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Appeal Filed:	April 10, 2001
Substantial Issue:	May 9, 2001
Staff:	JRR/MPD/CLK-SF
Staff Report:	August 27, 2001
Hearing Date:	September 14, 2001
Commission Action	Approved 9-0

DE NOVO REVIEW
REVISED FINDINGS

APPEAL NO.:	A-2-HMB-01-011
APPLICANT:	Keenan Land Company
LOCAL GOVERNMENT:	City of Half Moon Bay
AGENT:	William Crowell Anne Mudge
SUBSTANTIAL ISSUE:	The Commission found that the appeal of the local government action on this project raised a substantial issue on May 9, 2001
PROJECT LOCATION:	Beachwood Subdivision at the intersection of the proposed Bay View Avenue and Highway One between Terrace and Grand View Avenues, inland of Highway One, Half Moon Bay, San Mateo County.
PROJECT DESCRIPTION FOR DE NOVO REVIEW:	The proposed development consists of the subdivision of a 24.7-acre parcel into 77 residential lots, including grading and utilities. The residential lots would range from approx. 7,500-16,000 sq. feet in area and are designated for single-family home use. The project includes four additional lots (totaling 3 acres in area) for open space, conservation, and park and recreation purposes
APPELLANTS:	Commissioners Sara Wan and Christina L. Desser Mr. Michael Ferreira and Mr. Patrick O'Brien
COMMISSIONERS ON PREVAILING SIDE:	Wan, Reilly, Woolley, Potter, Dettloff, Estolano, Desser, Ruddock, Orr
SUBSTANTIVE FILE DOCUMENTS:	See Appendix A

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REFERENCES ..... **APPENDIX A**

REFERENCED POLICIES ..... **APPENDIX B**

SUMMARY OF WETLAND FIELD INVESTIGATIONS ..... **APPENDIX C**

EXHIBITS

1. Location map/project site
2. Proposed Project: Lot Layout - June 2001 Plot Plan
3. 1989 Plot Plan
4. WRA Study Areas W1-W17
5. LSA map of ponded areas and wetland buffers
6. Composite map, wetland and wetland buffer areas (combination of Exhibits 4-5)
7. Allowable area for development
8. Applicant letter 6/7/01, clarifying that home construction is not a part of this application
9. Applicant letter 8/22/01, clarifying project description, 77 residential lots based on June 2001 plans
10. Applicant letter 8/24/01, clarifying that City Vesting Tentative Map conditions are part of project description
11. City Vesting Tentative Map conditions of (Half Moon Bay File Number PDP-10-98)
12. Applicant letter 3/10/99, discussing City responsibility for wetlands on site
13. Applicant letter 2/8/99, discussing need for pumping to prevent flooding
14. City letter 3/3/99, responding that City not responsible for creating wetlands
15. CCC (Ralph Faust) 3/20/00 letter to City of Half Moon Bay
16. CCC John Dixon 7/23/01 memo discussing hydric soils
17. USGS historic stream identification maps
18. George Carman letter 2/3/99, documenting "illegal" pumping
19. Newspaper article 3/3/99, noting pumped water was drained into storm system
20. U.S. Fish and Wildlife Service letter dated March 11, 1999
21. Projected Road Congestion for Highway 1 and 92
22. Potential area for donor lots (lot retirement area)
23. Superior Court Order, Yamagiwa v. City of Half Moon Bay (1/26/01)
24. Administrative Record, Yamagiwa v. City of Half Moon Bay, pages 25: 7931-7939, 22:6713-6724 and 19:6125-6136, referenced in Superior Court Order
25. Mike Ferreira Jan. and Feb. 2001 photos of ponding (and cover legend showing picture locations)
26. Excerpts from WRA Wetland Delineations 10/99 and 12/99
27. Lot sales information
28. CCC John Dixon 8/30/01 memo RE Beachwood Wetlands
29. CCC John Dixon 9/12/01 memo RE Half Moon Bay Rainfall Patterns

1.0 Executive Summary

On May 9, 2001, the Commission found that the appeals submitted regarding this proposed project raised a substantial issue with respect to the grounds on which they were filed. The Commission then opened and continued the de novo portion of the appeal hearing to the September 2001 meeting to allow staff additional time to prepare a recommendation for Commission action.

On September 14, 2001, the Commission approved the permit application with Special Conditions needed to offset the significant adverse impacts of the proposed development on wetlands, shoreline public access and recreation caused by increased traffic, environmentally sensitive habitat areas, water quality, and visual resources. On August 31, 2001, the staff mailed its recommendation for Commission action on the de novo portion of the appeal hearing (the staff report is dated August 27, 2001). Staff subsequently modified two of the recommended special conditions, made minor corrections to the staff report and added Appendix C and Exhibit 29 to the August 27 staff report through a written addendum dated and distributed September 13, 2001. During the September 14, 2001, hearing, staff further modified its recommendation by adding Special Condition 11, a hand-written version of which was distributed to the Commission and the applicant during the hearing. After hearing testimony from the staff, the applicant and one of the appellants, the Commission approved the permit application with conditions in accordance with the staff recommendation. This staff report presents the Commission's findings for its action conditionally approving the Keenan Land Company's coastal development permit application for the Beachwood Development project on September 14, 2001.

Wetland impacts

One of the most significant issues raised by the project is its effects on wetlands as defined under the City of Half Moon Bay's Local Coastal Program. The applicant asserts, and Commission staff agrees, that LCP-defined wetlands exist in the southeast corner of the site. Accordingly, the applicant proposes to dedicate this area to a public agency for open space and habitat protection purposes.

On the majority of the site, however, the extent of wetlands that meet the LCP definition of wetland has been disputed. The applicant asserts that wetlands meeting the LCP definition do not exist on the site, outside the southeast corner noted above. On the other hand, the City of Half Moon Bay's consultants have concluded that significant portions of the site contain hydric soils, in addition to hydrophytic vegetation, and therefore substantial portions of the site are appropriately delineated as wetlands and/or wetland buffers. Based on this conclusion, the City denied the project in March, 1999. Subsequently, the Superior Court for the County of San Mateo ordered the City to approve the project, based in part on a determination that the evidence before it did not support a conclusion that the areas in dispute contained hydric soils. The court concluded that the areas in dispute were not wetlands under the LCP definition.

The Court's ruling is not final, however, and the Commission has considered additional evidence regarding potential wetlands that was not before the court at the time it rendered its decision. This additional evidence, together with a re-analysis of all data in the record concerning potential wetlands, lead Commission staff to conclude that the bulk of the property consists of wetlands and/or wetland buffers. Consequently, all but approximately 19 of the proposed 77 residential

lots would be inconsistent with LCP policies protecting wetlands and buffer areas against incompatible uses, such as construction of homes and roads.

The new data and re-analysis of data include the following:

- The observed ponding on the site, which was discounted by the applicant based on an assertion that rainfall totals at the time were extraordinary, in fact is strong evidence of wetland hydrology. Evidence in the record shows that rainfall totals at the time of observations were well within the realm of "normal" rainfall for the time and place.
- The ponding that was observed is evidence not only of wetland hydrology, but also of the presence of hydric soils. Such soils are defined in some circumstances by the length of time that water stands on the site.
- The Commission's chief biologist has reviewed the evidence and data sheets compiled by the applicant's and the City's consultants and has conducted a site inspection with the applicant's biologist. The Commission's biologist concludes that the preponderance of evidence strongly indicates that significant areas of the site with a prevalence of wetland vegetation are in fact wetlands both in an ecological sense and under the definition of the City of Half Moon Bay's certified Local Coastal Program.
- The "vernally wet" exception to the City's wetland definition, which played a part in previous decision-making regarding the extent of wetlands on the site, is not relevant. This exception, which has been subject to dispute, due to uncertainty concerning its precise meaning, excludes from wetland definition "vernally wet areas where the soils are not hydric". Because new evidence and re-analysis of existing evidence in the record support a conclusion that soils found on numerous parts of the site are indeed hydric and that the site contains seasonal wetlands and not vernally wet areas, this exception is no longer at issue.

Based on this analysis, Commission staff recommends approval of the project with conditions designed to restrict residential development to the western portion of the property, adjacent to Highway One. The remainder of the property, where some 58 residential parcels are proposed to be created would be restricted to avoid wetland fill and development in wetland buffer areas. Specifically, Special Condition #1 would require elimination of approximately 58 lots and corresponding roads and infrastructure improvements proposed to be created within LCP-defined wetlands as well as a 100-foot buffer surrounding such wetlands.

Special Condition #1 provides the applicant with two alternative ways to achieve the required elimination of wetland and wetland buffer lots. One way would be to submit to the Executive Director a revised tract map, based on that approved by the City of Half Moon Bay and the origin of this appeal, maintaining the non-wetland parcels as currently proposed to be configured, while showing elimination of the remaining proposed lots and improvements in wetland and associated buffer areas. The second way would be to submit a wholly new tract map, for Commission review, locating proposed residential lots wherever wetlands or buffers would be avoided. Under either alternative, the wetland and wetland buffer areas must be restricted for habitat protection purposes and must be part of a lot on which a residence can be accessed and constructed consistent with the requirements of the certified LCP.

Staff notes that another alternative, not recommended here, would have been denial of the project entirely based on inconsistency with LCP policies that require protection of wetlands. Instead,

staff has recommended conditional approval, designed to afford the applicant with a reasonable, although reduced, residential project.

Shoreline public access/traffic

The project would create additional residential parcels in an area with a large number of vacant undeveloped residential parcels, where existing traffic congestion on Highways 1 and 92 is severe (Level of Service F during both peak recreational and rush hour periods). Although the applicant proposes to contribute all or a portion of the costs of any traffic signal at the intersection of Highway 1 and the proposed Bayview Drive at a future time and would contribute a local traffic mitigation fee to the City (approximately $1,900/lot), the contribution of this project along with others likely to occur over the next 10 to 20 years in the San Mateo County Mid-Coast area would further exacerbate highway congestion. The result would be to significantly and adversely affect the ability of the general public to reach the shoreline for recreational purposes.

Although improvements to both Highway 1 and Highway 92 are proposed by the City of Half Moon Bay within City limits, those improvements would be insufficient to assure satisfactory service levels for the region in the future, given projected future growth. Furthermore, even with maximum investment in the transportation system, traffic volumes on both highways are predicted to be far in excess of capacity, if residential and commercial development proceeds as projected.

Up to 2,529 vacant residential lots already exist within the City of Half Moon Bay. Approval of the creation of additional residential lots through this proposed subdivision, which represents a net increase of 76 parcels (as proposed), and 18 parcels (as conditioned), would only contribute to a long-term worsening of traffic congestion and a consequent limitation on the ability of the general public to reach area beaches and shoreline for priority visitor-serving and recreational purposes, inconsistent with the provisions of the certified LCP. Accordingly, the Commission could deny the proposed project as it is inconsistent with the provisions of the certified LCP.

As an alternative to denial and to offset the adverse cumulative impacts of the development on public access to the shoreline, the staff recommends that the Commission apply a Special Condition that would require the applicant to retire the development rights of existing legal lots in the region on a one-for-one basis for any new lots created consistent with the above-referenced revision of the project to protect wetlands.

Protection of environmentally sensitive habitats

The U. S. Fish and Wildlife Service noted that the project site could provide habitat for California red-legged frogs and San Francisco garter snakes, both federally listed species. The applicant asserts that the site does not contain suitable habitat for these species. In any event, the most likely sites for these species are in the southeast corner already proposed by the applicant for protection. Additional protection is afforded these species by the recommended conditions, as described above, that would require elimination of proposed residential development on the central and eastern portions of the site for wetland protection purposes.

Other issues

Staff recommends Special Conditions to address:

- The potential for site-specific traffic impacts, reflecting agreements made between the City and the applicant regarding traffic congestion reduction measures,
- Water quality measures to protect against erosion from site grading and polluted runoff, and
- Protection of the visual quality of the project area, through elimination of the proposed sound wall along the site's Highway 1 frontage.

Staff notes that the report is organized such that each topic contains its own issue summary and conclusion (see the Table of Contents), in addition to a more detailed analysis of each topic.

2.0 Staff Recommendation

The staff recommends that the Commission approve Coastal Development Permit Application A-2-HMB-01-011, subject to conditions, as follows:

Motion:

I move that the Commission adopt the revised findings in support of the Commission's action on September 14, 2001, concerning Coastal Development Permit No. A-2-HMB-01-011.

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote on the motion. Passage of this motion will result in the adoption of revised findings as set forth in this staff report. The motion requires a majority vote of the members from the prevailing side present at the September 14, 2001, hearing, with at least three of the prevailing members voting. Only those Commissioners on the prevailing side of the Commission's action are eligible to vote on the revised findings.

RESOLUTION TO ADOPT REVISED FINDINGS:

The Commission hereby adopts the findings set forth below for Coastal Development Permit Application No. A-2-HMB-01-011 on the ground that the findings support the Commission's decision made on September 14, 2001, and accurately reflect the reasons for it.

2.1 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 of 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.

2.2 Special Conditions

1. Revised Subdivision Plan

A. Prior to issuance of the coastal development permit, and **subject to the review and approval of the Executive Director**, the applicant shall submit a revised Tract Map approved by the City of Half Moon Bay that reflects the following restrictions:

1. The sound wall along the Highway 1 property boundary shall be eliminated from the project.
2. No development, as defined in both the Coastal Act and the certified Half Moon Bay Land Use Plan, including subdivision, shall occur within the wetland or wetland buffer areas generally depicted on Exhibits 6 and 7, except for the subdivision approved pursuant to CDP A-2-HMB-01-011.
3. The map shall only reflect the following lots as proposed on the subdivision plan: proposed lots 1-12 and proposed lots 22-28, except that one of the most eastern of these lots shall include the balance of the property, including the wetland and wetland buffer area generally depicted on Exhibits 6 and 7.
4. No development, as defined in both the Coastal Act and the certified Half Moon Bay Land Use Plan, including subdivision, shall occur within the wetland and wetland buffer areas generally depicted on Exhibits 6 and 7, except for the subdivision approved pursuant to CDP A-2-HMB-01-011.

B. As an alternative to the requirements identified in Subsection A above, and prior to issuance of the coastal development permit, the applicant shall submit**, for the review and approval of the Commission**, a revised Tract Map approved by the City of Half Moon Bay which reflects the following restrictions:

1. The sound wall along the Highway 1 property boundary shall be eliminated from the project.
2. The map shall reflect only the number of lots that can be accommodated without development, as defined in both the Coastal Act and the certified Half Moon Bay Land Use Plan, other than the subdivision approved pursuant to CDP A-2-HMB-01-011, encroaching within the wetland or wetland buffer areas generally depicted on Exhibits 6 and 7.
3. No newly proposed lots shall be served by road access that will encroach within the wetland or wetland buffer areas generally depicted on Exhibits 6 and 7 or within 100 feet of any areas offsite that meet the definition of wetlands contained in the certified LCP.
4. The wetland and wetland buffer areas generally depicted on Exhibits 6 and 7 shall be part of a lot that contains an area on which a residence can be constructed and accessed consistent with the requirements of the certified LCP and without

development, as defined in both the Coastal Act and the certified Half Moon Bay Land Use Plan, other than the subdivision approved pursuant to CDP A-2-HMB-01-011, encroaching within the wetland or wetland buffer areas generally depicted on Exhibits 6 and 7.

C. Under either of the alternatives identified in subsection A or B above, the applicant shall undertake development in accordance with the tract map approved by the Commission or Executive Director as required by subsection A or B. No proposed changes to the approved map shall occur without a Commission amendment to this coastal development permit.

2. **Deed Restriction for Wetland Protection**

A. No development, as defined in both the Coastal Act and the certified Half Moon Bay Land Use Plan, including subdivision, shall occur in the wetland or wetland buffer areas generally depicted on Exhibits 6 and 7 except for the subdivision approved pursuant to CDP A-2-HMB-01-011 and development necessary for wetland or other habitat protection, if approved by the Commission as an amendment to this coastal development permit.

B. Prior to issuance of the coastal development permit, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director, reflecting the above restrictions on development within the wetland and wetland buffer areas generally depicted on Exhibits 6 and 7. The deed restriction shall include legal descriptions of both the applicant's entire property and the restricted areas. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

3. **Cumulative Public Access Impact Mitigation**

A. **PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT**, the applicant shall submit evidence, for the review and approval of the Executive Director, that the development rights have been permanently extinguished on the number of existing legal lots equal to the number of lots to be created consistent with Special Condition 1 such that the subdivision of property authorized herein shall not result in a net increase of existing legal lots for residential development within that geographical area. The lots shall be extinguished only in the Mid-Coast Region of San Mateo County, an area that is generally depicted on Exhibit 22 and that is primarily served by the segment of Highway 1 between its intersection with Highway 92 and Devil's Slide and/or by the segment of Highway 92 west of Highway 280. Each mitigation lot shall be an existing legal lot or combination of contiguous lots in common ownership and shall be zoned to allow development of a detached single-family residence. The legality of each mitigation lot shall be demonstrated by the issuance of a Certificate of Compliance by the City or County consistent with the applicable standards of the certified LCP and other applicable law.

B. For each development right extinguished in satisfaction of subdivision A of this permit condition, the applicant shall, prior to issuance of the coastal development permit execute

and record a document, in a form and content acceptable to the Executive Director, irrevocably offering to dedicate to a public agency or private association approved by the Executive Director an open space or scenic easement to preserve the open space and scenic values present on the property that is the source of the development right being extinguished and to prevent the significant adverse cumulative impact to public access to the coast that would result as a consequence of development of the property for residential use. Such easement shall include a legal description of the entire property that is the source of the development right being extinguished. The recorded document shall also reflect that development in the easement area is restricted as set forth in this permit condition. Each offer shall be recorded free of prior liens and encumbrances that the Executive Director determines may affect the interest being conveyed. The offer shall run with the land in favor of the People of the State of California, binding all successors and assigns, and shall be irrevocable for a period of 21 years, such period running from the date of recording.

C. For each development right extinguished in satisfaction of subdivision A of this permit condition, the applicant shall, prior to issuance of the coastal development permit, also execute and record a deed restriction, in a form and content acceptable to the Executive Director, requiring the applicant to combine the property that is the source of the development right being extinguished with an adjacent already developed lot or with an adjacent lot that could demonstrably be developed consistent with the applicable certified local coastal program. The deed restriction shall include legal descriptions of all combined and individual lots affected by the deed restriction. The deed restriction shall run with the land, binding all successors and assigns, and shall be recorded free of prior liens and encumbrances that the Executive Director determines may affect the enforceability of the restriction. This deed restriction shall not be removed or changed without a Commission amendment to this coastal development permit.

D. As an alternative to the method described in subsection B and C above, the applicant may instead, prior to issuance of the coastal development permit, purchase existing legal lots that satisfy the criteria in subsection A above and, subject to the review and approval of the Executive Director, dedicate such lots in fee to a public or private land management agency approved by the Executive Director for permanent public recreational or natural resource conservation purposes.

4. <u>Erosion Controls</u>

A. Prior to issuance of the coastal development permit, the applicants shall provide, for the review and approval of the Executive Director, an Erosion Control Plan to reduce erosion and, to the maximum extent practicable, retain sediment on-site during and after construction. The plan shall be designed to minimize the potential sources of sediment, control the amount of runoff and its ability to carry sediment by diverting incoming flows and impeding internally generated flows, and retain sediment that is picked up on the project site through the use of sediment-capturing devices. The plan shall also limit application, generation, and migration of toxic substances, ensure the proper storage and disposal of toxic materials, apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters. The Erosion Control Plan shall incorporate the Best Management Practices (BMPs) specified below.

1. **Erosion & Sediment Source Control**

a. Sequence construction to install sediment-capturing devices first, followed by runoff control measures and runoff conveyances. Land clearing activities should only commence after the minimization and capture elements are in place.

b. Time the clearing and grading activities to avoid the rainy season (October 15 through April 30).

c. Minimize the area of bare soil exposed at one time (phased grading).

d. Clear only areas essential for construction.

e. Within five days of clearing or inactivity in construction, stabilize bare soils through either non-vegetative BMPs, such as mulching or vegetative erosion control methods such as seeding. Vegetative erosion control shall be established within two weeks of seeding/planting.

f. Construction entrances should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.

g. Control wind-born dust through the installation of wind barriers such as hay bales and/or sprinkling.

h. Soil and/or other construction-related material stockpiled on site shall be placed a minimum of 200 feet from all wetlands and drain courses. Stockpiled soils shall be covered with tarps at all times of the year.

i. Excess fill shall not be disposed of in the Coastal Zone unless authorized through either an amendment to this coastal development permit or a new coastal development permit.

2. **Runoff Control and Conveyance**

a. Intercept runoff above disturbed slopes and convey it to a permanent channel or stormdrains by using earth dikes, perimeter dikes or swales, or diversions. Use check dams where appropriate.

b. Provide protection for runoff conveyance outlets by reducing flow velocity and dissipating flow energy.

3. **Sediment-Capturing Devices**

a. Install stormdrain inlet protection that traps sediment before it enters the storm sewer system. This barrier could consist of filter fabric, straw bales, gravel, or sand bags.

b. Install sediment traps/basins at outlets of diversions, channels, slope drains, or other runoff conveyances that discharge sediment-laden water. Sediment traps/basins shall be cleaned out when 50% full (by volume).

c. Use silt fence and/or vegetated filter strips to trap sediment contained in sheet flow. The maximum drainage area to the fence should be 0.5 acre or less per 100 feet of fence. Silt fences should be inspected regularly and sediment removed when it reaches 1/3 the fence height. Vegetated filter strips should have relatively flat slopes and be vegetated with erosion-resistant species.

4. <u>Chemical Control</u>

   a. Store, handle, apply, and dispose of pesticides, petroleum products, and other construction materials properly.

   b. Establish fuel and vehicle maintenance staging areas located away from all drainage courses, and design these areas to control runoff.

   c. Develop and implement spill prevention and control measures.

   d. Provide sanitary facilities for construction workers.

   e. Maintain and wash equipment and machinery in confined areas specifically designed to control runoff. Thinners or solvents should not be discharged into sanitary or storm sewer systems. Washout from concrete trucks should be disposed of at a location not subject to runoff and more than 50 feet away from a stormdrain, open ditch or surface water.

   f. Provide adequate disposal facilities for solid waste, including excess asphalt, produced during construction.

   g. Develop and implement nutrient management measures. Properly time applications, and work fertilizers and liming materials into the soil to depths of 4 to 6 inches. Reduce the amount of nutrients applied by conducting soil tests to determine site nutrient needs.

B. The applicant shall undertake development in accordance with the final erosion control plans approved by the Executive Director. No proposed changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required. The applicant shall be fully responsible for advising construction personnel of the requirements of the Erosion Control Plan.

C. Erosion Control Maintenance. All of the above described erosion control measures shall be maintained pursuant to the following requirements.

1. All BMP traps/separators and/or filters shall be cleaned at minimum prior to the onset of the storm season and no later than October 15th each year.

2. Sediment traps/basins shall be cleaned out at any time when 50% full (by volume).

3. Sediment shall be removed from silt fences at any time when it reaches 1/3 the fence height.

4. All pollutants contained in BMP devices shall be contained and disposed of in an appropriate manner.

5. Non-routine maintenance activities that are expensive but infrequent, such as detention basin dredging, shall be performed on as needed based on the results of the monitoring inspections described above.

D. Monitoring. Throughout the construction period, the applicants shall conduct regular inspections of the condition and operational status of all structural BMPs required by the approved Erosion Control Plan. The applicant shall report the results of the inspections in writing to the Executive Director prior to the start of the rainy season (no later than

October 15th), after the first storm of the rainy season, and monthly thereafter until April 30th for the duration of the project construction period. Major observations to be made during inspections and reported to the Executive Director shall include: locations of discharges of sediment or other pollutants from the site; BMPs that are in need of maintenance; BMPs that are not performing, failing to operate, or inadequate; and locations where additional BMPs are needed. Authorized representatives of the Coastal Commission and/or the City of Half Moon Bay shall be allowed to enter the property as needed to conduct on-site inspections throughout the construction period.

5. **Storm-water Pollution Prevention**

A. Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, a Storm-water Pollution Prevention Plan (SWPPP). The SWPPP shall demonstrate that the approved development shall maintain post-development peak runoff rate and average volume at levels equal to pre-development levels, and reduce the post-development loadings of Total Suspended Solids (TSS) so that the average annual TSS loadings are no greater than pre-development loadings. The SWPPP shall incorporate the Best Management Practices (BMPs) described below.

1. **Minimize Creation of Impervious Surfaces**

a. Design residential streets for the minimum required pavement widths needed to comply with all zoning and applicable ordinances to support travel lanes (including the redesign of Bay View Ave. to a reduced with commensurate with the need for the reduced scope of development required in Condition 1), on-street parking, emergency, maintenance and service vehicle access, sidewalks, and vegetated open channels.

b. Minimize the number of residential street cul-de- sacs and incorporate landscaped areas to reduce their impervious cover. The radius of cul-de-sacs should be the minimum required to accommodate emergency and vehicle turnarounds. Alternative turnarounds shall be employed where allowable.

c. Avoid curb and gutter along driveways and streets where appropriate.

d. Incorporate landscaping with vegetation or other permeable ground cover in setback areas between sidewalks and streets.

e. Use alternative porous material/pavers (e.g., hybrid lots, parking groves, permeable overflow parking, crushed gravel, mulch, cobbles) to the extent practicable for sidewalks, driveways, parking lots, or interior roadway surfaces.

f. Reduce driveway lengths, and grade and construct driveways to direct runoff into adjacent landscaped areas.

2. **Roads**

a. Install vegetative filter strips or catch basin inserts with other media filter devices, clarifiers, grassy swales and berms, or a combination thereof to remove or mitigating oil, grease, hydrocarbons, heavy metals and particulates from storm-water draining from all roads.

b. Roads should be vacuum swept monthly at a minimum, to remove debris and contaminant residue.

3. Landscaping

a. Native or drought tolerant adapted vegetation should be selected, in order to minimize the need for fertilizer, pesticides/herbicides, and excessive irrigation.

b. Where irrigation is necessary, the system must be designed with efficient technology. At a minimum, all irrigation systems shall have flow sensors and master valves installed on the mainline pipe to ensure system shutdown in the case of pipe breakage. Irrigation master systems shall have an automatic irrigation controller to ensure efficient water distribution. Automatic irrigation controllers shall be easily adjustable so that site watering will be appropriate for daily site weather conditions. Automatic irrigation controllers shall have rain shutoff devices in order to prevent unnecessary operation on rainy days.

B. The applicant shall undertake development in accordance with the final plans approved by the Executive Director. No proposed changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required. The applicant shall be fully responsible for advising construction personnel of the requirements of the Storm-water Pollution Prevention Plan.

C. Storm-water Pollution Prevention Maintenance.

1. All BMP traps/separators and/or filters shall be cleaned prior to the onset of the storm season and no later than October 15th each year. All pollutants contained in BMP devices shall be contained and disposed of in an appropriate manner.

2. Non-routine maintenance activities that are expensive but infrequent, such as detention basin dredging, shall be performed on as needed based on the results of the monitoring inspections described below.

D. Storm-water Pollution Prevention Monitoring.

The applicant shall conduct an annual inspection of the condition and operational status of all structural BMPs provided in satisfaction of the approved SWPPP including the detention basin. The results of each annual inspection shall be reported to the Executive Director in writing by no later than June 30th of each year following the commencement of construction. Major observations to be made during inspections and reported to the Executive Director shall include: locations of discharges of sediment or other pollutants from the site; BMPs that are in need of maintenance; BMPs that are not performing, failing to operate, or inadequate; and locations where additional BMPs are needed. Authorized representatives of the Coastal Commission and/or the City of Half Moon Bay shall be allowed to enter the property as needed to conduct on-site inspections of the detention basin and other structural BMPs.

E. Water Quality Monitoring

1. Prior to issuance of the coastal development permit, the applicant shall submit for the review and approval of the Executive Director a **Water Quality Monitoring Plan**

(WQMP). The WQMP shall be designed to evaluate the effectiveness of the SWPPP to protect the quality of surface and groundwater and shall provide the following:

a. The WQMP shall specify sampling locations appropriate to evaluate surface and groundwater quality throughout the project site, including, but not limited to all major storm drains.

b. The WQMP shall specify sampling protocols and permitted standards for all identified potential pollutants including, but not necessarily limited to: heavy metals, pesticides, herbicides, suspended solids, nutrients, oil, and grease.

c. Beginning with the start of the first rainy season (October 15 - April 30) following commencement of development and continuing until three years following completion of all grading, landscaping and other earth disturbing work, surface water samples shall be collected from the specified sampling locations during the first significant storm event of the rainy season and each following month through April 30. Sampling shall continue thereafter in perpetuity on an annual basis during the first significant storm event of the rainy season.

d. Results of monitoring efforts shall be submitted to the Commission upon availability.

2. If any water quality standards specified in the WQMP are exceeded, the applicant shall assess the potential sources of the pollutant and the potential remedies. If it is determined based on this assessment that applicable water quality standards have not been met as a result of inadequate or failed BMPs, corrective actions or remedies shall be required. If potential remedies or corrective action constitute development, as defined in Section 30106 of the Coastal Act, an amendment to this permit shall be required.

6. <u>Grading Plan</u>

A. Prior to issuance of the coastal development permit, the applicant shall submit, for the review and approval of the Executive Director, a **Final Grading Plan** specifying:

1. The respective quantities of cut and fill and the final design grades and locations for all project related grading, including streets, drainage, and utilities, and including a specific plan (and identification of the borrow site for the importation of fill.

2. The phasing of all grading during construction.

B. The applicant shall undertake development in accordance with the final plans approved by the Executive Director. No proposed changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required. The applicant shall be fully responsible for advising construction personnel of the requirements of the grading plan.

7. Landscaping plans

A. Prior to issuance of the permit the applicant shall submit landscaping plans, subject to executive director review and approval, providing for revegetation of disturbed slopes

prior to the rainy season, and aesthetic improvements between Highway 1 and the first row of lots adjacent to Highway 1 designed to soften the appearance of the project.

B. The applicant shall undertake development in accordance with the final plans approved by the Executive Director. No proposed changes to the approved final plans shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is required. The applicant shall be fully responsible for advising construction personnel of the requirements of the landscaping plan.

8. Residential Development

This permit does not authorize construction of any single-family homes on the site. All future residential development shall be the subject of a separate coastal development permit application or applications to the City of Half Moon Bay.

9. Traffic Improvements.

Project-related construction traffic is prohibited on Highways 1 and 92 between the hours of 7:00AM and 9:00PM during summer weekends (Memorial Day through Labor Day) and during the Half Moon Bay Pumpkin Festival weekend.

10. City Conditions

This action has no effect on conditions imposed by a local government pursuant to an authority other than the Coastal Act. Consistent with the project description for this coastal development permit, all previous conditions of approval imposed on the project by the City of Half Moon Bay pursuant to an authority other than the coastal development permit requirements of the certified Half Moon Bay LCP remain in effect (Half Moon Bay File Number PDP-10-98; see Exhibit 11). Any conflicts between such local conditions and the conditions of this coastal development permit shall be resolved by permit amendment(s).

11. Future Development

A. The applicant may submit an application for an amendment to this CDP, for Commission review and approval, to modify the conditions of this permit, if the applicant submits site specific substantial evidence demonstrating that the wetland and wetland buffer areas generally depicted on Exhibit 4 – 7 are in fact neither wetlands nor other environmentally sensitive habitat areas. This amendment may include a redesign of allowable lots 1-12 and 22-28 so that all lots can be accessed and developed consistent with the requirements of the certified LCP.

B. The site specific substantial evidence shall include a detailed investigation of each of the 20 wetland areas generally depicted on Exhibits 4-7 to document the presence or absence of each of the 3 wetland parameters. Prior to the initiation of the detailed investigation, the protocol, methodology and timing of the detailed investigation shall be reviewed and approved by the Executive Director. Any disagreement between the applicant and Executive Director over the protocol, methodology and timing shall be resolved by the Commission. The detailed investigation shall include at a minimum:

1. Weekly site visits beginning with the first significant rains to document the period of consecutive soil saturation or ponding.

