zone 1. Also note that the existing CCSD Code allows for moving wait list positions from one property to another. Therefore, the exact location of wait list locations will change over time.

- What is the occupancy rate assumed in both existing and projected water demand numbers?

  For existing demands, we used 1.66 persons per household, which according to the 2000 census equaled about a 25-percent vacancy rate.

  For future demands, we looked at both 1.66 persons per household and 2.21 persons per occupied household.

- What were the total production numbers in AF for 2003 and 2004?

  2003 production: 793 acre-feet
  2004 production: 773 acre-feet

- If available, please provide the total number of residential and commercial connections for production years 1988 to the present.

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CCSD data available for connections begins in 1991, and is not broken down between residential and commercial connections for production years 1991-1998. These numbers represent total connections:

YEAR	TOTAL CONNECTIONS
1991	3316
1992	3342
1993	3399
1994	3436
1995	3468
1996	3548
1997	3672
1998	3770

CCSD reports from 1999 to present reflect a breakdown between residential and commercial connections as follows:

Year	Residential Connections	Commercial Connections
1999	3586	210
2000	3650	213
2001	3674	213
2002	3750	216
2003	3761	217
2004	3764	220

Site Constraints:

Please explain in detail why the proposed fire road cannot be aligned immediately adjacent to the southern property line.

It jeopardizes firefighter and rescuer safety and survival. Fire access road must be 12-feet minimum with 3+ feet on each side to maneuver and open vehicle compartments to access equipment. Moving the access road south would place it next to the fence and would not allow safe operations to be conducted due to the narrow width. The residence to the south has a sunken backyard, which would cause soil instability when any heavy equipment was operated or used the access road. This could cause the road to fail and injure or kill emergency personnel. Where the road is now provides for ease of maneuvering fire and emergency vehicles accessing and backing up to the gate to begin fire attack or rescue medical operations, as per prior discussions:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *In the peer review report by retired Fire Chief Gerald Simon, as presented to Coastal Commission staff and commissioners for the April 14, 2005, Coastal Commission meeting;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*

- *In a letter to the Coastal Commission dated April 11, 2005, by Mark Stanley, Chief Deputy Director for the California Department of Forestry and Fire Protection;*
- *In the summary prepared by Norbert Dall of Dall & Associates, Coastal Consultant to CCSD, in April 2005, of the Scaled Analysis of the Coastal Commission staff Revised Alternatives A-E;*
- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, and professional engineering analysis of Coastal Commission staff alternative designs;*
- *In the CCSD PowerPoint presentation dated January 13, 2005, presented to SLO County Planning Commission and provided to Coastal Commission staff;*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff;*
- *In a meeting held in Cambria on December 29, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff;*
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- *In a telephone conference call on December 6, 2004, among CCSD staff and Coastal Commission staff;*
- *In the November 29, 2004, response to telephone conference held on November 23, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff;*
- *At the November 3, 2004, Pine Knolls tanks site visit by Coastal Commission staff; and*
- *At the October 20, 2004, meeting between District Engineer Bob Gresens and Coastal Commission staff in Santa Cruz.*

It has been represented that the 18' fire road width is in part necessary to allow two "lanes" of traffic. Is this true or typical?

No. It was expressed to CCSD staff on April 22, 2005, by Coastal Commission staff that a CCSD consultant made this representation, but it is not valid, and has never been part of any prior discussions among CCSD staff, Coastal Commission staff, and SLO County staff.

CCSD's consultant denies ever making such a representation to Coastal Commission staff.

The Uniform Fire Code allows for 20' for the emergency access road and makes it clear that the fire chief in the jurisdiction determines the amount of fire department access in order to mitigate emergencies.

As per prior discussions:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*

- *In the peer review report by retired Fire Chief Gerald Simon, as presented to Coastal Commission staff and commissioners for the April 14, 2005, Coastal Commission meeting;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*
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- *In the summary prepared by Norbert Dall of Dall & Associates, Coastal Consultant to CCSD, in April 2005, of the Scaled Analysis of the Coastal Commission staff Revised Alternatives A-E;*
- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, and professional engineering analysis of Coastal Commission staff alternative designs;*
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- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff; and*
- *In a meeting held in Cambria on December 29, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff.*

Please describe the foundation structure of the proposed tanks (Is it above grade? How much separation is required between foundations, etc.)

The top of the ring wall foundation is one foot above grade.

A 12-foot separation is needed to prevent undermining the foundation of an existing tank without compromising the other design criteria (see Section 1 "Design Criteria" of the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation). Whenever a new tank is constructed, the existing soil under the new tank has to be excavated to bedrock and refilled with an engineered base material. The excavation and base compacting operations need to be a safe distance apart in order to prevent impacting the foundation of a full tank while it is in operation. Other factors also affect the distance between tanks such as future operations and maintenance, construction requirements, piping requirements, and site drainage.

As per prior discussions:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*
- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, and professional engineering analysis of Coastal Commission staff alternative designs;*

- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff;*
- *In a meeting held in Cambria on December 29, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff;*
- *In a telephone conference call on December 6, 2004, among CCSD staff and Coastal Commission staff;*
- *In the November 29, 2004, response to telephone conference held on November 23, 2004, among CCSD staff, Coastal Commission staff, and SLO County staff;*
- *At the November 3, 2004, Pine Knolls tanks site visit by Coastal Commission staff; and*
- *At the October 20, 2004, meeting between District Engineer Bob Gresens and Coastal Commission staff in Santa Cruz.*

Please explain in detail the construction sequencing and other constraints that lead the CSD to conclude that a 24' setback on the western side of the property is necessary.

It is somewhat misleading to infer that a 24-foot setback on the west side was a primary design limitation controlling the tank layout. Rather, the CCSD needs to maintain operation of the two existing tanks at all times during completion of the project. Constructing the most northeastern tank first, (Tank No. 2), allows the two existing tanks to continue operating. Once Tank 2 is operational, the two existing tanks can be demolished and removed from the site in order to allow construction of Tank No. 1 on the existing site.

To avoid impacting the foundation of either a new, or existing tank, the distance between the tanks should be at least 12-feet. This is because the soil below the tanks must be removed down to bedrock and replaced with an engineered fill. The northeastern most new tank (Tank No. 2) is 12 feet from both an existing tank as well as the proposed new tank No. 1. Therefore, it is constrained by how far it can be moved in a southwesterly direction.

Besides the tank separation and sequencing concerns, the area west of Tank 1 is needed for service vehicle access, maintenance and repair equipment, parking, and an electrical control building.

As per prior discussions:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*
- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, and professional engineering analysis of Coastal Commission staff alternative designs; and*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff.*

What is the minimum setback from the existing tanks for new construction? That is, how close could a new tank foundation be located to an existing tank without putting the existing tank at unreasonable risk?

12 feet, without compromising the other design criteria (see Section 1 "Design Criteria" of the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation), as per prior discussions:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*
- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, and professional engineering analysis of Coastal Commission staff alternative designs; and*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff.*

Operational constraints

Please explain why the two tanks have to be exactly the same size. Assuming other constraints could be met, could two or more tanks of the same size be used? E.g, three equally sized tanks? Four?

Two tanks of the same size are preferred for overall system reliability. When one tank is removed from service, the operational and emergency storage is used in the remaining on-line tank for operations. Typically, the longest tank shutdown will occur when one tank is being painted. A painting operation can last about 4 to 6 weeks, and is typically timed to occur during the late fall or early spring when seasonal demands are low. Conversely, having one large and one small tank creates operational deficiencies whenever the larger tank is out of service during repairs.

As per prior discussions:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*
- *In the summary prepared by Norbert Dall of Dall & Associates, Coastal Consultant to CCSD, in April 2005, of the Scaled Analysis of the Coastal Commission staff Revised Alternatives A-E;*
- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, and professional engineering analysis of Coastal Commission staff alternative designs; and*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff.*

Please explain in more detail why inter-zone transfers of water could not be used either for emergency or operational demands. What is the flow rate for operational water demand? What is the rate for emergency demand? What rates might be available from existing or proposed transfer capabilities?

As a practical matter, there is no available emergency storage to transfer from any of the other tank sites. Storage deficiencies exist at each of the existing CCSD tank sites. The operational storage floats with the pressure zone it serves and cannot be transferred to another pressure zone. Also, the footprint of the Pine Knolls tanks will not change much if emergency storage could be moved somewhere else. For example, assuming that half of the 332,000 gallons of emergency storage could be relocated elsewhere, the radius of the tanks would only be reduced by about 2 feet. Construction of a replacement tank in the northeastern expansion area would still be required due to the operational, maintenance, and construction constraints mentioned earlier.

Portions of this response have been provided to Coastal Commission staff in many earlier discussions dating back to 2004.

At what rate do the existing tanks refill? How much water is moved through the Pine Knoll tanks to other tank locations and at what rate? At what rate would the proposed tanks be able to refill? How much water would move through the tanks to other locations?

We do not have meters on the inlet and outlet to the existing tanks. Therefore, we cannot answer this question in detail. However, CCSD water operations staff indicate that the existing Pine Knolls tanks fill and empty as many as four times per day, utilizing the total volume of the tanks, leaving nothing for firefighting or emergency operations. Tanks fill whenever the system demands are less than our well pumping production. Typical well pumping is about 500 to 600 gpm during the summer months. Peak hourly flow rates on the system can be about 1.5 times the maximum daily demand. Maximum daily flow is about 1.5 times the average daily flow.

Portions of this response have been provided to Coastal Commission staff in many earlier discussions dating back to 2004, along with the Feasibility Report dated February 4, 2005, by Boyle Engineering Corporation.

Please provide a site plan of the Stuart street tank site. How much water storage is anticipated to be located at this site?

The Stuart St. tanks need to be increased to approximately 1.279 million gallons in capacity. The existing tank capacity at Stuart Street is 0.337 million gallons. The existing site at Stuart Street is inadequate by 1.279 million gallons. In addition, the area surrounding the Stuart Street site is currently mapped as ESHA and severely constrained by surrounding residences. A site plan of the existing Stuart Street site is in production and will be provided under separate cover.

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Portions of this response have been provided to Coastal Commission staff in many earlier discussions dating back to 2004, along with the Feasibility Report dated February 4, 2005, by Boyle Engineering Corporation.

Please address the option of locating storage above the school site, assuming that the Commission permit restriction on pipelines could be amended to allow the potential of using this site for additional storage.

This area was briefly considered for additional pressure zone 2 storage due to there not being enough land area at the existing Stuart Street tank site. However, the idea was abandoned following discussions with the school district that explained an existing Coastal Commission prohibition against having pipes cross the school site perimeter. It should be re-examined as an alternative for the pending Stuart Street tank storage expansion project to serve zone 2 but is not feasible for zone 1.

Maintenance

Please describe the type of maintenance that is required for the tanks (i.e. painting, inspections, etc). What is involved with each activity?

Daily site inspections for operations and security, including visual observation for leaks or corrosion; repair and maintenance of on-site piping, and on-site drainage and cisterns; interior and exterior inspections and painting; structural repairs as needed based on inspections, and routine grounds maintenance (mowing and weeding). CCSD has received no information from utility companies with regard to required maintenance easements for underground utilities.

As per prior discussions:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*
- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation; and*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff.*

How often does it occur?

Daily site/security inspections. Weekly grounds maintenance (mowing and weeding as necessary. Interior inspections: Every 3-5 years. Interior Painting: Every 10-15 years. Exterior coating/painting: Every 10-15 years. As per prior discussions:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*

- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, and professional engineering analysis of Coastal Commission staff alternative designs; and*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff.*

What equipment (i.e. Scissor lift, ladders, etc) is needed to perform the maintenance?

Large construction equipment (in case of structural maintenance or repair—cranes, tractors, dump trucks), scissor lift, scaffolding, CCSD operations and maintenance vehicular access, diving vehicle and support vehicles and equipment, including OSHA required fall protection and retrieval devices, and access for emergency vehicles for rescue or aid in an emergency incident.

As per prior discussions:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*
- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, and professional engineering analysis of Coastal Commission staff alternative designs; and*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff.*

What are the size/specifications for the needed equipment?

It depends on the equipment needed, but most of the above described equipment should fit within 12 feet, as confirmed by CCSD's professional engineers. The 12 feet may hinder some of the larger equipment, because it will vary in width and degree of maneuverability.

As per prior discussions:

- *In a telephone conference call on April 22, 2005, among CCSD staff and Coastal Commission staff;*
- *In discussions at the Coastal Commission meeting on April 14, 2005;*
- *In CCSD's detailed responses dated February 3, 2005, to Coastal Commission staff questions dated January 12, 2005, including the Feasibility Study dated February 4, 2005, by Boyle Engineering Corporation, and professional engineering analysis of Coastal Commission staff alternative designs; and*
- *In a telephone conference call on January 4, 2005, among CCSD staff, Coastal Commission staff, and SLO County staff.*

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CAMBRIA COMMUNITY SERVICES DISTRICT

P.O. Box 65 • Cambria, CA 93428 • Telephone: (805) 927-6223 • Fax: (805) 927-5584

DATE: May 25, 2005

TO: Charles Lester
Diane Landry
Jonathon Bishop
Mike Donovan

FROM: Tammy Rudock
General Manager

RE: Responses to Additional Questions Received From Coastal Commission Staff on May 24, 2005 – Pine Knolls Tanks Replacement Project

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Here are our responses to your latest questions regarding the Pine Knolls Tanks Replacement project:

Demand Projections for Pine Knolls site

1) We are interested in better understanding the difference between the total values of produced water, versus that which was actually billed. The K/J demand model appears to assume that system water losses of approximately 20% will remain constant into the future. This figure is based on 1999 data showing unaccounted system losses of approx. 154 afa (779 AFA produced vs. 625 AFA billed). This seems higher than may be typical for an urban water system. Please respond to the following:

   - What is the cause of this relatively high system loss figure?

     The disparity is attributed to the aged water meters throughout the water system reading "slow."

   - Do you have any additional actual meter data (1988 to present) to better establish the degree of unaccounted water system losses?

     No, not readily retrievable.

   - What is the current % estimate of unaccounted system losses?

     Approximately 12%.

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(page 1 of 3 pages)

- Have any capitol improvement projects been implemented or planned to address system losses? If so, please describe.

  Yes, current meter replacement program, including automated meter reading system, is in progress, with an anticipated completion date by mid-July.

- How would unaccounted system losses affect storage requirements for pressure zone 1?

  There would be no impact. However, the meter replacement program will permit a more accurate reading and billing of actual water consumption.

2) If available, please provide actual water use data broken down between residential and commercial connections for the production years 1998 to present.

   This information is not readily retrievable.

3) Is the projected buildout # of 4650 connections meant to include all connections (residential and commercial)? Related, does this include all commercial connections currently on the wait list?

   4,650 represents a reduction in residential connections from the 5,250 connections approved by the Coastal Commission in Permit #428-10. As previously discussed, it does not include new commercial connections, wait-list, or otherwise.

4) What is projected buildout for Pressure Zone 1? Is it 37% of total projected community buildout?

   The 37% is a planning level of accuracy value. CCSD is not a land use regulatory agency and lacks the authority to determine where new development will occur.

Alternatives

5) Another issue raised at the April Commission hearing and discussed in our April 22, 2005 conference call is the possibility of using water stored under the new school site to assist in community fire protection. How is this water planned to be used? Could this water be used for fire fighting purposes? If so, how? If not, why not? What system improvements would be needed to use this water for fire fighting purposes in pressure zone 1.

   The elementary school's underground water capture system will contain non-potable water, which is not suitable for connection to the potable water system that supplies CCSD fire hydrants. In addition, it is not suitable for firefighting equipment that also relies on connections into our potable water system. The volume of stored captured water at the school will also vary considerably

throughout the year and will not provide adequate reliability for firefighting, even if treatment for use with firefighting equipment were feasible. As indicated on Page 12 of our May 11, 2005, response, it is infeasible to serve Pressure Zone 1 from this location, in any event. Whether the school site can accommodate any additional storage capacity to serve Pressure Zone 2 is being evaluated, including consideration of the Coastal Commission's special condition of approval that imposes a construction restriction around the entire school site.

6) Please explain why additional storage above or near the new school site isn't feasible for pressure zone 1?

The elevation is too high. In addition, as noted above, the Coastal Commission has imposed a permit condition on the school site that would appear to preclude such use, even if it were otherwise feasible.

7) As discussed in our April 22, 2005 phone call, please explain the function of the PRV to be installed and included in the current project description. Could this PRV be used for interzone water transfers? What are the maximum flow rates between pressure zones through the PRV? Could this reduce the amount of operational and/or emergency storage needed at Pine Knolls site? Why or why not?

The PRV will supply water from the Pine Knolls tanks into an upper pressure zone pipe in the event a booster pump should fail. It will replace a check valve system that currently opens when there is a very low pressure in the upper pressure zone pipe. There is also inadequate storage volume in the upper pressure zone to supply the Pine Knolls tanks.

Fire Code

Thank you for forwarding relevant sections of the fire code. Please confirm: were the fire code sections faxed today adopted by the CSD as written? Or were there amendments?