2. A vegetation survey in March or April in each of the 20 wetland areas and a map of all areas with 50% or greater facultative wet or obligate species. The applicant shall flag transects to allow field verification of sampling and results and flag the perimeters as mapped to allow field verification of vegetation mapping.
3. An evaluation of each of the 20 wetland areas to determine whether any of the 20 wetland areas depicted on exhibits 4-7 contain environmentally sensitive habitat areas as defined by the certified LCP.

C. The applicant shall not drain, disk, or otherwise artificially alter the wetlands or potential wetland areas that exist on the site at any time prior to the period during which this study is conducted. Vegetation removal to reduce fire hazard may be allowed if: (1) specifically required pursuant to a written fire clearance order from the Half Moon Bay Fire District, and (2) conducted by mowing or other similar methods that do not disturb the soils or plant root structures.

3.0 FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

3.1 Project Location and Site Description

The proposed project consists of the subdivision of a 24.7-acre parcel (APN 048-280-020) into lots for 77 detached single-family homes, plus four open space or park lots of varying sizes: lot 63 (2.35 acres) and lot 69 (0.19 acres) in the southeast corner of the site, and lot 46 (0.12 acres) and lot 47 (0.34 acres) in the middle of the site. Lot 47 would be a "park" lot and would be graded to accommodate playground-type uses; lots 63, 69 and 46 would remain open space or conservation lots. The 77 residential lots would be a minimum size of 7,500 square feet (0.17 acres); the largest residential lot would be 15,897 sq. feet (0.36 acres). The City's approval language initially appeared to contemplate the construction of individual homes on the single-family home lots; however the City and applicant have both clarified that home construction is not a part of this application (see applicant's certification; Exhibit 8).

The proposed project includes grading, road construction (proposed roads Bayview Dr., Seaside Dr., a Golden Gate Dr. extension from the adjacent subdivision to the south), Beachview Dr., and 3 cul-de-sacs – Saltaire Ct., Tidewater Ct., and Baywood Ct.), street lighting, sewer and water improvements, drainage facilities, and other infrastructure improvements sufficient to support the 77 units. Grading for roads and building pads would include 30,600 cu. yds. of balanced cut and fill, with an additional importation of 44,200 cu. yds. (the donor site has not been determined). Grading would take place outside the rainy season. The project also includes construction of a 6 feet high, approximately 520 feet long, sound wall along the Highway 1 frontage of the property.

The project site is located on the east side of Highway 1, between Terrace and Grandview Avenue, in the City of Half Moon Bay (Exhibit 1). The property is zoned R-1-B-2 (Single Family residential with a 7,500 square-foot lot size minimum). The lots to the south of the site are developed with single-family residences; and the lots to the north (Glencree) and east

(Dykstra Ranch/Pacific Ridge[1]) are undeveloped but are zoned for residential and planned unit development. Highway 1 is immediately west of the project site.

At the western edge of the property (adjacent to Highway One), the property elevation is approximately 50 feet above Mean Sea Level (MSL), rising to approximately 100 feet MSL at the eastern edge of the project site. The only visible drainage features on-site are a remnant stock pond and a small seasonal drainage at the southeastern corner of the property, which flows onto the site from the east and into an inlet structure and culvert. In addition, eucalyptus and cypress trees exist on small portions of the central and southeastern areas of the project site.

3.2 Project History

On June 30, 1990, the City of Half Moon Bay approved a Vesting Tentative Map for an 83-lot subdivision. The City of Half Moon Bay approved the Vesting Tentative map in 1990 prior to the certification of the City's LCP.

On March 11, 1999, after the 1996 certification of the City's LCP, the City of Half Moon Bay's Planning Commission denied a coastal development permit for the subdivision and residential units.

On March 17, 1999, the applicant, Keenan Land Company, filed an appeal of this denial with the Half Moon Bay City Council.

On March 21, 2000, the City Council denied the request for approval of the project.

On May 19, 2000, the applicant filed a complaint in San Mateo County Superior Court to overturn the City's denial of the coastal development permit.

On February 22, 2001, the San Mateo County Superior Court ordered the City to issue a coastal development permit consistent with the 1990 Vesting Tentative Map.

On March 20, 2001, the City Council approved the coastal development permit attaching the conditions of the 1990 Vesting Tentative Map approval as conditions to the coastal development permit (Exhibit 11).

On March 30, 2001, the Commission received notice of the City's final action approving a coastal development permit for the project.

On April 13, 2001, the Commission received an appeal from Commissioners Wan and Desser and from Michael Ferreira and Patrick O'Brien.

On May 9, 2001, the Commission found that the appeal of the City's action on this project raised a substantial issue.

3.3 Wetlands

Since the applicant proposes development, including the creation of new residential lots, construction of roads and building pads and installation of utility lines within wetlands and

[1] Recently proposed as 134 residential lots on 3 existing parcels totaling 114 acres; as approved by the Commission on July 26, 2001, the project would consist of ____ homes (A-1-HMB-99-022 – Ailanto Properties/Pacific Ridge Subdivision)

wetland buffer areas in conflict with the wetland fill and buffer policies and standards of the LCP, the proposed project must be conditioned to avoid such impermissible development within wetland and wetland buffer areas.

3.3.1 Issue Summary

The history of the project site includes extensive evidence of human disturbance over the middle and latter half of the 20th century, including farming, construction and improvements to Highway 1, drainage modifications to alleviate flooding in the area, grading for roadbeds and other purposes, and disking of vegetation. Looking at current site conditions, the applicant acknowledges the presence of wetlands in the southeast corner of the site, and proposes no physical development or other site disturbance within those wetlands or within a 100-foot buffer zone from those wetlands. A number of other areas of the site (Areas W1-W17, Exhibit 4) are dominated by wetland vegetation, and thus are considered wetlands under the Coastal Act, CDFG and USFWS wetland definitions. However, the applicant maintains that these areas are not wetlands under the LCP because they are vernally wet areas and lack hydric soil indicators.

The Coastal Act (as implemented through the Commission's administrative regulations), the California Department of Fish and Game (CDFG), and the U.S. Fish and Wildlife Service (USFWS) all consider "wetlands" to include any area that is wet enough long enough to promote the formation of hydric soils <u>or</u> to support the growth of plants that normally occur in water or wet ground.[2] The Half Moon Bay LCP defines wetland in a similar manner. In fact, the Definitions Section of the city's zoning code specifically incorporates the definition used by these three agencies. In addition, however, unlike the definitions used by the Commission, CDFG and USFWS, two other sections of the LCP state that wetlands do not include "vernally wet areas where the soils are not hydric".

The Commission disagrees with the applicant's assertion that Areas W1-W17 are not wetlands because they are "vernally wet areas" that lack hydric soils. Instead, the Commission finds that Areas W1-W17 are wetlands as defined under the Half Moon Bay LCP because the evidence presented to the Commission demonstrates that: (1) Areas W1-W17 are dominated by wetland vegetation, (2) Areas W1-W14 have hydric soils, and (3) Areas W1-W14 have wetland hydrology. In addition, the Commission finds that Areas W1-W17 are not excluded from the LCP definition of wetlands because they are not "vernally wet areas where the soils are not hydric." As proposed, the Beachwood development would fill these wetlands for residential development in conflict with the Half Moon Bay LCP. Therefore, the Commission imposes Special Conditions 1 and 2 prohibiting development within 100 feet of the wetland areas on the site as required by the wetland fill and buffer policies of the LCP.

3.3.2 LCP Policies

LCP Zoning Code Sections 18.38.080, and LUP Policies 3-2, 3-3, 3-11, 3-12 and 3-22 prohibit any uses that would have significant adverse impacts on sensitive habitat areas (including wetlands), require any development in areas adjacent to sensitive habitats to be sited and

[2] This is a simplified statement of the basic wetland definition used by the three agencies. This topic is discussed in greater detail below.

designed to prevent impacts that could significantly degrade the sensitive habitats, require, at a minimum, a 100-foot buffer from wetlands, ponds, and other wet areas, and severely restrict uses within buffer zones. In addition, pursuant to LUP Policy 1-1, the city has adopted the Chapter 3 Policies of the Coastal Act as guiding policies of the LUP. Accordingly, the city's LUP adopts Coastal Act Sections 30230-30233 and 30240, which also require that development protect the biological productivity and quality of coastal waters, wetlands and sensitive habitat areas.

The applicable sections of the LCP include the following, which are reproduced in their entirety in Appendix A at the end of this report:

3-1 <u>Definition of Sensitive Habitats</u>

(a) Define sensitive habitats as any area in which plant or animal life or their habitats are either rare or especially valuable and as those areas which meet one of the following criteria: (1) habitats containing or supporting "rare and endangered" species ..., (2) all perennial and intermittent streams and their tributaries, ... (6) lakes and ponds and adjacent shore habitat, ...

Such areas include riparian areas, wetlands, ..., and habitats supporting rare, endangered, and unique species.

LUP APPENDIX A: Special Definitions WETLAND...

For San Mateo County, it is appropriate to adapt the definition of wetland used by the U.S. Fish and Wildlife Service (Classification of Wetlands and Deep-Water Habitats of the United States, (1977). This definition embraces several important concepts which are relevant to the San Mateo Coast: (1) the relationship of the water table with respect to the ground surface; (2) the duration of the water on or at the surface; (3) the soil types involved with the permanent or temporary saturated conditions; and (4) the flora and fauna adapted to the wet conditions.

The most important feature which acts as a common denominator is the soil as indicated in Item 3, above. As a result of the above considerations, the Local Coastal Plan adopts the following U.S. Fish and Wildlife Service definition of wetland:

Wetland is an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground. Such wetlands can include mudflats (barren of vegetation), marshes, and swamps. Such wetlands can be either fresh or saltwater, along streams (riparian), in tidally influenced areas (near the ocean and usually below extreme high water of spring tides), marginal to lakes, ponds, and man-made impoundments. Wetlands do not include areas which in normal rainfall years are permanently submerged (streams, lakes, ponds and impoundments), nor marine or estuarine areas below extreme low water of spring tides, nor vernally wet areas where the soils are not hydric.

Zoning Code Sec. 18.02.040 Definitions

...Wetland: The definition of wetland as used and as may be periodically amended

by the California Department of Fish and Game, the California Coastal Commission and the US Fish and Wildlife Service.

Zoning Code Sec. 18.38.020 Coastal Resource Areas. The Planning Director shall prepare and maintain maps of all designated Coastal Resource Areas within the city. Coastal Resource Areas within the city are defined as follows:...

As defined by the US Fish and Wildlife Service, a wetland is an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground. Such wetlands can include mud flats (barren of vegetation), marshes, and swamps. Such wetlands can be either fresh or saltwater, along streams (riparian), in tidally influenced areas (near the ocean and usually below extreme high water of spring tides), marginal to lakes, ponds, and man-made impoundments. Wetlands do not include areas which in normal rainfall years are permanently submerged (streams, lakes, ponds, and impoundments), nor marine or estuarine areas below extreme low water of spring tides, nor vernally wet areas where the soils are not hydric.

3-3 Protection of Sensitive Habitats

(a) Prohibit any land use and/or development which would have significant adverse impacts on Sensitive Habitat areas.

(b) Development in areas adjacent to sensitive habitats shall be sited and designed to prevent impacts that could significantly degrade the Sensitive Habitats. All uses shall be compatible with the maintenance of biologic productivity of such areas.

3-4 Permitted Uses

(a) Permit only resource-dependent or other uses which will not have a significant adverse impact in sensitive habitats.

(b) In all sensitive habitats, require that all permitted uses comply with U.S. Fish and Wildlife Service and State Department of Fish and Game regulations.

3-5 Permit Conditions

(a) Require all applicants to prepare a biologic report by a qualified professional selected jointly by the applicant and the city to be submitted prior to development review. The report will determine if significant impacts on the sensitive habitats may occur, and recommend the most feasible mitigation measures if impacts may occur. The report shall consider both any identified sensitive habitats and areas adjacent. Recommended uses and intensities within the sensitive habitat area shall be dependent on such resources, and shall be sited and designed to prevent impacts which would significantly degrade areas adjacent to the habitats. The city and the applicant shall jointly develop an appropriate program to evaluate the adequacy of any mitigation measures imposed.

(b) When applicable, require as a condition of permit approval, the restoration of damaged habitat(s) when, in the judgment of the Planning Director, restoration is partially or wholly feasible.

3-11 <u>Establishment of Buffer Zones</u>

(a) On both sides of riparian corridors, from the limit of riparian vegetation extend buffer zones 50 feet outward for perennial streams and 30 feet outward for intermittent streams.

(b) Where no riparian vegetation exists along both sides of riparian corridors, extend buffer zones 50 feet from the bank edge for perennial streams and feet from the midpoint of intermittent streams.

(c) Along lakes, ponds, and other wet areas, extend buffer zones 100 feet from the high water point, except for man-made ponds and reservoirs used for agricultural purposes for which no buffer zone is designated.

3-12 <u>Permitted Uses in Buffer Zones</u>

Within buffer zones, permit only the following uses: (1) uses permitted in riparian corridors, (2) structures on existing legal building sites, set back 20 feet from the limit of riparian vegetation, only if no feasible alternative exists, and only if no other building site on the parcel exists, ... (5) no new parcels shall be created whose only building site is in the buffer area except for parcels created in compliance with Policies 3.3, 3.4 and 3.5 if consistent with existing development in the area and if building sites are set back 20 feet from the limit of riparian vegetation or if no vegetation 20 feet from the bank edge of a perennial and 20 feet from the midpoint of an intermittent stream.

3.3.3 Definition of Wetlands

Various state and federal agencies are charged with regulating the use of wetlands within the Coastal Zone, including the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the California Department of Fish and Game, the California Coastal Commission, and local jurisdictions with a certified LCP, among others. While each of these agencies regulates wetlands under a different statutory authority, they all define "wetland" based on three basic parameters: hydrology, soil type, and vegetation. The differences in how these agencies determine whether a particular area qualifies as a wetland lie in the way that these three parameters are treated. Generally speaking, the Corps uses the narrowest definition, requiring evidence of each of the three wetland parameters. USFWS, CDFG, the Commission and local governments with a certified LCP generally accept evidence of positive field indicators of any one of the three parameters to demonstrate that an area is a wetland, i.e. areas wet long enough to bring about the formation of hydric soils or to support the growth of wetland plants. This difference is often expressed as a "three parameter" versus a "one parameter approach". This expression, however, is an oversimplification of a complex topic.

By way of background, the wetland definition used by the Corps is provided in the Corps 1987 Wetland Delineation Manual (Environmental Laboratory 1987) states in part:

> *Definition: The CORPS (Federal Register, Section 328.3(b), 1991) and the EPA (Federal Register, Section 230.4(t), 1991) jointly define wetlands as: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.*

The USFWS, CDFG, Coastal Commission and City of Half Moon Bay Local Coastal Program wetland definitions (the last of which is the applicable standard of review in this case) are all based on a classification scheme published in Cowardin et al. (1979). (Zoning Code section 18.02.040.) The Cowardin classification system provides:

> *Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes[3]; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.*

Consistent with Cowardin, the wetland definitions provided under the Coastal Act and the Commission's administrative regulations are based on periodic or permanent wetland hydrology. Coastal Act Section 30121 defines wetland as:

> *Wetland means lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, or fens.*

Commission Regulation Section 13577(b) elaborates:

> *...Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deepwater habitats....*

As cited in full above, the Half Moon Bay LCP defines wetlands as:

> *Wetland is an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground...*

The Cowardin wetland definition, which serves as the basis for the CDFG, Coastal Commission and City of Half Moon Bay wetland definitions, and the Corps wetland definition are fundamentally similar. Both definitions are based on the presence, either periodic or permanent,

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[3] Normally, a particular vegetation type (e.g., hydrophytic vegetation) is considered to predominate when it makes up more than 50% of the vegetation.

of either shallow surface water or groundwater at or near the surface (i.e., wetland hydrology). However, while the agencies essentially agree on this basic definition, they differ on the parameters for which there must be positive field evidence for wetlands to exist.

Though some exceptions are provided (e.g., unvegetated mudflats), in most cases, the Corps requires evidence (field indicators) of each of the three parameters, hydrology, hydric soils, and hydrophytic vegetation. The Corps Manual specifies:

> *Technical approach for the identification and delineation of wetlands: Except in certain situations defined in this manual, evidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland determination.*

The Corps delineation method can be under-inclusive for two fundamental reasons: (1) saturated soils and shallow ponding are often difficult to document in seasonal wetlands, and (2) in problem areas such as Half Moon Bay, wetland indicators require a high degree of interpretation.

In seasonal wetlands, evidence of wetland hydrology may be present for only part of the year, and may not be present at all during dry years. Consequently, the result of a Corps delineation can vary depending on the timing of data collection. This is exacerbated by the exception provided in the Corps Manual for some indicators of wetland hydrology, if they are observed during an "unusually wet period." Not only does this exception further reduce the already limited period during which reliable data concerning the hydrologic characteristics of seasonal wetlands may be collected, but the term "unusually wet period" itself is subject to interpretation and debate. Because of these and other constraints, direct observation of wetland hydrology is often problematic in seasonal wetlands.

Although the indicators of wetland soils and vegetation are often more readily observed than hydrology, these too are subject to interpretation and uncertainty. For example, disturbance from agriculture and other activities as well as certain soil types can mask common indicators of hydric soil conditions, and the results of vegetation surveys can vary depending on time of year and survey methodologies. Accordingly, although the Corps method attempts to standardize wetland delineation, in practice, disagreement between experts over the adequacy and interpretation of data concerning the presence or absence of wetland indicators is common.

Given the imprecise nature of the science, the USFWS, CDFG, and Coastal Commission take a pragmatic approach towards determining the presence or absence of the hydrologic conditions responsible for forming wetlands. The methods used by these agencies is based on the principle that wetland hydrology is a necessary precedent to the formation of hydric soils and the prevalence of hydrophytic vegetation. Thus, in the absence of direct observation of wetland hydrology, the presence of either hydric soils or hydrophytic vegetation is considered a reliable indicator that wetland hydrology must be present with sufficient frequency to allow such conditions to occur. Thus, wetlands (i.e. areas wet long enough to bring about the formation of hydric soils or plants), may be identified and delineated based on substantial evidence of any one of the three wetland parameters.[4] As discussed herein, the City of Half Moon Bay certified LCP

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[4] As pointed out in the Corps's Manual (p. 7):

> The FWS system requires that a positive indicator of wetlands be present for any one of the three parameters, while the (CORPS) technical guidance for wetlands requires a positive wetland indicator be present for each parameter (vegetation, soils, and hydrology) , except in limited instances identified in the manual

also generally adopts this approach. However, on December 14, 2000, the San Mateo Superior Court ruled that the LCP contains an exception to the above approach for vernally wet areas where the soils are not hydric. Although the Commission does not agree with this ruling and is not bound by such ruling because it is not yet final, the Commission nevertheless finds for the reasons discussed below, that the property contains wetlands that meet all three wetland parameters and which also are not vernally wet areas. Therefore, the question whether these areas are subject to the exclusion in the LCP for vernally wet areas that do not contain hydric soils is no longer at issue. Following is an evaluation of the evidence available to the Commission at the time of its de novo action on this appeal for each of the three wetland parameters on the project site.

3.3.4 Vegetation

With regard to the parameter of wetlands vegetation, the definition of wetlands contained in the Half Moon Bay certified LCP defines wetland to include areas "where the water table is at, near, or above the land surface long enough to... support the growth of plants which normally are found to grow in water or wet ground." Under both the 1987 Corps Manual and the Cowardin classification system which serves as the basis for the definition of wetlands utilized by the City of Half Moon Bay certified LCP, as well as the Commission, CDFG, and USFWS, the wetland vegetation parameter is met in areas where more than 50 percent of the dominant vegetation consists of hydrophytes. (Zoning Code section 18.02.040.) However, many plants that are classified as hydrophytes may also occur in upland areas. Therefore, these plants are further classified according to the frequency with which they are found in wetlands as opposed to uplands. Species classified as facultative upland, for example, occur in wetlands 1 to 33 percent of the time, while more than 99 percent of the occurrences of obligate species are in wetlands (Reed 1988).

Vegetation surveys conducted on the project site by consultants for the applicant and the city demonstrate that more than 50 percent of the dominant vegetation within Areas W1-W17 are facultative wet (occurring 66 to 99 percent in wetlands) and obligate species (Exhibit 26). The Commission also notes that the applicant only took samples within 5 of the 18 study areas. Nevertheless, based on the evidence that was collected, both the applicant and the city agreed that all 18 study areas meet the wetland vegetation parameter as used under the LCP. In addition, the city's consultant LSA & Associates determined during surveys conducted in January and February 2000 that the plant cover in Areas W1a, W1b, W2, W3, W5, and W12, as well as two additional areas not identified by WRA was dominated by FACW species (Exhibit 5) (LSA 2000b). As such, areas W1-W17 and the two additional areas identified by LSA qualify as wetlands under the certified LCP because they are areas where the water table is at near or above the land surface long enough to support the growth of plants which normally are found to grow in water or wet ground.

Based on a review of these vegetation surveys, the Commission staff biologist concluded that all parties agree that:

> *There is a preponderance of wetland plants (designated FACW or OBL) in many of the depressions at Beachwood, including those designated W1-W17 by Wetland Research Associates.* (Exhibit 4)

Conclusion – Vegetation

Based on the applicant's own wetland delineations and consultant reports, as well as data collected by the city's consultants and subsequent review and field work conducted by the Commission's staff biologist, the Commission finds that Areas W1-W17 and the two additional ponded areas identified by LSA are dominated by hydrophytic vegetation. Therefore, because each of these areas is wet enough long enough to support the growth of plants that normally are found to grow in water or on wet ground, the Commission finds that Areas W1-W17 and the two additional ponded areas identified by LSA are wetlands, as defined under the Half Moon Bay LCP.

3.3.5 Hydrology

Although neither the Coastal Act nor the certified LCP define wetland hydrology, the 1987 Corps Manual defines wetland hydrology as:

> *Hydrology: The area is inundated either permanently, or periodically at mean water depths <6.6 ft. (~2m), or the soil is saturated to the surface at some time during the growing season of the prevalent vegetation. The period of inundation or soil saturation varies according to the hydrologic/soil moisture regime and occurs in both tidal and non-tidal situations.*

The length of time and time of year that an area must be either inundated or saturated to indicate wetland hydrology varies according to geography and climate. However, the predominant regulatory scheme assumes that wetland hydrology is present when areas are saturated for a minimum of 7 to 18 days during years with normal precipitation.[5] In Coastal California's Mediterranean climate, field indicators of periodic inundation, such as observations of saturation or ponding or observations of sediment deposits, are commonly accepted as sufficient evidence to demonstrate wetland hydrology.

There is a significant body of evidence of periodic inundation and saturation on the Beachwood site. This evidence includes: (1) positive field indicators of wetland hydrology including direct observations of inundation and saturation, (2) drainage characteristics as demonstrated by site topography and shown on historic USGS maps and aerial photographs, and (3) efforts taken to artificially drain the site.

Field Indicators of Wetland Hydrology

The city considered the following evidence of inundation and saturation for its March 2000 action on the project:

- February 5, 1999: Huffman & Associates (H&A, March 11, 1999) observed ponding in several depressional areas with hydrophytic vegetation. The first significant rainfall since

[5] The Corps Manual requires that the soil be saturated in the upper 12 inches for at least 5% of the growing season (18 days in California) for wetland hydrology to be present, but for routine delineations accepts field indicators of periodic inundation (e.g., observation of ponding, sediment deposits or algal mats) as sufficient evidence of the existence of wetland hydrology. The Natural Resources Conservation Service recognizes ponding for at least 7 days both as a criterion for defining a hydric soil and as a field indicator of such soils.

mid-December 1998 occurred during the period January 15-26 (5.53").[6] Except for 0.87 inches on January 31, there was no additional rainfall prior to the February 5 site visit.

- February 28, 1999: Huffman & Associates observed ponding in several depressional areas with hydrophytic vegetation. All 7.6 inches of February's rainfall occurred between the 5th and 28th.
- July 27, 1999: Wetland Research Associates examined areas W1-W17 and observed indicators of hydrology (e.g. sediment deposits and algal mats) in all test plots within areas of wetland vegetation. At one test plot, the soil was still moist at 10 inches depth. The most recent significant rainfall had occurred 107 days previously (2.72 inches from April 5-11). From April 11 to July 27, there was a total of 0.64 inch of rain in small events scattered throughout the period.
- January 19, 2000: LSA Associates observed ponding in several areas of hydrophytic vegetation (LSA 2000b). December rainfall was 0.93 inch, and January rainfall through the 19th was 2.78 inches.
- February 8, 2000: LSA Associates observed algal blooms and ponding to a depth of 2 to 18 inches in Areas W1-W3, W5 and W12 and 2 other areas outside of the 18 previously identified wetland study areas (LSA 2000b). During the period January 20-26 there were 4.3 inches of rain. An additional 1.39 inches of rain fell from January 30 to February 5.
- February 22, 2000: LSA Associates observed algal blooms and ponding to a depth of 2 to 18 inches in eleven areas with hydrophytic vegetation. During the period February 9-22, there were 6.96 inches of rain (LSA 2000b).

Subsequent to the applicant and city site visits, and contemporaneous with the processing of the Commission's appeal, the following further evidence of wetland hydrology on the project site has been developed:

- April 23, 1999: Color infrared aerial photograph taken on this date shows ponded or saturated soils in Areas W3, W5, W7, and W12. The most recent rainfall occurred 12 days previously. From April 5 to 11 there were 2.72 inches of rain. March rainfall was 4.82 inches.
- Late January 2001: Appellant Mike Ferreira photographed a large pond in Area W5 (Exhibit 25). January rainfall was 5.75 inches.
- Late February 2001: Appellant Mike Ferreira photographed ponding in what appear to be Areas W7 and W13 at the north edge of the site (Exhibit 25). February rainfall was 6.44 inches.
- July 2, 2001: Commission staff biologist Dr. John Dixon observed hydrophytic vegetation, algal mats on the soil surface, and very moist soil at 3-6 inches depth in Area W5. The most recent significant rainfall had occurred 72 days previously (1.1 inches from April 19-21). From April 22 to July 2, there was a total of 0.19 inch of rain.

[6] The rainfall summaries associated with the observations discussed in this report are derived from National Weather Service (NOAA) data for Half Moon Bay (Station 043714; Lat 37° 28', Lon 122° 27', Elev 40') obtained from the Western Regional Climate Center.

Site Drainage Characteristics

The site lies in the transition area at the base of the slope between the foothills along the western flank of the Santa Cruz Mountains and the coastal plain in Half Moon Bay. The watershed to the east generally drains through both surface and subsurface flows toward the coast. The wetland delineation conducted on the Pacific Ridge Development site identified numerous wetlands in the area directly up-slope from the Beachwood site fed by surface water drainage, seeps and springs (CCC 2001). The Commission finds that similar surface and subsurface drainage characteristics exist on the adjacent Beachwood site as it is directly down-slope and within the same watershed as the Pacific Ridge site. This finding is supported by the following statement made by the city's consultants:

> *...[H]istorical aerial photos of the area dating back to the 1930s... indicate that the subject property has been the natural route of drainage water from the hills to the east. Vegetation that is visible in the photos is consistent with what would be expected in an area receiving more surface water than the surrounding area...*

Drainage Modifications

The applicant contends that to the extent that any wetland indicators are present in Areas W3-W17, this is due solely to the removal of soil by the city in the mid 1980s to use as fill for other construction. The applicant asserts that Areas W3-W17 are depressions formed by the city's activities, and that prior to this work, the site was devoid of any wetland characteristics (Exhibit 12). The city responds to this contention in a letter dated March 3, 1999, to the applicant, maintaining that these wetlands "...were not caused by the city, [and] ... are developing in artificial 'low areas' created as a result of grading and/or trenching activities conducted by the property owners themselves" (Exhibit 14). The city's statement is supported by documents contained in the Commission's files for CDP Permit Waiver 3-91-50DM, granted for temporary stockpiling of 32,000 cubic yards of fill on the Beachwood site for use during "future development of the site." The permit application states:

> *There is no topsoil in the areas of work [i.e., where the fill was proposed to be stockpiled], as it was stripped away by a previous property owner in connection with the road cutting activities that they appear to have been undertaken on the property.*
>
> *Separately, approximately 1,000 cubic yards were brought onto the Beachwood property to restore the grade in several locations where deep cuts and holes had been made by a previous owner. A grading permit was obtained in connection with this work from the City of Half Moon Bay.*

The file for the permit waiver contains a letter from the applicant's representative Beth Wiefels to the city regarding this earlier work, stating that the 1,000 cubic yards of fill were used:

> *to fill the large holes that were created on the Beachwood property by its former owners (the William Lyons Company) in connection with their grading activities on their Highland Park properties. By filling in the holes, we will be restoring the land to its normal condition and eliminating a safety hazard.*

Thus, it appears that there is a long history of excavation and fill on the project site, and that at least some of this work has been conducted by owners of the property. At this point, it is difficult to ascertain to what degree these activities have increased or decreased wetland areas on

the site. However, notwithstanding this history of alteration and disturbance, any wetlands as defined by the LCP that are currently present on the site are protected under the LCP whether formed naturally or artificially.

Historic USGS maps from 1952, 1961, 1968, and 1973 and aerial photographs show that, prior to drainage modifications made in the 1980s, an intermittent blue line stream drained onto and across the site from the east (Exhibit 17). In 1984, the Commission granted CDP 3-83-16 to the city for installation of an underground storm drain system to serve the Highland Park subdivision directly south of the Beachwood site and future development on the Beachwood site (CCC 1984). The permitted development included installation of a 48-inch drain pipe with an inlet adjacent to the southern boundary of the project site, a 30-inch drain pipe adjacent to the northern property boundary, and stub-out storm drain inlets for future drainage on the Beachwood site. CDP 3-83-16 did not authorize any grading or other development on the Beachwood site other than the installation of drainage pipes and inlets around the perimeter of the property. The findings for the permit state:

> *...improvements will only be installed for the project area (Highland Park Subdivision) as provided for in this permit. Any improvements outside the project areas will require a separate coastal development permit.*

A berm was subsequently constructed along the eastern site boundary diverting the intermittent stream around the site and to an inlet to the newly installed 48-inch drainage pipe. These drainage alterations have substantially reduced the flow of surface water onto the project site from the east.

In addition to diverting surface drainage away from the project site and into an underground storm drain, the applicant pumped water from the site into the storm drain system on or around the end of January and beginning of February 1999 (Exhibit 18). The Commission notes that the applicant undertook this pumping immediately prior to Terry Huffman's observations of ponding on the site on February 5, 1999. The applicant contends that this pumping was necessary to prevent flooding caused by the city's failure to properly maintain the drainage system constructed under CDP 3-83-16 (Exhibits 12-13). However, it appears that the pumping had the effect of draining water from Area W5 into the storm drain system (Exhibit 19).

Discussion

Based on the field indicators that it observed on July 27, 1999, WRA submitted two wetland delineation reports for the site, one each for the Corps and the City of Half Moon Bay stating that wetland hydrology was present in each of the depressions designated W1-W17 and that each of those areas was a "man-induced wetland" according to the 1987 Corps Wetland Delineation Manual (WRA 1999a, WRA 1999b).[7][8] WRA subsequently submitted a second wetland delineation to the city revising its original determination, concluding that there was no evidence of wetland hydrology except in Areas W1a and W2 (WRA 1999c). WRA based this determination on the assertion that there were "extraordinary levels of rainfall" in January and

[7] The CORPS did not exert jurisdiction over any of the wetlands within the project footprint because they were deemed exempt as "waterfilled depressions created in dry land incidental to construction activity"; Fong, C.C. (CORPS). January 10, 2000. Letter to Michael Josselyn, WRA.

[8] Appendix C provides a summary of these and the other field investigations of wetlands conducted for the project site.

February that were beyond the "normal condition used to described hydric soils." A similar argument could potentially be made to discount the observations made in 2000 and 2001. It is therefore important to determine what is a "usual" or "normal" amount of monthly or annual rainfall. It is not sufficient to simply assert that 137% of average or 199% of average or any other particular figure is abnormal. What is necessary is to examine the actual frequency distribution of the rainfall totals for the periods of interest (e.g. rain years or Januarys) for the entire record, in this case 52 years. If there were little year-to-year variability in rainfall, then, say, 150% of the average might be unusual. On the other hand, if there were a great deal of year-to-year variability, then even 200% of average might be common. The appropriate analysis was not undertaken by WRA or any of the other consultants involved in this project.

Frequency distributions for January rainfall, February rainfall, and rain year (July 1 – June 30) rainfall using NOAA data for Half Moon Bay are presented in Figure 1. The amount of rainfall in rainfall classes (e.g., 0.5-1.0 inch or 20-22 inches) is shown on the x-axis. The number of years with actual rainfall within each rainfall class is plotted on the y-axis. For example, there were 4 years during which January rainfall was in the range 2 – 2.5 inches, and there were 8 rain years when the annual total rainfall was in the range 18-20 inches. The dark vertical line is the median rainfall. By definition, half the years were wetter and half the years were drier than the median. The next step is to define "unusual" or "abnormal." For this analysis, staff defined "unusual" as the wettest 10% of years and the driest 10% of years. The 10th and 90th percentiles are shown on the graphs by light vertical lines. All rainfall totals between the light vertical lines are "normal," whereas all those outside those lines are "unusual." By this definition, one out of every five years is an "unusual" or "abnormal" year.

In order to analyze rainfall during the past three years, the total amount of rainfall during January and February and the totals during rain years 1998-1999, 1999-2000, and 2000-2001 are shown by arrows in Figure 1. Based on defining the extreme 20% of values as "unusual," it is apparent that the rainfall at the Beachwood site was normal prior to most observations of ponding. Only the rainfall during February 2000 was unusual – one of the 2 wettest Februarys on record. The other February and January values were within the normal range. In order for the February 1999 rainfall to be considered unusual, 30% of the record would have to be so defined, or nearly one year in three.

In addition to characterizing yearly totals or monthly totals as "unusual," one could characterize particular sequences of daily rainfall in the same manner. For example, referring to Dr. Huffman's observations of ponding on the site on February 5 and 28, 1999, Wetland Research Associates (WRA 1999c) asserted that:

> *"...the rainfall in January 1999 was 137% of normal and during February 1999 was 199% of normal. Over 3.54 inches of rain fell in the 5 days prior to [Dr. Huffman's] early February visit. These extraordinary levels of rainfall are beyond the normal condition used to describe hydric soils. The wetland hydrology indicators observed in the depressions in October 1999 (sic[9]) for this delineation were surface indicators, such as algal mats and sediment deposits. These features probably resulted from the abnormal rainfall events in February and should not be considered the normal conditions."*

[9] Those observation were actually made on July 27, 1999 and first reported in October 1999.

Regardless of whether 3.54 inches of rain in 5 days is "abnormal," that particular rainfall event occurred during the period February 6 – 9, after Dr. Huffman's observations (Huffman & Assoc., March 11, 1999) of ponding on the site – not before. WRA's characterization of the observed ponding on February 5, 1999 as being the result of an unusual rainfall event is apparently based on a mistake. Rainfall during the 60 days prior to those observations was not unusual. December was about 51% of average and January was about 121% of average.[10] Therefore, the observation of ponding on February 5, 1999 is compelling evidence that the area had been ponded for a minimum of 6 days (since the last rainfall of .87 inches) and almost certainly for more than 14 days (since the very heavy rainfall during Jan 16 – 20). Without question the area continued to have standing water throughout February and probably long after. Since the soil was saturated to the surface on February 5, the continued ponding observed at the end of the month would certainly have occurred even with only the median rainfall. The difference would have been in the depth and areal extent of the ponds.

A similar pattern of ponding took place in 2000. As described in Appendix C, LSA observed ponding by mid-January and by February 8, 11 areas had standing water 2-18 inches deep (LSA 2000b). This was before the exceptional February rainfall. During the two weeks ending on the day of observations, there were 1.4 inches of rain scattered throughout the period, not an unusual volume. As in 1999, the ponding that was present in early February would undoubtedly have continued to be present throughout the month even in an average rain year. The extraordinary volume of February rainfall no doubt caused the ponds to be bigger and deeper and last even longer.

Ponding was also present in 2001. As in previous years, there was standing water present by the end of January as evidenced by Mr. Ferreira's photographs. The same area was still very moist 3-6" below the surface in early July and there were extensive algal mats on the ground surface. The fact that the ground was still moist in the upper 12 inches in July of both 1999 and 2001 suggests that these areas remain ponded well into the spring. It is clear from the above analysis that the preponderance of evidence indicates that many of the areas with hydrophytic vegetation on the Beachwood site are ponded for long (7-30 days) or very long (> 30 days) duration during most years.

WRA's revised delineation includes the following analysis (based on examining photographs under magnification) of the frequency and duration of ponding at the site:

> *Additional photographic information was collected for the site including photographs taken on January 24, 1991; March 29, 1995; and February 11, 1999. Rainfall in the 30 days preceding these photographs was 11%, 210%, and 264% of normal, respectively. No ponding was observed in either the 1991 or the 1995 aerial photographs despite the high rainfall prior to the 1995 photo. Isolated ponding was observed in the 1999 aerial photograph; however, this date was preceded by an extraordinary rainfall event of over 3.54 inches of rain in the previous 5 days. This evidence shows that the soils do not, under normal circumstances, pond for a sufficiently long duration to be considered hydric and that the most recently observed hydrologic indicators are the result of extraordinarily high rainfall in early 1999.*

[10] The differences in the percent of average rainfall figures provided by WRA and calculated here probably reflect small differences in the number of years used in the calculations of the long term mean. Both sets of figures are based on the same NOAA data set.

The methodology underlying this analysis is flawed because vegetation can obscure aerial views of shallow standing water, particularly in normal color aerial photographs.[11] Whereas the presence of standing water in such a photograph can be interpreted, the apparent absence of standing water cannot. For this reason, photogrammeters typically rely on multi-spectrum photography, especially infrared, combined with ground truthing when mapping wetlands based on remote sensing data. The Manual of Remote Sensing states:

> *Submerged or emergent vegetation – Vegetation may change bottom reflectance, obscure water surface, or contribute to the spectral characteristics of the measured signal.*
>
> *...Caution must be applied in wetlands areas to adjust appropriately for vegetation obscuring or being mixed in the surface-water area.* (American Society of Photogrammetry 1983)

[11] For such an analysis, large scale color infrared photographs would normally be taken and examined using specialized photo-interpretive techniques; J. Van Coops, CCC Mapping/GIS Program Manager, personal communication.

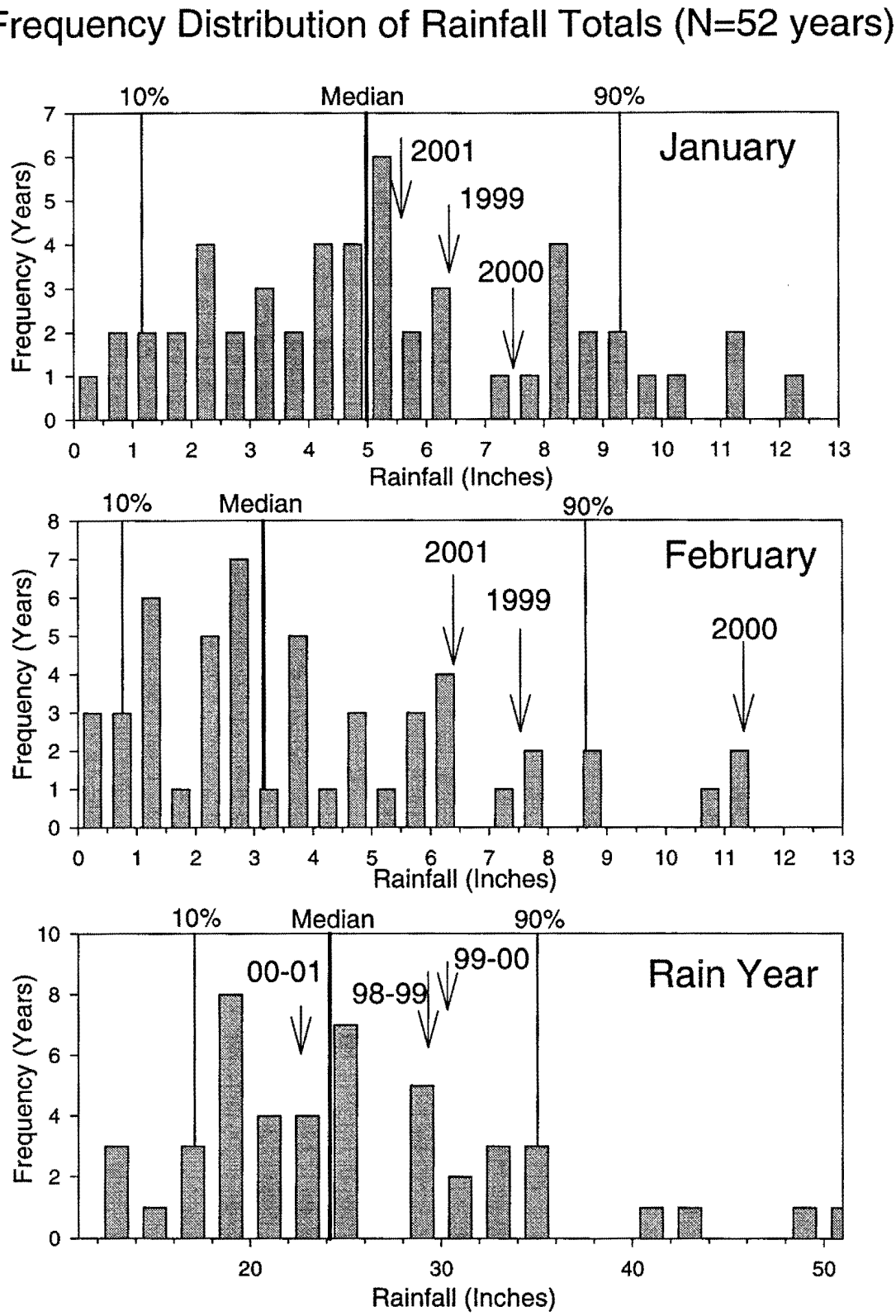

Figure 1.

Frequency distribution of annual rainfall totals at Half Moon Bay for January, February, and the rain year (July 1 – June 30). Rainfall categories (e.g. 1-1.5 inches or 20-22 inches) are on the x-axes. Number of years is on the y-axes. Each bar represents the number of years with total rainfall within the class range. The heavy vertical line is the median. Lighter vertical lines are the 10th and 90th percentiles. The normal range of values falls between the 10th and 90th percentiles.

There is also specific evidence that the results of the WRA photographic analysis are incorrect. LSA examined other portions of the February 11, 1999 photograph that included the adjacent Pacific Ridge property where LSA was making ground observations, finding that:

> *Standing water was present in all of the wetlands on the Pacific Ridge site on February 9. These wetland areas continued to be flooded or ponded into April. Other than the pond on the Pacific Ridge site, no standing water is visible [in the photograph] in any of the other wetlands on the Pacific Ridge site or on the roads where water was also present. All of the shallow ponding is obscured by the low growing grassy vegetation. We assume similar conditions would occur on the Beachwood site where the vegetation is much taller than the grazed lands on Pacific Ridge Project site.* (LSA 2000b)

In addition, there is direct evidence of long or very long duration ponding on the Beachwood site during 2000 when rainfall was about 112% of average, which should not be considered abnormal by any definition.

This evidence of ponding is significant because the City of Half Moon Bay certified LCP, as well as the Commission's implementing regulations, define wetland to include "areas where the water table is at, near or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground." (Appending A; Zoning Code section 18.38.020.) As stated above, in section 3.3, vegetation surveys conducted by the applicant's consultants evidence that Areas W1-W17 contain more than 50% of plants that are normally found to grow in water or wet ground. In addition, LSA determined during surveys conducted in January and February 2000 that the plant cover in Areas W1a, W1b, W2, W3, W5, and W12, as well as two additional areas not identified by WRA was dominated by FACW species (LSA 2000b). Many of these same areas are also areas where the water table is at, near or above the land surface long enough to bring about the formation of hydric soils. This issue is discussed further in 3.3.6 below.

Conclusion – Hydrology

The Commission finds that wetland hydrology was historically present in many areas of the site. Despite significant alterations of the site's drainage characteristics over the past few decades through farming practices, drainage improvements, and grading of the site, the soils in areas W1-W17 as well as the two additional ponded areas identified by LSA are inundated or saturated for sufficient duration to demonstrate wetland hydrology in accordance with generally accepted wetland delineation protocols.

3.3.6 Soils

As discussed above, the definition of wetlands contained in the Half Moon Bay certified LCP defines wetland to include areas "where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils..." Although neither the Coastal Act or the certified LCP define hydric soils, the National Technical Committee for Hydric Soils (NTCHS) publishes the guidebook Field Indicators of Hydric Soils in the United States (NTCHS 1995). This guidebook defines hydric soils as: "...soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in

the upper part." Besides various morphological characteristics such as low chroma colors[12] or the presence of redoximorphic features,[13] the NTCHS accepts evidence of frequent[14] ponding for long or very long duration[15] during the growing season, as a field indicator of hydric soils.

In most cases, hydric soils are identified based on morphological characteristics such as low chroma colors or the presence of redoximorphic features that form under anaerobic conditions. However, the native soils on the Beachwood site are classified as "mollisols." These soils have dark surface horizons and low chroma colors that are derived from the presence of organic matter rather than from soil saturation. Consequently, low chroma is not a reliable indicator of hydric soils and redoximorphic features are extremely difficult to see. In the context of wetland delineation, these are "problem soils."

However, the accepted field indicators of hydric soils in accordance with the NTCHS Guidebook includes evidence of frequent ponding or flooding for long or very long duration during the growing season (NTCHS Criteria 3 and 4). Use of these indicators to determine if the site contains hydric soils is appropriate since the soil type renders chroma color and redoximorphic soil features unreliable.

For soils to be considered hydric due to frequency of flooding or ponding, they must be saturated to the surface for at least seven consecutive days during the growing season (all year on the California coast) during half of all years, on average. As discussed above, substantial evidence in the record at the time of the city's action in March 2000 denying the CDP application, as well as additional evidence that was not considered by the city at the time of its action, demonstrates long or very long duration ponding on the site in 1999, 2000, and 2001. This evidence of ponding satisfies NTCHS hydric soils Criteria 3.

In fact, the applicant's consultant Dr. Stephen Faulkner states:

> *In the current situation, some may state that hydric soils are present due to Criteria 3 (frequently ponded for long duration). The concept of this criteria as a field indicator requires that the frequency and duration be established."*

The applicant's consultants attempt to dismiss this evidence based on the contention that the observations of ponding in February 1999 and of the field indicators of wetland hydrology observed by WRA in July 1999, were due to abnormal rainfall conditions. However, as discussed above, 1999 was not an unusually wet year. Thus, the soils surface and soil profile indicators of wetland hydrology observed by WRA in July 1999 cannot be discounted.

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[12] Chroma" is a characteristic used to describe colors in the Munsell system. It indicates color "strength" and is determined by matching soil samples to special color charts, which is analogous to matching a paint chip from one's house to charts found in paint stores. Low chroma can develop in response to the reducing conditions associated with saturated soils.

[13] "Redoximorphic features," such as mottles and concretions, are formed by reduction, translocation, and oxidation of iron and manganese compounds in periodically saturated soils.

[14] "Frequently flooded or ponded" is a frequency class in which flooding or ponding is likely to occur often under usual weather conditions (more than 50 percent chance in any year, or more than 50 times in 100 years); Hurt, G.W., P.M. Whited, and R.F. Pringle, eds. Field indicators of hydric soils in the United States. Version 4.0, March 1998. USDA, Natural Resources Conservation Service.

[15] "Long duration" is a period of inundation for a single event that ranges from 7 days to 1 month, whereas "very long duration" is greater than 1 month; Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Department of the Army, Waterways Experiment Station, Corps of Engineers.

Furthermore, this contention fails to account for the evidence of ponding and soil saturation in 2000 and 2001.

On February 8, 2000 site visit, LSA established sample plots within and adjacent to wetland study areas identified by WRA as W1a, W1b, W2, W3, W5, and W12, as well as two additional areas not identified by WRA (Exhibit 5) (LSA 2000b). LSA's observed that the soils at all of the sites have low chroma, but acknowledged that application of this hydric soils indicator is inconclusive in the area of the project site because the soils are mollisols. However, LSA also recorded that redoximorphic depletions and concentrations of iron, both caused by reducing soil conditions, were present in several of the basin features. LSA also reported surface ponding or saturation at the soil surface for each of the sample plots located within the wetland areas studied.

In a letter to the city dated January 29, 2001, Terry Huffman[16] states that the hydric soil criteria were met in areas W1-W14 through evidence of saturation conditions, stating, based on available evidence, that it "it is more probable than not that the soils have soil drainage, permeability, and runoff characteristics which would satisfy the NTCHS hydric soils definition. He elaborated:

> *This opinion is based on the findings that: 1) the soils within the depressional areas have slow to very slow permeability characteristics as a result of grading and compaction; 2) the depressional areas capture storm water due to their low lying landscape position; 3) The depressions impeded surface runoff and cause surface and near surface (0 to 12") water to collect; and 4) it is more probable than not that the multiple sequential periodic nature of coastal rain fall patterns, which occur during normal as well as above normal water years prior to March 21, can continue to recharge the depressional areas sufficiently enough to bring about ponding and or near soil surface saturation for a minimum of seven days.*
>
> *Based on these findings it is my professional judgment after analyzing the data and information provided in Attachment 1 and experience with similar situations within the Half Moon Bay area that the WRA depressional areas contain soils, which due to periodic saturation meet the NTCHS definition of Hydric Soils. The information analyzed indicates that no other areas were found on the subject property, which have hydric soil conditions.*
>
> *In summary, we found the Beachwood Subdivision site to contain areas with a growth of plants and hydric soils conditions described by the LCP definition of wetlands. These include WRA report W1a, W1b, W2 thru 14 (see WRA Figure 12). It should be noted that although these wetland areas are manmade the LCP provided no exclusion for these types of areas within the context of the LCP wetlands definition.*

The Commission staff's biologist also responded to the applicant's contention that there has been insufficient time for hydric soil formation and therefore, the soils here do not meet the hydric soils definition. The Commission's biologist states:

> *In the context of wetland delineation, current conditions which result in frequent saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil is a sufficient indicator of hydric soils,*

[16] Dr. Huffman was one of the authors of the Corps 1987 Wetland Delineation Manual.

> *regardless of whether the conditions have been in effect long enough to create the morphological characteristics generally associated with hydric soil series.*

The Commission is aware that on January 26, 2001, the San Mateo County Superior Court set aside the city's March 21, 2000, denial of the project based on wetland concerns. Based on Several biological reports contained in the record before the Court (specifically, Administrative Record pages 25: 7931-7939, 22: 6713-6724 and 19: 6125-6136) (Exhibit 24), the court found that "None of that evidence supports a findings that hydric soil exists on the site, which is the subject of the LCP definition and exception." The Court also noted that the city's definition is the proper standard of review, and that "Whether the petitioner's property meets the definition of wetlands under the Commission's regulations is irrelevant; the LCP is controlling per PRC 30604(b)."

The Commission agrees that the LCP is the proper standard of review; however the Commission does not agree that the available evidence supports a finding that soils in question are not hydric. Because the Court's ruling is not yet final, the Commission is not bound by it; moreover the Commission has available to it evidence that was not in the record before the court, as well as further review, data gathering, and interpretation by the Commission's biologist. Based on this evidence, the Commission concludes that, based on a preponderance of the evidence, for the reasons stated above, the soils in areas W1a, W1b, and W2 through W14 (Exhibit 4) and the two additional areas identified by LSA (Exhibit 5) are hydric and therefore meet the LCP definition of wetlands.

Hydric Soils – Conclusion

Based on the above discussion, the Commission concludes that hydric soils are present in the areas designated as sites W1a, W1b, and W2 through W14 which meet NTCHS hydric soil Criterion 3, an accepted hydric soil indicator (Exhibit 4). These areas therefore qualify as "wetlands" both in an ecological sense and under the definition of the City of Half Moon Bay's certified Local Coastal Program.. Thus, the preponderance of the evidence leads the Commission to the conclusion that the soils in areas W1a, W1b, and W2 through W14 (Exhibit 4) are hydric and meet the LCP definition of wetlands.

3.3.7 Exception for "Vernally Wet Areas without Hydric Soils"

As discussed above, the Half Moon Bay certified LCP includes three separate wetland definitions. These definitions are found in LUP Appendix A, Zoning Code Section 18.02.040, and Zoning Code Section 18.38.020. The first part of the wetland definitions provided in the LUP Appendix A and Zoning Code Section 18.38.020 both state:

> *...Wetland is an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils* ***or*** *to support the growth of plants which normally are found in water or wet ground.* [Emphasis added]

Thus, consistent with the methods used by the Commission, the California Department of Fish and Game, and the U.S. Fish and Wildlife Service, wetlands under the City of Half Moon Bay's LCP may be delineated based on either the presence of hydric soils or hydrophytic vegetation as

further discussed above. However, according to LUP Appendix A and Zoning Code Section 18.38.020, wetlands do not include:

- areas which in normal rainfall years are permanently submerged (streams, lakes, ponds, and impoundments),[17]
- marine or estuarine areas below extreme low water of spring tides, and
- vernally wet areas where the soils are not hydric.

Under the Coastal Act and the Commission's regulations, marine or estuarine areas below extreme low water of spring tides are considered estuaries, tidelands, or submerged lands, but not wetlands. Therefore, the second exception under the above-cited LCP sections is consistent with the Commission's definition. However, the first and last exceptions – areas which in normal rainfall years are permanently submerged and vernally wet areas where the soils are not hydric – are not found in the definition of wetlands used by the Commission.

The applicant takes the position that the LCP excludes vernally wet areas where the soils are not hydric and that the site contains such excluded areas. It is the Commission's position that this exclusion does not include vernally wet areas that contain only hydrophytes. In other words, the exclusion only applies if the area contains neither hydrophytes or hydric soils. See March 20, 2000 letter to City of Half Moon Bay from Ralph Faust, Chief Counsel for the Commission, attached as Exhibit 15. The letter clarifies that since the contested phrase is susceptible to more than one interpretation, the most appropriate interpretation of the exclusion phrase contained in the city's certified LCP is to harmonize the definition in a manner consistent with the definition of wetlands contained in the Coastal Act and its implementing regulations.[18] However, as discussed above, since there is substantial evidence that hydric soils are found at the site, the appropriate interpretation of the exclusion phrase is no longer at issue since the site does not qualify for the exclusion under either the Commission's or the applicant's interpretation.

In addition, a third provision of the LCP defining "wetland" is found in the definitions section of the Zoning Code. Zoning Code Section 18.02.040 states:

> *Wetland: The definition of wetland as used and as may be periodically amended by the California Department of Fish and Game, the California Coastal Commission, and the US Fish and Wildlife Service.*

The exceptions for areas that are permanently submerged and for vernally wet areas that do not contain hydric soils contained in LUP Appendix A and Zoning Code Section 18.38.080 are inconsistent with the wetland definitions used by the California Department of Fish and Game, the Coastal Commission, and the U.S. Fish and Wildlife Service. Consequently, these

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[17] This first exception would exclude may shallow fresh water marshes. Indeed, it would exclude all but seasonal wetlands.

[18] In that letter the Commission's Chief Legal Counsel opined that the disputed wetland areas affected by this approved development are wetlands under the LCP. In that letter, the Chief Counsel emphasized that the city's definition of wetlands should be interpreted in a manner consistent with the Coastal Act and its implementing regulations, which do not exclude vernally wet areas which support the growth of plants that normally grow in water or wet soil from its definition of wetlands. Under this interpretation of the wetland definition contained in the certified LCP, since the LCP's definition of wetlands includes areas that support wetland hydrology, hydric soils, or hydrophytes and there is evidence of wetland hydrology and hydrophytes on the site, the areas containing hydrophytes are considered wetlands, even if they do not support the formation of hydric soils (Exhibit #).

exceptions are also inconsistent with the wetland definition contained in the definitions section of the Zoning Code. Thus, the LCP is internally inconsistent in its treatment of the term "wetland." The wetland areas on the project site clearly fall within the definition of wetlands used by the California Department of Fish and Game, California Coastal Commission, and U.S. Fish and Wildlife Service, as provided in Half Moon Bay Zoning Code Section 18.02.040.

In addition, even if one were to apply the other definitions of wetlands in LUP Appendix A and Zoning Code Section 18.38.080, the wetland areas on the project site do not fall within the exclusion for "vernally wet areas that do not contain hydric soils." This is both because most of these areas contain hydric soils (as discussed above) and because none of these areas qualify as "vernally wet areas" within the plain language meaning of that phrase, as discussed further below.

The term "vernally wet areas" is not defined in scientific literature or regulation. Unlike "hydric soils", "vernally wet areas" is not in common use in the field of wetland science or in any statute or regulation other than the Half Moon Bay and San Mateo County LCPs.[19] Neither LCP provides a definition or any further explanation of the meaning or applicability of the phrase. Nor does the history of the Commission action certifying the LCPs define or clarify the meaning or intended use of this term. The Commission is not aware of any other instances where this exception has been applied.

The only term using the word "vernal" that is used in both wetland science and law (other than in the Half Moon Bay and San Mateo County LCPs) is vernal pond or pool. Vernal ponds are a specific habitat type that supports unique flora and fauna. The wetlands on the Beachwood site do not support any vernal pond species and none of the data in the biological report identifies vernal ponds on this site. Thus, if vernally wet area is defined as a vernal pond, the exception would not apply to any of the wetland areas on the Beachwood site. In fact, the Commission is unaware of the occurrence of any vernal ponds in Half Moon Bay. The Commission therefore finds little support for an interpretation of "vernally wet areas" as meaning vernal ponds.

In the absence of any other definition or guidance, the Commission must first look at the plain meaning of the phrase "vernally wet." The American Heritage Dictionary, New College Edition, defines "vernal" as "Of, pertaining to, or occurring in the spring." Thus, the unambiguous plain English language meaning of the phrase "vernally wet areas" is areas that are wet during the spring season.

In its first wetland delineation, the applicant's consultant (WRA) concludes that although indicators of wetland hydrology and vegetation were present in Areas W3-W17, these areas are not subject to Corps jurisdiction because they are all "related to man-made construction activities" (WRA 1999a, WRA 1999b). However, as discussed above, WRA's observations of positive indicators of wetland hydrology and plants support a determination that Areas W3-W17 are wetlands as defined by the LCP. In its second wetland delineation, the applicant addresses the LCP definition and invokes the vernally wet area exception to conclude that Areas W3-W17 are not wetlands (WRA 1999c).

[19] The San Mateo County LUP was certified in 1982, prior to certification of the Half Moon Bay LUP in 1985. The wetland definition contained in Half Moon Bay LUP Appendix A is taken from San Mateo County LUP Policy 7.14. Both definitions use the exact same language.

In its second delineation report WRA states that: "Vernal means relating to or occurring in the spring." This sentence is followed by the nonsequitur: "Vernally wet areas are therefore those areas that are temporarily wet during winter or spring months." Thus, the applicant proposes that the "vernally wet areas" should be interpreted as meaning areas that are wet during the winter or spring, but that are not wet year round. This interpretation describes the most common hydrologic condition occurring in seasonal wetlands throughout the Coastal Zone. The applicant has not, however, offered any theory explaining why the city would choose the specific term "vernal" instead of the more general term "seasonal." Nor has the applicant advanced a theory as to why if the city had intended to except from the LCP definition of wetlands all seasonal wetlands without hydric soils, it used the unfamiliar phrase "vernally wet areas" instead of the commonly used term "seasonal wetland." The Commission therefore finds no support for the applicant's expansive interpretation of the wetland exception.

Regardless of whether the phrase "vernally wet areas" means areas that are wet during the spring or areas that are seasonally wet, the related exception from the definition of wetlands under the LCP is inconsistent with the Coastal Act. Either interpretation results in failure to delineate as wetlands under the LCP areas that are considered wetlands under the Coastal Act as well as by the California Department of Fish and Game and the U.S. Fish and Wildlife Service.

The Commission finds that the exception should be applied in the manner that minimizes inconsistency with the wetland definitions used under the Coastal Act and by these other agencies. This position is supported by Zoning Code Section's 18.02.040 deference to "the definition of wetlands as used... by the California Department of Fish and Game, the California Coastal Commission, and the US Fish and Wildlife Service." Expanding vernally wet to mean seasonally wet as suggested by the applicant only exacerbates the inconsistency with the wetland definition used by the Commission and these other agencies. The basic purpose of the LCP is to carry out and implement at the local level the requirements of the Coastal Act. To use the term "vernally wet" to mean "seasonally wet" would subvert this purpose.

In summary, the Commission finds no support for the expansive interpretation of the phrase "vernally wet" to mean "seasonally wet" in the LCP, the Coastal Act, or under the wetland definitions used by the California Department of Fish and Game or the U.S. Fish and Wildlife Service. Furthermore, the Commission finds that this interpretation maximizes rather than minimizes conflict between the LCP and the Coastal Act. For all of these reasons, the Commission rejects the interpretation proposed by the applicant, and finds that "vernally wet areas" means areas that are wet during the spring, not areas that are seasonally wet.

Here the evidence shows that the site contains seasonal wetlands and not vernally wet areas. As discussed above, during normal rainfall years, areas W3-W14 are ponded or flooded for prolonged periods during the rainy season, beginning in the late fall and continuing through winter into spring. It is for this reason that the Commission has determined that these areas have both wetland soils and hydrology and are therefore wetlands under the LCP. For the same reason, the Commission finds that areas W3-W17 are seasonal wetlands, and not vernally wet areas.

3.3.8 Conclusion – Wetlands

Based on the substantial evidence described above, including new evidence not considered by the city in its action denying the CDP application in March 2000 or by the court in its ruling on

the petition for the writ of mandate (e.g. observations of ponding in 2000 and 2001, observation of wet soil in July 2001, examination of the April 1999 color infrared aerial photo of the site, and review of recent and historical rainfall records), the Commission finds that Areas W1-W17 and the two additional ponded areas identified by LSA are wetlands under the City of Half Moon Bay certified LCP. As stated above in section 3.3.4, vegetation surveys conducted by the applicant's consultant provide evidence that Areas W1-W17 contain more than 50% vegetation cover consisting of facultative wet and obligative species. In addition, LSA determined during surveys conducted in January and February 2000 that the plant cover in Areas W1a, W1b, W2, W3, W5, and W12, as well as two additional areas not identified by WRA was dominated by FACW species (LSA 2000b). As such, areas W1-W17 and the two additional areas identified by LSA qualify as wetlands under the certified LCP because they are areas where the water table is at near or above the land surface long enough to support the growth of plants which normally are found to grow in water or wet ground. In addition, as stated above in section 3.3.6, W1-W14 and the two additional ponded areas identified by LSA are also LCP wetlands because they are areas where the water table is at, near or above the land surface long enough to bring about the formation of hydric soils. Furthermore, the Commission rejects the applicant's contention that Areas W3-W17 are not wetlands under the LCP based on the exception for "vernally wet areas where the soils are not hydric," because Areas W3-W14 (and the two additional ponded areas identified by LSA) have hydric soils, Areas W3-W17 (and the two additional ponded areas identified by LSA) contain plants that normally are found to grow in water or wet ground, and because all 18 of the wetland study areas identifed by WRA and the two additional ponded areas identified by LSA are seasonal wetlands and are therefore not vernally wet areas. Therefore, the Commission finds that Areas W1-W17 and the two additional ponded areas identified by LSA are wetlands in accordance with the Half Moon Bay LCP.