CCSD adopted the Uniform Fire Code and California Fire Code sections transmitted to the Coastal Commission on May 24, 2005, and earlier occasions. The only local amendments to the Uniform and California Fire Codes are limited to single family residential driveway standards.

PART III

GENERAL PROVISIONS FOR SAFETY

ARTICLE 9 — FIRE DEPARTMENT ACCESS AND WATER SUPPLY

SECTION 901 — GENERAL

901.1 Scope. Fire department access and water supply shall be in accordance with Article 9.

For firesafety during construction, alteration or demolition of a building, see Article 87.

901.2 Permits and Plans.

901.2.1 Permits. A permit is required to use or operate fire hydrants or valves intended for fire-suppression purposes which are installed on water systems and accessible to public highways, alleys or private ways open to or generally used by the public. See Section 105, Permit f.1.

> **EXCEPTION:** A permit is not required for persons employed and authorized by the water company which supplies the system to use or operate fire hydrants or valves.

901.2.2 Plans.

901.2.2.1 Fire apparatus access. Plans for fire apparatus access roads shall be submitted to the fire department for review and approval prior to construction.

901.2.2.2 Fire hydrant systems. Plans and specifications for fire hydrant systems shall be submitted to the fire department for review and approval prior to construction.

901.3 Timing of Installation. When fire protection, including fire apparatus access roads and water supplies for fire protection, is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction.

> **EXCEPTION:** When alternate methods of protection, as approved, are provided, the requirements of Section 901.3 may be modified or waived.

901.4 Required Marking of Fire Apparatus Access Roads, Addresses and Fire-protection Equipment.

901.4.1 General. Marking of fire apparatus access roads, addresses and fire-protection equipment shall be in accordance with Section 901.4.

901.4.2 Fire apparatus access roads. When required by the chief, approved signs or other approved notices shall be provided and maintained for fire apparatus access roads to identify such roads and prohibit the obstruction thereof or both.

901.4.3 Fire-protection equipment and fire hydrants. Fire-protection equipment and fire hydrants shall be clearly identified in an approved manner to prevent obstruction by parking and other obstructions.

When required by the chief, hydrant locations shall be identified by the installation of reflective markers.

See also Section 1001.7.

901.4.4 Premises identification. Approved numbers or addresses shall be provided for all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property.

901.4.5 Street or road signs. When required by the chief, streets and roads shall be identified with approved signs.

901.5 Obstruction and Control of Fire Apparatus Acces Roads and Fire-protection Equipment. See Sections 902.2.4 and 1001.7.

901.6 Fire Protection in Recreational Vehicle, Mobile Hom and Manufactured Housing Parks, Sales Lots and Storag Lots. Recreational vehicle, mobile home and manufacture housing parks, sales lots and storage lots shall provide and main tain fire hydrants and access roads in accordance with Section 902 and 903.

> **EXCEPTION:** Recreational vehicle parks located in remote area shall be provided with protection and access roadways as required b the chief.

SECTION 902 — FIRE DEPARTMENT ACCESS

902.1 General. Fire department access roads shall be provide and maintained in accordance with Sections 901 and 902.

For access to residential developments of three or more dwell ing units, the chief may be guided by Appendix III-E.

902.2 Fire Apparatus Access Roads.

902.2.1 Required access. Fire apparatus access roads shall b provided in accordance with Sections 901 and 902.2 for every fa cility, building or portion of a building hereafter constructed o moved into or within the jurisdiction when any portion of the facil ity or any portion of an exterior wall of the first story of the build ing is located more than 150 feet (45 720 mm) from fire apparatu access as measured by an approved route around the exterior of th building or facility. See also Section 902.3 for personnel access t buildings.

> **EXCEPTIONS:** 1. When buildings are completely protected wit an approved automatic fire sprinkler system, the provisions of Section 902.2.1 and 902.2.2 may be modified by the chief.
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> 2. When access roads cannot be installed due to location on property topography, waterways, nonnegotiable grades or other similar condi tions, the chief is authorized to require additional fire protection as spe cified in Section 1001.9.
>
> 3. When there are not more than two Group R, Division 3, or Grou U Occupancies, the requirements of Sections 902.2.1 and 902.2.2 ma be modified by the chief.

More than one fire apparatus road shall be provided when it i determined by the chief that access by a single road might be im paired by vehicle congestion, condition of terrain, climatic condi tions or other factors that could limit access.

For high-piled combustible storage, see Section 8102.6.1.

For required access during construction, alteration or demoli tion of a building, see Section 8704.2.

902.2.2 Specifications.

902.2.2.1 Dimensions. Fire apparatus access roads shall have a unobstructed width of not less than 20 feet (6096 mm) and an ur obstructed vertical clearance of not less than 13 feet 6 inches (411 mm).

> **EXCEPTION:** Vertical clearance may be reduced, provided suc reduction does not impair access by fire apparatus and approved sig are installed and maintained indicating the established vertical clea ance when approved.

Vertical clearances or widths shall be increased when, in the opinion of the chief, vertical clearances or widths are not adequate to provide fire apparatus access.

902.2.2.2 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be provided with a surface so as to provide all-weather driving capabilities.

902.2.2.3 Turning radius. The turning radius of a fire apparatus access road shall be as approved.

902.2.2.4 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with approved provisions for the turning around of fire apparatus.

902.2.2.5 Bridges. When a bridge is required to be used as part of a fire apparatus access road, it shall be constructed and maintained in accordance with nationally recognized standards. See Article 90, Standard a.1.1. The bridge shall be designed for a live load sufficient to carry the imposed loads of fire apparatus.

Vehicle load limits shall be posted at both entrances to bridges when required by the chief.

902.2.2.6 Grade. The gradient for a fire apparatus access road shall not exceed the maximum approved.

902.2.3 Marking. See Section 901.4.

902.2.4 Obstruction and control of fire apparatus access.

902.2.4.1 General. The required width of a fire apparatus access road shall not be obstructed in any manner, including parking of vehicles. Minimum required widths and clearances established under Section 902.2.2.1 shall be maintained at all times.

Entrances to roads, trails or other accessways which have been closed with gates and barriers in accordance with Section 902.2.4.2 shall not be obstructed by parked vehicles.

902.2.4.2 Closure of accessways. The chief is authorized to require the installation and maintenance of gates or other approved barricades across roads, trails or other accessways, not including public streets, alleys or highways.

When required, gates and barricades shall be secured in an approved manner. Roads, trails and other accessways which have been closed and obstructed in the manner prescribed by Section 902.2.4.2 shall not be trespassed upon or used unless authorized by the owner and the chief.

EXCEPTION: Public officers acting within their scope of duty.

Locks, gates, doors, barricades, chains, enclosures, signs, tags or seals which have been installed by the fire department or by its order or under its control shall not be removed, unlocked, destroyed, tampered with or otherwise molested in any manner.

EXCEPTION: When authorized by the chief or performed by public officers acting within their scope of duty.

902.3 Access to Building Openings.

902.3.1 Required access. Exterior doors and openings required by this code or the Building Code shall be maintained readily accessible for emergency access by the fire department.

An approved access walkway leading from fire apparatus access roads to exterior openings required by this code or the Building Code shall be provided when required by the chief.

902.3.2 Maintenance of exterior doors and openings. Exterior doors or their function shall not be eliminated without prior approval by the chief. Exterior doors which have been rendered nonfunctional and which retain a functional door exterior appearance shall have a sign affixed to the exterior side of such door stating THIS DOOR BLOCKED. The sign shall consist of letters having principal stroke of not less than $^3/_4$ inch (19.1 mm) wide and at least 6 inches (152.4 mm) high on a contrasting background. Required fire department access doors shall not be obstructed or eliminated. See Section 1207 for exit and exit-access doors.

For access doors for high-piled combustible storage, see Section 8102.6.2.

902.3.3 Shaftway marking. Exterior windows in buildings used for manufacturing or for storage purposes which open directly on shaftways or other vertical means of communication between two or more floors shall be plainly marked with the word SHAFTWAY in red letters at least 6 inches (152.4 mm) high on a white background. Warning signs shall be easily discernible from the outside of the building. Door and window openings on such shaftways from the interior of the building shall be similarly marked with the word SHAFTWAY in a manner which is easily visible to anyone approaching the shaftway from the interior of the building, unless the construction of the partition surrounding the shaftway is of such distinctive nature as to make its purpose evident at a glance.

902.4 Key Boxes. When access to or within a structure or an area is unduly difficult because of secured openings or where immediate access is necessary for life-saving or firefighting purposes, the chief is authorized to require a key box to be installed in an accessible location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the chief.

SECTION 903 — WATER SUPPLIES AND FIRE HYDRANTS

903.1 General. Water supplies and fire hydrants shall be in accordance with Sections 901 and 903.

903.2 Required Water Supply for Fire Protection. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction. When any portion of the facility or building protected is in excess of 150 feet (45 720 mm) from a water supply on a public street, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the chief. See Section 903.4.

903.3 Type of Water Supply. Water supply is allowed to consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the required fire flow. In setting the requirements for fire flow, the chief may be guided by Appendix III-A.

903.4 Fire Hydrant Systems.

903.4.1 General.

903.4.1.1 Applicability. Fire hydrant systems and fire hydrants shall be in accordance with Section 903.4.

903.4.1.2 Testing and maintenance. Fire hydrant systems shall be subject to such periodic tests as required by the chief. Fire hydrant systems shall be maintained in an operative condition at all times and shall be repaired where defective. Additions, repairs, alterations and servicing shall be in accordance with approved standards.

903.4.1.3 Tampering and obstruction. See Sections 1001.6 and 1001.7.

2. New Development in Cambria

With a population of 5623, the town of Cambria is the only significant urban area in the North Coast. Approximately 75% of the existing development is residential; the remaining 25% consists of a variety of commercial, visitor-serving and urban uses. The urban service line which defines the town is drawn fairly tightly. And because Cambria is only 25% built-out, this line appears to offer plenty of opportunity to expand development within it for many years. Unfortunately it is very unlikely that the amount of growth permitted within the urban service line can be accommodated. Currently, there are 3,408 dwelling units in Cambria and a population of 5,800. The plan allows build out of another ±8,290 dwelling units with a population increase from 19,000 to 26,000.[i] As detailed in later sections of this finding, water and road constraints exist now and it is uncertain that they can be overcome to the point of being able to ever support the anticipated build-out of the plan.

The seeds of Cambria's current planning dilemma were planted in the 1920's when huge tracts of land were subdivided into very small (+1700 sq. ft.) lots. Please see Exhibit 2. Oblivious to slope, the need for services and effects on the natural environment, this grid of precise, tiny rectangles was created and lots sold to individual owners many years ago. Thousands of these lots remain vacant and available for future development. Final build-out of Cambria would be even higher than that anticipated in the plan were it not for the fact that at least 10% of these lots are not suitable for development. In addition there is a clear trend for homeowners to acquire two or three lots for each house.

Finally, there are few areas remaining in Cambria for significant new subdivisions. The East-West Ranch, which is located between Park Hill and Lodge Hill, is the most important site. It currently contains 18 parcels. The update envisions a maximum of 265 lots on the west portion of the Ranch.

Conformance with Coastal Act Policies

As discussed at the beginning of this Development finding, Coastal Act Section 30250 limits development to already developed areas that have the capacity to accommodate such growth. Although Cambria is an existing developed area, it is also severely constrained by the lack of services for the potential buildout of its many small lots. As such, new development is problematic under the Coastal Act.

The County has certainly made efforts to encourage the merger of small lots into single building sites and to voluntarily retire lots, but further reductions are still needed. One promising method to reduce the number of lots has recently been proposed by the County and is described in detail in Exhibit 3.[ii] This analysis proposes to reduce the number of lots by establishing an assessment district to provide the funding to acquire them. Four levels of lot retirement are studied,

including a 17%, 29%, 37% and 56% reduction in lots. Any reduction would, of course, narrow the disparity between development and services. However, selection of Level III or IV would be the best matches given the severity of constraints discussed later in these findings.

This proposal has been favorably received both in the community (see Exhibit 4) and by the Board of Supervisors.[iii] The Cambria Community Services District Board also supports the plan and has stated they would be prepared to implement it if approved by the Cambria voters. Notwithstanding this support, the current updated NCAP provides inadequate policies and planning standards for addressing the buildout problem of Cambria. As discussed in more detail in the Water Supply findings, for example, there is no policy to avoid the creation of new lots, let alone the retirement of substandard small lots. Without such a planning requirement, new development in Cambria is not consistent with section 30250, which requires that adequate urban services be available for new coastal development. Therefore, the County's lot reduction program should be added as an area standard for Cambria because it provides a method, if approved by the voters, to bring build-out of the town much more in line with available (and potentially available) services as required by Section 30250 of the Coastal Act. (see Suggested Modification 107).

As a corollary to lot reduction, it is also important to ensure that there is no net increase in development through new subdivisions. There are few areas remaining in Cambria for significant new subdivisions. However as mentioned earlier there is some potential for a maximum of 265 lots on the west portion of the East/West Ranch. The West Ranch currently contains 18 parcels, thus the plan allows a maximum of 247 new lots. To reduce the impact of creating these new lots, the North Coast Plan provides for a mandatory lot retirement plan on a 1:1 basis for all lots created on the Ranch after 35 if the land is annexed to the Cambria Community Service District. The plan provisions raise numerous questions. For example, it is unclear why 18 additional lots should be permitted without a retirement requirement, or why only the East/West Ranch, as opposed to other areas of Cambria, must retire lots in exchange for creating new ones. It is also unclear as to what kind of lot must be retired to mitigate the creation of a new one. Simply retiring lots that are already unbuildable does little to effectively avoid new development.

To be consistent with Section 30250, planning standards are needed that require all new residential subdivisions to retire an equivalent number of lots based on the impact of the new lots being proposed. This would be more consistent with the goal of avoiding a net increase in building potential. (see Suggested Modification 109). However, one-to-one retirement for new lots is insufficient in and of itself to meet the demands for new development in Cambria. Indeed, in a context like Cambria, it is important to ensure that the lot or lots retired truly mitigate the impacts on public services attributable to the newly created lot. If, for example, a new lot was 7500 square feet. a fairly typical modern lot size, the

anticipated development, consistent with current trends toward larger homes in Cambria, would be a residence of over 3000 square feet. A review of permits over the last 8 years show that houses are generally ranging between 3000-4000 sq. ft. on lots of this size. A home of this size is more likely to be occupied year round and by a larger household than a home constructed on one of the existing substandard parcels which is typically 1750 square feet in size. Homes on these small sites are limited to 1000 square feet or less in size (pg. 7-103). Virtually no space on these small sites will remain for landscaping after the house and driveway are constructed. In contrast, significant garden areas would remain on the hypothetical 7500 sq. ft. lot even after construction of a +3500 sq. ft. house and double driveway. Considering the anticipated larger house, greater number of occupants and landscaping, more water, sewage service and greater traffic generation can be expected from the development of the larger lot than a project on the smaller one. A simple trade of one small lot for one, new large lot would, therefore only partially mitigate the impacts of new lot. Likewise the retirement of a small lot with low development potential because it is located on a steep hillside with no road access does not mitigate the creation of a new lot on a flat or reasonable slope served by road and utilities. The new lot will, in all likelihood develop. The old lot will, in all likelihood never develop because construction costs would be prohibitive. (In fact, the North Coast Plan and the 1997 Hausrath Economic Analysis assume that 10% of the small lots will not develop because of their location).

A program that required the retirement of an area equivalent to the area of the new lot would be simple to administer and result in more effective mitigation for new, standard size (up to 7500 sq. ft.) residential lots. The impacts of new residential lots over 7500 square feet in size would not ordinarily be significantly greater than those of a 7500 sq. ft. lot and thus would not be required to retire lots for any area over 7500 sq. ft. unless the County finds that, for a particular subdivision, additional mitigation through lot retirement is needed. Finally, a limitation on the number of small lots on steep slopes that could be used in any retirement transactions will ensure that most of the lots retired are truly developable thus providing adequate mitigation for the new lot. (Please see Suggested Modification 109.)

3. Water Supply

A reliable water supply is the single most critical constraint on new development in the North Coast. Separated from population centers by distance and rugged topography, the North Coast must rely on local streams for water. Unfortunately, the streams are small, their water storage basins are limited, and the effects of significant withdrawals on habitat values and the integrity of the aquifers are poorly documented. In addition, there is tight competition for scarce water supplies between agricultural and municipal users and the maintenance of riparian/wetland species. With Cambria only 25% built-out, San Simeon Acres

only 54% built-out, and with intensive visitor-serving at Hearst Ranch as yet unbuilt, this competition can be expected to intensify.

This situation is exacerbated by the characteristics of the aquifers that supply water for urban and agricultural uses in the North Coast planning area. With the exception of Phelan and Chisholm Springs on the Hearst Ranch, water is supplied by wells that pump the underflow of the local creeks. Wells are presently located on Pico, San Simeon and Santa Rosa Creeks. Wells are planned on Arroyo de la Cruz to serve the proposed Hearst Resorts. The water is extracted from gravel and sand areas which underly portions of the creeks -- generally the lower reaches of these water courses. The water bearing gravel and sand areas range in depth from a few feet to as much as 80' and do not extend any great distance beyond the creek channels.