As proposed, the development would grade and fill the wetlands identified in Areas W3-W17 for roads, utilities, and building pads, and would create lots for single-family homes in these wetlands. Therefore, as proposed, the development is inconsistent with wetland protection policies and standards including Zoning Code Section 18.38.080 and LUP Policies 3-2, 3-3, 3-4, 3-9, 3-11, 3-12 and 3-22. These policies prohibit any uses that would have significant adverse impacts on sensitive habitat areas (including wetlands), require any development in areas adjacent to sensitive habitats to be sited and designed to prevent impacts that could significantly degrade the sensitive habitats, require, at a minimum, a 100-foot buffer from wetlands, ponds, and other wet areas, and restrict uses within buffer zones. In addition, pursuant to LUP Policy 1-1, the Commission notes that the city has adopted the Chapter 3 Policies of the Coastal Act as guiding policies of the LUP. Accordingly, the city's LUP adopts Coastal Act Section 30233, which prohibit residential development in wetlands.

Under the aforementioned LCP policies and standards, all but approximately 19 of the proposed 77 residential lots would be inconsistent with LCP policies protecting wetlands and buffer areas. Therefore, the Commission could deny the proposed subdivision because it is inconsistent with the LCP policies and standards governing protection of wetlands. If the Commission were to deny the permit application, the applicant, in order to pursue approval of a coastal development permit for development of the site in a manner that avoids locating development within wetlands or wetland buffers, would be forced to submit a new permit application to the City of Half Moon Bay. Pursuant to section 30603 of the Coastal Act, approval by the city of such a permit application would be subject to appeal to the Commission after exhaustion of all local appeals.

However, as an alternative to denial, the Commission imposes Special Conditions 1, 2 and 11. Special Condition 1 limits the creation of residential lots to the western portion of the parcel, which does not contain wetlands. Special Condition 1 provides the applicant with two alternative ways to avoid development in wetland and wetland buffer areas. One way would be to submit to the Executive Director a revised tract map, based on the tract map previously approved by the City of Half Moon Bay, maintaining the non-wetland parcels as currently proposed to be configured, while eliminating the remaining proposed lots and improvements in wetland and associated buffer areas. Under this alternative, one of the most eastern lots that is allowable must be expanded to include the balance of the property containing the wetland and wetland buffers. The second way would be to submit a wholly new tract map, for Commission review, locating proposed residential lots wherever wetlands or buffers would be avoided. Under this alternative the applicant is free to reconfigure the proposed subdivision as desired provided the resources are protected as required by the LCP and Special Condition 1. However, the wetland and buffer areas must be deed restricted for habitat protection purposes and must be part of a lot on which a residence can be accessed and constructed consistent with the requirements of the certified LCP. Thus, Special Condition 1 provides a means by which the applicant may proceed with development of the site in a manner that is consistent with the wetland and wetland buffer policies of the LCP without the need to begin anew the coastal development permitting process.

The Commission also imposes Special Condition 2 requiring the applicant to execute and record a deed restriction for resource protection and habitat conservation purposes over the wetland and wetland buffer areas identified on Exhibits 6-7.

Finally, the Commission imposes Special Condition 11 allowing the applicant to apply to the Commission in the future for an amendment to this permit to modify the special conditions of this permit if the applicant provides adequate site specific evidence supporting such modification. As discussed above, the Commission finds that based on substantial evidence in the record, the wetland areas depicted on Exhibits 4-7, which include wetland study areas W1-W17 as identified in the WRA reports and the two additional ponded areas identified by LSA, are wetlands as defined under the Half Moon Bay LCP. Therefore, Special Conditions 1 and 2 are necessary to render the proposed development consistent with the wetland and wetland buffer policies of the LCP. However, the Commission notes that site specific formal surveys for the presence or absence of wetland field indicators have not been conducted in all of the 20 wetland areas identified on the property and depicted in Exhibits 4 through 7.

The wetland delineation reports submitted by the applicant are based on data collected in July 1999 from a total of eight sample plots in or near five wetland study areas and from visual observations of 13 additional wetland study areas. Five of the eight sample plots were located in five of the 18 wetland study areas identified in the WRA wetland delineation reports and the remaining three of the eight sample plots were located in three upland locations (WRA 1991a, 1999b, 1999c). These observations and formal data were the basis upon which WRA made the professional judgment that all 18 study areas were "man-induced wetlands" according to the criteria of the 1987 Corps of Engineers Wetland Delineation Manual. WRA's designation is significant because for "man-induced wetlands" as defined in the Corps Manual to be present there must be evidence of hydrophytic vegetation (> 50% of OBL, FACW, and FAC species) and wetland hydrology (ponding or saturation for at least 18 days), in addition to evidence that the wetland resulted from human activities. Although most man-induced wetlands are too young

to have developed morphological indicators of hydric soils, because the 18 study areas satisfy the hydrological criterion of the Corps, the ground has been saturated or ponded long enough also to provide field indications of hydric soils (ponding for at least seven days during 50% of all years). Also, in addition to satisfying the Corps criteria for hydrophytic vegetation, i.e. a "prevalence of vegetation adapted for life in saturated soil conditions," the 18 study areas are LCP wetlands because they contain a prevalence of plants that statistically are more likely than not to be found in wetlands (i.e., plants designated OBL or FACW). In fact, 67% to 100% of the dominant species at all five of WRA's sample points in wetland plots were FACW[20] or OBL. In addition, WRA's characterization of the "dominant plants in depressions that had wetland hydrology indicators" listed six species, of which five were FACW or OBL. Therefore, the available data indicated an actual preponderance of species designated either OBL or FACW in all 18 of WRA's study areas.

In addition, although an organized program of repeated observations to document the actual duration of ponding or saturation at each of the man-induced wetlands has not been conducted for the project site, Dr. Huffman visited the site and analyzed the data in the various reports by WRA and LSA. (The Commission notes that in a routine delineation performed in accordance with the Corps Manual, such as that conducted by WRA, the actual duration of saturation or ponding need not be documented.) Dr. Huffman concluded that the soil was sufficiently impermeable that long duration ponding would occur under the local rainfall regime. As discussed in section 3.3.6, the subset of areas that were observed during the winters of 1999, 2000, and 2001 showed evidence of long-duration ponding. Accordingly, the weight of the evidence demonstrates that the hydrology was sufficient to establish the presence of hydric soils and plants which normally are found to grow in water or wet ground consistent with the requirements of the LCP.

As discussed in the preceding findings, the data provided by WRA, LSA and the additional data discussed above concerning the presence of wetland indicators on the site (i.e., evidence of ponding, analysis of rainfall data, etc.) provide substantial evidence that Areas W1-W17 and the two additional areas identified by LSA are wetlands as defined by the LCP. However, if the applicant chooses, the applicant is free to attempt to rebut this evidence with additional site specific evidence demonstrating that the wetland and wetland buffer areas generally depicted on Exhibits 4-7 are in fact neither wetlands nor other environmentally sensitive habitat areas. Such site specific substantial evidence would necessarily include, at a minimum, formal sampling of all wetland areas, including a vegetation survey and a map of all areas with greater than 50% facultative wet (FACW) or obligative (OBL) species for each of the 20 wetland areas. In addition, weekly site visits throughout the rainy season beginning with the first significant rainfall would better document the precise location and duration of continuous soil saturation or ponding in each of the wetland areas. The additional data provided by such studies would allow a more detailed mapping of the boundaries of each of the identified wetlands. Therefore, Special Condition 11 provides the applicant with the opportunity to amend the conditions of this permit to allow development to extend to other areas of the project site if supported by a more complete mapping of wetland resources conducted in accordance with a wetland study plan subject to the review and approval of the Executive Director.

[20] Some of the FACW species were FACW-, the minus indicating the species was at the lower end of the range of occurrences (67% - 99%) in wetlands.

The Commission notes that on September 13, one day before the Commission hearing, the applicant submitted a document entitled "Response to Coastal Commission Staff Report Wetland Analysis," (hereinafter "applicant's Response") in which Stephen Faulkner and Michael Josselyn asserted that, "the boundaries of the Study Areas were not selected to represent wetland plant communities" and that "[t]here is no evidence in the record that a determination of the presence of a preponderance of wetland vegetation was made within all the 17 Study Areas by any party who has investigated this matter." The applicant's Response then states that WRA conducted studies in May 2001 "... using the Commission's method of determining hydrophytic vegetation (greater than 50% of plant species being FACW or OBL)." The Commission finds that these statements directly contradict the conclusions of WRA's earlier reports and notes that the applicant does not support their assertions with data or evidence. As explained above, the Commission's findings are based on the data presented in WRA's previous wetland delineation studies that in each of the five sample plots that were located within wetland study areas, greater than 50% of the species were FACW or OBL species. All three of WRA's previous wetland studies of the site conclude that all 18 study areas identified meet the wetland vegetation parameter under both the Corps and LCP definitions (WRA 1999a, WRA 1999b, WRA 1999c). The Commission's findings are also based on LSA's study showing that the plant cover in W1a, W1b, W2, W3, W5, W12 and two additional areas not studied by WRA was dominated by FACW species (LSA 2000b). Without the presentation of any data supporting the applicant's contradictory assertion, the Commission finds that the weight of the evidence in the record demonstrates that Wetland Study Areas W1-W17 as well as the two additional ponded areas identified by LSA all support the growth of plants that normally are found to grow in water or wet ground.

The applicant's September 13, 2001 Response also suggests an alternative method of defining "normal rainfall year" to that described in the preceding findings (see page 28-32 above and Exhibit 29). Prior to this September 13, 2001 Response, the applicant did not provide staff or the Commission with a definition or analysis of what constitutes "normal rainfall" in support of their position that observations of ponding on the site were not valid because these observations followed periods of unusual rainfall. The Commission's findings regarding rainfall present the frequency of various rainfall events in Half Moon Bay based on actual rainfall data for the area. For the purpose of defining "normal rainfall year", the Commission considers the extreme 20 percent of values to be abnormal. In other words, one out of every five years (on average) has abnormal rainfall.

On the other hand, the applicant's September 13 Response contends that the characterization of the central 80 percent of values as "normal" is arbitrary and suggests an alternative definition of "normal" based on the WETS analysis developed by the National Resource Conservation Service. Under this method, only 40 percent of the values are considered "normal" meaning that three out of every five years is abnormal on average. The major difference between the approach described in the preceding findings and the WETS approach is that the Commission's analysis is based on actual rainfall data for this site and defines the central 80 percent of values as normal. In the WETS procedure, a mathematical model is fit to the data, and the central 40 percent of values predicted by the model are defined as normal. Thus, the WETS method would render invalid wetland delineations conducted in three out of every five years on average. Thus, any field observations of wetland hydrology gathered in three of every five years would be invalid. The Commission finds such a result unreasonable and contrary to common sense. In addition,

the Commission notes that the WETS approach relies on modeling rather than actual data and the results obtained are only as accurate as the data that is described. Therefore, rather than rely on modeling, the Commission chooses to rely on an analysis that is based on actual rainfall data for this site. It is also important to note that the WETS system was not developed for the purpose of determining in what years observations concerning ponding and soil moisture may reliably be made for wetland delineations. There is no suggestion in the Corps Manual that such a rule should be followed, and in fact the Corps certifies wetland delineations conducted in every month of every year in California. Thus, the Commission finds that the applicant's contention that 60 percent of years have abnormal rainfall is unreasonable for the purpose of determining whether soils have been inundated or saturated for sufficient duration to provide field indications of wetland hydrology or hydric soils.

For the foregoing reasons, the Commission finds that as conditioned, the proposed development is consistent with LCP Zoning Code Section 18.38.080 and LUP Policies 3-2, 3-3, 3-4, 3-9, 3-11, 3-12 and 3-22, and Coastal Act/LUP Policy 30233.

3.4 Environmentally Sensitive Habitat

Threatened or endangered species (red-legged frogs and San Francisco garter snakes), and raptors found in the project area may use the project site as habitat, particularly in the southeastern corner of the site. Given that the applicant is proposing to protect this corner of the site, and the conditions of approval above for the protection of wetlands further limit development in this area, as conditioned the project would not adversely affect environmentally sensitive habitat areas.

3.4.1 LCP Policies

Policies 3-2, 3-3, 3-4, 3-9, 3-11, 3-12 and 3-22 quoted in the previous section of this report require the protection of environmentally sensitive habitat areas. This section of the report addresses the project's impacts to rare, threatened and endangered species found in the project area. To assist in the implementation of these resource protection policies, the LCP provides:

Zoning Code Sec. 18.38.035 Biological Report.

A. When Required. The Planning Director shall require the applicant to submit a Biological Report, prior to development review, prepared by a qualified Biologist for any project located in or within 100 feet of any Sensitive Habitat Area, Riparian Corridor, Bluffs and Seacliff Areas, and any Wetland...

B. Report Contents. In addition to meeting the report requirements listed in Section 18.35.030, the Biological Report shall contain the following components:

1. Mapping of Coastal Resources. The Biological Report shall describe and map existing wild strawberry habitat on the site, existing sensitive habitats, riparian areas and wetlands located on or within 200 feet of the project site.

2. Description of Habitat Requirements.

a. For Rare and Endangered Species: a definition of the requirements of rare and endangered organisms, a discussion of animal predation and migration requirements, animal food, water, nesting or denning sites and reproduction, and the plant's life histories and soils, climate, and geographic requirements;

b. For Unique Species: a definition of the requirements of the unique organism; a discussion of animal food, water, nesting or denning sites and reproduction, predation, and migration requirements; and a description of the plants' life histories and soils, climate, and geographic requirements.

C. Distribution of Report. Any Biological Report prepared pursuant to this Title shall be distributed to the US Fish and Wildlife Service, the Army Corps of Engineers, the California Coastal Commission, the State Department of Fish and Game, the Regional Water Quality Control Board, and any other Federal or State agency with review authority over wetlands, riparian habitats, or water resources.

1. The Biological Report shall be transmitted to each agency with a request for comments from each agency with jurisdiction over the effected resource on the adequacy of the Report and any suggested mitigation measures deemed appropriate by the agency.

2. Included within the transmittal of the Biological Report to the various agencies shall be a request for comments to be transmitted to the Planning Director within 45 days of receiving the Report.

3.4.2 Discussion

LUP policy 3-3 and 3-5 and Zoning Code Section 18.15.035, quoted above, which implements these policies, require a Biologic Report to identify sensitive resources. The Biological Report for the locally approved project contains a report by Harding Lawson Associates, entitled *San Francisco Garter Snake Survey and Riparian Mitigation Plan, Beachwood Subdivision, Half Moon Bay*, which analyzes the habitat value of the site for the snake. However, this survey was performed in 1989 and did not include live trapping. The only survey of the site conducted for the San Francisco garter snake was prepared for the applicant and conducted in 1989 by Harding Lawson Associates. The Biological Report for the approved project did not include surveys for the red-legged frogs or raptors (other than a letter from a wildlife biologist that states that, in the biologist's opinion, the area does not support the red-legged frogs (biologist Jeffery B. Froke, Ph.D., March 10, 1999). The letter does not appear to be based on scientific surveys or trapping.) Thus, the conclusions of the biological report, with respect to the frog, were based on a simple walk through of the project site. There does not appear to be any detailed habitat surveys or attempts at identifying individual frogs. In addition, the U.S. Fish and Wildlife Service indicated that these species are extremely difficult to detect and that a simple transect survey is not sufficient to document the presence or absence of the snake (pers. com. Larson 6/16/00). A U.S. Fish and Wildlife Service letter (dated March 11, 1999, Exhibit 20) suggests the possibility of the site providing habitat for sensitive species:

Due to the presence of ponded water and chorus frogs, the Service suggests that a wetland delineation be conducted for the entire site. To avoid possible take of listed

> *species, the Service suggests that the developer hire a qualified biologist to conduct surveys for the red-legged frog and the garter snake.*

The Commission requested additional biological information from the applicant, because without a complete and up-to-date biological report, the Commission is unable determine if the project would affect these habitat resources or whether the project is consistent with the LCP's habitat policies.

In addition, the project site might provide habitat for raptors. The area includes open grasslands and tall eucalyptus trees that are suitable for raptor roosting and foraging. In addition, the site immediately east of the Beachwood property, the Ailanto subdivision, supports raptors. In its review of the coastal development permit for the Ailanto subdivision, in order to find the proposed project consistent with the standards of the certified LCP, the Commission required mitigation for impacts to those raptors. The Half Moon Bay LCP defines raptors as a unique species, and thus their habitat is an ESHA.

The applicant has responded with the following analysis supplementing its biological report. [21] The following discussion analyzes this supplemental information.

3.4.3 San Francisco Garter Snake

The San Francisco garter snake is a federal and state listed endangered species. The San Francisco garter snake's preferred habitat is densely vegetated ponds near open hillsides where it can sun itself, feed, and find cover in rodent burrows. The species is extremely shy, difficult to locate and capture, and quick to flee to water when disturbed. On the coast, the snake hibernates during winter in rodent burrows, and may spend the majority of the day during the active season in the same burrows.

California red-legged frogs are an essential prey species to the San Francisco garter snake, and the snakes have not typically been found in areas where red-legged frogs are absent. In addition, newborn and juvenile San Francisco garter snakes depend heavily on Pacific tree frogs. Adult snakes may also feed on juvenile bullfrogs. The decline of this species is due principally to habitat loss, the loss of red-legged frog, illegal collection, and the introduction of bullfrogs. Adult bullfrogs prey on both San Francisco garter snakes and California red-legged frogs.

According to the applicant's biologist, it is unlikely that the San Francisco garter snake occurs on the Beachwood site (Josselyn and Dreier, March 2001). Specifically, the applicant's biologist states the following:

> *San Francisco garter snakes are unlikely to occur at the artificial wetlands at the Beachwood site because:*
>
> - *The project site is not within the existing occupied range of the snake.*
> - *Existing habitat on site is unlikely to support San Francisco garter snakes.*

[21] The applicant also maintains that the U.S. Fish and Wildlife service letter quoted above (and attached as Exhibit __) was written in reference to a different project than the Beachwood project. However, the applicant does not explain the basis for this conclusion, and the report does appear to have been written directly about the Beachwood project.

- *Migration corridor to site is absent and there are numerous barriers to migration.*
- *Ranid frogs appear to be absent.*
- *Previous garter snake surveys and assessments in vicinity of project site suggest SFGS is not present.*

Even though the applicant suggests that the Beachwood site does not provide habitat for the San Francisco garter snake, the Commission remains concerned that the area may provide some habitat for the snake, especially the historic agricultural pond in the southeast portion of the site. The Commission recently approved a coastal development permit for a subdivision just east of the Beachwood site (Ailanto, A-1-HMB-022). In reviewing that permit, the Commission found that the site provides habitat for the San Francisco garter snake. Specifically the Commission found that:

> *The U.S. Fish and Wildlife Service Biological Opinion determined that the project site provides ... potential habitat for San Francisco garter snakes. Staff of the U.S. Fish and Wildlife Service indicates that documenting the presence of this species is extremely difficult to detect and that a simple transect survey is not sufficient to document the presence or absence of the snake (pers. com. Larson 6/16/00). Both the San Francisco garter snake and the California red-legged frog are extremely rare and shy and quickly seek cover when approached. This position is supported by the findings contained in Balfour's January 15, 2001 report, as cited above.*

Based on the Fish and Wildlife Service's analysis, the Commission found the Ailanto property to provide habitat for this endangered species and found that these suitable areas are environmentally sensitive habitat areas (ESHA). Based on the information provided by the applicant, the habitat on the Beachwood site is not likely to provide habitat for the San Francisco garter snake. However, the Commission is concerned over any potential habitat losses, even if the area provides only marginal habitat. In its Biological Opinion for the Ailanto project, the Service stated that loss of habitat was one of the primary threats that lead to the listing of the San Francisco garter snake (USFWS, 1998). The pond on the Beachwood site provides, at a minimum, potential habitat for the snake. Because the snake is reclusive, it is possible that they are using this area even though it has not been identified on site. Therefore, because of its potential value for this species and its proximity to other potential snake habitat, the Commission finds the pond to be ESHA for the San Francisco garter snake.

3.4.4 California Red-legged Frog

The California red-legged frog is a federally listed threatened species. California red-legged frogs have been extirpated or nearly extirpated from over 70 percent of their former range and are federally listed as threatened. Habitat loss, competition with and direct predation by exotic species, and encroachment of development are the primary causes for the decline of this species throughout its range. The remaining populations are primarily in central coastal California and are found in aquatic areas that support substantial riparian and aquatic vegetation and lack non-native predators. The project site is located within the Central Coast Range Recovery Unit for the California red-legged frog as defined in the federal listing for this species.

As part of the Biological Report for the proposed project, the applicant concludes that habitat on the Beachwood site is not suitable breeding habitat for the frog. The primary constituent

elements for the frogs include suitable aquatic habitat, associated uplands, and suitable dispersal habitat connecting suitable aquatic habitats. The applicant's biologist submitted a habitat assessment for the California red-legged frog. The biologist concluded that the Beachwood site, in particular the agricultural pond, does not provide suitable aquatic or upland habitat, but does provide suitable dispersal habitat (Josselyn and Dreier, 2001). The biologist concluded that the pond is not suitable aquatic habitat because it probably does not provide sufficient ponding duration to support full metamorphosis, which is defined as slow or ponded water with a depth of eight inches during the entire tadpole rearing season (at least March through July). In addition, the adult frogs require deep aquatic habitat, which the Service defines as greater than 0.7 meters (Federal Register, 1996). Therefore, the Commission agrees that the shallow agricultural pond is unlikely to provide breeding habitat for the California red-legged frog.

However, the Commission disagrees with the biologists conclusion that the area does not provide suitable upland habitat. The applicants California red-legged frog habitat assessment defines the frog estivation habitat as limited to mammal burrows, and then states that the site has been regularly disturbed by rough grading and implies that there are no mammal burrows on site (Josselyn and Dreier, March 2001). First, the site was last graded *** years ago and it is very likely that mammals have made burrows in the area. The applicant's own raptor survey states the following:

> *The project site contains populations of small mammals and snakes: several California meadow voles (Microtus califonicus) and common garter snakes (Thamnophis sirtalis) were seen during the surveys. Although the hawks were not seen actively foraging over the project site during our field visits, there is a suitable prey base for foraging.* (Wetland Research Associates, Inc., July 2001.)

This seems to indicate that there is a large mammal population (at least large enough to support raptor foraging) on the site and would also indicate that there are mammal burrows to support frog estivation. In addition, the Commission disagrees with the conclusion that the estivation habitat is limited to mammal burrows. In listing the California red-legged frog, the Service described the frog's estivation habitat as follows:

> *California red-legged frogs estivate in small mammal burrows* ***and moist leaf litter*** *(Jennings and Hayes 1994b).* (emphasis added, Federal Register, 1998.)

The area near the pond contains several eucalyptus trees that would likely provide leaf litter. Additionally, a storm drain for the Terrace Avenue assessment district drains areas east of the project site. Drainage water ponds in this area, some of which has been identified as wetlands. Additionally there are several ponds located on the adjacent Ailanto property that have been identified by the Service as suitable California red-legged frog habitat. The Commission subsequently found these ponds to be ESHAs because of their value as California red-legged frog habitat. The closest pond is 0.3 of a mile from the Beachwood pond, well within the area a frog would move to. The applicant's frog habitat also identifies the area as suitable dispersal habitat. Therefore, the Commission finds that the agricultural pond on the project site is likely to support California red-legged frog and is an ESHA.

3.4.5 Raptors and Other Sensitive Species

The Half Moon Bay LCP identifies raptors as a unique species, and its habitat is a type of ESHA pursuant to the LCP. In response to the Commission's request, the applicant conducted a raptor

survey of the site and identified a possible red-tailed hawk nest within the site and a great horned owl nest adjacent to the site (Wetland Research Associates, Inc., July 2001.) As described above, they also identified suitable raptor foraging habitat on site. The raptor nests are located on the southeast corner of the site, near the agricultural pond and other identified wetlands.

3.4.6 Conclusion

While the applicant maintains the project site does not provide suitable San Francisco garter snake or red-legged frog habitat, the Commission believes, for the reasons stated above, that at least the southeast corner of the site provides habitat or potential habitat for these species. The applicant is proposing a 100 feet buffer from the acknowledged wetlands in the southeast corner of the site. As conditioned to further limit development to the western portion of the site to protect wetlands, these species are afforded further protection. Therefore, as conditioned, to protect wetland impacts and limit development to the western portion of the site (the area least likely to contain suitable ESHA habitat), the Commission finds the project, as conditioned, complies with the ESHA policies of the City's LCP.

3.5 Traffic and Public Access

The Commission requires the applicant to retire the development rights of 24 existing legal lots in the Mid-Coast Region to offset the significant adverse cumulative impacts of the proposed subdivision to coastal access due to increased traffic congestion on Highways 1 and 92.

3.5.1 Issue Summary

Road access to the Mid-Coast region of San Mateo County including the City of Half Moon Bay and the portion of the California coast within this region is limited to Highways 1 and 92. Studies show that the current volume of traffic on these highways exceeds their capacity and that even with substantial investment in transit and highway improvements, congestion will only get worse in the future. As a result, the level of service on the highways at numerous bottleneck sections is currently and will in the future continue to be rated as LOS F[22]. LOS F is defined as heavily congested flow with traffic demand exceeding capacity resulting in stopped traffic and long delays. This level of service rating system is used to describe the operation of both transportation corridors as well as specific intersections. LOS F conditions are currently experienced at certain intersections and at bottleneck sections of both highways during both the weekday PM peak-hour commuter period and during the weekend mid-day peak. The LCP contains policies that protect the public's ability to access the coast. Because there are no alternative access routes to and along the coastline in this area of the coast, the extreme traffic congestion on Highways 1 and 92 significantly interferes with the public's ability to access the area's substantial public beaches and other visitor serving coastal resources in conflict with these policies.

[22] Traffic analysis is commonly undertaken using the level of service rating method. The level of service rating is a qualitative description of the operational conditions along roadways and within intersections. Level of service is reported using an A through F letter system to describe travel delay and congestion. Level of service (LOS) A indicates free-flowing conditions. LOS E indicates the maximum capacity condition with significant congestion and delays. A LOS F rating indicates traffic that exceeds operational capacity with unacceptable delays and congestion.

Without any new subdivisions, there are approximately 2,500 existing undeveloped small lots within the City. Each of these lots could potentially be developed with at least one single-family residence. Even with the City's Measure A 3-percent residential growth restriction in place, this buildout level could be reached by 2010. If the Measure D one percent growth restriction approved by Half Moon Bay voters in November 1999 is implemented through an amendment to the LCP (litigation challenging the measure is currently pending), the rate of buildout would be slowed, but neither of these growth rate restrictions change the ultimate buildout level allowed.

In addition to the fact that capacity increases to the highways are constrained both legally and physically, there is a significant imbalance between housing supply and jobs throughout the region. The County's Congestion Management Plan (CMP) concludes that a major factor contributing to existing and future traffic congestion throughout the County is the imbalance between the job supply and housing (CCAG 1998). In most areas of the County, the problem is caused by a shortage of housing near the job centers, resulting in workers commuting long distances from outside the County. In these areas, the CMP recommends general plan and zoning changes designed to increase the housing supply near the job centers of the County. In the Mid-Coast area of the County however, the problem is reversed. In accordance with the projections contained in the CMP, buildout of the currently existing lots within the City of Half Moon Bay would exceed the housing supply needed to support jobs in the area by approximately 2,200 units, contributing to significantly worse congestion on the area's highways. Simply put, the capacity of the regional transportation network cannot feasibly be increased to the level necessary to meet the demand created by the development potentially allowable under the City and the County land use plans.

The most recent Countywide Transportation Plan predicts far greater congestion on these two corridors by 2010, stating "in 2010 the most congested corridor [in San Mateo County] will be Western 92" (C/CAG 2000). This report projects increases in the traffic volumes of 197- and 218-percent on Highways 1 and 92 respectively in the Mid-Coast region, and attributes these increases to "the anticipated levels of new development on the Coastside and the continued pattern of Coastsiders out-commuting to jobs in San Francisco and on the Bayside." This latest report serves to corroborate and underscore the findings of all of the previous traffic studies conducted in the region over the past three decades that Highways 1 and 92 in the Mid-Coast Region are not adequate to serve either the current or the expected future demands of development.

The Half Moon Bay LCP specifies that new development shall not be permitted in the absence of adequate infrastructure including roads. LUP Policy 9-2 states in relevant part:

> ***No permit for development shall be issued unless a finding is made that such development** will be served upon completion with water, sewer, schools, and **road facilities**...* [Emphasis added.]

LUP Policy 9-4 states in relevant part:

> *Prior to issuance of a development permit, the Planning Commission or City Council shall make the finding that adequate services and resources are available to serve the proposed development... **Lack of available services or resources shall be grounds for denial of the project or reduction in the density otherwise indicated in the land use plan.*** [Emphasis added.]

LUP Policy 10-4 states:

> *The City shall reserve public works capacity for land uses given priority by the Plan, in order to assure that all available public works capacity is not consumed by other development and control the rate of new development permitted in the City to avoid overloading of public works and services.*

The LCP also adopts Coastal Act Section 30252 as a guiding policy, which states in relevant part:

> *The location and amount of new development should maintain and enhance public access to the coast....*

In light of the inescapable fact that there is not adequate highway capacity to serve even the existing level of development in the region, the question that is squarely before the Commission in considering the proposed subdivision is whether the applicant's request to create 77 new legal lots can be permitted consistent with the certified LCP policies. Because there are no alternative access routes to and along the coastline in this area of the coast, the extreme traffic congestion on Highways 1 and 92 significantly interferes with the public's ability to access the area's substantial public beaches and other visitor serving coastal resources in conflict with these policies. The Commission finds that any increase in legal lots in the Mid-Coast Region will result in significant adverse project-specific and cumulative impacts to public access, and would therefore be inconsistent with the Half Moon Bay LCP. However, although the Commission could deny the proposed subdivision because it is inconsistent with certified LCP policies, the significant adverse cumulative impacts to highway congestion and public access to and along the coast in the Mid-Coast region of San Mateo County associated with new residential subdivisions can be offset by retiring the development rights on existing legal lots in the region equivalent to the number of new lots being created.

The applicant has proposed to minimize the impacts of the proposed development to area traffic through several measures (Exhibit 11), including: (1) improving the intersection of Highway 1 and Bayview Drive, including widening Highway 1 with right turn lanes out of and into the Beachwood subdivision (and including possible "fair share" costs along with nearby subdividers of a traffic signal light at Highway 1 and Bayview Dr., at such time Caltrans considers such signal necessary), in accordance with City and Caltrans standards; (2) payment of "standard traffic mitigation fees; (3) prohibiting driveway access directly to Bayview Dr.; (4) that curbs, gutters, sidewalks and street lights shall be designed in accordance with City standards payment of funding to install a traffic signal on Highway 1 where it intersects with the access road proposed to the development and to widen an 800-foot portion of Highway 1 near this intersection.

The applicant's transportation consultant has provided data showing that existing conditions are that Highway 1 and Bayview, Highway 1 and Grandview, and Highway 1 and Route 92, already operate at LOS F during weekday and weekend peak periods. The consultant further states the project's impacts would be less than significant (significance is defined as LOS changes of < 0.02%), assuming highway and intersection improvements contemplated by the City, one of which is the construction of Foothill Blvd. These transportation improvements, however, would likely be constructed in any event, although if the applicant provides funding, it may accelerate their implementation. Also, the infrastructure improvements the applicant proposed are all in Half Moon Bay, and so these local improvements would not mitigate the project's impacts on

congestion outside of the city limits at all. The regional project-specific and cumulative impacts, which impede public access to the coast, are of greater concern than impacts that are limited to Half Moon Bay.