During the wet portion of the year, when the creeks are visibly flowing, these acquifers fill up with water. The maximum amount of water that can be absorbed into the acquifer is expressed as "usable storage." The filling up of a depleted or partially depleted aquifer is called "recharge". Typically, aquifers like these are recharged fairly quickly by the winter rains because they are not very large. If, however, winter rains are below average, the acquifer may not recharge fully. Also, if storm flows down the creek are too rapid, the surface water may discharge into the sea before the acquifer is fully recharged. In any event, once surface flows terminate for the year, there is no further recharge of the aquifer.

Recharge of the north coast streams, of course, is influenced by the amount and timing of rainfall. Rainfall and the annual flow of the creeks vary greatly over time. For example, in 1983, the annual flow at the upper gauge on Santa Rosa Creek was 21,300 AF, in 1985 it was 3,593 AF.[iv] According to a preliminary study done by USGS,[v] in 1994 annual stream flows at this upstream gauge ranged from 244 AF to 27,800 AF for the thirty year period between 1959 and 1989. On San Simeon Creek, annual discharge between 1971 and 1989 ranged from 475 AF to 42,600 AF (page 100). The authors of the USGS report state that the relationship between flows and rainfall is linear. Rainfall in the planning area varies greatly from year to year, ranging from 10" per year to 40" for the period between July 1974 to the present.

Because the North Coast aquifers are small and annual flows vary widely, reliance on "average" flows to determine water availability for a given year or years is not appropriate. For example, there were two straight years of drought in 1975 and 1976 when the aquifers did not fully recharge and water was simply not available. Efforts to pump the depleted aquifer on the Santa Rosa Creek resulted in subsidence and seawater intrusion as well as a de-watering of the lagoon. To avoid such overpumping, it is more prudent to base anticipated extractions from both acquifers on low flow data to ensure a reliable water supply.

Finally, all water in storage in an aquifer is not available for use. Storage is a

term which quantifies the total amount of water that can be physically absorbed into the geologic structure of an aquifer. The amount that can be removed without causing damage is termed the "safe yield". This amount will always be less than total storage. Some water must remain in the aquifer to support riparian and wetland habitat, to provide a barrier against salt-water intrusion and to avoid irreparable damage to the aquifer due to subsidence. Subsidence occurs when the aquifer is significantly overdrafted. When an aquifer subsides, the geologic structure (gravels, sands, fines) is compressed, thus reducing the ability of the aquifer to store water. This process is irreversible. (Please see Exhibit 5 for a brief over-view of groundwater hydrology).

In summary, the North Coast Creeks accommodate vastly different flow levels, and have small aquifers which recharge quickly but can also be depleted quickly. Safe yield figures presently available are estimates based on an average rain year, and they have not fully considered impacts of such withdrawals on riparian and wetland habitats -- particularly during dry periods and drought years.

Cambria

Water for the unincorporated town is supplied by the Cambria Community Services District (CCSD). The District boundaries include most of the land within the urban boundary defined in the LUP. CCSD does not take in a major portion of the 450 acre East-West Ranch which although adjacent to the urban area is outside the urban boundary of Cambria. The District also serves (approximately 300 to 500) acres outside the urban boundary. Cambria Community Services District's water is supplied from five wells which tap the underflow of San Simeon and Santa Rosa Creeks.

Santa Rosa Creek

Santa Rosa Creek winds through the town of Cambria, extending +13 miles from its headwaters in the Santa Lucia Mountains to the Pacific Ocean. The estimated safe yield of this creek is given in the North Coast update as 2260 acre feet (AF) per year based on a 1994 preliminary study by the United States Geologic Survey.[vi] A review of this document does not, however, provide a definitive safe yield figure and although it includes information regarding existing water demand for agricultural and municipal uses, it does not factor in the water needs for the preservation of riparian and wetland habitats.

CCSD has a permit from the State Water Resources Control Board to extract a maximum of 518 AF per year from Santa Rosa Creek. Of this total, only 260 AF a year can be extracted between May 1 and October 31. This summer limit has never been reached for two reasons, in times of plentiful streamflow, the District prefers to use water from San Simeon Creek because it is of much better quality and requires less treatment. In dry years, Santa Rosa Creek is incapable of supplying this amount of water. As an example, in the drought of 1976-77, less

water than allocated by the State Water Resources Control Board could be withdrawn before the wells went dry. Overpumping during that period also caused significant subsidence, potentially damaging the ability of the aquifer to recharge. The water production table attached as Exhibit 6 demonstrates the preference for water from San Simeon Creek.

Thus, in summary, while the Santa Rosa Creek safe yield of 2260 AF given on pg. 3-12 of the plan implies an adequate water supply to serve Cambria's needs, a closer look reveals that the basis for that number is not well grounded, does not consider impacts on habitat values, does not factor in the ability of the aquifer to actually produce water during a drought nor the potentially damaging effects of attempting to do so on the aquifer structure. Since development uses water on a year round basis and, in fact, water use in Cambria is up by 40% during the summer months, it is imperative that the water supply is sufficient to meet urban needs during these months and during periods of drought. Likewise, the protection of riparian and wetland habitat depends on a reliable and sustainable water supply (Please see ESHA Finding).

San Simeon Creek

San Simeon Creek, located two miles north of Cambria, is the preferred source of municipal water. This creek too has its headwaters in the Santa Lucia Range and flows westward for over nine miles to the Pacific Ocean. Safe yield for San Simeon Creek is estimated to be 900 acre feet in the North Coast Update. Similar to the figure for Santa Rosa Creek, this estimate relies on the 1994 USGS report and is subject to the same flaws. Riparian agricultural users in the basin consume approximately 450 AF per year. CCSD has a permit from the State Water Resources Control Board which allows the District to withdraw a maximum of 1230 AF per year. Of this total, only 370 AF may be withdrawn during the dry period which, in this case, is defined as that time between the cessation of surface run-off at the Palmer Flats Gaging Station and October 31, 1997. Typically this is a six or seven month period. The permit also requires the District to supply riparian users when municipal pumping lowers the aquifer to the point where riparian users pumps run dry (Board Order WR 88-14, October 1988).

Several uncertainties exist with respect to the reliable, long term amount of water which can be supplied by San Simeon Creek. The first issue is the soundness of the 900 AF safe yield figure. It is unclear how this figure was determined and whether it was calculated to include a reservation of water for the preservation of riparian and wetland habitat. The changing water needs of senior, riparian users must also be addressed. These users have priority over appropriators such as CCSD and are thus entitled to be served before the District. They may also divert additional water if fallow, riparian fields are brought into production. Finally, the multiple disparities between estimated safe yield, water board allocations and

current production are also of concern. One apparent conflict is that even if one one accepts an estimated safe yield of 900 acre feet, the existing State Water Resources Control Board permit allows one of the users, CCSD, to withdraw a maximum of 1230 AF a year, 330 AF over safe yield not including existing riparian withdrawals. Another concern is that with the exception of 1991 extractions, the combined riparian and CCSD withdrawals have exceeded the estimated safe yield figure since 1980. In 1996, for example, CCSD withdrew 717 AF from San Simeon, riparian users withdrew +450 AF for a total of 1167 AF, 267 AF in excess of the estimated safe yield of 900 AF given in the plan. (Please see Exhibit 6, Water Production Records, CCSD.)

Alternative Water Sources and Management Options

Due to the constraints and uncertainties which surround expanded water withdrawals or even continuation of existing levels of extraction from the Santa Rosa and San Simeon Creek basins, it is relevant to review alternative water sources for urban uses and planning tools for water management. Practically speaking, alternatives include construction of desalinization facilities, increased storage, water conservation and efficient water delivery systems. Reservoirs and imported water are also theoretical possibilities but due to potential environmental effects and costs are, in reality, less viable.

Desalinization

CCSD currently has a valid Coastal Permit to construct a desalinization plant capable of producing 1307 AF of water a year. According to a May 1997 fiscal analysis[vii] of plan alternatives and infrastructure costs, approximately 36% (412 AF) of Cambria's share of the new desalinization plant production is needed to cure existing service deficiencies. The District has agreed to share up to 161 AF a year of water with the San Simeon Community Services District to support new development in San Simeon Acres. A pipeline to transport this water has also been granted a Coastal Development Permit. Thus a balance of 724 AF would be available for new development in Cambria. The approved desalinization facility will be very expensive to build and operate, and the District has not begun construction. CCSD is currently looking into plan modifications which could significantlly reduce the cost of construction. It is anticipated that a decision on whether to proceed with the project will be made within the next year. Desalinization thus appears to offer an achievable alternative to the existing water source particularly if construction costs can be reduced. Costs per acre foot of water are also comparable at $1500.00 an AF for desalinization and $1300.00 an AF for water extracted from the creeks.

A privately owned and operated desalinization plant is proposed in the North Coast update to serve the planned subdivision on the East/West Ranch with water as an option to annexation and service by the Cambria Community Services District. County staff has indicated that the following planning standard provides for this method of water supply:

Technology: Employ progressive measures that utilize new technology, are resource efficient and environmentally sound (Standard K, 7-59).

Only a portion of the East/West Ranch is located within the Urban Service Line (USL) of Cambria. Most of the property, the West Ranch, is not in the USL and has not been annexed into the Cambria Community Services District. Development of the Ranch for residential use is considered urban infill because it is surrounded on all three land sides by existing urban uses.

Increased Storage

Storing water during times of plenty is another way to augment supply. As previously discussed, reliable withdrawal from the creeks is most problematic during the dry period of the year -- generally between May and October and during cyclical droughts. At the same time water use jumps by 40% during the summer months.[viii] In the winter, however, most years, thousands of acre feet of water course down San Simeon and Santa Rosa Creeks to empty into the sea. A substantial amount of this water could be diverted to urban use, at no harm to habitat values, if adequate storage was available. Currently, CCSD has the ability to store only one million gallons (+3 AF) for operating flexibility and fire protection, barely enough to satisfy one days use during the summer peak periods.

Water Conservation

A method to stretch an existing, finite water supply is to initiate an aggressive, comprehensive water conservation program. Beginning in 1990, CCSD fielded a retrofit program to replace old plumbing fixtures with lower use modern ones. As stated in the January 1997 report to the CCSD Board:

The purpose of the Program is to allow for additional new construction, but at the same time reduce overall water use in the District. This is done by installing low flow plumbing devices in existing homes, installing water saving agricultural irrigation systems, entering into water exchange agreements and constructing new water supply projects. By doing so existing water supplies are utilized more efficiently allowing for the surplus to be used for new construction. In adopting the Retrofit Program the Board of Directors established a savings goal of 2 to 1. This means that each applicant wishing to construct a new house is required to save enough water to cover his or her house plus one other. For example, under the existing ordinance an applicant constructing a new home on a large lot (more than 8000 square feet) must provide water savings equivalent to the retrofitting of at least 17 two bathroom homes in order to meet the current 2 to 1 requirement, or pay a corresponding in-lieu fee of 17 times $550.00, or, $9,350.

As of January 1, 1997, 1,693 residential structures have had low flow plumbing fixtures installed under the District's Retrofit Program. An

additional 472 houses have been retrofitted under the District's Retrofit on Resale Program and 299 houses under the provisions for New Construction and Remodeling. There are 2,410 homes that have been retrofitted and it is estimated that there are approximately 1,100 existing houses still available for retrofit in Cambria.

A more conservative retrofit to new construction formula is suggested in the report to the CCSD Board (pg. 6) as follows:

Table 3: Modified Retrofitted Residential Water Usage Comparison*

Average Number of Units Used Per Household (Bi-Monthly):

1989/90	*12.5 Units ** (A unit of water is 748 gallons)*
1995/96	*11.01 Units*

* *Excludes users who consume two or less units and 41 or more units per billing period and all homes not known to be retrofitted to District retrofit standards.*

** *1989/90 Base Year Average (i.e., all users)*

As a result there is a 0.5 unit (±370 gallons) per residential household difference between a retrofitted and non-retrofitted home based on 1995/96 data. The 0.5 units can be established as the amount of water saved for each Equivalent Dwelling Unit (EDU) retrofitted. In taking the most conservative approach to determine the required 2 to 1 ratio established in the District Ordinance the following formula could be used:

(Estimated New Use divided by Units Saved) x 2 = Savings Goal of 2 to 1

(11.01 Units divided by 0.5 Units) x 2 = 44 Units

Thus, the equivalent of 44 houses (EDU's) would need to be retrofitted to save twice the amount of water a new house would require under this formula. In 1996 the average number of points required under the Program is equivalent to 13.5 houses.

Given either of these figures, 44 retrofits of existing homes to allow one new home, or 17 retrofits to allow one new home, it appears that the life of the program is limited due to the finite (1100) number of non-retrofitted homes. At the

44:1 ratio, 25 new homes could be accommodated. At a 17:1 ratio, 64 new homes could be built. The effectiveness of the program to actually result in no net gain of water demand is also greatly limited by the option of the potential new home builder to pay an in-lieu fee of $550.00 a point rather than negotiate the retrofitting of existing homes. Since the institution of the in-lieu option in 1994, 85% of the applicants have opted to pay the fee rather than retrofit. According to the January 1997 report to the CCSD Board, most of this money collected in 1996 was used to pay expenses associated with designing the desalinization facilities and obtaining permits for its construction. The District is currently re-assessing the in-lieu fee program and may decide not to continue it. The net effect of this program to date seems to be at least a slowing down of increased water use rather than maintenance (or reduction) of the status quo.

The District also has completed a program to repair and replace aged, leaking pipes. Prior to completion of this program in 1987, up to 30% of water produced had been lost to leakage. This remedial work is, however, a one time event in that it does not lower demand, it simply reduced waste between production and delivery. Post-1988 production figures are by comparison much more likely to relate closely to actual use.

CCSD has, as can be seen from the preceding discussion, attempted to augment and conserve the existing water supplies. The leak detection and repair program has been quite successful in saving water, the retrofit program less so -- particularly since the introduction of the in-lieu fee option in 1994. Construction of the desalinization plant is stalled but offers a potential for a meaningful addition to existing supplies. (Please see Exhibit 7, correspondence from CCSD describing existing and proposed programs.)

In the meantime, the January 1997 report to the District notes that water use in both conventionally plumbed and retrofitted homes is on the rise as is water use for commercial activities. The report notes that even so, water use (based apparently on production figures) is still lower than it was in 1988.

Management

Another method to address limited water supplies is to manage new urban growth so that development does not outstrip available services. San Luis Obispo County has chosen two traditional planning methods to limit urban growth -- a Growth Management Ordinance which limits the number of new residential units in Cambria to 125 a year and a Resource Management System which monitors essential services and can theoretically halt development when defined thresholds of severity are reached. (NCAP pg. 3-7 et seq.)

The Growth Management limitations on the number of new units which can be constructed in Cambria in a given year is insufficient to address the problem of a very limited and unreliable water supply. The program simply slows down the effects of the increasing disparity between water supply and demand, but does

not address the root problem presented by a scarce but essential service.

The Resource Management System (RMS) offers a better tool for phasing new development with adequate services because it provides an objective standard for determining when services and development are poorly matched. The RMS has three levels of Resource Severity constraints relative to water, sewer, roads, schools and air quality. Level One is an "early warning" threshold that indicates a particular service or resource will be inadequate to support a specific, planned level of development in the future. Level Two warns that an identified service or resource will be depleted before more capacity can be obtained. Level Two calls for fairly immediate action to increase capacity or slow down additional demands on the service. Level Three is the most severe situation. This level occurs when the capacity of an identified service or resource to serve development has been met or is exceeded. At this level, the LUP states that action may be needed to protect basic public health and safety.

In Cambria, water is one of the services listed as having already-passed Level Three severity by 1995 when the chart was last updated. The reason water is shown as a Level Three constraint is because there is not now an adequate, reliable water supply sufficient to serve the development that presently exists during a dry or drought year. Indeed, some local observers believe there is inadequate water to accommodate a normal rainfall year. (Please see Exhibit 8, correspondence to Commission from William Bianchi, received November 24, 1997.) In any event, the County acknowledges that the water supply is problematic existing levels of development. This level of constraint of an essential service might seem to imply that it would be prudent to stop new development until additional capacity could be obtained. The RMS program allows, but does not require, the County to reduce or eliminate new development in this situation. The County has thus far not taken this step.

Conformance with Coastal Act Policies

As the preceding analysis suggests, the proposed amendment is inconsistent with Coastal Act policies because it provides for continued urban development that cannot be supported by existing water supplies. Estimates of available water to serve new development are based on incomplete information and do not analyze the impacts of water withdrawals on riparian/wetland habitats or agricultural activities as required by the Coastal Act (Sections 30240, 30241(e) and 30231). Programs, like the RMS, which could ensure that new development is allowed only when adequate services are available to support it, are not mandatory and have not been voluntarily implemented.

In order to find the proposed updated LUP consistent with the Coastal Act, the updated water section must be re-written to more accurately describe the nature of the aquifer and the need for a more thorough study to determine safe yield. To ensure that additional water withdrawals for municipal uses will not adversely impact the coastal resources of riparian/wetland habitats and agriculture, a

planning standard must be added to Chapter 7,C, Cambria Urban Area Standards (pg. 7-47 et seq.) which provides for a moratorium on all new development which would be served with water from either of these sources unless a variety of performance standards are met over the next three years to ensure that coastal resources are adequately protected.

As specified in Suggested Modification 107, basic performance standards that should be met include the preparation of an Instream Flow Management Study to determine the water needs of riparian and wetland species living in Santa Rosa and San Simeon Creeks; and the development and implementation of a water production strategy that is capable of serving the development provided for in the plan. This standard includes re-use of wastewater, water supply other than from the creeks and reduction of build-out.

Finally, the County has a reasonably effective set of policies for water management for *existing* lots. However, the provision of water for the East-West Ranch is unsatisfactory, particularly the proposal for a private desalination plant. In previous actions, the Commission has found that the provision of essential services in urban areas should be undertaken by public (or private) utility purveyors for an entire service area rather than individualized utilities constructed to serve a single project. The following excerpt from the adopted Findings for the 1995 LCP amendment to the Santa Barbara Coastal Plan outlines the rationale for this determination:

> *Private desalination facilities also raise the basic policy question of the effect of allowing the proliferation of privately owned and operated water supply facilities on the ability to comprehensively plan for the provision and essential public services.*
>
> *Additional questions raised by private desalination facilities include the ability of a private homeowners association to operate and be accountable for complex desalination operations to mitigate impacts, adequately respond to and cleanup potential spills of hazardous chemicals, enforce operation limitations and in general maintain control and long-term operation of the facilities. These include concerns about the homeowners capability over the long term to successfully operate the facility without the need for an established water purveyor to step in and operate the system or provide alternative water supplies should the association facilities fail. The Commission has developed a discussion paper which addresses these and other coastal issues related to the development of desalination facilities.*
>
> *Two of the fundamental questions raised by the proposal to use private desalination facilities are: the potential precedent such a facility generates for inducing unlimited growth based upon a technically unlimited supply of*

water; and the further fragmentation of public utility services, and related tendency toward scattering public work facilities, and their related impacts, rather than consolidating them as stipulated in Coastal Act Section 30260. Proliferation of desal facilities where consolidation is feasible, whether private or public, is inconsistent with the requirements of PRC Section 30260.

Consolidation and expansion of existing public desalination facilities will help to successfully operate the complex technology and reduce or mitigate potential impacts resulting from such facilities. The success of desalination facilities is also more likely when operated by established water purveyors serving large geographic bases and a larger rate-paying pool as compared to a private homeowners association with limited funds and expertise to manage such complex operations. The experience of small private water purveyors depending upon small industrial desalination facilities and water wells in the Goleta/Santa Barbara area and other areas in the coastal zone has demonstrated the difficulties of sustained operation of such facilities.

Since the GWD's service district boundaries include the Goleta Community Plan planning area and a desalination facility is available to provide desalinated water to the GWD by contract, private desalination facilities are not currently appropriate. Region-wide provision of desalination facilities, prevents proliferation of smaller individual desalination facilities, thereby reducing cumulative impacts on coastal resources, including marine resources, created by individual facilities. A region-wide approach supports the Commission's consolidation policy, Section 30260, which encourages coastal-dependent industrial facilities, such as portions of desalination facilities, as determined on a case by case basis. These facilities are encouraged to expand within existing sites so long as they are designed to permit reasonable long term growth consistent with the Coastal Act and certified LCP.

It should be noted that the Commission has allowed a private desal facility on Santa Catalina Island. That facility, however, was consolidated with an Edison electrical power facility and there is no municipal or public water system at that location. The circumstances on Santa Catalina Island were thus different in important respects from those in the Goleta Planning Area."

As discussed earlier, in addition to the area already within the Cambria Urban Services Line (USL), there are approximately 300 acres (18 parcels) of the East/West Ranch that are not within the USL but are surrounded by urban development. (Please see Exhibit 9.) This site is a logical urban infill area and is currently designated for a maximum of 340 residential units in the Certified North Coast Plan. The plan update reduces the maximum unit count to 265. If this site

develops at an urban density as anticipated by its' owners, it will require urban services and must be included within the urban service line. The creation of isolated pockets of urban level development outside of the urban boundary is inconsistent with Coastal Act Policy 30250 which supports the location of urban uses in urban areas. The North Coast update requires that this site be brought into the urban service area if it is subdivided into more than 35 lots. (Standard 11B, page 7-60) Subsequent annexation into the Cambria Community Services District is, however, optional for any development scenario on the West Ranch (Standards 11B, C, D, pg. 7-60).

The Plan anticipates that if the CCSD does not annex the West Ranch it could obtain its water supply from a private desalinization plant. This proposal is inconsistent with Coastal Act policies and the Commission's action in similar planning situations in the past. Therefore, the NCAP should be modified to prohibit the use of single project desalinization plants (see Modification 109). An alternative method of water supply, other than CCSD, is by new wells on the lower reaches of Santa Rosa Creek which curves through the north-east corner of the West Ranch. Correspondence from representatives of the East/West Ranch state that they hold a pre-1914 appropriative right to the creek waters and would be entitled to 186 AF a year based on past ranch use. The letter goes on to say that while this appropriative right exists, they would prefer to be served by water from a desalinization plant and not exercise their appropriative right.[ix]

Based on the discussion and conclusions reached in the earlier analysis of the productivity of Santa Rosa Creek, additional withdrawals from this creek are problematic. The use of water from Santa Rosa Creek to serve the domestic needs of development on the East/West Ranch is simply not a realistic option at this time. Therefore, if the West Ranch is to be subdivided and developed as proposed in the North Coast Update, the plan must be modified to require inclusion within the Urban Service Line and annexation to Cambria Community Services District so that water service and wastewater treatment service can be provided to accommodate the urban development. (Please see Suggested Modification 115.)

Finally, in order to achieve consistency with Coastal Act Sections 30260 and 30250, a new, areawide standard is needed that requires that desalinization plants serve urban intensity development within or in close proximity to existing urban areas must be owned and operated by a public agency. (see Suggested Modification 109.) Planning standard 9K (pg. 7-59) for development on the East/West Ranch also should be clarified to preclude private desalinization facilities (see Suggested Modification 114) and Standard 10B, C and D (pg. 7-59) must be revised to require annexation to Cambria Community Services District prior to approval of further subdivision of the property (Please see Suggested Modification 115.) Companion changes to Standard 11 B, C and D relevant to CCSD annexation and the table on pg. 7-64 are also required (pg. 7-60). (see Suggested Modification 116).

[i] Table I, Fiscal Analysis, Haurrath Economic Group, 1997.

[ii] "Fiscal Analysis of Plan Alternatives, Infrastructure Costs and Visual Simulation", Hausrath Economics Group, April 1997.

[iii] Please see letter from the North Coast Advisory Board to Chairman Brackett, dated October 27, 1997.

[iv] See State Water Resources Control Board, Application 28158, 1989, pg. 18.

[v] Hydrogeology, Water Quality, Water Budgets and Simulated Responses to Hydrologic Changes in Santa Rosa and San Simeon Groundwater Basins, USGS 1994, Yeates and Van Konyberg

[vi] Hydrogeology, Water Quality, Water Budgets and Simulated Responses to Hydrologic Changes in Santa Rosa and San Simeon Creek Groundwater Basins, San Luis Obispo County, July 12, 1994, by Eugene Yates and Katherine M. Van Kroynenburg.

[vii] North Coast Area Update, Fiscal Analysis of Plan Alternatives, Infrastructure Costs and Visual Simulation, May 1997, prepared by Hausrath Economic Group

[viii] 1996 water production records show that during the three lowest water use months a total of 137 AF was consumed; during the three highest water use months a total of 223 AF was consumed -- a 40% increase.

[ix] Please see full text of letter from Susan Petrovich and Robert Saperstein, attorneys for East/West Ranch, to the Board of Directors of the Cambria Community Services District, dated October 9, 1997.

Recommendation 2.13

The County agrees with portions of this recommendation, including the proposed 1% growth rate in Cambria until January 1, 2002; and the need to coordinate with the Commission and the Cambria CSD to complete necessary studies and to pursue more proactive management of the water supply problem in Cambria. The County, though, proposes to defer RMS action to enact a development moratorium until a resource capacity study is completed. As mentioned, the Cambria CSD has also submitted comments, and with respect to the water supply issue, has emphasized the on-going and prior efforts of the CSD to address this problem (see Exhibit D, pp. D-542). The CSD has also met with Commission staff twice since the February hearing on the *Preliminary Report*, and has provided additional information for Commission consideration. The United Lot Owners of Cambria (UNLOC) have also provided extensive comments, including submitting an independent review of existing water supply information for Cambria. Others have expressed concern about the property rights of lot owners on the CSD water waiting list.

Preliminary Recommendation 2.13 framed out a number of alternative approaches to the Cambria water supply problem to help move the discussion of potential resource management responses forward. As mentioned, Commission staff have met with the County and the CCSD, and considered the current state of information, management actions taken by the County and the CSD, and other matters related to this problem. Although progress is being made, there still remains considerable uncertainty as to when more aggressive action will be taken to curb new development approvals in light of the limited water supply for Cambria. Over three years have past since the Commission's finding in the 1998 NCAP Update that aggressive action was needed to address the inadequate water supply for urban development in Cambria. In that action, the Commission recommended that the County's LCP be modified to include a requirement that if certain performance standards to address habitat protection, development of a water management strategy, and buildout reduction in Cambria weren't met by January 1, 2001, that no further development that would draw on Santa Rosa and San Simeon Creeks be allowed. These standards have yet to be met.

It should be acknowledged, though, that since 1998 the CCSD has made progress on a number of fronts to address both short and long-term water supply issues in Cambria. First and foremost, a Baseline Water Supply Analysis has been completed that provides a report on the capacities of Santa Rosa and San Simeon Creeks (see below). The CSD is also moving forward with the development of a Water Master Plan, including a build-out reduction analysis, to identify long run strategies for providing a reliable water supply to Cambria. Last year the CSD also adopted two updated ordinances (3-2000; 4-2000) establishing an emergency water conservation program and strengthening prohibitions against water waste. The CSD has also been pursuing a revised desalination plant proposal (the Commission's previous coastal development permit approval for a plant has expired), and the Congress has authorized (but not yet appropriated) $10 million to begin the initial studies and environmental review. In terms of denying new water connections,

though, the CCSD has stated that it is constrained under California Water Code sections 350-59 to first declare a water shortage emergency (based on "insufficient water for human consumption, sanitation, and fire protection") before adopting restrictions on water use. Under Water Code 356, such restrictions may include denial of new service connections.[1]

Even a brief review of the current water situation and recent information makes it apparent that serious action must be taken immediately to assure that new development in Cambria is sustainable. As described in the *Preliminary Report*, a recent Baseline Water Supply Analysis conducted for the CCSD has concluded that the District's current water supplies are "marginal to inadequate to provide a 90 percent level of reliability" (in one of ten years there may not be enough water for current customers).[2] When all of the foreseeable water commitments of the CSD are considered, including pending construction permits, intent to serve letters previously issued, and the CSD's water waiting list, the report concludes that the water supply is "inadequate to provide either a 90 or 95 percent level of reliability." This is consistent with the Commission's 1998 NCAP Update findings that the North Coast Area Plan, as proposed for amendment by the County, was inconsistent with the Coastal Act because it provided for continued urban development that could not be supported by existing water supplies.[3] Of particular note in that action was the emphasis on the potential for another drought similar to the 1975-77 period when the Santa Rosa Creek groundwater basin was damaged through subsidence.

In terms of this Periodic Review, the new water supply study also supports a finding that the standards of the certified LCP to assure sustainable new development are not being met. Specifically, Public Works Policy 1 requires that:

> *prior to permitting all new development, a finding shall be made that there are sufficient services to serve the proposed development given the already outstanding commitment to existing lots within the urban service line for which services will be needed . . . .*

At face value, the conclusion that the existing water supply for Cambria is inadequate to provide either a 90 or 95 percent level of reliability for foreseeable water commitments does not meet this LCP requirement for sufficiency. Moreover, there is considerable

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[1] Water Code 350 states:

> The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, may declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

[2] *Baseline Water Supply Analysis*, Cambria Community Services District, December 8, 2000, p. ES-1.
[3] *North Coast Area Plan Update, Adopted Findings*, California Coastal Commission (1998) p. 51.

uncertainty, and a variety of assumptions underlying the Baseline Supply study, that cast even more doubt on the sustainability of Cambria's current water supply.

First, the Baseline Water Supply analysis was based on 3,796 existing connections in December of 1999 (3,586 residential and 210 commercial). As of April, 2001, there are now 3891 connections (3,678 residential, 213 commercial), an increase of 2.5%. In addition, according to the CSD, there are an additional 150 outstanding will-serve commitment letters, including 45 with connection permits. Assuming these all result in new water connections, the total number of water connections in Cambria will have increased by 6.5% since the Baseline Water Supply Analysis. This also does not account for the 650 remaining CSD customers on the waiting list for a water connection.

Second, and critical to the County's and Commission's responsibilities to protect sensitive coastal habitats, the Baseline Water Supply Analysis does not address the question of whether there are sufficient in-stream flows to maintain and protect sensitive species and their habitats. The study states:

> *The District intends to evaluate the appropriate minimum groundwater levels to avoid adverse environmental impacts to downgradient habitats. Accordingly, it is recommended that the assumed minimum groundwater levels be reviewed when these evaluations have been completed.*[4]

In addition, the California Department of Fish and Game has asserted that prior dry season pumping of the Santa Rosa creek wells has had negative impacts on habitats for sensitive species, including tidewater goby, red-legged frog, and steelhead trout.[5] In more recent months, the U.S. Fish and Wildlife has initiated discussions with the CCSD about preparing a multi-species Habitat Conservation Plan for sensitive habitats of the North Coast, including steelhead and red-legged frog.

One of the NCAP performance standards adopted by the Commission in 1998, but not accepted by the County, was a requirement to conduct in-stream flow studies of both San Simeon and Santa Rosa creeks to assure that continued and future water withdrawals would not adversely impact sensitive riparian habitats. This modification adopted by the Commission mirrors an existing condition of the CCSD permit for water withdrawals from Santa Rosa Creek that required that instream flow study be initiated to determine necessary water levels to protect steelhead.[6] As mentioned above, instream flow studies have not been completed for either Santa Rosa or San Simeon creek.

The CCSD has funded a study that examined steelhead and habitat trends in San Simeon Creek. Nonetheless, this study does not directly address the relationship between the pumping of San Simeon Creek underflows and steelhead and other sensitive species

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[4] *Id.*, 2-5.
[5] *Id.*, A-6.
[6] CSD Water Diversion and Use Permit 20387, Condition 18.

habitats.[7] The study, though, does show correlations between reduced base stream flows and sedimentation on one hand, and reduced relative abundances of juvenile steelhead on the other. The study is also a limited time series (six years), making it difficult to draw firm conclusions about the impact of CSD municipal withdrawals on instream habitats. Even so, the study concludes:

> *The persistence of the San Simeon Creek steelhead population has become more tenuous, with the further deterioration of non-streamflow related aspects of habitat from sedimentation . . . , combined with reduced summer baseflow and likely increased streamflow diversion from well pumping by new streamside development in the heretofore perennial reaches.*[8]

Again, this conclusion does not speak directly to the question of how Cambria's urban water withdrawals may be impacting in-stream habitats. It also indicates that the habitat values of the coastal creeks in San Luis Obispo are impacted by multiple uses up and downstream. Nonetheless, until more systematic habitat and in-stream flow study is completed, it is difficult to conclude that the County's approval of new development that relies on water withdrawals from San Simon and Santa Rosa creeks are consistent either with Coastal Act (sections 30250, 30240, 30231) or the certified LCP.

Third, the sustainability of the current Cambria water situation with respect to Coastal Act concerns is also drawn into question when one considers that the certified LCP requires that 20% of Cambria's water and sewer capacity be reserved for visitor-serving and commercial uses. In terms of actual water consumption, the CSD appears to be meeting this goal, due to the high level of water consumption per commercial connection compared to residential connections. Thus, of the approximate 800 acre-feet of water produced in 2000, less losses to the system, nearly 25% was delivered to non-residential (primarily visitor-serving) with 75% going to residential uses. However, in order to meet the 20% visitor-serving reservation standard in new development approvals, a finding would need to be made that the actual water available at the time of a residential permit approval is 25% higher than that normally required for a residential use. In other words, the conclusion of the Baseline Water Supply Analysis underestimates the actual water needed for urban sustainability in Cambria if one takes into account Coastal Act priority uses in the approval of new developments.