Although the applicant has proposed to mitigate their traffic impacts through the provision of an in-lieu fee, the applicant has not demonstrated that these funds would be spent in a manner that would in any way lessen the traffic impacts of the project or offset the significant adverse cumulative impacts of anticipated development to coastal access. In fact, the regional transportation studies demonstrate that no level of investment in transportation system improvements is adequate to avoid increased congestion on Mid-Coast Highways 1 and 92. The San Mateo County Countywide Transportation Plan shows that even with the maximum investment of $3.2 billion in highway and transit improvements, the regional level of service on Highways 1 and 92 will be significantly worse by 2010 than the current levels.

The regional transportation studies conducted over the last 20 plus years clearly and consistently demonstrate that the area highways cannot support the current level of development and that anticipated growth will result in even greater traffic congestion despite billions of dollars of transportation system expenditures. Therefore, the Commission finds that adequate infrastructure is not available to serve the proposed development, as required by the Half Moon Bay LCP and that the mitigation proposed by the applicant is inadequate to offset these impacts. Furthermore, the Commission finds that the regional cumulative traffic impacts of the proposed development would significantly interfere with the public's ability to access the coast, in conflict with Coastal Act Policies 30210, 30250(a) and 30252, all of which are incorporated as policies of the certified Half Moon Bay LUP. Accordingly, the proposed development could be denied. As an alternative to denial, and as discussed further below, the Commission concludes that a condition requiring the proportional retirement of lots in the Mid-Coast region is essential to achieve consistency of the project with the Half Moon Bay LCP and therefore imposes Special Condition __requiring the applicant to extinguish the development rights on the number of existing legal lots in the San Mateo County Mid-Coast region equivalent to the number of new lots created consistent with the wetland protection provisions identified above. Only by conditioning the permit to require the applicant to retire existing legal lots to offset the growth related to the proposed creation of new lots can the Commission find the proposed development consistent with the Half Moon Bay LCP.

3.5.2 LCP Standards

The LCP allows new development only if road and other services are adequate.

The City of Half Moon Bay LCP contains policies requiring adequate road capacity to serve new development and to minimize impacts of development to traffic on Highways 1 and 92. LUP Policy 9-2 specifies that new development shall not be permitted unless it is found that the development will be served upon completion with road facilities. LUP Policy 9-4 requires that development shall be served with adequate services and that lack of adequate services shall be grounds for denial of a development permit or reduction in the density otherwise allowed under the LUP. Policy 10-4 states that the City shall reserve public works capacity for priority land uses including public access and recreation from consumption by other non-priority uses such as residential development. LUP Policy 10-25 designates LOS C as the desired level of service on

Highways 1 and 92 except during the weekday and weekend peak-hours when LOS E may be accepted.

In addition, pursuant to LUP Policy 1-1, the City has adopted the Chapter 3 policies of the Coastal Act as the guiding policies of the LUP. Accordingly, the City's LUP adopts Coastal Act Sections 30210, 30250 and 30252, which also require that development shall not interfere with the public's ability to access the coast and shall only be approved in areas with adequate public services.

3.5.3 Regional Transportation Setting

Road access to Half Moon Bay and the San Mateo County Mid-Coast region is already overwhelmed and capacity increases are severely constrained.

The City of Half Moon Bay and its coastline can only be accessed via Highway 1 from the north and south and by Highway 92 from the east (Exhibits 1 & 22). Capacity increases to these roadways are constrained both legally and physically.

Highway 1 Corridor

Coastal Act Section 30254 states that it is the intent of the legislature that in rural areas, Highway 1 shall remain a scenic two-lane road. This Coastal Act policy is implemented through the San Mateo County LCP both to the north and to the south of the City, outside the City Limits.

The Highway 1 corridor is currently overwhelmed at peak times. The maximum capacity of the Highway 1 corridor (LOS E)[23] is approximately 2,500 vehicles per hour. Any volume greater than 2,500 vehicles per hour is considered an undesirable level of service F. Currently, the corridor carries approximately 3,120 vehicles during the weekday PM peak-hour and 3,000 vehicles during the Saturday midday peak-hour. Thus, the corridor operates at LOS F at these times.

While the corridor may be improved in the future, the potential for increased capacity is limited, especially outside of Half Moon Bay. Approximately 10 miles north of the City, in San Mateo County, Highway 1 passes through the "Devil's Slide" area, where landslides cause frequent interruptions and occasional closures during the rainy season. Caltrans is currently seeking necessary approvals to construct a tunnel to by-pass Devil's Slide. While the tunnel will improve operations of the highway in the section by preventing slide-related delays and closures, the width of the tunnel will only allow one lane in each direction consistent with Coastal Act Section 30254. Construction of additional lanes to provide additional capacity is therefore not an option in the Devil's Slide area. (The Coastal Commission approved San Mateo County LCP Amendment 1-96 on January 9, 1997 providing for the tunnel alternative.)

The Highway 1 right-of-way provides sufficient width for a four-lane roadway throughout the City of Half Moon Bay. South of Miramontes Point Road, Highway 1 has a rural character with one lane and a graded shoulder in each direction. It varies in width between two and four lanes between Miramontes Point Road and Kelly Avenue. North of Kelly Avenue, it includes two lanes in each direction separated by a raised median before returning to one lane in each direction north of North Main Street. The intersections of Highway 1 with North Main Street,

[23] See Footnote 1

Highway 92, and Kelly Avenue are controlled with traffic signals. The intersections of Highway 1 with minor roadways, including the proposed project site access Terrace Avenue, are controlled with stop signs on the minor street approaches. The roadway widens at unsignalized intersections to accommodate a 12-foot left turn lane. However, because of the heavy traffic congestion on Highway 1 during peak hours, significant delays occur for left turn movements into and out of these unsignalized minor street intersections.

In the beginning of the year 2000, the City began drafting a Project Study Report (PSR) for submittal to Caltrans to study an approximately $3 million improvement plan for the approximately 3,000-foot section of Highway 1 between North Main Street and Kehoe Avenue. On June 20, 2000, the City Council considered eight alternatives for this improvement project. The improvements contemplated included widening the remaining two-lane portions of this section of the highway to four lanes, consolidating intersections, and improving bicycle and pedestrian safety. Under this plan, Bayview Drive would serve as the consolidated, arterial street to serve the existing and planned neighborhoods in this area of the City inland of Highway 1 with a signalized intersection. The other intersections north of North Main would remain unsignalized and restricted to right turning traffic. The City anticipated that the San Mateo County Transportation Authority (SMCTA) would provide substantial funding for these improvements.

The City recently began studies to determine if signal warrants are met for the currently unsignalized Highway 1 intersections at Grandview Avenue, Roosevelt Boulevard, Mirada Road, and Filbert Street. Caltrans recently determined that a signal is warranted at the Ruisseau Francaise/Highway 1 intersection.

Highway 92 Corridor

Highway 92 runs east of the City to Highway 280 traversing steep rugged terrain. Here too, there is some potential for increased capacity within Half Moon Bay, but there is little basis for concluding that the severe congestion outside of the city will be alleviated. Because of the steep slopes, slow-moving vehicles delay eastbound traffic. In accordance with the LUP, the capacity of this highway is 1,400 vehicles per hour (in each direction of travel). Currently, the Highway 92 corridor carries approximately 1,976 vehicles during the weekday PM peak-hour and 1,800 vehicles during the Saturday midday peak-hour. Given the characteristics of this roadway, including its steep slopes and curves, this traffic volume results in levels of service F during the weekday peak and nearly F during the weekend peak.

In 1989, the voters of San Mateo County passed Measure A, a 1/2 cent sales tax initiative to provide funds for transportation improvements within the County.[24] Operational and safety improvements to Highway 92 from Highway 1 to Highway 280 were included as part of the Measure A program. Improvements were subsequently divided into four separate construction packages. Construction was recently completed on the first segment to go into construction, the section of Highway 1 from Pilarcitos Creek south of the City to Skyline Boulevard (Highway 35). The other three segments include Highway 92 improvements within the City and in the

[24] Unrelated to the City of Half Moon Bay Residential Growth Initiative also known as Measure A.

County area east of the City limit. This project has been divided into two phases. The City will construct Phase 1 and the SMCTA will construct Phase 2.

Phase 1 of the Half Moon Bay Highway 92 improvement project addresses the western segment of the highway within the City. The Phase 1 improvements include widening portions of Highway 92 from two to four lanes, intersection improvements, and improved bicycle and pedestrian safety . The City will enter into a cooperative agreement with Caltrans for final design and construction for the Phase 1 project. In 1998, the City entered into an agreement with the SMCTA for additional funding for the Phase 1 portion of the project. Funding for Phase 1 includes $3.97 million from the State, $4.92 million from SCMTA and $0.82 million from the City. The City expects to complete Phase 1 by 2002.

Phase 2 follows Highway 92 from approximately 2,230 feet east of Main Street to the City limit line and will be constructed by the SCMTA. Phase 2 will include widening the remaining portion of the highway to the City limit line to provide one standard 12-foot lane and an 8-foot outside shoulder in each direction.

The Phase 1 and 2 improvements will improve traffic flow along this segment within the City consistent with the Circulation Element of the City's General Plan. The improvements will not, however, improve the bottlenecks on Highway 92 east of the City that interfere with the public's ability to access the coast from inland areas. On May 11, 2000, the City Planning Commission certified a mitigated negative declaration (MND) and approved a coastal development permit for the Phase 1 Highway 92 improvements within the City. The MND finds that the project will bring this portion of the Highway 92 corridor within the City Limits to an acceptable level of service under the LCP (LOS C or better). The Planning Commission's approval of this project was appealed to the City Council. The City Council rejected the appeal, granting the final local approval for the project on July 16, 2000. The City's approval was not appealed to the Coastal Commission.

Construction was recently completed of an uphill-passing lane on the segment of Highway 92 east of the City. In addition, the SCMTA is preparing plans for a widening and curve correction project from Pilarcitos Creek to the proposed Foothill Boulevard. This project will include widening of existing lanes and curve corrections to improve safety, but the steep and rugged terrain and proximity to stream corridors prohibit widening the roadway to provide additional lanes east of the City Limits. Thus, while the proposed lane widening and curve corrections will improve the flow of traffic through this corridor, it is not feasible to increase capacity through further lane additions to the segment of Highway 92 between the City limit line and Highway 280 to the east.

3.5.4 Regional Growth Projections

Regional growth projections for Half Moon Bay and the San Mateo County Mid-Coast region predict growth that will exceed the capacity of the transportation system.

Cumulative impact analysis is based on an assessment of project impacts combined with other projects causing related impacts (14 CCR § 15355). In accordance with CEQA, cumulative impact analysis must consider reasonably foreseeable future projects or activities. The CEQA guidelines identify two sources of data that can be consulted for the purpose of evaluating the significant cumulative impacts of development (14 CCR § 15130(b)):

(1) Either:

(A) A list of past, present and probable future projects producing related or cumulative impacts, including those projects outside the control of the agency, or

(B) A summary of projections contained in an adopted general or related planning document or in a prior environmental document which has been adopted or certified, which describes or evaluates regional or area wide conditions contributing to the cumulative impact. [Emphasis added.]

The applicant's traffic study (Sept. 25, 1998, TKJM Consultants) is based on a list of the following projects to project future development for its assessment of cumulative project impacts to traffic (list obtained from Draft EIR for Coastside Community Park):

Glencree – a 46 unit subdivision directly to the north of the project site;

Dykstra Ranch/Pacific Ridge Subdivision – estimated at 216 units

Carter Hill, a 48 unit subdivision south of Terrace Ave and east of Foothill Blvd.

Coastside Community Park, a community park.

The study estimates these projects would add 4,860 additional weekday trips, 821 of which would be peak hour, and 5,541 weekend trips (705 peak hour). Again, the study concludes the project's impacts would be less than significant (significance is defined as LOS changes of < 0.02%). The study therefore recommends no additional mitigation measures (including signalization) beyond widening of Highway 1 to accommodate left and right turn lanes to and from the subdivision, which the study states were constructed in 1996.

However, the applicant's transportation consultant did not include all of the projects required to be considered in compiling a list of past, present, and probable future projects under CEQA. The CEQA Guidelines provide (14 CCR § 15130(b)):

> *"Probable future projects" may be limited to... projects included in an adopted capital improvements program, general plan, regional transportation plan, or other similar plan...* [Emphasis added.]

The list of past, present, and probable future projects used for the applicant's transportation analysis is incomplete, and underestimates future growth because not all projects identified in the City and County General Plans and the San Mateo County Countywide Transportation Plan have been included. (14 CCR § 15130(b) and 15130(b)(1)(A). The list of probable future projects does not include the future development of sites specifically identified in the land use plans, such as the subdivision and development of the Surf Beach/Dunes Beach Planned Unit Development District, which is zoned for a 150-unit subdivision. CEQA Regulation Section 15130(b)(1)(B) provides an alternative method to determine the impacts of other projects causing related impacts that relies on adopted planning documents. This method also supports the use of the Half Moon Bay and San Mateo County LCPs and the San Mateo County Countywide Transportation Plan as the relevant planning documents for the purpose of assessing the potential cumulative impacts of the proposed development. The housing supply growth projections contained in these planning documents are addressed below.

Land Use Plans

The San Mateo County and Half Moon Bay Land Use Plans specify the approximate number of households in the Mid-Coast region if maximum potential buildout occurs. Buildout refers to the point in time when all developable lots have been developed. These projections are based on current zoning and available lots. The area contains a large number of undeveloped lots in existing "paper subdivisions" dating back to the early 20th Century. The LUPs do not fully account for the development of these lots because an accurate count of the number of developable lots in these paper subdivisions does not exist. As a result, the maximum potential buildout levels may be underestimated, particularly in the County.

Half Moon Bay LUP Table 1.1 *Maximum Housing and Population, Half Moon Bay Land Use Plan* shows the City at 3,612 existing units as of 1992, growing to full buildout of 7,991-8,071 households by 2020. These projections are based on a 3-percent annual growth rate consistent with the City's certified LCP Measure A growth restriction and a ratio of 2.6 persons per household.

The San Mateo County LUP estimates the buildout population for the rural and urban Mid-Coast area north of Half Moon Bay at 17,085 persons, and for the south of the City (South Coast) at 5,000 persons (LUP Table 2.21 *Estimated Buildout Population of LCP Land Use Plan*). The LUP does not estimate the number of households that these population levels would reflect. Using the same ratio of 2.6 persons to household used for the City's LUP, the County buildout levels expressed in numbers of households is 6,571 for the Mid-Coast and 1,923 for the South Coast. There are no annual residential growth restrictions in the County Mid-Coast and South Coast planning areas located outside the City of Half Moon Bay.

San Mateo County Countywide Transportation Plan

In June 1997, the City/County Association of Governments of San Mateo County (CCAG) published the second edition of the San Mateo County Countywide Transportation Plan Alternatives Report (CCAG 1997). The CTPAR analyzes land and transportation alternatives for cities, the County and transportation agencies to consider as the basis for the development of future land use and transportation development policy. The study consists of four major components: (1) a Travel Demand Forecasting Model which predicts how people travel and what impacts those trips have on the County's transportation system, (2) a Land Use Information System (LUIS) which provides existing and projected numbers of households and jobs for each transportation analysis zone, (3) five land use scenarios to assess how different land use densities and patterns affect travel demand and mode, and (4) eighteen transportation scenarios to test how well additive groups of projects relieve congestion.

The LUIS was developed specifically for the purpose of analyzing potential impacts of future development and job growth on the County's transportation network. The LUIS is based on information provided from each local jurisdiction, including up to date information on recently completed projects, projects under construction, proposed projects, and the supply of potential development sites (including new subdivisions) and in-fill areas.

The five land use scenarios in the CTPAR are: (1) Base Case 2010, (2) General Plan Buildout, (3) Economic Development, (4) Urban Reuse/Opportunity Areas, and (5) Reduced Growth. The sources used to develop the different scenarios include the LUIS, ABAG Projections '94, data

provided by local jurisdictions, San Francisco International Airport Master Plan Final EIR, and Economic & Planning Systems, Inc.

The Base Case 2010 Scenario projects the addition of 2,555 new households will be constructed in Half Moon Bay between 1990 and 2010 for a total of 5,692 households in the City. The scenario predicts 1,798 new households for this period in the unincorporated Mid-Coast region reaching a total of 5,367 by 2010. The growth forecasts for this scenario were specifically derived from planned development and vacant land capacity information provided by local jurisdictions.

The General Plan Buildout Scenario projects the buildout for Half Moon Bay as 7,196 total households, an increase of 4,059 units from the 3,137 units existing in 1990. Buildout for the unincorporated Mid Coast is projected as 5,367 households. The growth projections for this scenario are based on local jurisdictions' future land use designations, estimates of residential development and infill capacity and projected absorption to buildout.

The Economic Development Scenario is designed to test the effects of providing increased housing in the job center areas of the County above the level projected under the base case. This scenario reflects the addition of a total of 50,000 new households in the County by 2010, which is 18,000 more than the level projected by the Base Case 2010 Scenario. Through rezoning and redevelopment, new housing above the existing General Plan buildout levels would be provided in every subregional planning area *except* Half Moon Bay and the unincorporated Mid Coast. Under the Economic Development Scenario, the change in housing supply in these two coastal planning areas for the period between 1990 and 2010 would be reduced from the Base Case projections by 63-percent in the City and by 87-percent in the unincorporated areas. The number of households in 2010 would be reduced in this scenario to 4,087 in the City and 3,811 in the unincorporated area to reduce the traffic congestion caused by the oversupply of housing in this area.

The Urban Reuse/Opportunity Areas Scenario is designed to determine the effect of increasing land use densities in strategic areas. "Opportunity Areas" for this scenario are defined as areas that can support intensified development. This scenario assumes 8,000 more households in Opportunity Areas than in the Base Case. This scenario, like the Economic Development Scenario, provides for increased housing development above the Base Case level in all planning subregions except for Half Moon Bay and the unincorporated Mid-Coast. This scenario projects the total number of households by 2010 as 3,958 in the City and 3,811 in the unincorporated area, representing 68-percent and 87-percent reductions in growth from that projected by the Base Case.

The Reduced Growth Scenario assumes reductions in both the increases in housing supply and employment. Key to this scenario is the assumption that job growth will be limited proportional to new households. This scenario projects the total number of households by 2010 as 3,958 in the City and 3,811 in the unincorporated Mid-Coast area – the same levels as the Urban Reuse Scenario.

Discussion – Regional Growth Projections

The growth projections assumed for the applicant's cumulative impact analysis are significantly lower than those contained in both the relevant general plans/land use plans and in the regional transportation plan.

Table 1 below compares the buildout data contained in the LCPs updated with U.S. Census and California Department of Finance data to make it comparable to the information presented in the applicant's studies, the CTPAR, and the applicant's cumulative impact analysis (Sept. 25, 1998, TKJM Consultants).

TABLE 1

Additional Housing Units after 2000					
Source	LCP 2010	LCP Buildout	CTPAR 2010	CTPAR Buildout	Applicant's study
Half Moon Bay	2,195	4,117	1,738	3,242	310
San Mateo Co. Mid-Coast	not available	3,438	1,679	1,679	0

HOUSING UNIT GROWTH PROJECTIONS

***Estimated levels based on update of 1990 levels using U.S. Census and California Department of Finance data.**

The discrepancy between the buildout projections in the major planning documents for the region and the assumptions used in the applicant's traffic studies profoundly affect the results of the cumulative impact analysis for the project. Using either the LCP or the CTPAR evidences greater congestion and lower levels of service at buildout in all the locations addressed in the TKJM Consultants report.

3.5.5 Traffic Impacts and Volume Projections

Traffic already exceeds the capacity of area highways, and will become a greater concern in the future. The proposed development will contribute to the problem.

Assessment of the post-construction traffic impacts of the proposed development, once single family homes are developed, is based on estimated vehicle trip rates for an 83-unit development. (Note that the applicant subsequently revised their coastal development permit application to apply for a 77 unit development. Accordingly, the figures identified below would be lower.) The development will generate 794 weekday trips (84 peak hour trips) and 837 weekend day trips (78 peak hour) during the Saturday noon peak-hour (TKJM Consultants - Appendix B).

Cumulative, the study estimates these projects would add 4,860 additional weekday trips, 821 of which would be peak hour, and 5,541 weekend trips (705 peak hour). Again, the study concludes the project's impacts would be less than significant (significance is defined as LOS changes of < 0.02%). The study therefore recommends no additional mitigation measures (including signalization) beyond widening of Highway 1 to accommodate left and right turn lanes to and from the subdivision, which the study states were constructed in 1996.

Using these cumulative traffic increase forecasts, the applicant's transportation consultant reaches the following conclusions. If all of the Highway 1 and 92 improvements described above are constructed, all intersections on Highway 1 north of North Main Street and Highway 92 between Highway 1 and [proposed] Foothill Boulevard would operate at acceptable levels of service LOS A-D, and the project would not therefore result in significant cumulative traffic impacts.

The applicant's analysis shows that without the roadway improvements, all of the Highway 1 intersections would operate at LOS F. However, these impacts are dismissed as less than significant, both individually and cumulatively, defined as representing less than 0.02% of an increase in traffic congestion. This assumption ignores the concept of cumulative impact, wherein individual increases may appear small but cumulatively adverse and significant. Moreover, as discussed above, the growth projections used for the applicant's cumulative impact analysis does not comport with either of the methods to calculate cumulative impacts that are identified in CEQA. Based on the allowable buildout under the Half Moon Bay and San Mateo County LUPs, future traffic volumes are projected to be much greater than those used in the applicant's traffic analysis. Thus, the conclusions reached in the applicant's analysis regarding the cumulative impacts of the development on traffic seriously underestimate future growth because all probable future projects as defined by CEQA have not been included. The Commission finds that even with these improvements, congestion of the roads, far greater than the amount considered acceptable in the City's LCP, will continue to increase, both in Half Moon Bay and the region.

Countywide Transportation Plan Traffic Projections

The CTPAR considers eighteen transportation scenarios to test how well additive groups of projects relieve congestion. Six primary transportation scenarios were developed to test the effects to regional traffic congestion of additive groups of transportation improvement projects cumulatively. Twelve secondary transportation scenarios were developed to allow more detailed analysis of improvements to a single transportation mode. For purposes of evaluating the potential cumulative impacts of the proposed development, the Commission assumes the maximum level of transportation improvements considered under the CTPAR as described in Transportation Scenario 6c.

CTPAR Transportation Scenario 6c assumes that all contemplated highway and transit improvements throughout the County are constructed, including the Devil's Slide bypass, Highway 92 widening and intersection improvements within Half Moon Bay, curve corrections, shoulder widening, slow vehicle passing lane for the section of Highway 92 east of Half Moon Bay to Highway 280, and public transit improvements to Caltrain, BART, and bus services. The CTPAR does not consider transportation improvement projects that are not planned or programmed such as widening and/or intersection improvements to Highway 1 within the Half Moon Bay City Limits.

The CTPAR combines the five land use and eighteen transportation scenarios to test a total of nine primary and 14 secondary alternatives to test the effects of various combinations of land use and transportation scenarios using the Travel Demand Forecasting Model. The Travel Demand Forecasting Model was developed using interactive transportation planning software to be consistent with the Metropolitan Transportation Commission's (MTC) regional travel demand forecasting model. The model consists of four main components: (1) trip generation, (2) trip distribution, (3) modal split, and (4) trip assignment. These are the typical components found in models designed to simulate travel demand based on different assumptions about land use, demographics and transportation system characteristics. The modal split component of the model was refined in 1994 and 1995 to provide a finer level of detail than the MTC model.

The nine primary alternatives analyze transportation improvements under different land use assumptions that impact all modes of transportation. The secondary alternatives assess the effects of improvements that impact only one transportation mode. Primary Alternative 6c combines Transportation Scenario 6c (maximum improvements) with the Land Use Scenario 1 (Base Case 2010). This transportation scenario is intended to show the congestion levels that will exist in 2010, even with $3.2 billion in transportation system improvements and without substantial land use and zoning changes.

Exhibit 21 shows the projected year 2010 volume to capacity (v/c) ratios during the PM peak-hour on Highways 1 and 92 under Alternative 6c. A v/c ratio of greater than 1.00 is the equivalent to LOS F. As shown in Exhibit 21, significant portions of Highway 1 north of Highway 92 will operate at v/c ratios in excess of 1.00 in both the north and southbound directions, including most of the City of Half Moon Bay. The PM peak-hour v/c ratio for westbound Highway 92 is projected under Scenario 6c to exceed 2.00 for most of the corridor east of the City to Highway 280. Thus, the CTPAR shows that even with the maximum level of transportation system investment, traffic volumes on both highways is projected to be far in excess of capacity, if residential and commercial development proceed as projected, within the limits of the City and County LCPs. It is also important to note that the Base Case 2010 land use scenario used for this alternative assumes less growth than the level allowable under the City and County LCPs and under Half Moon Bay's Measure A growth limits.

Growth Restrictions

LUP Policy 9.4, Residential Growth Limitation, limits the number of new dwelling units that the City may authorize to that necessary to allow an annual population growth of no more than 3-percent. LUP Table 9.3, *Phasing Schedule to Year 2020 Based on Maximum of 3% Annual Population Growth*, forecasts a total of 6,149 households in the City in the year 2010. Scenario 6c is based on a forecast of 5,692 households in 2010.

City of Half Moon Bay voters passed Measure D in November 1999, imposing a 1-percent annual population growth limit within the City (with an additional 0.5-percent allowed in the downtown area). Measure D is intended to replace the existing 3-percent growth restriction under Measure A. Litigation challenging the legality of Measure D was filed shortly after its passage. The lawsuit has been stayed pending Coastal Commission approval of an LCP amendment to enact the measure. At this point, however, it would be premature to assume these annual population growth limits will be implemented. Even if Measure D does go into effect in the future, it will only serve to slow growth within the incorporated area of Half Moon Bay. Measure D will not reduce the ultimate level of growth at LCP buildout within the City and will not slow the growth in areas outside of the City Limits. Similarly, as discussed in the Commission's adopted findings on Appeal No. A-1-HMB-99-022 (Ailanto Properties/Pacific Ridge Subdivision, herein incorporated by reference into these findings), currently imposed limits on water availability cannot be relied on as a constraint to future development. The Commission found in that case: "the Commission cannot conclude that limited water supply will constrain growth in Half Moon Bay and the County below the levels projected in the CTPAR and the LUPs."

Highway 1 Improvements

The applicant proposes to mitigate the traffic impacts of the development in part by providing a new signalized access to Highway 1 at the proposed Bayview Drive to serve the proposed Beachwood Subdivision as well as existing development in the Highland Park and Grandview Terrace subdivisions, and the recently approved Pacific Ridge subdivision. The applicant proposes to installation of a traffic signal at the Bayview/Highway 1 intersection with new ingress and egress and turning lanes on Highway 1. However, as conditioned to conform to the LCP wetland protection policies, Bayview Drive will serve only the residential lots approved within the Beachwood project site, and will not connect to any of these other developments. Consequently, the new intersection on Highway 1 at Bayview Drive necessary to serve the development will only further interrupt traffic flow on Highway 1. Furthermore, it is unlikely that Caltrans will approve the installation of a traffic signal on Highway 1 to serve the limited number of residences that may be constructed on the lots approved under this permit. The applicant contends that without the traffic mitigation fees provided by the proposed development, needed improvements to Highway 1 within the city will not be made. However, it is reasonable to expect that the ever-worsening traffic congestion will spur local governments to carry out all feasible improvements whether or not this project goes ahead, although if the applicant provides funding, it may expedite certain improvements. Over the long-term, however, the Commission finds that the applicant's proposed improvements may well be implemented even in the absence of funding from this project.

Thus, the Commission cannot rely on these potential Highway 1 improvements to mitigate the impacts to regional traffic congestion caused by the proposed development. Even if the section of Highway 1 along the western project site boundary is improved and a traffic signal is installed at Bayview and Highway 1, significant sections of both Highway 1 north of the City and Highway 92 east of the City will continue to operate at LOS F or worse. Highway improvements to this small section of roadway within the City will do little to mitigate the impacts of traffic congestion caused by new development to coastal visitors, including the proposed project's significant adverse cumulative impacts to traffic congestion and the public's ability to access the coast.

Consideration of project impacts at a regional level is expressly required under the CEQA Regulations concerning cumulative impact analysis. In addition to underestimating growth, the applicant's cumulative impact analysis has not adequately considered the impacts of the development to traffic congestion at a regional level; rather it relies on the assumption that small levels of increase are not deemed "significant" and it assumes traffic improvements that may or may not be implemented. The analysis also does not analyze the impact where Highway 1 will remain two lanes within the urban area, even after the assumed widening in the vicinity of the project, nor Highway 1 in the rural area north and south of the City where Coastal Act Section 30254 requires that it remain two lanes. Highways 1 and 92 are the only roads available to reach this part of the coast. An analysis of the contribution of the project to potential bottlenecks on these coastal arteries is essential in evaluating the significant cumulative adverse impacts of the proposed development. Furthermore, as noted in ABAG 1999, Coastside Subregional Planning Project:

CONGESTION LEVELS

Between 1995 and 1996 San Mateo County experienced a 125% increase in congestion, a

rate more than double any other county in the Bay Area. According to the 1995 San Mateo County Congestion Management Plan, the subregion currently suffers from some of the worst peak-hour congestion in the County. More recent data in the June 1997 San Mateo County Transportation Plan (CTP): Alternatives Report indicates that by 2010 key segments of Highways 1 and 92 will operate at the lowest level of service (LOS F) during peak commute times and that the maximum foreseeable public investments in highway and transit improvements will not be able to prevent congestion in the subregion from getting even worse. In addition, planned improvements in mass transit systems including Caltrain and BART do not by themselves offer significant reductions in peak hour congestion Countywide and are even less effective within the subregion given the area's geography and remote location, particularly in Half Moon Bay and the Midcoast.

In addition to limited road capacity, other factors contributing to current and projected increases in congestion include a jobs-housing imbalance, limited access to transit, and a strong preference for driving alone to work.

Thus, as the Commission noted in Appeal No. A-1-HMB-99-022 (Ailanto Properties/Pacific Ridge Subdivision) "the CTPAR shows that even with the maximum investment of $3.2 billion in highway and transit improvements, the regional level of service on Highways 1 and 92 will be significantly worse than the current unacceptable levels, *even with growth control measures in place.*"

3.5.6 Traffic Impacts to Public Access and Visitor Serving Uses

Traffic congestion resulting from the proposed subdivision will interfere with the public's ability to access the coast.

The Half Moon Bay shoreline includes approximately 4.5 miles of heavily used publicly owned beach. As the population of the greater San Francisco Bay area continues to grow, use of the Half Moon Bay beaches is expected to increase. The congestion on Highways 1 and 92 is currently at a level that significantly interferes with the public's ability to access the Half Moon Bay shoreline. Approval of new subdivisions in the area would increase the level of development beyond that required to be allowed under the current parcelization. Such action would further interfere with the public's ability to access the San Mateo coast, would consume road capacity for a non-priority use, and would locate development in areas with inadequate services creating a significant adverse impact on coastal resources in conflict with certified LCP policies.

LUP Policy 9-4 requires that development shall be served with adequate services and that lack of adequate services shall be grounds for denial of a development permit or reduction in the density otherwise allowed under the LUP.

Section 10.4.4 of the City's LCP states that:

- The Coastal Act requires that road capacity not be consumed by new, non-priority developments, at the expense of adequate service for priority uses, such as public recreation and visitor-serving commercial uses.

- The major issue involves potential conflict for transportation capacity between new residential development and reservation of adequate capacity for visitor travel to Coastside beaches.