Fourth, to implement the Coastal Act priority for agriculture, the LCP also requires that water extractions, consistent with habitat protection, give highest priority to preserving available supplies for existing or expanded agricultural uses (Agriculture Policy 7). No systematic monitoring or data is available concerning agricultural production water needs or pumping in the Santa Rosa and San Simeon Creek Basins. Although State Water Resources Control Board water permits require the CSD to deliver water to upstream

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[7] Alley, D. W. and Associates, *Comparison of Juvenile Steelhead Production in 1994-99 for San Simeon Creek, San Luis Obispo County, California, With Habitat Analysis and an Index of Adult Returns* (August, 2000).

[8] *Id.*, p. 36.

riparian users if their wells become unusable, it is unclear whether Agriculture will be protected if withdrawals for urban uses continue, particularly during severe drought years. Moreover, the findings of the Baseline Water Supply study are based on an assumption that agricultural water use remains similar to historical volumes and patterns. As discussed in the Agricultural chapter of *the Preliminary Report*, water use for agricultural land uses can vary and change quickly, depending on agricultural markets, weather, etc. When current and potential urban and agricultural water needs are combined, it is by no means clear that groundwater basins are being protected. In fact, as discussed by the Commission in 1998, there is some data that shows that past combined withdrawals have exceeded the supposed safe annual yield of San Simeon Creek.[9]

Fifth, as discussed in the Preliminary Report, the CCSD has also been responding to an MTBE emergency contamination situation near its Santa Rosa Creek wells, which has placed severe stress on its ability to meet Cambria's water needs. The District is currently unable to pump from its Santa Rosa wells due to the proximity of the MTBE plume. Although the CSD has drilled an emergency supply well further upstream, this well is not yet ready for use, and in any event will only provide an emergency water supply. The unavailability of the Santa Rosa Creek wells puts additional stress on San Simeon Creek. The Baseline Water Supply study concludes that without Santa Rosa Creek, the CSD's current water supplies are inadequate to meet current demands.[10]

Sixth, although visitor-serving uses are a priority use under the Coastal Act, the potential for increases in visitor-serving water use through existing connections adds still more uncertainty to the conclusions about available supply. Current water demand in Cambria peaks in the summer months, due to both increased visitors in the commercial sector (restaurants and overnight accommodations), and increased residential landscape irrigation. It is unclear as to how future increases in visitors to Cambria may lead to actual increases in water pumpage from San Simeon and Santa Rosa Creeks, notwithstanding that no new connections may be added. This point has been made by many concerned about the State Park's effort to increase off-season visitation to Hearst Castle, which would no doubt place added demands on Cambria's infrastructure. In addition, many of Cambria's existing residences are not occupied by full-time residents but rather, serve as vacation rentals to weekend or summer visitors. There is some indication, though, that there is a trend away from vacation rentals, as more Cambria homeowners take up full-time residence. This, too, will mean an increase in actual water withdrawals without any real increase in water connections.[11]

Finally, it should be noted that the United Lot Owners of Cambria have submitted an independent analysis of existing water information from Navigant that concludes that water supply in Cambria "can be managed to support an approximate 10 percent increase

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[9] *North Coast Area Plan Update Findings*, p. 47.
[10] *Baseline Water Supply Analysis*, p. 3-4.
[11] The County's recent LCP amendment submittal states that there is no reliable survey data as to the exact number of vacation rentals in Cambria, although some data has been presented from the industry suggest at least 150 rentals producing 5000 days per year or approximately 33 days a year per unit.

in use."[12] Although every detailed comment of the Navigant review cannot be analyzed here, a few observations are needed. First, even if the Navigant study is correct its 10 percent estimated buffer, there are currently 3891 connections and 800 outstanding commitments (150 will-serve letters and 650 on the waiting list). Thus, an increase of over 20% in supply would be needed to serve outstanding commitments.

Second, the overall conclusion of this independent analysis relies heavily on a recently published U.S. Geological Survey analysis of Santa Rosa and San Simeon Creek groundwater basins.[13] The USGS report presents a simulated water budget for the two creeks for the period April 1988 through March 1989. This budget shows that the net water flow into each basin is negative (-50 acre feet for Santa Rosa and –10 for San Simeon), meaning that more water is flowing out of the basin through withdrawals and creek seepage than is flowing back into the basin through rainfall, seepage, irrigation return-flows, etc. The USGS. study is careful to point out that the water budget is simulated for a "dry year", and has a certain margin of error, and thus should not be interpreted as necessarily showing a long-term deficit or imbalance in the groundwater basins.

The Navigant review analyzes the USGS water budget analysis, but it does so by aggregating the data for the two creeks, and by substituting a 760 acre-foot municipal pumpage number for the 800 acre-foot number of actual pumpage in 1988. In aggregate, this analysis shows a total deficit of only 10 acre-feet. Factoring in error, the Navigant study asserts that "from a groundwater management standpoint, an increase in municipal pumpage of approximately ten percent is considered reasonable, and should have a minimal impact on the local hydrologic system." The USGS model, though, actually shows a deficit of 50 acre-feet for Santa Rosa Creek and 10 acre-feet for San Simeon Creek (60 acre-feet if aggregated). Moreover, the USGS model was simulated for a year when the CSD was withdrawing water from both creeks (250 afy from Santa Rosa and 550 afy from San Simeon). In more recent years, the CSD has been pumping mostly from San Simeon Creek, with recent production exceeding 700 afy from San Simeon Creek alone. Although this could be better for Santa Rosa Creek, it raises significant uncertainty for San Simeon Creek, particularly concerning the protection of in-stream habitats. In addition, the CSD again reached 800 afy of pumping in 2000. As discussed in the Preliminary Report, although significant gains in efficiency of use have been made since 1988, aggregate water use has continued to rise with the steady increase in new connections.

The Navigant review cites other findings of the USGS report to support a more optimistic view of Cambria's water supply, including analyses that show the likelihood of consecutive "extremely dry years" to be very low (e.g. one every 430 years in San Simeon Creek basin). These citations, though, are selective and indeed, do not address

[12] See Correspondence from Navigant, 11/28/00, Exhibit D, p. 227-228.

[13] *Hydrogeology, Water Quality, Water Budgets, and Simulated Responses to Hydrologic Changes in Santa Rosa and San Simeon Creek Ground-Water Basins, San Luis Obispo County, California*, U.S.G.S., Report 98-4061 (1998).

the various factors discussed above that create additional uncertainty about the available supply. In particular, groundwater basin damage from excessive withdrawals can occur, as they did in 1976, in dry years that do not meet the USGS study definition of an extremely dry year (2 or more consecutive years with incomplete basing recharge).[14] Nor do they directly address the Coastal Act policy requirements of protecting groundwater basins and sensitive habitats. Moreover, the USGS report itself draws overall conclusions that at best are neutral with respect to available supply and at worst, support the finding that there is inadequate water to support new development. These conclusions include the following:

- The most significant long-term trend in water levels has been a gradual increase in the amount of dry-season water-level decline in the San Simeon Basin. This change is the result of increases in municipal and agricultural pumping during the dry season (p. 98). [As shown in the Baseline Water Supply Analysis, since 1988 (the last data year of the USGS study), dry-season water levels in San Simeon Creek have continued to be drawn down to near sea-level. At these levels, damage to the groundwater basin and seawater intrusion become an issue, to say nothing of threats to instream habitats.]

- Municipal pumpage affects water levels throughout the San Simeon Basin (100).

- Simulations indicated that at 1988 agricultural and municipal pumping rates, water levels decline almost to the threshold at which some subsidence could occur in the Santa Rosa Basin even during dry seasons with a recurrence interval of only 5 years (101).

- Incomplete basin recharge was estimated at every 18 years for Santa Rosa and every 25 years for San Simeon. In light of the "considerable uncertainty" with these estimates, though, these recurrence levels are short enough to warrant consideration during water-supply planning (101).

- Simulated effects of a winter without streamflows showed wells in both basins going dry, subsidence in Santa Rosa, and seawater intrusion in San Simeon Creek basin (101).

Overall, the weight of the evidence, including analysis of water use trends and available information about safe-yields of the two creeks, still supports a finding that there is currently insufficient water supply to support new development served by the Cambria CSD, particularly given the uncertainty in weather patterns and critical shortages that may occur in dry years. Indeed, based on interpretation of the 127 year rainfall record for San Luis Obispo County, one local water expert has concluded that the current demand

[14] *Id.*, p. 86: "Land subsidence and ground deformation occurred in Cambria in the summer of 1976 and could occur again if the minimum dry-season water is close to or less than the record low level reached that year."

for water would have exceeded the carrying capacity of San Simeon Creek four times (see Exhibit C Attachment from Shirley Bianchi). Although the Navigant review finds that from a "groundwater management standpoint" there is a 10% buffer in available supply, this finding appears to be based not only on aggregate data (as opposed to individual groundwater basin analysis), but also on assumptions about the error inherent in the available data.[15] The Navigant review does not explain what is meant by a "groundwater management standpoint," although presumably it means that additional water to support new development could be squeezed out of the system through better management and conservation. Again, the Navigant study does not address sensitive habitat concerns.

But the uncertainty inherent in the water supply questions for Cambria, coupled with a focus on improving management, underscores the importance of curbing new water extractions until the many questions can be answered, and until meaningful management decisions are made. As previously mentioned, in December of 2000, the Board of Supervisors adopted a 1% growth rate for 2001, and directed that a Resource Capacity Study be completed for review by the Board in the Spring of 2001. The County has suggested that further restrictions on new water connections await the completion of this RMS study. Although the County has initiated the scoping for the study, is unclear when such a study would be completed. More important, the burden of the uncertainty in the water supply must not be placed on coastal resources. Rather, a precautionary approach should be taken until such time as better knowledge is gained about both the capacity of San Simeon and Santa Rosa Creeks, including the needs of instream habitats, and about additional water supplies (e.g. a desalination plant) that might support new development. For example, without completion of instream flow studies and the newly-launched HCP to address sensitive species, the capacity of San Simeon Creek to support new development cannot be known. Fundamentally, this approach is necessary to meet the Coastal Act requirement that new development be environmentally-sustainable. It cannot reasonably be concluded at this time that new development in Cambria is currently sustainable.

Nonetheless, in order to provide reasonable notice to property owners in Cambria contemplating beginning the development review process, or that may not yet have received basic land use approvals, it is reasonable to allow the completion of the 1% percent growth rate for the remainder of 2001 (approximately 37 connections for the year). In the meantime, new applications for development should not be accepted for filing until certain water management objectives are met. Developments approved in Cambria after January 1, 2002, that rely on new water withdrawals from the CSD system, may be subject to appeal to the Coastal Commission on the basis of inconsistency with LCP Public Works Policy 1.

[15] Moreover, if the intent is to simply identify a margin of error in the analyses of available supply, it is just as likely that the error is in the other direction also – i.e. 10% less water than identified.

In summary, Preliminary Recommendation 2.13 is amended to confirm the application of a 1% growth rate in Cambria until 1/1/02, but to also make clear that no new development that relies on a Cambria CSD water connection should be approved after that date, unless findings can be made that (1) water withdrawals are limited to assure protection of instream flows that support sensitive species and habitats; (2) there is adequate water supply reserved for the Coastal Act priority uses of agricultural production, and increased visitors and new visitor-serving development; (3) a water management implementation plan is incorporated into the LCP, including measures for water conservation (see discussion of Recommendation 2.15 below also), reuse of wastewater, alternative water supplies, etc., that will assure adequate water supply for the planned build-out of Cambria or that will guarantee no net increase in water usage through new water connections (e.g. by actual retrofitting or retirement of existing water use); (4) substantial progress has been made by the County and the CCSD on achieving implementation of buildout reduction plan for Cambria; and (5) there is adequate water supply and distribution capacity to provide emergency response for existing development.[16]

~~Preliminary~~ **Recommendation 2.13. Address Cambria Short-term Development** Constraints. ~~The short-term problem of water supply in Cambria could be addressed in a number of ways, including limiting short-term growth rates. At a minimum it would seem that the current 1.0% growth should be kept in place, rather than increasing potential new development back to the 2.3% growth rate anticipated by the County's growth management ordinance. However, this would not address the Commission's 1998 findings that would have required a development moratorium by January 2001 unless certain performance standards had been met (which have not). As discussed, the CSD has conducted additional studies, and the County has recently evaluated water supply and demand in Cambria in the NCAP project description. There is a need for the County and CSD to work collaboratively to complete critical information needs. To the extent that this recent study may raise uncertainties about how much water is available, coordination discussion with Commission staff over the next several months would be useful. The habitat and in-stream flow studies that the Commission identified as being necessary in 1998 should be conducted as well. One option, therefore, would be to allow 1.0% until 1/1/02, subject to finishing the resource capacity study. Another option that would be the most precautionary in terms of protecting coastal resources, would be to enact a development moratorium through the RMS system, until such time as the water problems for future development is more definitively resolved.~~ Continue implementation of the 1% growth rate in Cambria until 1/1/02, after which time coastal development permits for new development that would require a new water connection or that would otherwise create additional water withdrawals from Santa Rosa or San Simeon Creeks should not be approved unless the Board of Supervisors can make findings that (1) water withdrawals are limited to assure protection of instream flows that support sensitive species and habitats; (2) there is adequate water supply reserved for the Coastal Act priority uses of agricultural production, and increased visitors and new visitor-serving development; (3) a water management implementation plan is incorporated into the LCP, including measures for water conservation, reuse of wastewater, alternative water supplies, etc., that will assure adequate water supply for the planned build-out of Cambria or that will guarantee no net increase in water usage

[16] Although emergency response capacity is more a function of water distribution capacity, it is an additional uncertainty in the Cambria system. Currently the CSD has approximately 980,000 gallons of storage for fire –fighting – enough water to fight 8-9 houses burning simultaneously for two hours.

through new water connections (e.g. by actual retrofitting or retirement of existing water use); (4) substantial progress has been made by the County and the CCSD on achieving implementation of buildout reduction plan for Cambria; and (5) there is adequate water supply and distribution capacity to provide emergency response for existing development.

2004
CAMBRIA COMMUNITY SERVICES DISTRICT
WATER PRODUCTION, BY SOURCE
ACRE-FEET

YEAR	SOURCE	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL	YEAR
	S.S.	51.20	57.90	63.20	47.30	57.40	44.20	50.00	51.70	41.90	37.40	27.40	36.00	565.60	
1988	S.R.	0.00	0.00	0.00	16.30	15.70	30.70	31.20	34.90	36.00	34.90	35.20	19.00	253.90	1988
	TOTAL	51.20	57.90	63.20	63.60	73.10	74.90	81.20	86.60	77.90	72.30	62.60	55.00	819.50	
	S.S.	51.00	47.90	53.90	61.90	57.20	62.20	69.20	60.90	36.30	38.70	42.60	40.60	622.40	
1989	S.R.	0.00	0.00	0.00	1.00	13.80	13.50	17.90	28.00	42.00	22.60	17.60	18.20	174.60	1989
	TOTAL	51.00	47.90	53.90	62.90	71.00	75.70	87.10	88.90	78.30	61.30	60.20	58.80	797.00	
	S.S.	45.70	47.00	55.28	44.75	31.46	32.34	40.00	38.00	31.91	31.40	29.40	29.90	457.14	
1990	S.R.	8.70	0.80	0.50	18.03	32.30	26.79	22.30	22.20	20.84	20.20	19.30	14.90	206.66	1990
	TOTAL	54.40	47.80	55.78	62.78	63.76	59.13	62.30	60.20	52.55	51.60	48.70	44.80	663.80	
	S.S.	26.90	23.10	32.70	39.60	48.60	44.10	40.10	34.80	30.50	28.00	26.40	30.10	404.90	
1991	S.R.	15.30	13.10	0.50	0.10	0.10	5.50	15.00	21.60	20.20	21.00	19.70	18.70	150.80	1991
	TOTAL	42.20	36.20	33.20	39.70	48.70	49.60	55.10	56.40	50.70	49.00	46.10	48.80	555.70	
	S.S.	45.30	42.20	45.90	55.20	64.00	58.10	44.90	41.80	35.00	32.80	34.00	43.10	542.30	
1992	S.R.	0.80	0.30	0.10	0.40	0.50	6.10	22.70	28.10	26.30	25.10	19.50	5.50	135.40	1992
	TOTAL	46.10	42.50	46.00	55.60	64.50	64.20	67.60	69.90	61.30	57.90	53.50	48.60	677.70	
	S.S.	50.10	45.70	52.60	56.30	68.30	68.80	68.10	69.80	59.80	56.10	51.40	43.50	690.50	
1993	S.R.	0.50	0.30	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	1993
	TOTAL	50.60	46.00	52.60	56.30	68.40	68.80	68.10	69.80	59.80	56.10	51.40	43.50	691.40	
	S.S.	47.00	38.60	48.60	52.00	54.60	63.40	69.30	47.80	31.70	30.80	28.20	26.00	538.00	
1994	S.R.	0.00	0.00	0.00	0.00	0.10	0.00	0.00	25.00	30.20	27.70	21.20	19.90	124.10	1994
	TOTAL	47.00	38.60	48.60	52.00	54.70	63.40	69.30	72.80	61.90	58.50	49.40	45.90	662.10	
	S.S.	41.30	41.10	47.10	52.14	53.50	59.00	74.70	74.10	65.40	64.70	55.30	47.60	675.94	
1995	S.R.	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.90	1995
	TOTAL	43.20	41.10	47.10	52.14	53.50	59.00	74.70	74.10	65.40	64.70	55.30	47.60	677.84	
	S.S.	46.66	43.40	47.39	56.95	66.18	70.83	75.70	77.27	68.23	65.58	50.37	49.43	717.99	
1996	S.R.	0.01	0.03	0.03	0.03	0.03	0.01	0.03	0.02	0.01	0.02	0.02	0.02	0.26	1996
	TOTAL	46.67	43.43	47.42	56.98	66.21	70.84	75.73	77.29	68.24	65.60	50.39	49.45	718.25	
	S.S.	50.61	49.20	65.66	68.65	76.18	79.14	82.31	57.02	37.32	27.50	38.96	45.96	678.51	
1997	S.R.	0.02	0.08	0.02	0.02	0.02	0.02	0.38	25.92	31.54	36.85	12.41	0.01	107.29	1997
	TOTAL	50.63	49.28	65.68	68.66	76.20	79.16	62.69	82.94	68.86	64.35	51.37	45.97	785.80	
	S.S.	44.39	46.36	47.00	50.53	56.43	63.43	77.75	80.30	68.35	66.58	54.06	52.13	707.31	
1998	S.R.	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.09	0.01	0.00	0.00	0.00	0.16	1998
	TOTAL	44.40	46.37	47.01	50.54	56.43	63.44	77.76	80.39	68.36	66.58	54.06	52.13	707.47	
	S.S.	56.40	45.26	52.16	57.40	70.43	71.35	85.41	82.68	69.45	68.04	57.78	57.69	774.05	
1999	S.R.	0.01	0.01	0.01	0.04	0.02	0.07	0.01	0.02	0.32	0.02	0.00	0.00	0.53	1999
	TOTAL	56.41	45.27	52.17	57.44	70.45	71.42	85.42	82.70	69.77	68.06	57.78	57.69	774.56	
	S.S.	56.41	50.43	55.27	65.40	70.84	73.60	85.00	84.68	73.30	65.60	58.49	59.80	798.82	
2000	S.R.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2000
	TOTAL	56.41	50.43	55.27	65.40	70.84	73.60	85.00	84.68	73.30	65.60	58.49	59.60	798.82	
	S.S.	56.16	48.05	55.92	60.69	73.30	77.51	85.01	78.50	53.45	56.21	48.16	52.29	745.25	
2001	S.R.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.78	21.08	16.87	6.06	0.89	52.68	2001
	TOTAL	56.16	48.05	55.92	60.69	73.30	77.51	85.01	84.28	74.53	73.08	56.22	53.16	797.93	
	S.S.	54.43	52.23	60.70	65.43	60.75	55.13	66.79	73.35	66.59	62.03	56.36	53.98	727.77	
2002	S.R.	1.28	1.27	1.10	1.11	14.82	22.79	19.54	9.67	3.52	4.02	2.04	0.55	81.71	2002
	TOTAL	55.71	53.50	61.80	66.54	75.57	77.92	86.33	83.02	70.11	66.05	58.40	54.53	809.48	
	S.S.	52.73	49.97	57.35	58.32	62.82	68.22	65.05	63.34	58.91	67.08	56.20	48.64	708.83	
2003	S.R.	0.70	1.11	0.48	0.94	1.84	5.63	19.77	22.04	16.00	6.58	3.12	5.84	84.05	2003
	TOTAL	53.43	51.08	57.83	59.26	64.66	73.85	84.82	85.38	74.91	73.66	59.32	54.68	792.88	
	S.S.	55.83	51.40	58.56	64.33	67.98	[redacted]					49.30	49.92	612.52	
2004	S.R.	0.00	0.61	1.17	4.84	8.68	22.06	30.80	36.30	27.32	24.95	1.73	1.63	160.11	2004
	TOTAL	55.83	52.01	59.73	69.17	76.66	74.70	77.84	75.98	68.38	59.75	51.03	51.55	772.63	
DIFFERENCE		2.40	0.93	1.90	9.91	12.00	0.65	-6.98	-9.40	-6.53	-13.91	-8.29	-3.13		

TOTAL INCREASE 2004 = -20.25 ACRE-FT
Percent INCREASE 2004 = -0.03

[redacted] 215.20
2004 S.R.Creek Dry Season Production: 150.13
Total: 365.33

Per Permit: 370 ac.ft. in dry seasor P.F. - 10/31
Per Permit: 260 ac.ft. in dry seasor 5/1 - 10/31

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Section 3: Water Demand Projections

This section discusses existing and projected water demands utilized in the water system model analyis and for evaluation of reservoir and pumping facility capacities. Maximum day and peak hour demand peaking factors were developed based upon existing demand information, as developed using CCSD data provided in 2001.

3.1 Development of Water Demand

Demand data based on meter records from January 1999 to October 2000 were incorporated into GIS format by the Geographic Planning Collaborative (GPC) and utilized for hydraulic analyses. Methodology used was consistent with the "Future Water Demand Forecast Level Analysis Model Logic" paper presented by GPC to CCSD. In that paper, a design for the required model was made and the needed elements and links were identified.

A Development Scenario Table (DST) was created that combines the following data links to establish existing demand and various growth projections using the calculated per capita usage. A script was written and applied (Calc.AnnualConsumRate) to calculate the annual consumption rate of water for the units that have an existing service. The script sums the units used by each customer number in hist99_00.dbf and divide that sum by the number of occurrence of that customer number.

A spatial link was established between the DST and the customer accounts table (file "cust_oct_2000.dbf") based on the APN field. Another spatial link was made between the customer table and the table containing the history of water consumption for years 1999-2000 (file "hist99_00.dbf"). This later link was based on the Customer field.

The APN was then linked to the nearest model node and demands assigned to that node by a geoprocessing command in the GIS software which assigns closest parcel demands to the nearest node. The data was then imported into the model.

The CCSD also provided water meter records for the period of January thru December 2001. This total metered consumption data was provided in bi-monthly increments. Well production data were also supplied for the four supply wells, for the period of January 2001 through December 2001. These data were used to develop demand patterns and peaking factors to adjust 1999 values to reflect 2001 data as discussed further below.

3.2 Water Demand Conditions

Demand criteria were developed for each of the following conditions:

- Average Daily Demand
- Average Daily Demand – Summer Conditions
- Average Daily Demand – Winter Conditions

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- Maximum Daily Demand – Winter Conditions (Existing and Future)
- Maximum Daily Demand – Summer Conditions (Existing and Future)
- Peak Hour Demand – Winter Conditions (Existing)
- Peak Hour Demand – Summer Conditions (Existing and Future)

3.3 Average Demands – Existing Conditions

1999 Billed vs. Production: The 1999 data provided by the CCSD represented total metered consumption and was originally imported into the hydraulic model. However, there are unaccounted for system losses that occur leading to a difference between the total value of produced water, versus that which was actually billed. These differences can be associated with meters not working properly as well as distribution system losses. The 1999 data provided by the CCSD that was linked to the GIS system represented metered consumption and totaled 388 gpm (approximately 625 AFA). From the December 8, 2000 Baseline Water Supply Analysis (Task 2 of the Water Master Plan) report, there were 3,586 residential, and 210 commercial connections in 1999. This same report noted a total production value (i.e., water pumped into the distribution system) at 779 AFA for 1999. Of this total production, 578 AFA was attributed to residential consumption and 201 AFA was for commercial consumption.

1999 Production AFA: Based on 1999 production, the residential consumption per residential connection averaged 0.161 AFA (about 11.7 ccf/bi-monthly billing period) whereas commercial consumption per commercial connection averaged 0.959 AFA (about 69.6 ccf/bi-monthly billing period). For both residential and commercial connections combined, the water produced per composite connection[5] equated to **0.205 AFA** (about 14.9 ccf/bi-monthly billing period when using a total production of 779 AFA divided by 3,796 total connections).

Adjustment to 1999 Production: The 1999 total production of 779 AFA equates to approximately 480 gpm. For long-term planning purposes, the total demand resulting from summing the modeling nodes (i.e., the old GIS-linked metered data) was first adjusted to match production values by a factor of 1.24 (480 gpm/388 gpm). This approach accounts for the difference in billed versus produced water. This approach also assumes the system losses currently experienced between billed and produced data will be similar in the future. Additionally, the cause of the loss could be self-correcting as defective meters (that normally read low) are eventually replaced and the billed metering totals get closer to the amount of water actually produced.

Adjustment of 1999 Production to Reflect 2003: In 2003, the District had 3,758 residential connections and 219 commercial connections, or a total of 3,977 connections. Using the 1999 combined use of .205 AFA per composite connection, the total baseline production amount for 2003 is approximately 815 AF (505 gpm). The resulting 505 gpm value was used in the hydraulic model in developing an adjusted 2003 average day demand. The 505 gpm value was subsequently adjusted to account for average and maximum day summer and winter demands within the hydraulic model.

[5] "Composite connection" refers to an overall average that results by dividing total production by the number of residential and commercial connections.

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3.4 Seasonal Demand Factors

Due to fluctuations in water consumption over different periods of the year, a seasonal demand pattern was developed. To establish a demand pattern, the summer season was defined to be the highest consecutive 6-month average water usage and the winter season was defined to be the lowest consecutive 6-month average water usage. 2001 production data from each of the CCSD's wells were averaged for each month of the year. These monthly averages were then averaged for each consecutive 6-month period within the year (January through June, February through July, March through August, etc.). The period from November through April had the lowest 6-month average and was defined as the winter season. The average daily demand for the winter season is 413 gpm. The period from May through October had the highest 6-month average and was defined as the summer season. The average daily demand for the summer season was 575 gpm. The calculations used to determine the summer and winter seasons are shown in Table 3-1.

TABLE 3-1
DETERMINATION OF SUMMER AND WINTER SEASONS

		Average for Six Month Period											
Date	Avg Q. (gpm)[a]	Aug-Jan Q (gpm)	Sep-Feb Q (gpm)	Oct-Mar Q (gpm)	Nov-Apr Q (gpm)	Dec-May Q (gpm)	Jan-Jun Q (gpm)	Feb-Jul Q (gpm)	Mar-Aug Q (gpm)	Apr-Sept Q (gpm)	May-Oct Q (gpm)	Jun-Nov Q (gpm)	Jul-Dec Q (gpm)
January	409.9	488.8											
February	388.3		451.0										
March	408.2			425.4									
April	457.8				412.8								
May	535.1					431.3							
June	584.7						464.0						
July	620.5							499.1					
August	615.2								536.9				
September	562.2									562.6			
October	533.5										575.2		
November	424.1											556.7	
December	388.2												523.9
Total Avg.	**495.0**												

Note: (a) Based on well production data from Cambria Community Services District Water Production Report dated 2001.

To develop summer and winter demands from average demands, seasonal demand factors were developed using the following methodology:

Summer Adjustment Factor = Total Average Monthly Summer Demand (May through October), 575 gpm, divided by the Total Monthly Average Demand, 495 gpm = 1.16.

Winter Adjustment Factor = Total Average Monthly Winter Demand (November through April), 413 gpm, divided by the Total Monthly Average Demand, 495 gpm = 0.83.

Accordingly, the summer and winter demand factors were determined to be 1.16 and 0.83, respectively. These factors were applied to the 2001 average demands to obtain existing

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demands for summer and winter seasons. The maximum day and peak hour factors were then applied to these demands to obtain maximum day and peak hour demands for summer and winter conditions. These peaking factors were developed as explained below.

3.5 Peaking Factors

Daily well production records for January through December 2001 were used to determine maximum day peaking factors. These records, supplied by CCSD, are presented as Appendix A. The average daily water production, considered as the average daily demand (ADD), for 2001 was calculated per month and compared to the maximum day demand (MDD) within the highest production month over this period of use. The total monthly production is defined as the "net production", after subtracting local losses at the wellsite and is further detailed in Appendix A.

Table 3-2 provides the production data summarized as average daily demand per month in ac-ft perday.

TABLE 3-2
AVERAGE WATER USAGE BY MONTH (2001)

Date	Total Net Q (ac-ft)[(a)]	Total Avg. Daily Q (ac-ft)[(a)]
January	56.16	1.84
February	48.05	1.75
March	55.92	1.84
April	60.68	2.05
May	73.30	2.39
June	77.51	2.62
July (Max.Month)	85.01	2.83
August	84.28	2.88
September	74.53	2.64
October	73.08	2.50
November	56.22	1.92
December	53.18	1.74
Avg. Daily Demand (ADD)		**2.25**

Note: (a) Based upon CCSD Water Well Production Data for 2001.

The average daily demand (ADD) for 2001 is 2.25 ac-ft as shown above. The maximum day demand was assumed as the highest production day within the highest production month. As shown in Table 3-2 above, July of 2001 represented the highest production month in 2001. The highest production day within this month is 3.24 ac-ft (see Appendix B), occuring on July 4th, and is considered the maximum day demand (MDD). Therefore, the MDD peaking factor was determined to be 1.44 or the ratio of the MDD divided by ADD(3.24/2.25). Based on District records, staff input, and Master Planned level conservatism, a MDD peaking factor of **1.5** is recommended.

Because there were not sufficient records available to evaluate peak hour demands, Health Services' Waterworks Standards and conversations with CCSD staff were used as reference

sources for this peaking factor. Section 64554 Source Capacity of the Department of Health Services' proposed Waterworks Standards recommends that a minimum peak hour factor of 1.5 be applied to maximum day peaking[6]. This recommendation coupled with CCSD system considerations, helped determine an assumed, conservative peak hour factor of 2.0. This factor applied to the recommended MDD peaking factor of 1.5 created a Peak Hour factor of **3.0** as summarized in Table 3-4.

TABLE 3-4
MAXIMUM DAY AND PEAK HOUR FACTORS

Condition	Peaking Factor
Maximum Day	1.5
Peak Hour	3.0

Maximum Day and Peak Hour existing and future water demands are summarized in Appendix A for both summer and winter conditions.

3.6 Future Demands

During its July 24, 2003 Board meeting, staff was requested to plan for up to 18 ccf/bi-monthly billing period (which equals 0.248 AFA) for a typical residential connection. This directive was based in part on a desire to provide some relief to existing customers from current water conserving measures that have evolved from years of shortages. When compared to the December 8, 2000 Baseline Water Supply Analysis report data, this represents an increase of approximately 50 percent for the residential component.

Because the District also has a Coastal Development Permit[7] condition requiring at least 20-percent of its permitted capacity permit be reserved for "public commercial or recreational uses," further checking of the actual 1999 production total versus a hypothetical production total was considered. For example, the actual 1999 production of 779 AFA results in approximately 25-percent of the total being attributed to the CCSD's "commercial" accounts category. Using the 18-ccf per bi-monthly demand per residential connection, and no increase in the commercial use, results in a hypothetical 1999 production of 1,090 AFA. However, this approach results in only 18-percent of the total production being attributable to the commercial category. This review further begged the question on what was actually meant by the old permit condition, "public commercial or recreational uses."

If one assumes the 20-percent permit condition applies to all commercial customers, the commercial component from the hypothetical 1999 production exercise would need to be increased to at least 222 AFA, with a total production of 1,111 AFA. This equates to an overall increase of 43-percent over the actual 1999 production. From District staff's review of the Coastal Act, the intent of the old permit condition appears directed towards enhancing visitor-serving recreation of the coastline. If so, this would indicate that the majority of the District's

[6] State of California, Waterworks Standards (Proposed). Article 1, Section 64554 (b)(2)(D). Dated August 16, 2002.

[7] May 29, 1981 Coastal Development Permit #428-10; issued by the California Coastal Commission to the Cambria Community Services District. Condition No. 5, Reservation of Capacity for Public Commercial and Recreation Uses.

commercial accounts serve such purposes. However, there may be a few minor commercial uses that are deemed to be outside of the 1981 Coastal Permit definition. Additionally, there are residential accounts that serve as commercial vacation rentals and could also be construed as meeting the Coastal Commission's 20-percent permit category. For these reasons, an across-the-board increase of 50 percent to both the residential and commercial uses was used in forecasting future demand scenarios. This also keeps the ratio between residential and commercial uses at its historic level (approximately 25-percent commercial). When applied to the 1999 production, the 50-percent increase results in a hypothetical 1999 production of 1,168 AFA (i.e., 1,168 AFA versus 1,111 AFA). This value also indicates that the overall sensitivity of the total production to an increase in the commercial use category is relatively low. Therefore, a 50-percent increase was applied to both the residential and commercial categories in developing a response to the July 24, 2003 Board meeting directive. (Note: For further discussion on percent increases, also see the Task 4 Water Master Plan Report, "Assessment of Long-Term Supply Alternatives," Sections 2.3 and 2.4.)