LCP Policy 10-4 reserves public works capacity (including highway capacity) for priority uses to ensure that this capacity is not consumed by other development, and controls the rate of permitted new development to avoid overloading public works and services. In addition, the City adopted Coastal Act Sections 30210 and 30252 as guiding policies to the LCP. These policies require that development shall not interfere with the public's ability to access the sea, the location and amount of new development should maintain and enhance public access to the coast, and that new development be located in areas with adequate public services where it will not have a significant adverse effect, either individually or cumulatively, on coastal resources. Moreover, pursuant to LUP Policy 9-4, lack of adequate services shall be grounds for denial of a development permit or reduction in the density otherwise allowed under the certified LCP.

3.5.7 Mitigation Proposed by Applicant

As discussed above, the applicant proposes improvements at the intersection of Bayview Drive and Highway 1 including lane widening and a traffic signal to serve the proposed Beachwood Subdivision as well as existing development in the Highland Park and Grandview Terrace subdivisions, and the recently approved Pacific Ridge subdivision.. The infrastructure improvements proposed by the applicant are all in Half Moon Bay and would not mitigate the project's impacts on traffic congestion outside the city limits at all. These improvements have not been approved by either Caltrans or the City. Moreover, as conditioned to conform to the LCP wetland protection policies, Bayview Drive will serve only the limited number of residential lots approved within the Beachwood project site, and will not connect to any of these other developments. Consequently, the new intersection on Highway 1 at Bayview Drive necessary to serve the development will only further interrupt traffic flow on Highway 1. It is unlikely that Caltrans will approve the installation of a traffic signal on Highway 1 to serve the limited number of residences that may be construct on the lots approved under this permit. The applicant contends that without the traffic mitigation fees provided by the proposed development, needed improvements to Highway 1 within the city will not be made. However, it is reasonable to expect that the ever-worsening traffic congestion will spur local governments to carry out all feasible improvements whether or not this project goes ahead, although if the applicant provides funding, it may expedite certain improvements. Over the long-term, however, the Commission finds that the applicant's proposed improvements may well be implemented even in the absence of funding from this project.

Thus, the Commission cannot rely on these potential Highway 1 improvements to mitigate the impacts to regional traffic congestion caused by the proposed development. Even if the section of Highway 1 along the western project site boundary are improved and a traffic signal is installed at Bayview and Highway 1, significant sections of both Highway 1 north of the City and Highway 92 east of the City will continue to operate at LOS F or worse. Highway improvements to this small section of roadway within the City will do little to mitigate the impacts of traffic congestion caused by new development to coastal visitors, including the proposed project's significant adverse cumulative impacts to traffic congestion and the public's ability to access the coast. As discussed above, infrastructure improvements alone are

inadequate to mitigate the significant adverse regional cumulative traffic impacts of the proposed development.

In addition, the applicant proposes to mitigate the regional cumulative traffic impacts of the proposed development though payment to the city of the traffic mitigation fee required by the city's zoning code. The applicant has not, however, demonstrated how these funds would significantly decrease the use of private cars in Half Moon Bay or in the region. Accordingly, there is no indication that this proposal would mitigate the project-specific or cumulative impacts that conflict with the LCP traffic and public access policies.

As discussed above, the CTPAR shows that even with the maximum investment of $3.2 billion in highway and transit improvements, the regional level of service on Highways 1 and 92 in 2010 will be significantly worse than the current levels. CTPAR Transportation Scenario 6c assumes that all contemplated highway and transit improvements throughout the County are constructed, including the Devil's Slide bypass, Highway 92 widening and intersection improvements within Half Moon Bay, curve corrections, shoulder widening, slow vehicle passing lane for the section of Highway 92 east of Half Moon Bay to Highway 280, and public transit improvements to Caltrain, BART, and bus services. This transportation scenario is intended to show the congestion levels that will exist in 2010, even with $3.2 billion in transportation system improvements, without substantial land use and zoning changes. The results demonstrate that even with these transportation system improvements, the 2010 traffic volume will more than double the capacity of Highways 1 and 92 at numerous sections within the Mid-Coast during peak periods. Thus, the Commission finds that the mitigation measures proposed by the applicant are insufficient to offset the significant adverse cumulative traffic impacts of the proposed development on regional traffic congestion or the consequent significant adverse cumulative impacts to the public's ability to access the coast.

3.5.8 Land Use Controls

The San Mateo County Congestion Management Plan (CCAG 1998) states that one of the key contributors to traffic congestion in the County is the imbalance between the number of people who work in the County and the County's housing supply. For most communities in the County, the problem is a shortage of housing near job centers. However, in the County mid-coast region including Half Moon Bay, the problem is reversed. It is primarily because the Mid-Coast housing supply far exceeds the local job supply that commuter traffic congestion on Highways 1 and 92 is at its current state. The CMP finds that based on projected job growth the 2010 housing supply in the City will exceed local housing needs by 3,235 units. The CMP shows that given expected job growth rates, only 315 additional housing units above the 1990 level will be needed in the City by 2010. Additional job growth above that projected in the City could help to alleviate this imbalance. Congestion management dictates that the County's housing supply needs should be addressed by providing additional housing in the job centers of the County and not in the Mid-Coast area.

According to the data contained in Table 9.1 of the Half Moon Bay LUP, there are currently approximately 2,500 existing subdivided small lots that could potentially be developed under the LUP. These include 2,124 to 2,189 in-fill lots in existing residential neighborhoods and 325 to 340 lots in undeveloped "paper subdivisions." Many of these existing lots, particularly those in "antiquated subdivisions" do not conform with current zoning standards, and their development potential is unclear. Assuming arguendo that some of these lots are legal lots, the Fifth

Amendment to the United States Constitution provides that the government shall not take land without just compensation. In accordance with this principle, Coastal Act Section 30010 provides:

> *The Legislature hereby finds and declares that this division is not intended, and shall not be construed as authorizing the commission, port governing body, or local government acting pursuant to this division to exercise their power to grant or deny a permit in a manner which will take or damage private property for public use, without the payment of just compensation therefor. This section is not intended to increase or decrease the rights of any owner of property under the Constitution of the State of California or the United States.*

However, while the owners of legally subdivided lots are entitled to a reasonable economic use of their existing legally subdivided lots, the Commission is not obligated to create additional lots.

Buildout of the existing already subdivided small lots within the City could provide for as many as 2,529 new housing units, exceeding the City's 2010 housing supply need by 2,214 units (based on expected job growth) according to the County CMP. The Beachwood site is made up of one existing lot, which could be developed even without a subdivision. Given the inability of the area's highways to serve the potential development of the existing subdivided lots within the City, the Commission could, consistent with the policies of the LCP, deny the proposed subdivision because it would serve to further increase the potential buildout of the area.

3.5.9 Lot Retirement

One way in which the impacts of new subdivisions within the City to the highway congestion could be avoided is through a transfer of development rights (TDR) program. A TDR (also known as transfer of development credit) program could allow the overall buildout level within the City to be reduced by transferring the development rights of existing undeveloped small lots to unsubdivided areas. Such a program in the City could be used to retire the development potential of the many non-conforming lots in "antiquated subdivisions" and in existing neighborhoods. Such a program could facilitate more appropriate planning to allow development in areas more suitable for residential uses while preserving open space for public access, viewshed, and habitat protection.

Lot retirement, however, is not dependent on the existence of an established TDR program, but can feasibly be undertaken by an individual developer in the absence of any such program. In fact, the Wavecrest Village Development considered by the Commission in October 2000 proposed a net decrease in developable lots in Half Moon Bay. Even so, the City has included the development of a TDR program in its work program for the LCP update, and the Commission awarded assistance grant funding for this work program in December 2000.

In the December 15, 1999 preliminary assessment of the feasibility of establishing a TDR program, the City's consultant identified 663 parcels and 1,453 potential transfer or donor sites in four PUD districts in the City. These sites were identified as particularly desirable donor sites for a TDR program to achieve a number of planning goals. However, since any existing legal lot is potentially developable, the retirement of existing legal lots at any location within the Mid-Coast region, including both infill lots and antiquated subdivisions, would be sufficient to mitigate the significant adverse cumulative impacts of the proposed subdivision. In addition, since development anywhere within the San Mateo County Mid-Coast contributes to traffic

congestion on Highways 1 and 92, retirement of development rights anywhere in this region would offset the significant adverse cumulative impacts of the Beachwood development. Thus, in addition to the donor sites identified in the City's preliminary assessment, the proportional retirement of development rights on any of the several thousand existing undeveloped legal lots within the Mid-Coast region would serve to offset the significant adverse cumulative impacts of the proposed project.

The Commission has previously imposed a lot retirement requirement as a condition of approval for proposed subdivisions in an area without a transfer of development rights program. The Commission first imposed such a requirement in 1979 as a condition of a coastal development permit for a small lot subdivision in the Santa Monica Mountains to mitigate for significant adverse cumulative impacts on public access to and along the coast due to severe traffic congestion on Highway 1. The Commission took this action prior to the creation of the Malibu/Santa Monica Mountains TDC program in Los Angeles County. In fact, the Commission's action in 1979 provided a major impetus for the formation of the Malibu/Santa Monica Mountains TDC program. To this day, the Commission continues to implement the Malibu/Santa Monica Mountains TDC program by conditioning the approval of coastal development permits for new subdivisions in the affected area. Thus, the imposition of Special Condition 3 is consistent with the Commission's action on Appeal No. A-1-HMB-99-022 (Ailanto Properties/Pacific Ridge Subdivision), as well as with actions on numerous subdivisions proposed in the Santa Monica Mountains for over 20 years. The Commission also finds that Special Condition 3 is consistent with TDC programs in San Luis Obispo County and Big Sur. Thus, the Commission finds that this requirement is consistent with over 20 years of both Commission and local government regulation of coastal development under the Coastal Act and certified local coastal programs in other areas of the state.

The Commission also finds that the cost of implementing Special Condition 3 would be a small fraction of the anticipated market value of the development. The city's 1999 TDR feasibility study identified 1,453 potential donor lots in four PUD-zoned districts within the city limits. Most of these donor lots do not meet the 5,000-square-foot minimum parcel size required under the city's zoning code and are contained in paper subdivisions that are not served by roads or other infrastructure. This represents only a small fraction of the tens of thousands of existing substandard lots in paper subdivisions throughout the San Mateo County Mid-Coast. Though the development potential of these substandard lots is limited, in accordance with Coastal Act Section 30010, any privately owned legal lot, substandard or not, is potentially developable. Given the substantial economic value of coastal development and the proximity of the Mid-Coast to San Francisco and Silicon Valley, the Commission must assume that, unless acquired for open space or conservation purposes, any existing legal lot in private ownership will eventually be developed.

The city's TDR feasibility study considered a number of factors to set a value for the transfer of development credits available in the donor sites considered. The study recommends combining the 1,453 substandard lots in accordance with the zoning code minimum parcel size to provide a total of 432 development credits at a value of $32,500 per credit. At this price, one development credit would cost the applicant a $32,500. However, under Special Condition 3, a full transfer of development credit is granted to any existing legal lot without consideration of the lot's development potential or zoning conformity. Thus, each of the 1,453 lots considered in the city's study is a potential donor lot under the condition. On average, the value of these

substandard paper lots is considerably lower than $32,500. Based on recent sales of substandard lots as well as information provided by the Half Moon Bay Planning Department, the Commission finds that such lots are valued at between $3,000 to $50,000 with the majority at the lower end of the range. Thus, the Commission estimates the cost of implementing Special Condition 3 at between approximately $3,000 and $50,000 per lot.

In the immediately adjacent Terrace Avenue area, recent sales (August 1999 to September 2001) show a median sales price for undeveloped parcels of $27.17 per square foot and an average per square foot price of $27.63. Prices in this area ranged over this period from $23.54 to $33.20 per square foot. In the 94019 Zip Code area (El Granada, Miramar, and Half Moon Bay) as a whole, prices for undeveloped parcels varied considerably more widely, with prices as high as $383 per square foot in Miramar, and as low as $8 per square foot in El Granada. Average per square foot price of undeveloped parcels for the 94019 Zip Code was $249.43, median per square foot price was $56.21. As proposed, the subdivision would include lots that range in size from approximately 7,500 to 16,000 square feet. Based on the average price per square foot of lots recently sold in the Terrace Avenue area, the value of the proposed lots is currently approximately $207,225 to $442,080. The Commission therefore finds that the $3,000 to $50,000 cost per lot of implementing Special Condition 3 would not render the proposed development economically infeasible.

3.5.10 Constitutionality of Lot Retirement Condition

Pursuant to Coastal Act Section 30010, the Commission is restricted from acting in a manner that would take or damage private property for public use without the payment of just compensation. In applying this policy in its consideration of the proposed development, the Commission is guided by the U.S. Supreme Court decisions in Lucas, Nollan and Dolan.[25]

Under the Nollan decision, the Commission must find that the mitigation required by the conditions it imposes is reasonably related to the impact it is intended to offset. In other words, there must be a relationship or "nexus" between the nature of the mitigation requirement and the nature of the impact caused by the development. As discussed herein, residential development in the Mid-Coast region is the primary cause of the severe traffic congestion on Mid-Coast Highways 1 and 92. Any increase in the potential level of buildout in the region will lead to even greater demands on infrastructure that cannot support existing buildout or buildout of the existing supply of legal lots in the region. Because there are no alternative access routes to and along the coastline in this area of the coast, the extreme traffic congestion on Highways 1 and 92 significantly interferes with the public's ability to access the area's substantial public beaches and other visitor serving coastal resources in conflict with these policies. Consequently, the applicant's proposal to create new lots for residential development, adding to this supply of existing legal lots in Half Moon Bay, will result in significant adverse cumulative impacts to regional traffic congestion and the public's ability to access the coast in conflict with the Half Moon Bay LCP. Special Condition 3 specifically addresses these impacts by preventing any increase in the development potential of legal lots for residential development. Therefore, the Commission finds that a clear nexus exists between the nature of the requirements of Special

[25] Lucas v. South Carolina Coastal Council (1992) 505 U.S. 1003, 112 S. Ct. 2886, 120 L. Ed. 2d 798. Nollan v. California Coastal Commission (1987) 483 U.S. 825, 107 S. Ct. 3141, 97 L. Ed. 2d 677. Dolan v. City of Tigard, (1994) 512 U.S. 374, 114 S. Ct. 2309, 129 L. Ed. 2d 304.

Condition 3 and the nature of the significant adverse cumulative impacts to regional traffic and coastal access caused by the proposed residential development.

The Commission further finds that the mitigation requirements of Special Condition 3 is also roughly proportional to the significant adverse cumulative traffic and coastal access impacts attributable to the proposed residential development. The applicant proposes to subdivide one existing legal lot into 77 lots for residential development and one open space parcel. In accordance with Special Conditions 1 and 2 concerning protection of wetlands, the Commission has reduced the number of new lots for residential development. Prior to the proposed subdivision, the project site consists of one legal lot. Special Condition 3 requires the retirement of the development rights of the number of existing legal lots equal to the number of new lots to be created consistent with the wetland protections of Special Condition 1. The Commission finds that the 1:1 ratio of lots created to lots in which development rights are retired clearly establishes that the degree of the mitigation is roughly proportional to the degree of the impact.

3.5.11 Conclusion

Current traffic volumes in numerous bottleneck sections of both highways within the City and in the broader county region exceed maximum capacity with a v/c ratio worse than LOS F. The CTPAR, which represents the most comprehensive regional transportation study undertaken for the area, finds that even with the maximum level of investment in transit and highway improvements, congestion in the Mid-Coast region of the County will continue to increase over the next decade. The resulting traffic volumes on both Highways 1 and 92 will greatly exceed the capacity of these roadways. The proposed development will significantly contribute to the existing traffic congestion, adversely impacting the public's ability to access the coast for priority uses such as public access and recreation.

The LUP contains several policies that require new development to be served by adequate road facilities to serve priority uses such as public access and recreation, including Policies 9-2, 9-4, 10-4, and 10-25. These LCP policies carry out the requirements of Coastal Act Sections 30250(a) and 30252, which the City has adopted as guiding policies to the LCP. Section 30250(a) requires that new development be located in areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. Section 30252 states that the amount and location of new development should maintain and enhance public access to the coast. LUP Policy 9-4 requires that development shall be served with adequate services and that lack of adequate services shall be grounds for denial of a development permit or reduction in the density otherwise allowed under the LUP. Policy 10-4 states that the City shall reserve public works capacity for priority land uses including public access and recreation from consumption by other non-priority uses such as residential development. LUP Policy 10-25 designates LOS C as the desired level of service on Highways 1 and 92 except during the weekday and weekend peak-hours when LOS E may be accepted. The proposed subdivision would create additional demand on area highways for a non-priority use far in excess of their current and future capacity.

To offset the impacts of the proposed development to regional cumulative traffic congestion on the area's two major coastal access routes, the Commission imposes Special Condition 3. Special Condition 3 will offset the impacts of the regional traffic impacts of the proposed development by preventing a net increase in the potential level of buildout of residential development in the region because buildout potential must be retired on the same number of lots

proposed to be created, thereby eliminating the number of vehicular trips associated with the buildout potential eliminated. Therefore, the Commission finds that, as conditioned, the proposed development is consistent with LUP Policies 9-2, 9-4, 10-4, and 10-25 and with Coastal Act Sections 30210, 30250(a), and 30252.

3.6 Water Quality/Polluted Runoff

The Commission finds that, as conditioned, the proposed development includes adequate measures to prevent significant adverse impacts to coastal water quality consistent with the water quality protection policies of the LCP.

3.6.1 LCP Policies

LUP Policy 4-8 states that no new development shall cause or contribute to flood hazards. Policy 4-9 requires new development to be designed and constructed to (1) prevent increases in runoff, erosion, and flooding, (2) minimize runoff from graded areas, and (3) dissipate the energy of storm water discharges from outfalls, gutters, and other conduits. The policy provides:

> *All development shall be designed and constructed to prevent increases in runoff that would erode natural drainage courses. Flows from graded areas shall be kept to an absolute minimum, not exceeding the normal rate of erosion and runoff from that to the undeveloped land. ...*

The LCP also adopts Coastal Act Policy 30253, which requires new development to neither create nor contribute significantly to erosion or destruction of the site or surrounding area, and Coastal Act Section 30231 which provides:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

3.6.2 Discussion

The proposed subdivision would increase the amount of impervious surfaces in the area by adding new roads, driveways, and patios and facilitating use of the undeveloped site for structures, roofs, and other hard-surfaced features. Such increases in the amount of impervious surfaces will result in a corresponding increase in the rate and volume of storm water run-off from the site. This increase in rate and volume of storm water has the potential to result in flooding and erosion. The project would also significantly increase non-point source pollution, both during construction and after completion of the project. The increase in non-point source pollution has the potential to adversely impact water quality in the ocean and Pilarcitos Creek, which flows near this project (approximately ¼ mile). Further, the increases in runoff and non-point source pollution could adversely affect wetlands located on the project site. The stormwater and non-point source pollution impacts could potentially modify the hydrology of the

wetlands, degrade water and sediment quality within the wetlands, and degrade the habitat value of the wetlands.

The project includes substantial grading, road construction, vegetation removal, and other construction related site disturbance that could result in significant impacts to the wetlands on the site as well as to off-site coastal waters due to erosion and sedimentation. The project plans show that a substantial volume of the runoff from the site will be directed into a storm drain system that discharges into Pilarcitos Creek. Pilarcitos Creek is identified in the LCP as an important riparian habitat area and is known to provide habitat for the California red-legged frog.

3.6.3 Mitigation Measures

To ensure the protection of coastal water quality and biological productivity from impacts associated with grading, vegetation removal and other construction-related activities, the Commission imposes Special Condition __ requiring the applicant to implement specific erosion and polluted runoff control measures in accordance with an approved erosion control plan. The erosion control plan is required to include specific BMPs to address: (1) erosion and sediment source control, (2) runoff control and conveyance, (3) sediment capturing devices, and (4) chemical control. The condition requires monitoring and maintenance of all erosion control BMP devices.

In addition to the measures required under Special Condition __, Special Condition __ requires the applicant to prepare and implement a storm water pollution prevention plan (SWPPP) to provide for long-term polluted runoff control. Special Condition __ requires the SWPPP to include specific BMPs to: (1) minimize the creation of impervious surfaces, (2) reduce polluted runoff from roads and other paved areas, and (3) control polluted runoff related to irrigation and use of chemicals associated with landscaping, and requires long-term maintenance of these BMP devices. Special Condition __ also requires the applicant to implement an approved water quality monitoring plan that includes specific quality standards to evaluate the effectiveness of the SWPPP in protecting the quality of both surface and groundwater. Finally, Special Condition __ requires the applicant to take corrective actions as needed to remedy any failure to obtain the water quality standards specified in the approved water quality monitoring plan.

3.6.4 Conclusion

The Commission finds that as conditioned to control both construction and post-construction related polluted runoff and to require long-term water quality monitoring and protection, the proposed development is consistent with the erosion control and water quality protection policies of the Half Moon Bay LCP.

3.7 Public Views

The proposed project, which does not include the construction of residential homes is consistent with the visual resource requirements of the certified LCP.

3.7.1 LCP Policies

The applicable sections of the LCP include the following, which are reproduced in their entirety in Appendix A at the end of this report:

Policy 7-5

All new development, including additions and remodeling, shall be subject to design review

and approval by the City Architectural Review Committee.

Coastal Act Section 30251

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas...

Zoning Code Section 18.37.020(B) (1)

Visual Resource Areas within the City are defined as follows:

...

Scenic Hillsides which are visible from Highway One and Highway 92.... These areas occur include (sic) *hillside areas above the 160 foot elevation contour line which are located:*

1. East of the proposed Foothill Boulevard, comprising portions of Carter Hill and Dykstra Ranch properties.

Zoning Code Section 18.37.030 (B):

Development within the Highway One Corridor ... where existing permits or development does not exits. In general, structures shall be:

1. Situated and designed to protect any views of ... scenic coastal areas. ...

4. Set back an appropriate distance from the Highway One Right-of-Way....

5. Designed to maintain a low height above natural grade, unless a greater height would not obstruct public views.

3.7.2 Discussion

The Dykstra Ranch area (the site of the Ailanto subdivision, located uphill and east of the project site) is identified in the Half Moon Bay LCP as a scenic area (above the 160-foot contour line). This scenic area is visible from Highway 1 as it rises above the more level Beachwood subdivision site. The City's conditions of approval for the development required the construction of an approximately 525 feet long, six feet high, sound wall along the project site's Highway 1 frontage. The Commission is concerned with the visual impact and cumulative impacts on community character from use of this type of device to minimize the impacts of traffic noise on residential development. These features may block views of the scenic coastal area identified in the Zoning Code, inconsistent with the zoning policy that protects those views. In addition, the approved sound wall would be the first structure of this type in this portion of the City. Although there is a sound wall in the southern part of the City (approximately 2.5 miles south of the Beachwood site), there are no sound walls on Highway One in the area of the Beachwood subdivision. Thus, the character of the area around the Beachwood site, as viewed from Highway One, is not affected by existing sound walls. The construction of the new sound wall at the Beachwood site would change the character of that area as viewed from Highway One. Section

30251 of the Coastal Act (which is incorporated into the LCP by LUP policy 1-1) requires new development to be consistent with the character of the surrounding area. The applicant has provided line-of-sight drawings showing that at least some portions of the Dykstra Ranch hills would be visible above the sound wall; nevertheless the applicant has indicated its acceptance of eliminating the sound wall from the project. Condition 1 is further imposed to assure the project will be revised to eliminate this feature. As conditioned, therefore, the project is consistent with the visual policies of the LCP.

Additionally, the Commission was initially concerned over City's resolution for approval of this subdivision, which was written in a manner appearing to authorize the construction of up to 83 houses on the to-be-created lots. However the file contained no plans for any such homes, and the applicant's coastal development permit application did not include a request for authorization of structures. In fact, both the City and the applicant have clarified that the coastal development permit application does not seek authorization for construction of homes. (Exhibit 8). Condition 8 is imposed to further clarify this understanding. Thus, any visual issues raised in connection with future homes proposed on the site can be addressed at such time that coastal development permit applications are made for these homes.

3.7.3 Conclusion

The Commission finds that, as conditioned to clarify that no structures other than roads and underground infrastructure are authorized under this permit, the proposed development will not affect public views protected under the Half Moon Bay LCP.

4.0 California Environmental Quality Act

Section 13096 of the Commission's administrative regulations requires Commission approval of CDP applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. This staff report addresses and responds to all public comments regarding significant adverse environmental effects of the project. The proposed development has been conditioned in order to enable it to be found consistent with the traffic, public access and recreation, environmentally sensitive habitat, wetland, riparian corridor, visual resource, erosion control and water quality policies of the certified LCP, and the public access and recreation policies of the Coastal Act. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, that would substantially lessen any significant adverse impact that the development may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found consistent with the requirements of the certified LCP and Coastal Act and to conform to CEQA.

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APPENDIX B

Referenced Policies

California Coastal Act

Section 30010

The Legislature hereby finds and declares that this division is not intended, and shall not be construed as authorizing the commission, port governing body, or local government acting pursuant to this division to exercise their power to grant or deny a permit in a manner which will take or damage private property for public use, without the payment of just compensation therefor. This section is not intended to increase or decrease the rights of any owner of property under the Constitution of the State of California or the United States.

Section 30210

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30240

(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.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Section 30241

The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:

(a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.

(b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.

(c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.

(d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.

(e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.

(f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands.

Section 30242

All other lands suitable for agricultural use shall not be converted to nonagricultural uses unless (l) continued or renewed agricultural use is not feasible, or (2) such conversion would preserve prime agricultural land or concentrate development consistent with Section 30250. Any such permitted conversion shall be compatible with continued agricultural use on surrounding lands.

Section 30250

(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources. In addition, land divisions, other than leases for agricultural uses, outside existing developed areas shall be permitted only where 50 percent of the usable parcels in the area have been developed and the created parcels would be no smaller than the average size of surrounding parcels.

(b) Where feasible, new hazardous industrial development shall be located away from existing developed areas.

(c) Visitor-serving facilities that cannot feasibly be located in existing developed areas shall be located in existing isolated developments or at selected points of attraction for visitors.

Section 30252

The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing nonautomobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of onsite recreational facilities to serve the new development.

Section 30254

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; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with 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.

Section 30603

(a) After certification of its local coastal program, an action taken by a local government on a coastal development permit application may be appealed to the commission for only the following types of developments:

(1) Developments approved by the local government 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 tideline of the sea where there is no beach, whichever is the greater distance.

(2) Developments approved by the local government not included within paragraph (1) that are located on tidelands, submerged lands, public trust lands, within 100 feet of any wetland, estuary, or stream, or within 300 feet of the top of the seaward face of any coastal bluff.

(3) Developments approved by the local government not included within paragraph (1) or (2) that are located in a sensitive coastal resource area.

(4) Any development approved by a coastal county that is not designated as the principal permitted use under the zoning ordinance or zoning district map approved pursuant to Chapter 6 (commencing with Section 30500).

(5) Any development which constitutes a major public works project or a major energy facility.

(b) (1) The grounds for an appeal pursuant to subdivision (a) shall be limited to an allegation that the development does not conform to the standards set forth in the certified local coastal program or the public access policies set forth in this division.

(2) The grounds for an appeal of a denial of a permit pursuant to paragraph (5) of subdivision (a) shall be limited to an allegation that the development conforms to the standards set forth in the certified local coastal program and the public access policies set forth in this division.

(c) Any action described in subdivision (a) shall become final at the close of business on the 10th working day from the date of receipt by the commission of the notice of the local government's final action, unless an appeal is submitted within that time. Regardless of whether an appeal is submitted, the local government's action shall become final if an appeal fee is imposed pursuant to subdivision (d) of Section 30620 and is not deposited with the commission within the time prescribed.

(d) A local government taking an action on a coastal development permit shall send notification of its final action to the commission by certified mail within seven calendar days from the date of taking the action.

Section 30604

(a) Prior to certification of the local coastal program, a coastal development permit shall be issued if the issuing agency, or the commission on appeal, finds that the proposed development is in conformity with Chapter 3 (commencing with Section 30200) and that the permitted development will not prejudice the ability of the local government to prepare a local coastal program that is in conformity with Chapter 3 (commencing with Section 30200). A denial of a coastal development permit on grounds it would prejudice the ability of the local government to prepare a local coastal program that is in conformity with Chapter 3 (commencing with Section 30200) shall be accompanied by a specific finding which sets forth the basis for that conclusion.

(b) After certification of the local coastal program, a coastal development permit shall be issued if the issuing agency or the commission on appeal finds that the proposed development is in conformity with the certified local coastal program.

(c) Every coastal development permit issued for any development between the nearest public road and the sea or the shoreline of any body of water located within the coastal zone shall include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter 3 (commencing with Section 30200).

(d) No development or any portion thereof which is outside the coastal zone shall be subject to the coastal development permit requirements of this division, nor shall anything in this division authorize the denial of a coastal development permit by the commission on the grounds the proposed development within the coastal zone will have an adverse environmental effect outside the coastal zone.

(e) No coastal development permit may be denied under this division on the grounds that a public agency is planning or contemplating to acquire the property on, or property adjacent to the property on, which the proposed development is to be located, unless the public agency has been specifically authorized to acquire the property and there are funds available, or funds which could reasonably be expected to be made available within one year, for the acquisition. If a permit has been denied for that reason and the property has not been acquired by a public agency within a reasonable period of time, a permit may not be denied for the development on grounds that the property, or adjacent property, is to be acquired by a public agency when the application for such a development is resubmitted.

Section 30621

(a) The commission shall provide for a de novo public hearing on applications for coastal development permits and any appeals brought pursuant to this division and shall give to any affected person a written public notice of the nature of the proceeding and of the time and place of the public hearing. Notice shall also be given to any person who requests, in writing, such notification. A hearing on any coastal development permit application or an appeal shall be set no later than 49 days after the date on which the application or appeal is filed with the commission.

(b) An appeal that is properly submitted shall be considered to be filed when any of the following occurs

(1) The executive director determines that the appeal is not patently frivolous pursuant to subdivision (d) of Section 30620.

(2) The five-day period for the executive director to determine whether an appeal is patently frivolous pursuant to subdivision (d) of Section 30620 expires without that determination.

(3) The appellant pays the filing fee within the five-day period set forth in subdivision (d) of Section 30620.

Section 30625

(a) Except as otherwise specifically provided in subdivision (a) of Section 30602, any appealable action on a coastal development permit or claim of exemption for any development by a local government or port governing body may be appealed to the commission by an applicant, any aggrieved person, or any two members of the commission. The commission may approve, modify, or deny such proposed development, and if no action is taken within the time limit specified in Sections 30621 and 30622, the decision of the local government or port governing body, as the case may be, shall become final, unless the time limit in Section 30621 or 30622 is waived by the applicant.

(b) The commission shall hear an appeal unless it determines the following:

(1) With respect to appeals pursuant to subdivision (a) of Section 30602, that no substantial issue exists as to conformity with Chapter 3 (commencing with Section 30200).

(2) With respect to appeals to the commission after certification of a local coastal program, that no substantial issue exists with respect to the grounds on which an appeal has been filed pursuant to Section 30603.

(3) With respect to appeals to the commission after certification of a port master plan, that no substantial issue exists as to conformity with the certified port master plan.

(c) Decisions of the commission, where applicable, shall guide local governments or port governing bodies in their future actions under this division.

California Coastal Commission Regulations

§ 13096. Commission Findings.

(a) All decisions of the commission relating to permit applications shall be accompanied by written conclusions about the consistency of the application with Public Resources Code section 30604 and Public Resources Code section 21000 and following, and findings of fact and reasoning supporting the decision. The findings shall include all elements identified in section 13057(c).

(b) Unless otherwise specified at the time of the vote, an action taken consistent with the staff recommendation shall be deemed to have been taken on the basis of, and to have adopted, the reasons, findings and conclusions set forth in the staff report as modified by staff at the hearing. If the commission action is substantially different than that recommended in the staff report, the prevailing commissioners shall state the basis for their action in sufficient detail to allow staff to prepare a revised staff report with proposed revised findings that reflect the action of the commission. Such report shall contain the names of commissioners entitled to vote pursuant to Public Resources Code section 30315. 1.