In addition to considering future quality of life percent increases, scenarios with 1.66 and 2.21 persons per residential unit were analyzed. From the 2000 census, the average occupancy rate in Cambria is 1.66 persons per household. This relatively low occupancy rate is due to the high vacancy rate of the area. The 2.21 persons per household value was based on the homes that were actually occupied during the 2000 census. To estimate the demand associated with 2.21 persons per household, a simple ratio was applied to the residential demand of 2.21/1.66, or 1.33. From the 1999 data used in the Baseline report, the residential unit demand would increase from about .161 AFA per residential connection to .214 AFA. At this residential density, the combined residential and commercial use equates to .255 AFA per composite connection. Based on 3,977 connections for 2003, a total production of 1,015 AFA results, or about 629 gpm.

As explained above, the 1999 data developed a 0.205 AFA composite connection demand for both residential and commercial connections. This value is based on approximately 25% commercial production as well as a residential demand based on about 1.66 persons per household. Additionally, the adjusted 0.255 AFA composite connection demand keeps the same 25% commercial production intact while adjusting the residential demand for a 33% increase in persons per household, to 2.21.

As each of these base composite connection demand factors (0.205 AFA for the 1.66 persons per household density and 0.255 AFA for the 2.21 persons per household density), an additional correction factor must be applied when multiplying the composite connection factor by the number of residential housing units. Using the District's 2003 data of 3,977 total connections divided by 3,758 residential connections, generates a correction factor of 1.058 (5.8%) to apply to the 0.205 AFA composite demand for 1.66 persons per household and the 0.255 AFA composite demand for 2.21 persons per household. This correction factor ensures the total demand projection will account for both residential and commercial connections while multipliying by composite demands times the total number of proposed housing units. Therefore, the composite base AFA factor for use in future projections was corrected to 0.217 AFA (1.058 times 0.205 AFA) for 1.66 persons per household, and 0.270 AFA (1.058 times 0.255 AFA) for 2.21 persons per household. This approach also maintains the commercial demand at the historical level of approximately 25% of total water production. The corrected composite demands of 0.217 AFA and 0.270 AFA are incorporated the basis for developing baseline demand projections in each of the four buildout scenarios.

CCC Exhibit Y
(page 6 of 6 page)

May 26, 2005

WHITLEY BURCHETT & Associates

Ms. Diane Landry
California Coastal Commission
725 Front Street, Suite 300
Santa Cruz, California 95060

Subj: Engineering Report
Pine Knolls Reservoir De Novo Evaluation

Dear Ms. Landry:

In accordance with our agreement, we are pleased to submit this report on our technical review of the California Coastal Commission's (Commission) findings, conclusions and recommendations contained in the April 16, 2005 Staff report and our copy of the draft of the May 26, 2005 Staff Report: Appeal Substantial Issue Determination/ De Novo Findings and supporting documents for the Cambria Community Services District (CCSD) proposal to install water storage tanks at its Pine Knoll site. Our evaluation revealed that there are several alternatives available to CCSD that can reduce or eliminate expansion of the Pine Knolls reservoir site into the adjacent wooded area.

BACKGROUND

The Cambria Community Services District (District) is proposing to construct two potable water storage tanks on its Pine Knoll reservoir site to replace two existing tanks. The District has conducted numerous studies to justify the size, configuration and need for the new tanks. It has received approval from the County of San Luis Obispo for the project, but the County's approval has been appealed to the Commission in part because it is a public works project and will encroach into an area designated by a local coastal program as a Sensitive Resource Area (SRA).

The Commission needs to determine if the proposed project is indeed necessary and properly sized. In addition, it needs to know if the proposed tankage and arrangement of those tanks is consistent with sound engineering practice while, at the same time, minimizing the impact on the SRA. In other words, are there any other technically sound ways of achieving the District's needs while reducing or eliminating the encroachment into the SRA?

CCC Exhibit 7
(page 1 of 13 pages)

Civil/Environmental Engineers
36 Quail Court Walnut Creek California 94596

TANK VOLUME EVALUATION

Potable water storage tank volume requirements are based on three factors. These are operational storage, emergency storage and fire storage. Operational and emergency storage volumes are predicated on per capita usage and the fire storage is based on fire fighting requirements. While the fire requirements are codified in the Uniform Fire Code, the operational and emergency storage requirements are based on current technical practice which, in turn, is founded on empirical experience. In the absence of valid, site-specific statistical data, the California Code of Regulations (Section 64564) provides guidance for estimating storage tank volumes. It should be noted that this section of the includes the language: "Whenever possible, needed source capacity and needed storage volume shall be determined from existing water use records of the water system. the records used shall clearly indicate total source capacity, total storage volume and maximum day demand of previous years." We submit that this data has been provided in the July 2004, Task 3 Report (Task 3): Potable Water Distribution System Analysis from Kennedy/Jenks Consultants. The references cited below are from that report.

OPERATIONAL AND EMERGENCY STORAGE

As noted above, operational and emergency storage is based on per capita water usage or, in this evaluation, a surrogate, connection units. The objective of Task 3 was to evaluate the existing distribution system (including the storage tanks), identify future system needs (through the design year 2011) and recommend improvements to meet those future needs. The Task 3 work determined that in 2003 the system contained 3,977 connection units (Ref: pg. 20) and in the design year CCSD would have at least 4,650 connection units to the system (Ref: pg. 12). It is unclear from the material if this number included the pre-existing commercial connections to the system.

Section 3 of Task 3 report summarized the evaluation of water demands, including peaking factors, by connection units. The work concluded that an average demand value of 0.205 AFA (acre-feet/annum) was appropriate for connection units 2003 and in the future (based on a 1.66 connection unit dwelling occupancy factor) the appropriate factor would be 0.217 AFA (Ref: pg. 24). This latter value equates to about 193 gallons per day per connection unit and constitutes the average daily demand (ADD) for CCSD to be expected in the design year. Note that the Staff report documents lower per connection unit consumptions in the immediate past.

Extending the 2003 connection units value of 3,977 the 0.205 AFA usage rate results in a current average daily demand (ADD) of 0.727 million gallons per day

(MGD). This value is confirmed in Table 5-8 of the report and in CCSD communication of May 11, 2005. Similarly extending the expected future connections of 4,650 by the 0.217 AFA value results in an expected system-wide ADD 0.901 (MGD). By the same references, the Pine Knolls portion of the total system demand is 37%. Thus the ADD for the Pine Knolls zone is calculated to be 0.270 MGD for current conditions and 0.334 MGD for the 2011 conditions.

Operational demand is that volume of water used on a hour-to-hour basis and is used to keep the supply pumps from having to turn on and off too frequently. Current technical practice provides that operational storage should be at a defined percentage of maximum daily demand (MDD). Task 3 (Ref: pg 32) recommended that operational storage be set at 25% of MDD. Previously, (Ref: pg. 23), a factor of 1.5 was given for determining MDD from ADD.

Table 5-8 of Task 3 contains a tabulation of storage requirements for all of the sites within CCSD based on the scenarios considered. The following tabulation is a summary of the ADD and MDD values for these sites for the 2011 design year with 4,650 connection units and a 1.66 density factor (persons per household).

FIRE STORAGE

Fire storage volume is based on locally adopted ordinances. CCSD adopted the 2000 and 2001 editions of the Uniform Fire Code (UFC) in 2002. In accordance with the criteria in the UFC, CCSD has determined that the service area of the Pine Knolls tanks rates a fire flow rate of 3.500 gallons per minute for three hours. Since this criteria is based on professional fire fighting experience, it is not subject to engineering or other agency review. Therefore, this evaluation is not qualified to evaluate the correctness of the criteria or the resulting volumetric needs of the service area. It should be noted for the record that local fire officials have supported the conclusion that the recommended fire storage capacity be provided in the Pine Knolls site.

SUMMARY: PINE KNOLLS STORAGE REQUIREMENTS

The following table is a summary of the design factors for the Pine Knolls pressure zone. The data includes current (2003) and design year (2011) operating factors in terms of ADD and MDD demands as well as the associated operational, emergency and fire storage volumes. The table indicates that the current Pine Knolls tanks with a storage capacity of 0.200 million gallons is well under the needs of the pressure zone.

For example, under current conditions serves 37.1% of the total CCSD service area. This is derived from the ratio of 0.270 MGD (the Pine Knolls ADD) and

0.727 MGD the total CCSD ADD from Table 5-8. The total of 0.727 MGD is calculated from multiplying the current connection units (3,977 Ref. Pg. 20) by 0.205 AFA and converting acre-feet to gallons (325,000 gallons /AF) and dividing by 365 days per year. Under these conditions, the tanks should provide 0.993 million gallons of capacity. Similarly, based on 4,650 connections and using an ADD of 0.217 AFA, the tanks should have 1.00 million gallons to accommodate 2011 needs. It is unclear what factors were used to arrive at the Kennedy/Jenks Design year values since the Current year values followed the logic presented in their report.

Pine Knolls Design Factors and Storage Requirements (Million Gallons)

	Current	Design
Average Daily Demand (ADD)	0.270	0.334
Maximum Daily Demand MDD)	0.405	0.501
Operational Storage	0.101	0.125
Emergency Storage	0.202	0.250
Fire Storage	0.630	0.630
Total	0.933	1.005

SITE AND GEOMETRY EVALUATION

CCSD is proposing to use their existing site and some adjacent property for the needed tankage. CCSD is proposing two steel tanks of 56' diameter which would provide 1.1 million gallons of storage capacity, a 5.3 fold increase over the current capacity. Drawing C-1 by Boyle Engineering is a plan view of the CCSD proposed siting for the new tanks. This design envisions two tanks of 56' diameter. The proposal requires the expansion of CCSD's existing property northerly into an area designated as an Environmentally Sensitive Habitat Area (ESHA). The ESHA area is an undeveloped parcel of property supporting Monterey Pines and Coast Oak trees, both of which are native species.

The proposed site arrangement was necessitated by several constraints identified by CCSD. These constraints were: building set backs from the property lines and fire access roads, tank retention and construction sequencing, tank height and water depth and structural considerations and grade ring. The following review the pertinent considerations in these constraints. All of these constraints are predicated on the availability of only one site for Pressure Zone 1. We understand, also, that there is a site near the new Cambria school that could be used, from an engineering perspective, for at least one Pressure Zone 1 storage

tank. The constraint for this site is a Coastal Commission action that could be amended.

BUILDING SETBACKS AND FIRE ACCESS ROAD

It was assumed by CCSD that the tanks were a commercial buildings thereby needing setbacks appropriate for commercial buildings. Therefore 16' setbacks from all property lines were required. The set backs enabled the design to accommodate the needed fire access road, for which 16' was desired, without needing additional area. In fact, the tanks are not commercial structure and therefore only need to meet residential set backs or obtain a variance from the usual requirements. The necessary setbacks for this area is 25' in front, 5' for side yard and 10' for back yard.

The fire access is to enable fire equipment to access the wooded ESHA. Pumper trucks are about 8' wide and have and need a minimum turning radius of 24'. Attachment 1 to this report is a copy of the design standards for mid-size vehicles including fire pumper trucks and D8 bull-dozers. We understand that the need for the 16' wide road was to allow trucks to park on the road, open the doors and connect hoses for fire suppression. Bull-dozer can turn in shorter radii than trucks. Therefore, while the bull-dozer may be wider, it can still negotiate these access road.

As shown on the accompanying figures, the alternative tanks are situated such as to allow fire equipment to traverse the site. Tanks 1 and 2 need to be about 12 feet apart in order to meet the needed radii between Tanks 1 and 2 and Tank 3. The only zones where an 18' wide corridor is not available is in the two short sections between the tanks. In all cases, the tanks are situated such that the additional property needs would come from the ESHA. If an additional 5' of property can be obtained on the south side, the tanks can shift such that no ESHA is required and access road would be clear of the existing tank during construction of the first tank.

TANK RETENTION AND CONSTRUCTION SEQUENCING

Two tanks are proposed by CCSD for two reasons. The first reason being the need to keep the existing tanks in operation until at least one other tank is operational. The second reason is the need to be able to do maintenance on the new tanks –including taking one out of service for such things as painting- while still providing storage to the service area. In these cases, while only half the total storage volume would be available, the major maintenance programs would be done during times of the year when fires were less probable. Under the CCSD proposal, one new tank would be built, essentially in the ESHA, because the

existing tanks had to be kept in service while the new tank was built. The second tank would be built where the exiting tanks are currently. This sequencing would also allow for the fire access road to be available during the construction period and provide adequate space for the construction contractor to maintain its work or "lay-down" spaces for the staged construction.

Although more expensive than a two-tank option, a three-tank alternative might be considered. A three tank configuration requires much less additional site area and offers CCSD an advantage that only one-third of the site storage volume is out of service during major maintenance events. The first tank could be constructed within the existing property limits and be used while the other two units are constructed including the area occupied by the existing units.

TANK HEIGHT AND WATER DEPTH

The height of the new tanks and thus the depth of the water in these tanks is constrained to the depths of the existing tanks. This constraint is due to the way the tanks operate in Pressure Zone 1. The San Simeon wells, the main CCSD supply source, pump through the distribution system to the Pine Knolls tanks. Raising the water level in the tanks significantly above the existing tank level would necessitate replacing the pump motors and probably the pumps; but more importantly, would raise the water pressure in the entire zone by the same amount. Significantly higher pressures in the zone are likely to cause a rash of pipe and water heater leaks and subject CCSD to the liability for the damage caused by those leaks. In addition, higher system pressure is counterproductive to most water conservation programs.

From a seismic perspective, tanks that have a base dimension (i.e. length, width or diameter) larger than the height are not as subject to overturning as structures that are taller. Raising the water level from the current depth of about 30 feet to 50 feet, for instance would increase the zone's operating pressure by about 10 psi and would allow for two tanks at 44 diameter. These tanks would be much more subject to overturning particularly in an earthquake and would require significantly greater structural elements than are required for the proposed tanks. In short, trying to reduce the area requirements to obtain the needed volume by raising the water level in the tanks is not practical.

STRUCTURAL CONSIDERATIONS AND GRADE RING

CCSD and its consultants cited the need to separate the tanks (both existing and new) by 12' to avoid undermining the existing tanks while constructing the new tanks. Apparently the native topsoil is unsuitable for supporting the tanks and the design engineers are recommending removal of several feet of soil "down to

bedrock" and replacing the soil with engineered fill. An alternative to "over-excavating" the un-suitable soil is to use piers or piles to support the tanks. Although more costly, the tanks can be constructed as closer together than possible with the proposed technique. As noted above, the tank positioning is mostly controlled by the fire truck turning radius. While the tanks can be constructed as close as 5' apart, to allow for maintenance, the 12 spacing is needed for vehicle access.

The tanks need to be constructed with a structural concrete seismic perimeter grade ring. The grade ring is about 2 feet wide and extends about a foot outside the tank diameter to accommodate anchor bolts connecting the steel tank to the grade ring. We understand that the proposed design provides for the grade ring to be about a foot above natural grade. We assume that this elevated level was to ensure that the anchor bolt to concrete connection would eliminate the potential for water ponding at the connection points thereby creating a corrosion point. A six-inch raised section would provide the same benefit and the use of stainless steel anchor bolts would obviate the need for more than a 1-inch raised concrete grade ring. The purpose of lowering the grade ring is to allow a wider access road between the tanks because maintenance and emergency vehiles can drive over a 1" raised lip. Some coastal agencies have standardized on the use of stainless steel for structural details such as this because of the long term reduction in maintenance requirements due to salt atmosphere corrosion.

CAMBRIA SCHOOL SITE

We understand that there is property near a Cambria school that is at the same elevation as the Pine Knolls site. The elevation of the Pine Knolls site is 285' above sea level. Maps prepared by CCSD and the local school district for permitting purposes both show an elevation of 285 near the school. Depending on the plot area, it has the potential for being the site of one of the Pressure Zone 1 storage tanks. Utilization of this site would facilitate construction of the needed tankage as the first new tank could be built here and allow demolition of both of the existing tanks at pine Knolls for construction of the second and/or third tank. The secondary advantage to CCSD of a second site is that the piping and valving at both sites could be maintained while maintaining minimum system integrity. The site could be used for future storage needs for Pressure Zone 1.

CONCLUSIONS

The existing Pine Knolls storage tanks, at 24' diameter provide 206,000 gallons of storage capacity. By current design standards, the appropriate storage volume

for current conditions should be 933,000 gallons and should be 1 million gallons to meet 2100 design year conditions with 4,650 connection units in the system.

The two-tank alternative proposed by CCSD does not use the available area as efficiently as a three-tank arrangement. Figures 1 and 2 show possible three-tank combinations for meeting the current and future demands respectively at the existing Pine Knolls site. For the existing conditions, three tanks at 42' diameter would be required. For the 2011 conditions, 3 tanks at 44' diameter would be needed and some minimal encroachment would be required onto adjacent properties

These arrangements provide the needed minimum 12-foot wide fire access road and potential "lay-down" areas for construction. There is adequate access around the tanks for maintenance and inspections and the curves in the access road are large enough for fire trucks and D8 bull-dozers to negotiate through the site to the wooded area. In addition, by using pier foundations and some retaining walls, the needed site area could be provided by condemnation of property to the south rather than in the ESHA.