(c) The commission vote taken on proposed revised findings pursuant to Public Resources Code section 30315.1 shall occur after a public hearing. Notice of such hearing shall be distributed to the persons and in the manner provided for in section 13063. The public hearing shall solely address whether the proposed revised findings reflect the action of the commission.

§ 13115. Substantial Issue Determination.

(a) At the meeting next following the filing of an appeal with the Commission or as soon thereafter as practical, the executive director shall make a recommendation to the commission as to whether the appeal raises a significant question within the meaning of Section 30625(b).

(b) Unless the Commission finds that the appeal raises no significant question as to conformity with the certified local coastal program or, in the case of a permit application for a development 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 sea where there is no beach) that there is no significant question with regard to the public access and public recreation policies of Chapter 3 of the Coastal Act of 1976, the Commission shall consider the application de novo in accordance with the procedures set forth in Sections 13057-13096.

(c) The Commission may ask questions of the applicant, any aggrieved person, the Attorney General or the executive director prior to determining whether or not to hear an appeal. A majority vote of the members of the Commission present shall be required to determine that the Commission will not hear an appeal.

§ 13577. Criteria for Permit and Appeal Jurisdiction Boundary Determinations.

For purposes of Public Resources Code Sections 30519, 30600.5, 30601, 30603, and all other applicable provisions of the Coastal Act of 1976, the precise boundaries of the jurisdictional areas described therein shall be determined using the following criteria:

(a) Streams. Measure 100 feet landward from the top of the bank of any stream mapped by USGS on the 7.5 minute quadrangle series, or identified in a local coastal program. The bank of a stream shall be defined as the watershed and relatively permanent elevation or acclivity at the outer line of the stream channel which separates the bed from the adjacent upland, whether valley or hill, and serves to confine the water within the bed and to preserve the course of the stream. In areas where a stream has no discernable bank, the boundary shall be measured from the line closest to the stream where riparian vegetation is permanently established. For purposes of this section, channelized streams not having significant habitat value should not be considered.

(b) Wetlands.

(1) Measure 100 feet landward from the upland limit of the wetland. Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats. For purposes of this section, the upland limit of a wetland shall be defined as:

(A) the boundary between land with predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover;

(B) the boundary between soil that is predominantly hydric and soil that is predominantly nonhydric; or

(C) in the case of wetlands without vegetation or soils, the boundary between land that is flooded or saturated at some time during years of normal precipitation, and land that is not.

(2) For the purposes of this section, the term "wetland" shall not include wetland habitat created by the presence of and associated with agricultural ponds and reservoirs where:

(A) the pond or reservoir was in fact constructed by a farmer or rancher for agricultural purposes; and

(B) there is no evidence (e.g., aerial photographs, historical survey, etc.) showing that wetland habitat pre-dated the existence of the pond or reservoir. Areas with drained hydric soils that are no longer capable of supporting hydrophytes shall not be considered wetlands.

Half Moon Bay Land Use Policies

Policy 1-1

The City shall adopt those policies of the Coastal Act (Coastal Act Sections 30210 through 30264) cited herein, as the guiding policies of the Land Use Plan.

Policy 1-4

Prior to the issuance of any development permit required by this Plan, the City shall make the finding that the development meets the standards set forth in all applicable Land Use Plan policies.

Policy 3-1 Definition of Sensitive Habitats

(a) Define sensitive habitats as any area in which plant or animal life or their habitats are either rare or especially valuable and as those areas which meet one of the following criteria: (1) habitats containing or supporting "rare and endangered" species as defined by the State Fish and Game Commission, (2) all perennial and intermittent streams and their tributaries, (3) coastal tidelands and marshes, (4) coastal and offshore areas containing breeding and/or nesting sites and coastal areas used by migratory and resident water-associated birds for resting and feeding, (5) areas used for scientific study and research concerning fish and wildlife, (6) lakes and ponds and adjacent shore habitat, (7) existing game and wildlife refuges and reserves, and (8) sand dunes.

Such areas include riparian areas, wetlands, sand dunes, marine habitats, sea cliffs, and habitats supporting rare, endangered, and unique species.

APPENDIX A: Special Definitions...

WETLAND

Wetland is an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground. Such wetlands can include mudflats (barren of vegetation), marshes, and swamps. Such wetlands can be either fresh or saltwater, along

streams (riparian), in tidally influenced areas (near the ocean and usually below extreme high water of spring tides), marginal to lakes, ponds, and man-made impoundments. Wetlands do not include areas which in normal rainfall years are permanently submerged (streams, lakes, ponds and impoundments), nor marine or estuarine areas below extreme low water of spring tides, nor vernally wet areas where the soils are not hydric.

3-3 Protection of Sensitive Habitats

(a) Prohibit any land use and/or development which would have significant adverse impacts on Sensitive Habitat areas.

(b) Development in areas adjacent to sensitive habitats shall be sited and designed to prevent impacts that could significantly degrade the Sensitive Habitats. All uses shall be compatible with the maintenance of biologic productivity of such areas.

3-4 Permitted Uses

(a) Permit only resource-dependent or other uses which will not have a significant adverse impact in sensitive habitats.

(b) In all sensitive habitats, require that all permitted uses comply with U.S. Fish and Wildlife Service and State Department of Fish and Game regulations.

3-5 Permit Conditions [Biologic Report]

(a) Require all applicants to prepare a **biologic report** by a qualified professional selected jointly by the applicant and the City to be submitted prior to development review. The report will determine if significant impacts on the sensitive habitats may occur, and recommend the most feasible mitigation measures if impacts may occur.

The report shall consider both any identified sensitive habitats and areas adjacent. Recommended uses and intensities within the sensitive habitat area shall be dependent on such resources, and shall be sited and designed to prevent impacts which would significantly degrade areas adjacent to the habitats. The City and the applicant shall jointly develop an appropriate program to evaluate the adequacy of any mitigation measures imposed.

(b) When applicable, require as a condition of permit approval, the restoration of damaged habitat(s) when, in the judgment of the Planning Director, restoration is partially or wholly feasible.

3-7 Definition of Riparian Corridors

(a) Define riparian corridors by the "limit of riparian vegetation" (i.e. a line determined by the association of plant and animal species normally found near streams, lakes, and other bodies of fresh water: red alder, jaumea, pickleweed, big leaf maple, narrowleaf cattail, arroyo willow, broadleaf cattail, horsetail, creek dogwood, black cottonwood, and box elder). Such a corridor must contain at least a 50% cover of some combination of the plants listed.

3-8 Designation of Riparian Corridors

(a) Establish riparian corridors for all perennial and intermittent streams and lakes and other bodies of fresh water in the Coastal zone. Designate those corridors shown on the Habitat Areas and Water Resources Overlay and any other riparian area as sensitive habitats requiring protection, except for man-made irrigation ponds over 2,500 square feet surface area.

3-9 Permitted Uses in Riparian Corridors

(a) Within corridors, permit only the following uses: (1) education and research, (2) consumptive uses as provided for in the Fish and Game Code and Title 14 of the California Administrative Code, (3) fish and wildlife management activities, (4) trails and scenic overlooks on public land(s), and (5) necessary water supply projects.

(b) When no feasible or practicable alternative exists, permit the following uses: (1) stream-dependent aquaculture provided that non-stream-dependent facilities locate outside of corridor, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, (3) bridges when supports are not in significant conflict with corridor resources, (4) pipelines and storm water runoff facilities, (5) improvement, repair or maintenance of roadways or road crossings, (6) agricultural uses, provided no existing riparian vegetation is removed, and no soil is allowed to enter stream channels.

3-10 Performance Standard in Riparian Corridors

(a) Require development permitted in corridors to: (1) minimize removal of vegetation, (2) minimize land exposure during construction and use temporary vegetation or mulching to protect critical areas, (3) minimize erosion, sedimentation, and runoff by appropriately grading and replanting modified areas, (4) use only adapted native or non-invasive exotic plant species when replanting, (5) provide sufficient passage for native and anadromous fish as specified by the State Department of Fish and Game, (6) minimize adverse effects of waste water discharges and entrainment, (7) prevent depletion of groundwater supplies and substantial interference with surface and subsurface waterflows, (8) encourage waste water reclamation, (9) maintain natural vegetation buffer areas that protect riparian habitats, and (10) minimize alteration of natural streams.

3-11 Establishment of Buffer Zones

(a) On both sides of riparian corridors, from the "limit of riparian vegetation," extend buffer zones 50 feet outward for perennial streams and 30 feet outward for intermittent streams.

(b) Where no riparian vegetation exists along both sides of riparian corridors, extend buffer zones 50 feet from the bank edge for perennial streams and 30 feet from the midpoint of intermittent streams.

(c) Along lakes, ponds, and other wet areas, extend buffer zones 100 feet from the high water point, except for man-made ponds and reservoirs used for agricultural purposes for which no buffer zone is designated.

3-12 Permitted Uses in Buffer Zones

(a) Within buffer zones, permit only the following uses: (1) uses permitted in riparian corridors, (2) structures on existing legal building sites, set back 20 feet from the limit of riparian vegetation, only if no feasible alternative exists, and only if no other building site on the parcel exists, (3) crop growing and grazing consistent with Policy 3.9, (4) timbering in "streamside corridors" as defined and controlled by State and County regulations for timber harvesting, and (5) no new parcels shall be created whose only building site is in the buffer area except for parcels created in compliance with Policies 3.3, 3.4, and 3.5 if consistent with existing development in the area and if building sites are set back 20 feet from the limit of riparian vegetation or if no vegetation 20 feet from the bank edge of a perennial and 20 feet from the midpoint of an intermittent stream.

3-13 Performance Standards in Buffer Zone

(a) Require uses permitted in buffer zones to: (1) minimize removal of vegetation, (2) conform to natural) topography to minimize erosion potential, (3) make provisions to

(i.e. catch basins) to keep runoff and sedimentation from exceeding pre-development levels, (4) replant where appropriate with native and non-invasive exotics, (5) prevent discharge of toxic substances, such as fertilizers and pesticides, into the riparian corridor, (6) remove vegetation in or adjacent to man-made agricultural ponds if the life of the pond is endangered, (7) allow dredging in or adjacent to man-made ponds if the San Mateo County Resource Conservation District certifies that siltation imperils continued use of the pond for agricultural water storage and supply.

3-22 Permitted Uses

(a) Permit only the following uses: (1) education and research, (2) hunting, fishing, pedestrian and equestrian trails that have no adverse impact on the species or its habitat, and (3) fish and wildlife management to restore damaged habitats and to protect and encourage the survival of rare and endangered species.

(b) If the critical habitat has been identified by the Federal Office of Endangered Species, permit only those uses deemed compatible by the U. S. Fish and Wildlife Service in accordance with the provisions of the Endangered Species Act of 1973, as amended.

3-24 Preservation of Critical Habitats

(a) Require preservation of all habitats or rare and endangered species using the policies of this Plan and other implementing ordinances of the City.

3-25 San Francisco Garter Snake

(a) Prevent any development where there is known to be a riparian location for the San Francisco garter snake with the following exception: (1) existing man-made impoundments smaller than 1/2 acre in surface, and (2) existing man-made impoundments greater than 1/2 acre in surface, providing mitigation measures are taken to prevent disruption of not more than one-half of the snake's known habitat in that location in accordance with recommendations from the State Department of Fish and Game.

(b) Require developers to make sufficiently detailed analyses of any construction which could impair the potential or existing migration routes of the San Francisco garter snake. Such analyses will determine appropriate mitigation measures to be taken to provide for appropriate migration corridors.

Policy 4-8:

No new permitted development shall cause or contribute to flood hazards.

Policy 4-9:

All development shall be designed and constructed to prevent increases in runoff that would erode natural drainage courses. Flows from graded areas shall be kept to an absolute minimum, not exceeding the normal rate of erosion and runoff from that of the undeveloped land. Storm water outfalls, gutters, and conduit discharge shall be dissipated.

Policy 7-10:

New development on upland slopes visible from Highway 1 and Highway 92 as indicated on the Visual Resources Overlay Map, shall not involve grading or building siting which results in a significant modification of the hillscape; where trees must be removed for building purposes, reforestation shall be provided as a part of any new development to maintain the forested appearance of the hillside. Structures shall be subordinate in appearance to the natural landform,

shall be designed to follow the natural contours of the landscape, and shall be sited so as not to intrude into the skyline as seen from public viewing places.

Policy 8-12:

The Urban/Rural Boundary shall be the City Limit boundary of the City of Half Moon Bay.

Policy 9-2:

The City shall monitor annually the rate of build-out in categories designated for development. If the rate of build-out exceeds the rate on which the estimates of development potential for Phase I and Phase II in the Plan are based, further permits for development or land divisions shall not be issued outside existing subdivisions until a revised estimate of development potential has been made. At that time the City shall establish a maximum number of development permits to be granted each year in accordance with expected rates of build-out and service capacities. No permit for development shall be issued unless a finding is made that such development can be served with water, sewer, schools, and road facilities, including such improvements as are provided with the development. (See Table 9.3)

Policy 9-4:

All new development, other than development on parcels designated Urban Reserve or Open Space Reserve on the Land Use Plan Map permitted while such designations are effective, shall have available water and sewer services and shall be accessed from a public street or shall have access over private streets to a public street. Prior to issuance of a development permit, the Planning Commission or City Council shall make the finding that adequate services and resources will be available to serve the proposed development upon its completion and that such development is located within and consistent with the policies applicable to such an area designated for development. The applicant shall assume full responsibility for costs incurred in the service extensions or improvements that are required as a result of the proposed project, or such share as shall be provided if such project would participate in an improvement or assessment district. Lack of available services or resources shall be grounds for denial of the project or reduction in the density otherwise indicated in the Land Use Plan. (See Table 10.3).

Policy 10-4 (Public Works Capacity)

The City shall reserve public works capacity for land uses given priority in the Plan, in order to assure that all available public works capacity is not consumed by other development and control the rate of new development permitted in the City to avoid overloading of public works and services.

Policy 10-25 (Levels of Service)

The City will support the use of Level of Service C as the desired level of service on Highways 1 and 92, except during the peak two-hour commuting period and the ten-day average peak recreational hour when Level of Service E will be acceptable.

10.4.4 Transportation Issues

Highways 1 and 92 are the only roads connecting Half Moon Bay with the rest of the region. Highway 1 also serves as the key northsouth collector road, providing for local traffic

connections among neighborhoods and between them and the downtown commercial core. To a lesser extent, Highway 1 provides for local circulation in and around downtown.

Limited road capacity for movement into, out of, and within the City, has long been recognized as a problem and constraint on new development, as indicated in past studies and the former General Plan's Circulation Element.i The Coastal Act requires that limited road capacity not be consumed by new, non-priority development, at the expense of adequate service for priority uses, such as public recreation and visitor-serving commercial uses. The major issue involves potential conflict for transportation capacity between new residential development and reservation of adequate capacity for visitor travel to coastside beaches. The issue involves two components: commuter traffic and visitor traffic on Highways 1 and 92, and competition between local resident traffic and visitor traffic on local streets and Highway 1 (with some possible effect on Highway 92). In addition, the commuter-visitor traffic conflict issue is related to the Coastal Act policy that Highway 1 be limited to two lanes in rural areas, which could include portions of Highway 1 which link Half Moon Bay to San Francisco and other employment centers to the north. Therefore, the overall capacity of the existing transportation system to accommodate resident population growth must be considered.

§ 51201. **Definitions**

As used in this chapter, unless otherwise apparent from the context:

(c) "Prime agricultural land" means any of the following:

(1) All land which qualifies for rating as class I or class II in the Soil Conservation Service land use capability classifications.

(2) Land which qualifies for rating 80 through 100 in the Storie Index Rating.

(3) Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.

(4) Land planted with fruit-or nut-bearing trees, vines, bushes or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars ($200) per acre.

(5) Land which has returned from the production of unprocessed agricultural plant products an annual gross value of not less than two hundred dollars ($200) per acre for three of the previous five years.

Half Moon Bay LCP Implementation Ordinance Standards (Zoning Code Sections)

18.02.040 Definitions

Wetland: The definition of wetland as used and as may be periodically amended by the California Department of Fish and Game, the California Coastal Commission and the US Fish and Wildlife Service.

18.37.020 Visual Resources Areas. The Planning Director shall prepare and maintain maps of all designated Visual Resource Areas within the City, based upon the Visual Resources Overlay Map

contained in the City's Local Coastal Program Land Use Plan. Visual Resource Areas within the City are defined as follows: ...

B. Upland Slopes. Scenic Hillsides which are visible from Highway One and Highway 92, as indicated on the Visual Resources Overlay Map. These areas occur include hillside areas above the 160 foot elevation contour line which are located:

1. East of the proposed Foothill Boulevard, comprising portions of Carter Hill and Dykstra Ranch properties.

2. South-east of Pilarcitos Creek and East of Arroyo Leon, comprising a portion of land designated as Open Space Reserve in the Land Use Plan.

3. East of the Sea Haven Subdivision, being a portion of the Gravance property designated Urban Reserve in the Land Use Plan.

4. East of the Nurseryman's Exchange properties and lower Hester-Miguel lands, comprising all of the upper Hester Miguel lands designated as Open Space Reserve in the Land Use Plan.

18.38.020 Coastal Resource Areas. The Planning Director shall prepare and maintain maps of all designated Coastal Resource Areas within the City. Coastal Resource Areas within the City are defined as follows:...

E. Wetlands. As defined by the US Fish and Wildlife Service, a wetland is an area where the water table is at, near, or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground. Such wetlands can include mud flats (barren of vegetation), marshes, and swamps. Such wetlands can be either fresh or saltwater, along streams (riparian), in tidally influenced areas (near the ocean and usually below extreme high water of spring tides), marginal to lakes, ponds, and man-made impoundments. Wetlands do not include areas which in normal rainfall years are permanently submerged (streams, lakes, ponds, and impoundments), nor marine or estuarine areas below extreme low water of spring tides, nor vernally wet areas where the soils are not hydric.

...

18.38.030 Required Reports. Biological, Archeological and Geological Reports shall be required as set forth in Sections 18.38.035, 18.38.040, and 18.38.045. Required Reports shall be prepared by a qualified professional selected by the City in accordance with established City procedures. Unless otherwise specified herein, all required Biological, Archaeological, and Geological Reports shall be performed by a consultant selected by the City and paid for by the applicant.

A. Report Requirements. The following requirements apply to reports.

1. Reports shall identify significant impacts on identified Coastal Resources on the project site that would result from development of the proposed project

2. Reports shall recommend feasible measures to mitigate any significant impacts and to protect the identified coastal resource. The adequacy of these measures shall be evaluated under a program developed jointly by the applicant and the Planning Director. These measures may include, but are not limited to:

a. changes in development intensity;

b. siting of buildings, structures or paving; and

c. limitations on the timing and location of construction.

3. Reports shall contain a proposed monitoring and reporting program to ensure that development conditions imposed are adequately being carried out and that significant impacts on the coastal resources have not occurred.

4. Reports shall be reviewed by the City for consistency with this Title and with the California Environmental Quality Act.

5. Reports shall be completed to the satisfaction of the Planning Director prior to the determination that a required development permit application is considered complete.

B. Exceptions. The Planning Director may grant exceptions to the requirements of this Chapter if he or she finds that existing studies adequately fulfill the requirements of this Chapter, provided such studies were prepared by a qualified professional as a part of a previously Certified Final EIR in accordance with the provisions of this Chapter.

18.38.035 Biological Report.

A. When Required. The Planning Director shall require the applicant to submit a Biological Report, prior to development review, prepared by a qualified Biologist for any project located in or within 100 feet of any Sensitive Habitat Area, Riparian Corridor, Bluffs and Seacliff Areas, and any Wetland...

B. Report Contents. In addition to meeting the report requirements listed in Section 18.35.030, the Biological Report shall contain the following components:

1. Mapping of Coastal Resources. The Biological Report shall describe and map existing wild strawberry habitat on the site, existing sensitive habitats, riparian areas and wetlands located on or within 200 feet of the project site.

2. Description of Habitat Requirements.

a. For Rare and Endangered Species: a definition of the requirements of rare and endangered organisms, a discussion of animal predation and migration requirements, animal food, water, nesting or denning sites and reproduction, and the plant's life histories and soils, climate, and geographic requirements;

b. For Unique Species: a definition of the requirements of the unique organism; a discussion of animal food, water, nesting or denning sites and reproduction, predation, and migration requirements; and a description of the plants' life histories and soils, climate, and geographic requirements.

C. Distribution of Report. Any Biological Report prepared pursuant to this Title shall be distributed to the US Fish and Wildlife Service, the Army Corps of Engineers, the California Coastal Commission, the State Department of Fish and Game, the Regional Water Quality Control Board, and any other Federal or State agency with review authority over wetlands, riparian habitats, or water resources.

1. The Biological Report shall be transmitted to each agency with a request for comments from each agency with jurisdiction over the effected resource on the adequacy of the Report and any suggested mitigation measures deemed appropriate by the agency.

2. Included within the transmittal of the Biological Report to the various agencies shall be a request for comments to be transmitted to the Planning Director within 45 days of receiving the Report.

18.38.055 Environmental Impact Reports. At the discretion of the Planning Director, a project applicant may use the analysis contained in an Environmental Impact Report prepared under the California Environmental Quality Act or an Environmental Impact Statement prepared under the federal Environmental Policy Act to fulfill the requirements of this Title.

...

B. Use of Previously Prepared Environmental Impact Report. The Planning Director may accept the information and analysis contained in a previously prepared Environmental Impact Report required under the California Environmental Quality Act in lieu of a new Geological, Biological, or Archaeological Report if the Planning Director determines that:

3. In order to use any previously prepared Biological Report pursuant to this Section, the Biological Report must have been a part of a Certified Final EIR that was accepted as complete and adequate no more that one year prior to the date of submittal.

18.38.075 Riparian Corridors and Buffer Zones.

A. Permitted Uses. Except as may be specified in this Chapter, within Riparian Corridors, only the following uses shall be permitted:

1. Education and research;

2. Consumptive uses as provided for in the Fish and Game Code and Title 14 of the California Administrative Code;

3. Fish and wildlife management activities;

4. Trails and scenic overlooks on public land(s);

5. Necessary water supply projects;

6. Restoration of riparian vegetation.

B. No Alternative Permitted Uses. The following are permitted uses where no feasible or practical alternative exists:

1. Stream-dependent aquaculture provided that non-stream-dependent facilities locate outside of corridor;

2. Flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development;

3. Bridges when supports are not in significant conflict with corridor resources;

4. Pipelines and storm water runoff facilities;

5. Improvement, repair, or maintenance of roadways or road crossings;

6. Agricultural uses, provided no existing riparian vegetation is removed, and no soil is allowed to enter stream channels

C. **Standards.** Development shall be designed and constructed so as to ensure:

1. That the removal of vegetation is minimized;

2. That land exposure during construction is minimized and that temporary vegetation or mulching is used to protect critical areas;

3. That erosion, sedimentation, and runoff is minimized by appropriately grading and replanting modified areas;

4. That only adapted native or non-invasive exotic plant species are used for replanting;

5. That sufficient passage is provided for native and anadromous fish as specified by the State Department of Fish and Game;

6. That any adverse effects of waste water discharges and entrainment are minimized;

7. That any depletion of groundwater supplies and substantial interference with surface and subsurface water flows are prevented;

8. That waste water reclamation is encouraged;

9. That natural vegetation buffer areas which protect riparian habitats are maintained;

10. That any alteration of natural streams is minimized.

D. **Riparian Buffer Zone**. The Riparian Buffer Zone is defined as:

1. land on both sides of riparian corridors which extends from the "limit of riparian vegetation" 50 feet outward for perennial streams and 30 feet outward for intermittent streams;

2. land along both sides of riparian corridors which extends 50 feet from the bank edge for perennial streams and 30 feet from the midpoint of intermittent streams, where no riparian vegetation exists.

E. Permitted Uses within Riparian Buffer Zones include:

1. Uses permitted in riparian corridors;

2. Crop growing and grazing, provided no existing riparian vegetation is removed and no soil is allowed to enter stream channels;

3. Timbering in "stream side corridors" as defined and controlled by State and County regulations for timber harvesting.

F. **No Alternative Permitted Uses**. The following are Permitted Uses within Riparian Buffer Zones where no feasible alternative exists:

1. The construction of new structures on existing legal building sites, set back 20 feet from the limit of riparian vegetation, only if no other building site on the parcel exists;

2. The creation of new parcels only if the only building sites available are those within in buffer area, if the proposed parcels are consistent with existing development in the area, and if the building sites are set back 20 feet from the limit of riparian vegetation, or if there is no vegetation, 20 feet from the bank edge of a perennial stream or 20 feet from the midpoint of an intermittent stream.

G. Development Standards within Riparian Buffer Zones. Development shall be designed and constructed so as to ensure:

1. That the removal of vegetation is minimized;

2. That development conforms to natural topography and that erosion potential is minimized;

3. That provisions have been made to (i.e. catch basins) keep runoff and sedimentation from exceeding pre-development levels;

4. That native and non-invasive exotic vegetation is used for replanting, where appropriate;

5. That any discharge of toxic substances, such as fertilizers and pesticides, into the riparian corridor is prevented;

6. That vegetation in or adjacent to man-made agricultural ponds is removed if the life of the pond is endangered;

7. That dredging in or adjacent to man-made ponds is allowed if the San Mateo County Resource Conservation District, or any similar or successor agency or entity, certifies that siltation imperils continued use of the pond for agricultural water storage and supply.

H. Findings for Development within Riparian Buffer Zones. The following Findings shall be supported by the contents of the required Biological Report:

1. That there are special circumstances or conditions affecting the property;

2. That the project is necessary for the proper design and function of some permitted or existing activity on the property;

3. That the project will not be detrimental to the public welfare or injurious to other property downstream or in the area in which the project is located;

4. That the project will not significantly reduce or adversely impact the sensitive habitat, or there is no feasible alternative which would be less damaging to the environment;

5. That the project is in accordance with the purpose of this Chapter and with the objectives of the L.C.P. Land Use Plan;

6. That development on a property which has its only building site located in the buffer area maintains a 20-foot buffer from the limit of riparian vegetation, or if no vegetation exists, a 20-foot buffer from the bank of a perennial stream and a 20-foot buffer from the midpoint of an intermittent stream.

18.38.080 Wetlands

A. Permitted Uses:

1. Education and research;
2. Passive recreation such as bird-watching;
3. Fish and wildlife management activities.

B. Permitted Uses with approval of a Use Permit:

1. Commercial mariculture where no alteration of the wetland is necessary;
2. Bridges;
3. Pipelines and storm water runoff facilities;
4. Improvement, repair or maintenance of roadways.

C. Standards. The Riparian Corridor Standards listed in this Chapter shall apply to Wetlands.

D. Wetlands Buffer Zone. The minimum buffer surrounding lakes, ponds, and marshes shall be 100 feet, measured from the high water point, except that no buffer is required for man-made ponds and reservoirs used for agricultural purposes.

E. Permitted Uses within Wetlands Buffer Zones. The Riparian Buffer Zone Uses listed in this Title shall apply to Wetlands Buffer Zones.

F. Permitted Uses within Wetlands Buffer Zones, where no feasible alternative exists. The Riparian Buffer Zone Uses listed under this Title shall apply to Wetlands Buffer Zones.

G. Development Standards within Wetlands Buffer Zones. The Riparian Buffer Development Standards listed under this Title shall apply to Wetlands Buffer Zones.

H. Findings for Development within Wetlands Buffer Zones. The following Findings shall be supported by the contents of the required Biologic Report:

1. That there are special circumstances or conditions affecting the property;

2. That the project is necessary for the proper design and function of some permitted or existing activity on the property;

3. That the project will not be detrimental to the public welfare or injurious to other property in the area in which the project is located;

4. That the project will not significantly reduce or adversely impact the sensitive habitat, or there is no feasible alternative which would be less damaging to the environment;

5. That the project is in accordance with the purpose of this Chapter and with the objectives of the L.C.P. Land Use Plan;

6. That development on a property, which has its only building site located in the buffer area, maintains a 20-foot buffer from the outer edge of any wetland.

18.38.085 Habitats for Rare and Endangered Species

A. Rare and Endangered Species. The potential exists for any of the following Rare and Endangered Species to be found within the San Mateo County Coastal Area and therefore within the City of Half Moon Bay.

1. Animals: the San Francisco Garter Snake, California Least Tern, California Black Rail, California Brown Pelican, San Bruno Elfin Butterfly, San Francisco Tree Lupine Moth, Guadalupe Fur Seal, Sea Otter, California Brackish Water Snail, Globose Dune Beetle.

3. Plants: Rare Plants known in San Mateo County are the Coast rock cress, Davy's bush lupine, Dolores campion, Gairdner's yampah, Hickman's cinquefoil, Montara manzanita, San Francisco wallflower, and Yellow meadow foam (botanical names are listed in the City's LCP/LUP).

B. Permitted Uses. In the event that a Biological Report indicates the existence of any of the above species in an area, the following uses are permitted.

1. Education and research.

2. Hunting, fishing, pedestrian and equestrian trails that have no adverse impact on the species or its habitat.

3. Fish and wildlife management to restore damaged habitats and to protect and encourage the survival of rare and endangered species.

C. Permitted Uses within Critical Habitats. Within the critical habitat as identified by the Federal Office of Endangered Species, permitted uses are those which are deemed compatible by the US Fish and Wildlife Service in accordance with the provisions of the Endangered Species Act of 1973, as amended.

D. Buffer Zones.The minimum buffer surrounding a habitat of a rare or endangered species shall be 50 feet.

E. Standards:

1. Animals: Specific requirements for each rare and endangered animal are listed in Chapter 3 of the Local Coastal Program Land Use Plan.

2. Plants: When no feasible alternative exists, development may be permitted on or within 50 feet of any rare plant population, if the site or a significant portion thereof shall be returned to a natural state to enable reestablishment of the plant, or a new site shall be made available for the plant to inhabit and, where feasible, the plant population shall be transplanted to that site.

F. Habitat Preservation. Rare and endangered species habitats shall be preserved according to the requirements of the specific Local Coastal Program Land Use Plan policies tailored to each of the identified rare and endangered species and LCP/LUP implementing ordinances.

18.38.090 Habitats for Unique Species.

B. Permitted Uses. Permitted uses include:

1. education and research;

2. hunting, fishing, pedestrian and equestrian trails that have no adverse impact on the species or its habitat; and

3. fish and wildlife management to the degree specified by existing governmental regulations.

California Environmental Quality Act (CEQA) and CEQA Guidelines

21080.5. Certified Regulatory Programs

(d) To qualify for certification pursuant to this section, a regulatory program shall require the utilization of an interdisciplinary approach that will ensure the integrated use of the natural and social sciences in decision making and shall meet all of the following criteria:

(2) The rules and regulations adopted by the administering agency for the regulatory program do all of the following:

(A) Require that an activity will not be approved or adopted as proposed 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.

15130. Discussion of Cumulative Impacts

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided ~~of~~ for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact. The following elements are necessary to an adequate discussion of significant cumulative impacts:

(1) Either:

(A) A list of past, present, and-reasonably anticipated probable.future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated is designed to evaluate regional or areawide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency;

1. When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.

2. "Probable future projects" may be limited to those projects requiring an agency approval for an application which has been received at the time the notice of preparation is released, unless abandoned by the applicant; projects included in an adopted capital improvements program, general plan, regional transportation plan, or other similar plan; projects included in a summary of projections of projects (or development areas designated) in a general plan or a similar plan; projects anticipated as later phase of a previously approved project (e.g. a subdivision); or those public agency projects for which money has been budgeted.

3. Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.

(2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

(3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects of a proposed project.

15355. Cumulative Impacts

"Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

APPENDIX C

Summary of Wetland Field Investigations Conducted for Project Site

HLA 1990. San Francisco Garter Snake Survey and Riparian Mitigation Plan, Beachwood Subdivision, Half Moon Bay, California, Harding Lawson Associates, April 21, 1990.