Consideration should be given to allowing CCSD to develop the site near Cambria school to provide added redundancy to the entire Pressure Zone 1 system and further reduce the area required for tanks at Pine Knolls.

We have appreciated this opportunity to work with you on this interesting project. If you have any questions regarding our findings, conclusions and recommendations, please feel free to contact me.

REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. DONOVAN
NO. 22103
CIVIL
STATE OF CALIFORNIA

EXP: 09/30/05
May 26 2005

Very truly yours,
WHITLEY, BURCHETT AND ASSOCIATES

Michael Donovan

Michael Donovan P.E.
Project Manager

Encl

CCC Exhibit 7
(page 8 of 12 pages)

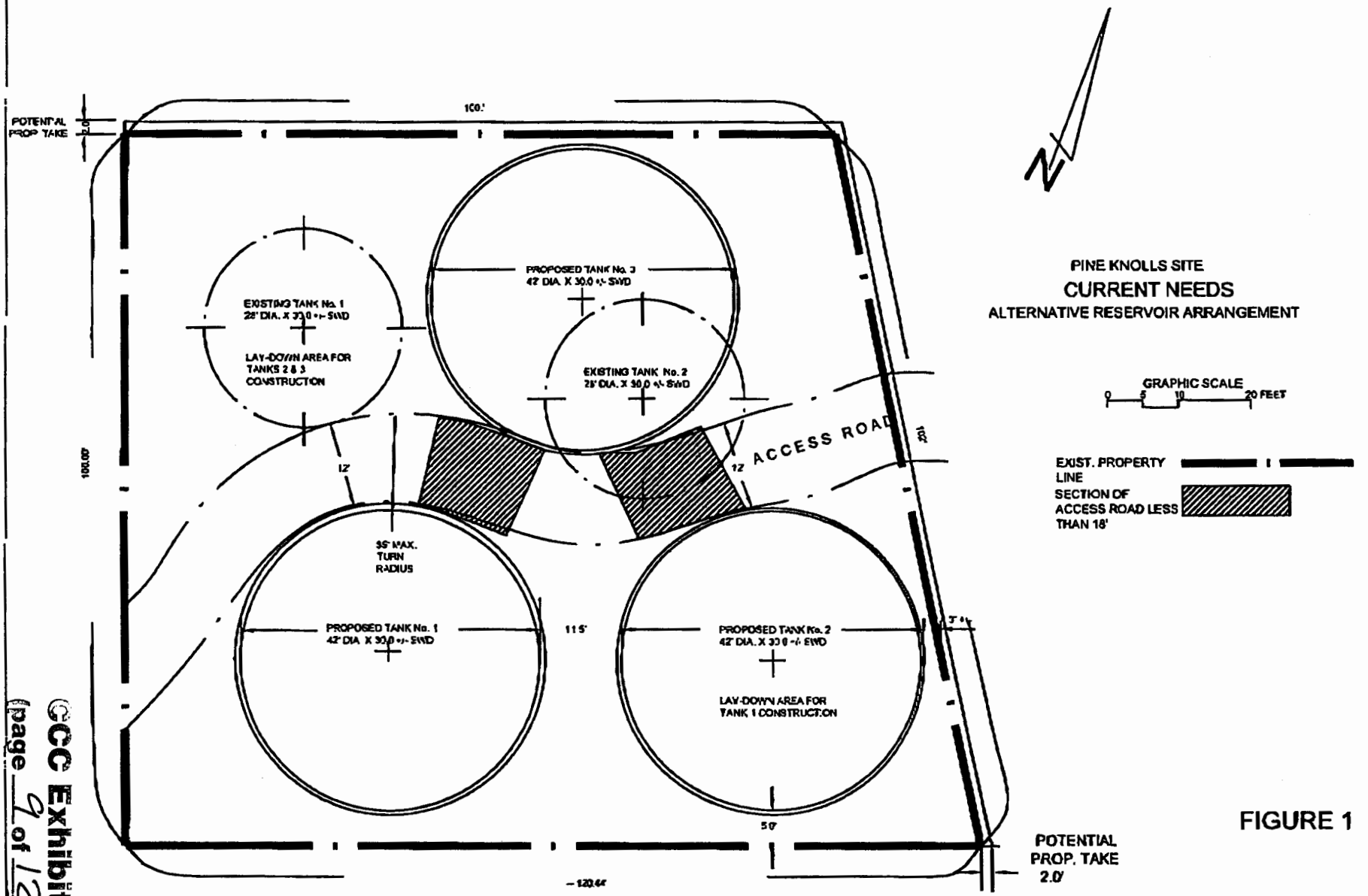

POTENTIAL PROP TAKE
100'
EXISTING TANK No. 1
25' DIA. X 30.0 +/- SWD
LAY-DOWN AREA FOR TANKS 2 & 3 CONSTRUCTION
PROPOSED TANK No. 3
42' DIA. X 30.0 +/- SWD
EXISTING TANK No. 2
25' DIA. X 30.0 +/- SWD
ACCESS ROAD
12'
12'
35' MAX. TURN RADIUS
PROPOSED TANK No. 1
42' DIA. X 30.0 +/- SWD
115'
PROPOSED TANK No. 2
42' DIA. X 30.0 +/- SWD
LAY-DOWN AREA FOR TANK 1 CONSTRUCTION
50'
120.64'
POTENTIAL PROP. TAKE 2.0'
N
PINE KNOLLS SITE
CURRENT NEEDS
ALTERNATIVE RESERVOIR ARRANGEMENT
GRAPHIC SCALE
0 5 10 20 FEET
EXIST. PROPERTY LINE
SECTION OF ACCESS ROAD LESS THAN 18'

FIGURE 1

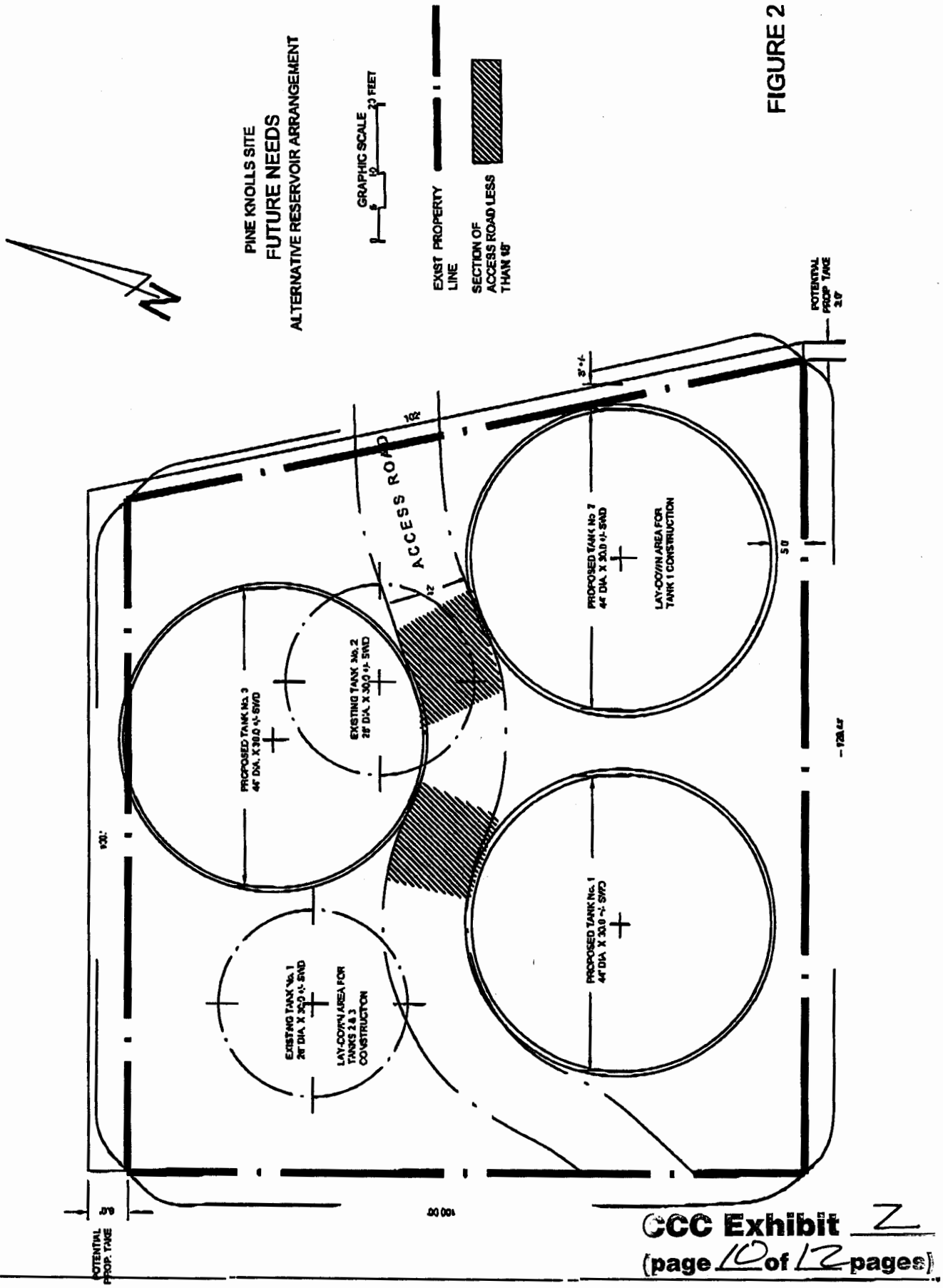


FIGURE 2

CCC Exhibit 2
(page 10 of 12 pages)

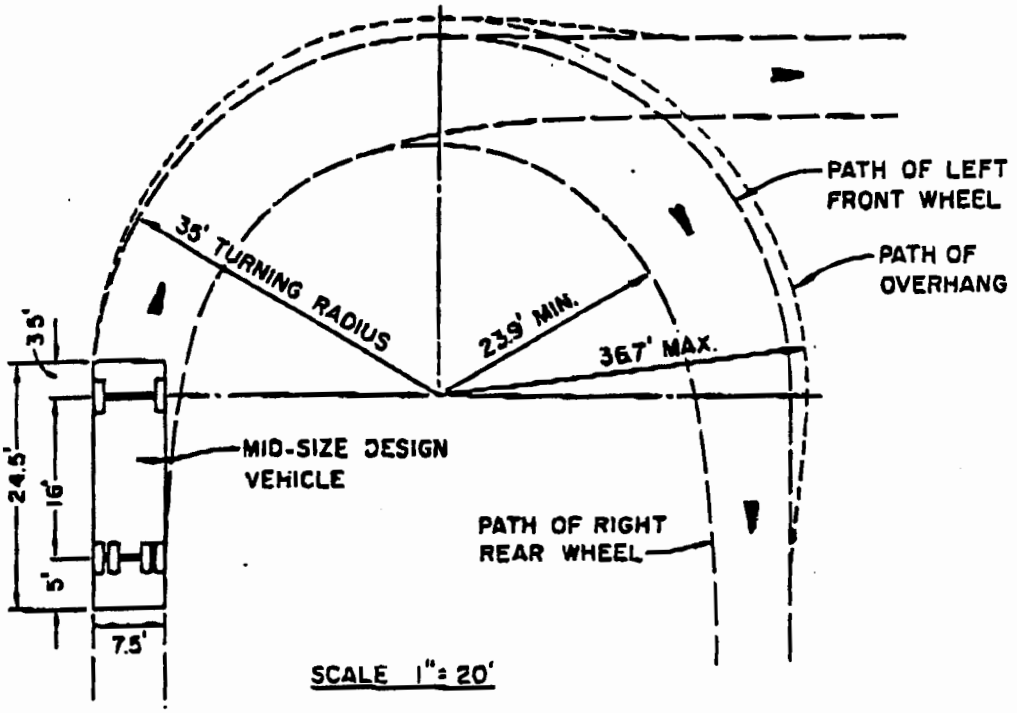
CIVIL-ENVIRONMENTAL DIVISION

Section: Site Work and Geotechnical

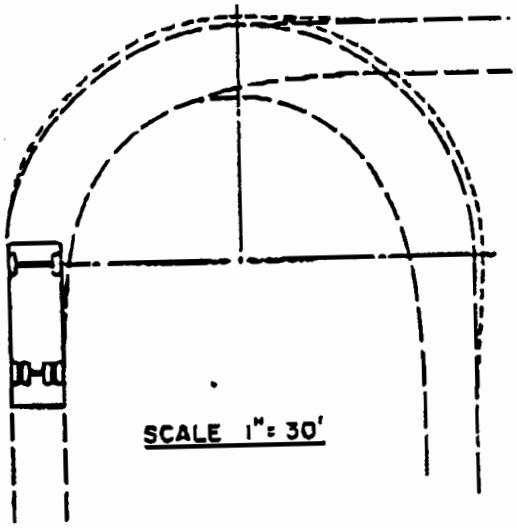
WHEEL TRACKS FOR VARIOUS VEHICLES

ID: EM-805.10 Page: 5 OF 7

Previous Issue: Date: 05-01-73 Current Issue: Date: 10-01-86



SCALE 1"= 20'



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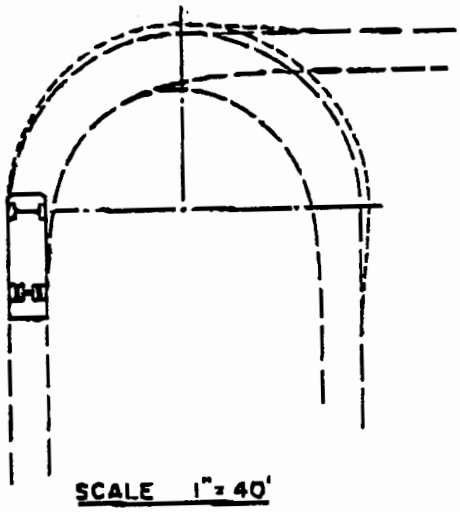
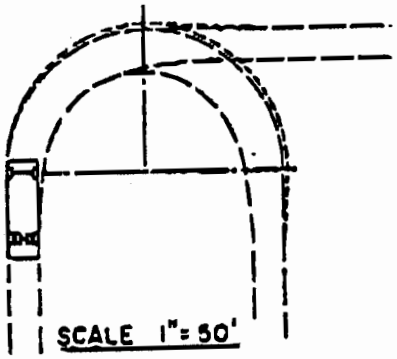


SCALE 1"= 40'



SCALE 1"= 50'

e.g. fire pumper truck

ATTACHMENT 1
MID-SIZE DESIGN VEHICLE
SCALE AS NOTED
1977

CCC Exhibit 7 (page 11 of 12 pages)

Michael J. Donovan, P.E.

Registration

Registered professional engineer, California and New York

Fields of Competence

Planning, evaluation, design, construction management and operations consulting for wastewater collection and treatment systems.

Investigations, remediation planning and design for industrial waste and landfill sites.

Experience Summary

Over thirty years of environmental engineering service to public and private clients involving wastewater collection, treatment and disposal, water treatment and distribution, landfill site investigations and remediation.

Credentials

B.S., Civil Engineering, University of Notre Dame, 1964

M.B.A., University of San Francisco, 1969

M.S., Civil/Sanitary Engineering, University of Notre Dame, 1970

Professional Affiliations

California Water Pollution Control Association

American Water Works Association

American Society of Civil Engineers

Society of American Military Engineers

Key Projects

- Project manager for design of numerous water and wastewater pump stations. Project s included new and rehabilitation of facilities, wet-pit-dry-pit and submersible configurations with firm capacity to 5,000 gpm.
- Project manager for numerous wastewater treatment plant and landfill projects for the City of Hayward.
- Project Manager for design of modifications for primary, secondary and dewatering processes for Millbrae Water Pollution Control Plant and for conducting toxic hot spot air emission assessment at the plant.
- Project engineer and deputy project manager for design of expansion of wastewater treatment facilities for Rodeo Sanitary District and Sewer Authority Mid-Coastside (Half Moon Bay area).
- Project manager for design of hypochlorite disinfection conversions at over four wastewater plants ranging from 5 to 15 mgd average daily flow.
- Project manager for conceptualization and preliminary design of the 30,000 gallons per day wastewater treatment plant for Port Costa, California, which was awarded Innovative/Alternative Technology grant funding from the EPA and State of California.
- Principal instructor for San Francisco Bay Section CWEA seminar on pump fundamentals, selection and design for wastewater facilities.
- Project engineer for preliminary design of water distribution facilities for Lawrence Livermore National Laboratories Site 300, and for Parks RFTA, Dublin, California.
- Project manager for evaluation of corrosion effects and design of mitigation measures, including slip lining and inversion lining of sewers for North Tahoe PUD and Selma-Kingsburg-Fowler CSD, California.
- Project manager for evaluation and design of storm sewer, rehabilitation and replacement of pipes to 72-inch diameter at Selma-Kingsburg-Fowler CSD and the City of South San Francisco.
- Project manager for design of water treatment plant improvements at Buckingham Park Water District, California.