Sampled five points on one linear transect on February 21 and March 6, 1989. FAC and FACW vegetation dominates 2.5 acres in "center portion of property." The sampling points roughly correspond with Areas W5, W9 and W10. Hydric soils and wetland hydrology characteristics not observed.

Zander 1998. Biological Reconnaissance, Yamagiwa Residential Subdivision Project, Half Moon Bay, California, Zander Associates, August 28, 1998.

Visual reconnaissance of site conducted on June 30, 1998. No data sampling points established. Report states: "On the day of my visit, the site had been completely disked for fire protection so that very little vegetation, apart from scattered coyote brush (*Baccharis pilularis*), eucalyptus (*Eucalyptus globulus*) and cypress (*Cupressus macrocarpa*) trees remained. However, judging by the plants still identifiable in the disked field... Some species that could be considered hydrophytic... were also evident in parts of the site." This report concludes that only the former stock pond and the drainage in the southeast portion of the site are waters of the United States. No observations regarding the presence or absence of indicators of either hydric soils or wetland hydrology are reported.

Gideon 1999. Letter Report to Joan Lamphier, Lamphier & Associates, January 13, 1999.

Brief report to City's consultant to assess whether further study of the site to identify wetlands is warranted. Report is based on: "minimal and partial background information, no historic information, and only one short site visit [on January 12, 1999], it does not reflect great detail nor surveyed locations." The observations and conclusion reported are summarized as follows:

Vegetation: The vegetation on the site has been disturbed by long-term and recent disking, and low rainfall has suppressed vegetation growth. Hydrophytic vegetation is widespread throughout the low areas of the site, including dense patches of hydrophytes in the horseshoe shaped area in the middle of the site (W5).

Hydrology: Water was impounded in one area of the horseshoe shaped area in the middle of the site (W5). Evidence of standing water observed includes moist to wet soils and algal mats.

Soils: Soil evidence considered to be generally unreliable due to the importation of fill and foreign materials. Soil samples taken in "the horseshoe wet area surrounding the two eucalyptus trees in the middle of the eastern section of the subdivision [W5]... are indicative of hydric soils due to low chroma values and moisture level."

Conclusion: Further investigation is recommended "to insure that wetlands are not overlooked at the Beachwood Residential Development site."

Huffman 1999. Preliminary Wetland Delineation for the Beachwood Subdivision Site, City of Half Moon Bay, California, Huffman & Associates, Inc., March 11, 1999.

Field investigations conducted on February 5 and 28, 1999. Report concludes: "Based on our preliminary field observations, it appears that the soils within the various depressional areas [the areas identified roughly correspond with wetland study areas W1-W17] seasonally pond and saturate sufficiently to satisfy the Corps' criteria that wetland hydrology and soils are present. In addition, it appears that the prevalent vegetation found within the depressional areas will satisfy the Corps' criteria that a prevalence of wetland vegetation occurs."

WRA 1999a. Wetlands Research Associates, Wetland Delineation for Corps of Engineers "Waters of the United States," October 1999.

This report is based on field observations made on July 27, 1999, and review of previous site investigations, the San Mateo County Soil Survey, and aerial photographs. Based on visual reconnaissance, WRA identified 18 wetland study areas (W1a, W1b-W17). On July 27, 1999, WRA collected data from eight sampling plots. Five sampling plots were located in five of the 18 wetland study areas and three plots were outside of the wetland study areas. No sampling plots were established in the remaining 13 wetland study areas identified on the site. The data for the eight sampling plots, as recorded on the wetland determination data forms completed for each plot, are summarized as follows:

Sample Plot A is located within Wetland Study Area W12. Summary of observations reported on data sheets:

- Vegetation: Dominant vegetation species that are OBL, FACW and/or FAC (excluding FAC-): 100%.
- Hydrology: Oxidized root channels in upper 12 inches; Soil moist at 10 inches; Algal mats present.
- Soils: Very low chroma indicative of mollisols. "Mottling occurs below six inches as strong brown iron masses lining root channels, pores and ped faces. This may indicate recent formation of redoximorphic features."
- Wetland Determination: Hydrophytic vegetation and wetland hydrology present. Hydric soils not present. Conclusion: Sample Plot A is located in a wetland. "This area is a man-made wetland resulting from construction activities."

Sample Plot B is located immediately south of and adjacent to Wetland Study Area W12. Summary of observations reported on data sheets:

- Vegetation: Dominant vegetation species that are OBL, FACW and/or FAC (excluding FAC-): 67%.
- Hydrology: Some bare soil, but no hydrologic indicators present.
- Soils: Very low chroma indicative of mollisols. No other hydric soils indicators present.
- Wetland Determination: Hydrophytic vegetation present. Wetland hydrology and hydric soils not present. Conclusion: Sample Plot B is not located in a wetland. "Area has been disturbed by construction activities."

Sample Plot C is located within Wetland Study Area W16. Summary of observations reported on data sheets:

- Vegetation: Dominant vegetation species that are OBL, FACW and/or FAC (excluding FAC-): 100%.
- Hydrology: Sediment deposits; Drainage patterns in wetlands.
- Soils: Very low chroma indicative of mollisols. No other hydric soils indicators present.
- Wetland Determination: Hydrophytic vegetation and wetland hydrology present. Hydric soils not present. Conclusion: Sample Plot C is located in a wetland. "This area is a man-made wetland resulting from construction activities."

Sample Plot D is located within Wetland Study Area W3. Summary of observations reported on data sheets:

- Vegetation: Dominant vegetation species that are OBL, FACW and/or FAC (excluding FAC-): 100%.
- Hydrology: Oxidized root channels in upper 12 inches; Algal mats present.
- Soils: Very low chroma indicative of mollisols. No other hydric soils indicators present.

Wetland Determination: Hydrophytic vegetation and wetland hydrology present. Hydric soils not present. Conclusion: Sample Plot D is located in a wetland. "This area is a man-made wetland resulting from construction activities."

Sample Plot E is located within Wetland Study Area W5. Summary of observations reported on data sheets:

- Vegetation: Dominant vegetation species that are OBL, FACW and/or FAC (excluding FAC-): 100%.
- Hydrology: Sediment Deposits; Drainage patterns in wetlands.
- Soils: Very low chroma indicative of mollisols. No other hydric soils indicators present.

Wetland Determination: Hydrophytic vegetation and wetland hydrology present. Hydric soils not present. Conclusion: Sample Plot E is located in a wetland. "Considering the lower relative topographic position and algal mats, this area has surface ponding and is functioning as a wetland... This area is a man-made wetland resulting from construction activities."

Sample Plot F is located in an area between Wetland Study Areas W1b and W2.Summary of observations reported on data sheets:

- Vegetation: Dominant vegetation species that are OBL, FACW and/or FAC (excluding FAC-): 67%.
- Hydrology: No indicators present.
- Soils: Very low chroma indicative of mollisols. No other hydric soils indicators present.

Wetland Determination: Hydrophytic vegetation present. Wetland hydrology and hydric soils not present. Conclusion: Sample Plot F is not located in a wetland. "Area is a convex slope which appears to be well drained."

Sample Plot G is located within Wetland Study Area W1b. Summary of observations reported on data sheets:

- Vegetation: Dominant vegetation species that are OBL, FACW and/or FAC (excluding FAC-): 100%.
- Hydrology: Soil is very soft with no indication of flowing water or other hydrologic indicator.
- Soils: Very low chroma indicative of mollisols. No other hydric soils indicators present.

Wetland Determination: Hydrophytic vegetation and wetland hydrology present. Hydric soils not present. Conclusion: Sample Plot G is located in a wetland. "Plot appears to be location of a former drainage. Water has been diverted to a storm drain above this area and the drainage no longer carries water from the above watershed. The former drainage may concentrate local runoff."

Sample Plot H is located north of Wetland Study Area W12 and south of the proposed alignment of Bayview Drive. Summary of observations reported on data sheets:

- Vegetation: Dominant vegetation species that are OBL, FACW and/or FAC (excluding FAC-): 25%.
- Hydrology: No hydrologic indicators present.
- Soils: Very low chroma indicative of mollisols. No other hydric soils indicators present.

Wetland Determination: Hydrophytic vegetation, wetland hydrology, and Hydric soils not present. Conclusion: Sample Plot H is not located in a wetland. "Surface appears to disturbed, and soils compacted as a result of construction related grading."

WRA 1999b. Wetlands Research Associates, Half Moon Bay Local Coastal Plan Wetland Delineation Study, October 1999.

This report is based on the same field observations made on July 27, 1999, described above for WRA 1999a. The data reported is identical to that described above.

WRA 1999c. Wetlands Research Associates, Half Moon Bay Local Coastal Plan Wetland Delineation Study, December 1999.

This report is based on the same field observations made on July 27, 1999, described above for WRA 1999a and additional soil sampling conducted on December 3, 1999 in the previously established Sample Plots A-H. In this second LCP wetland delineation report, WRA changes the data reported on the attached wetland determination data forms on the basis that the previously reported observations of wetland hydrology were due to unusually high rainfall.[1] Alterations to the reported data that materially change the wetland determination on the recorded data sheets are summarized as follows:

Sample Plot A:

- Hydrology: Previously reported oxidized root channels in upper 12 inches deleted; Previously reported soil moisture at 10 inches deleted from data sheet. Previously reported algal mats remains. "Vegetation meets FAC neutral test[2]" added to report.

[1] Although the rainfall analysis may justify revising the conclusions reached based on field observations, it is inappropriate to alter the reported observations concerning the presence or absence of wetland indicators.
[2] In a FAC neutral test, plant species designated "FAC" (equally likely to occur in wetlands or uplands) are excluded from the analysis. Percent of dominant species that are designated "FACW" (67-99% of occurrences in wetlands) or

Based on rainfall analysis, conclusion regarding wetland hydrology changed from positive to negative.

- Soils: Previously recorded observation of "Mottling occurs below six inches as strong brown iron masses lining root channels, pores and ped faces. This may indicate recent formation of redoximorphic features" dismissed based on additional soils sampling conducted on December 3, 1999.

Wetland Determination: Presence of wetland hydrology changed from positive to negative. Conclusion changed from: Sample Plot A **is** located in a wetland to Sample Plot A **is not** located within a *Half Moon Bay LCP* wetland, and from "This area is a man-made wetland resulting from construction activities" to "This is a 'vernally wet area where the soils are not hydric' which is not regulated under the Half Moon Bay LCP."

Sample Plot C:

- Hydrology: Previously reported observations of sediment deposits and drainage patterns in wetlands have been deleted from data sheet. "Vegetation meets FAC neutral test" added to report. Based on rainfall analysis, conclusion regarding wetland hydrology changed from positive to negative.
- Soils: Additional soil sampling data reported, but conclusion that soils not hydric unaltered.

Wetland Determination: Presence of wetland hydrology changed from positive to negative. Conclusion: Changed from Sample Plot C **is** located in a wetland to Sample Plot C **is not** located within a *Half Moon Bay LCP* wetland, and from "This area is a man-made wetland resulting from construction activities" to "This is a 'vernally wet area where the soils are not hydric' which is not regulated under the Half Moon Bay LCP."

Sample Plot D:

- Hydrology: Previously recorded observation of oxidized root channels in upper 12 inches deleted from data sheet. Previously reported algal mats remains. "Vegetation meets FAC neutral test" added to report. Based on rainfall analysis, conclusion regarding wetland hydrology changed from positive to negative.
- Soils: Additional soil sampling data reported, but conclusion that soils not hydric unaltered.

Wetland Determination: Presence of wetland hydrology changed from positive to negative. Conclusion: Changed from Sample Plot D **is** located in a wetland to Sample Plot D **is not** located within a *Half Moon Bay LCP* wetland, and from "This area is a man-made wetland resulting from construction activities" to "This is a 'vernally wet area where the soils are not hydric' which is not regulated under the Half Moon Bay LCP."

Sample Plot E:

"OBL" (>99% of occurrences in wetlands) is calculated, and if greater than 50%, the site has a preponderance of wetland vegetation. A positive FAC neutral test is a secondary indicator of wetland hydrology in accordance with the 1987 Corps Wetland Manual.

- Hydrology: Previously recorded observations of sediment deposits and drainage patterns in wetlands deleted from data sheet. "Vegetation meets FAC neutral test" added to report. Based on rainfall analysis, conclusion regarding wetland hydrology changed from positive to negative.
- Soils: Additional soil sampling data reported, but conclusion that soils not hydric unaltered.

Wetland Determination: Presence of wetland hydrology changed from positive to negative. Conclusion: Changed from Sample Plot E **is** located in a wetland to Sample Plot E **is not** located within a *Half Moon Bay LCP* wetland, and from "Considering the lower relative topographic position and algal mats, this area has surface ponding and is functioning as a wetland... This area is a man-made wetland resulting from construction activities" to "This is a 'vernally wet area where the soils are not hydric' which is not regulated under the Half Moon Bay LCP."

Sample Plot G:

- Hydrology: "Vegetation meets FAC neutral test," added to report.
- Soils: Additional soil sampling data reported, but conclusion that soils not hydric unaltered.

Wetland Determination: Presence of wetland hydrology changed from positive to negative. Conclusion: Changed from Sample Plot G **is** located in a wetland to Sample Plot G **is not** located within a *Half Moon Bay LCP* wetland.

LSA 2000b. Wetlands Assessment, Beachwood Subdivision, Half Moon Bay, California, LSA Associates, Inc., February 24, 2000.

LSA collected data for this report during site visits on January 19, February 8, and February 22, 2000. During the February 8, 2000 site visit, LSA established sample plots within and adjacent to suspected wetland areas and collected data for each of the three wetland parameters in accordance with the field protocols described in the 1987 Corps Manual. These sample plots were located within the wetland study areas identified by WRA as W1a, W1b, W2, W3, W5, and W12, as well as two additional areas not identified by WRA. LSA's observations are summarized as:

- Soils at all of the sites have low chroma. Application of this indicator is complicated because the soils are mollisols.
- Redoximorphic depletions and concentrations of iron, both caused by reducing soil conditions, are present in several of the basin features.
- Surface ponding or saturation at the soil surface was observed at every site located near mapped basin features.
- Algal blooms were present in most of the basins on February 8 and in all of the basins on February 22. These basins began ponding as early as January 19.
- Plant cover in all basins was dominated by facultative wetland (FACW) species.
- Plant species not adapted to saturated soil conditions are largely excluded from the ponded basins.

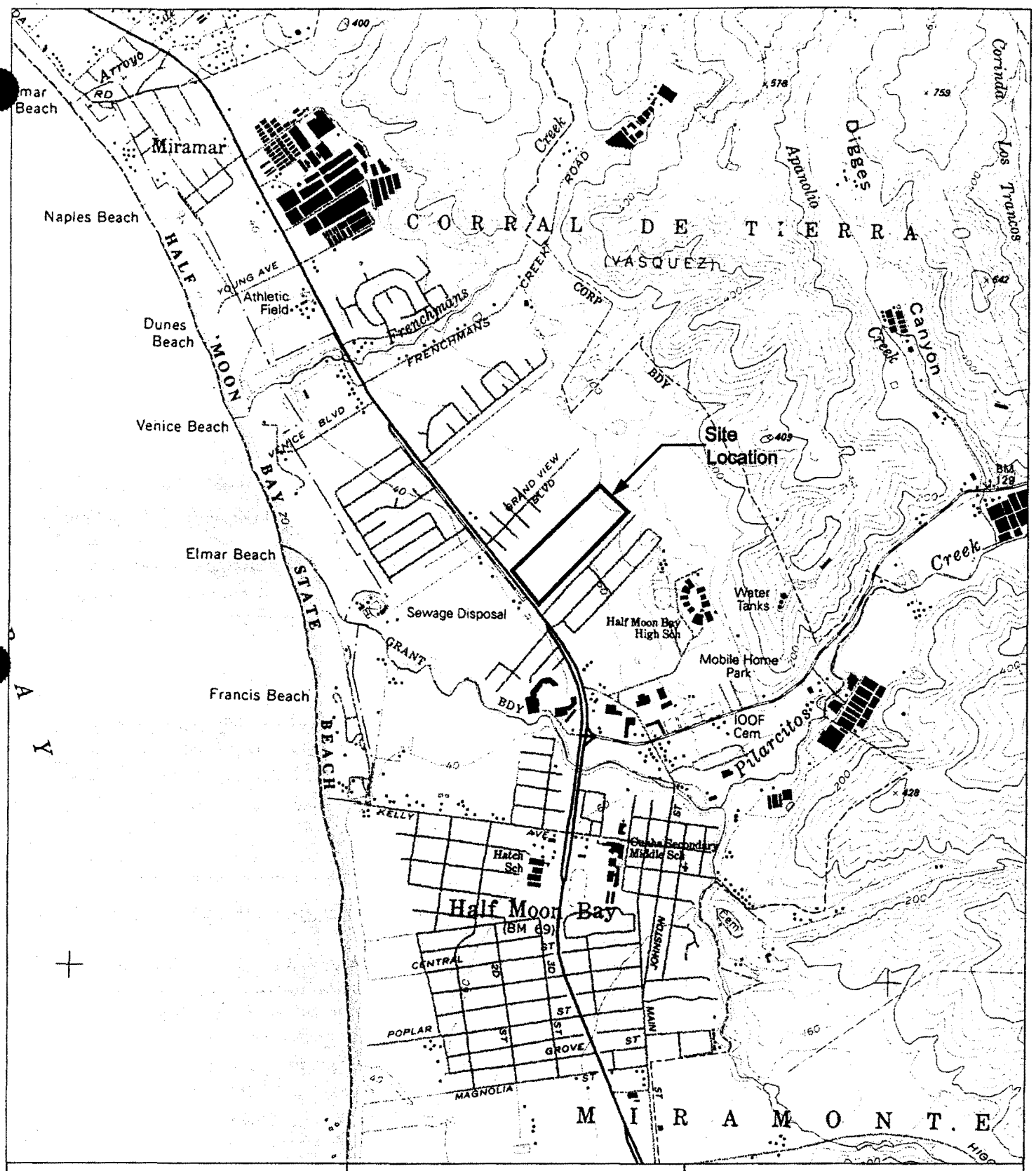


Figure 1. Beachwood Subdivision Location Map

2000 0 2000 4000 FEET

SCALE 1:24000

Wetlands Research Associates, Inc.
2169-G East Francisco Blvd.
San Rafael, CA 94901
Contact: Michael Josselyn
Phone: 415-454-8868

LOCATION: Half Moon Bay, CA

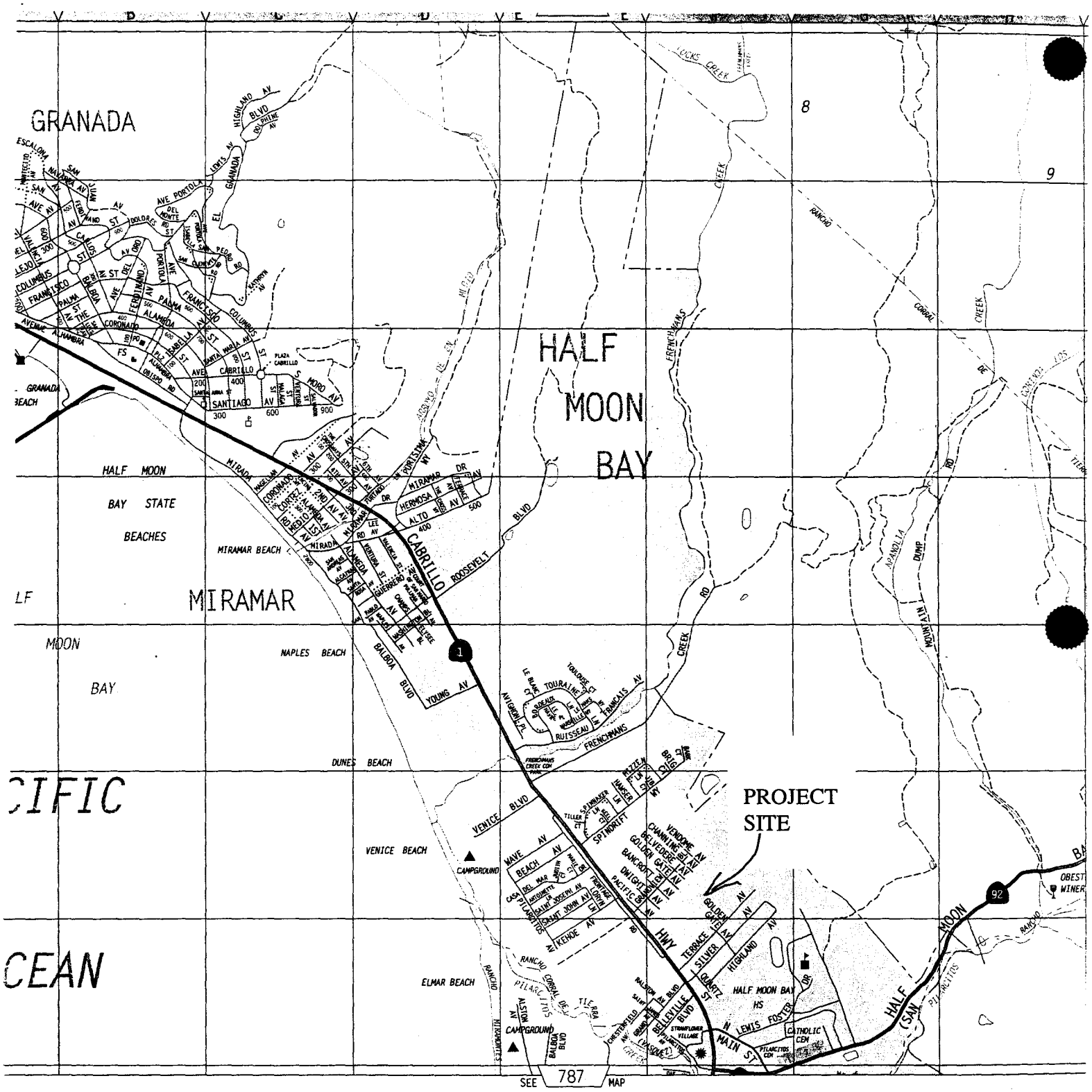
COUNTY: S

APPLICATI

SOURCE: I
1991

DATE: OCT

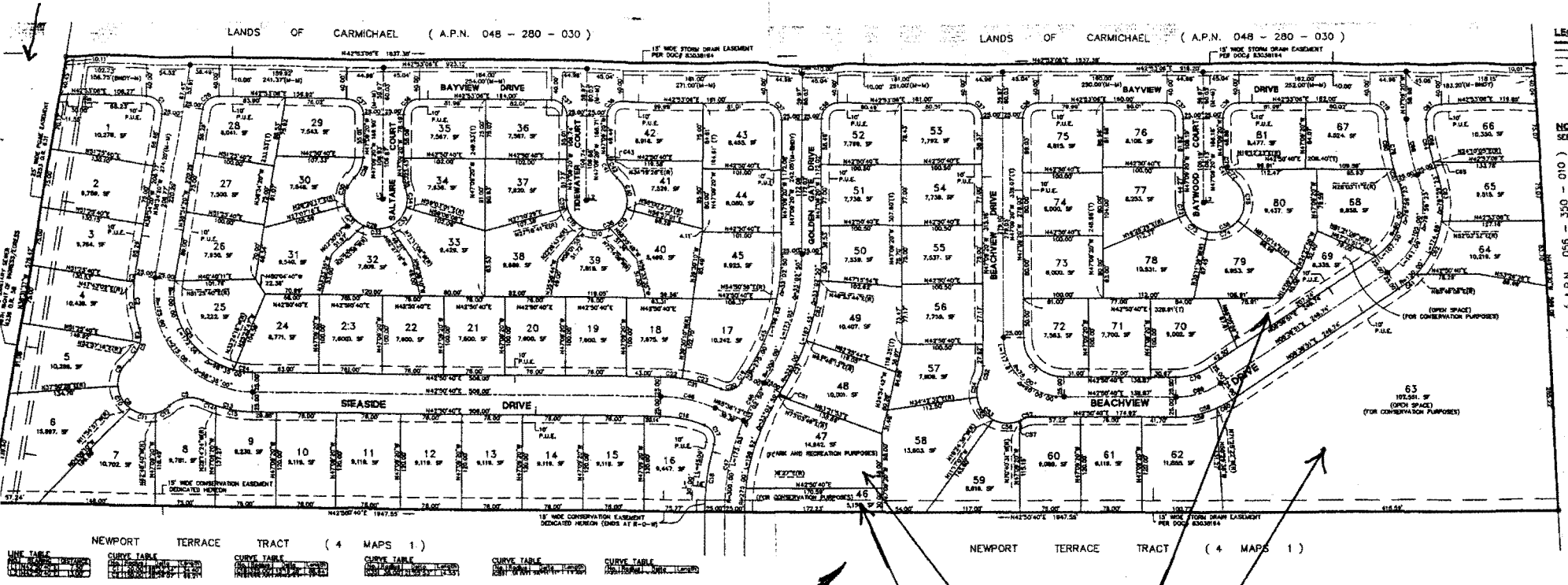
EXHIBIT NO.	1
APPLICATION NO.	A-2-HMB-01-011
PROJECT SITE	



Street Map
Exhibit 1, p.2

JUNE 2001 PLOT PLAN

Highway 1



Lot 46

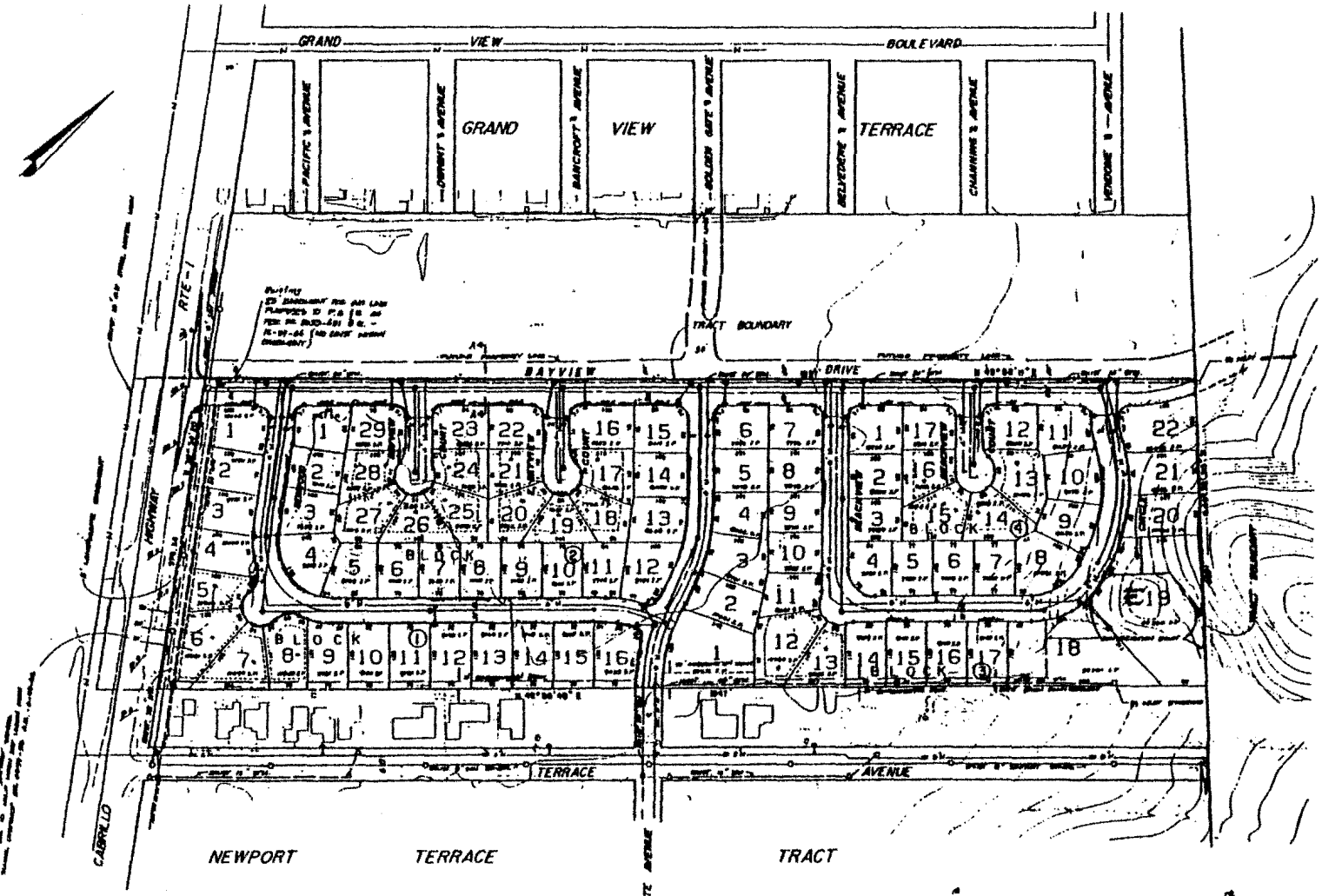
Lot 47

Lot 69

Lot 63

Non-Residential Lots:

EXHIBIT NO.	2
APPLICATION NO. A-2-HMB-01-011	
PROPOSED LOT PLAN	
JUNE 2001 Plan	

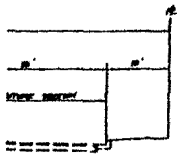


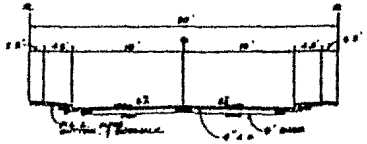
LOCATION MAP

Owner and Subdivider	The Vin Lino Lyon Company 1001 N. First Street Suite 100 San Jose, CA 95112 (408) 277-0151
Engineer	MacKay & Somps 1000 The Alameda San Jose, CA 95126 (408) 296-6000
Present Land Use	Vacant
Present Zone	R-1 B-6
Proposed Land Use	Single Family Residential
Proposed Zone	R-1 B-5
Water Supply	Coastside County Water District
Gas & Electric	Pacific Gas & Electric Company
Telephone	Pacific Bell
Sewer Disposal	City of Half Moon Bay
Storm Drainage	
Improvements	City of Half Moon Bay Requirements
Total Number of Lots	As Shown 57
Minimum Lot Size	7000 Sq. Ft.
Typical Lot Dimensions	75' x 100'
Total Subdivision Area	54.7 Acres more or less
Public Area to Proposed	None

1. Coastside Cable T.V. Inc.
2. Contours by Photogrammetric Survey - Half Moon Bay Group
3. Lot numbers are for identification purposes only and are not intended as final.
4. No existing structures remain.
5. Building setback lines to conform to City Ordinances.
6. Improvements to be installed per standards and specifications of referenced public utility companies and City of Half Moon Bay. Anticipated completion, Fall 1991
7. Subdivider to file a Final Map of Subdivision.
8. Title Report - Sanco Title Insurance Company, 0027T4 [illegible]
9. 53 lots under contract with DCWD - 54 lots this map.
10. See separate exhibits for conservation easements and landscape areas.

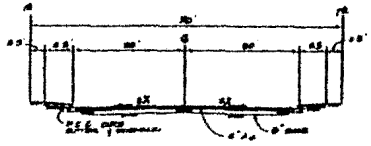
Proposed		Existing
	Sanitary Sewer System	
	Storm Sewer System	
	Storm Inlet and Material	
	Water Lines	
	Clean Out	
	Fire Hydrant	
	Non-conforming lots with building envelopes. Side yard 5' min., front yard 20' min., rear yard 20' min.	





TYPICAL SECTION, ALL OTHER STREETS

SCALE: NONE



TYPICAL SECTION, GOLDEN GATE AVENUE - 80' R/W

SCALE: NONE

EXHIBIT NO. 3

APPLICATION NO. A-2-HMB-01-011

SUPERCEDED 1989 LOT PLAN

Harding Lawson Associates
Engineering and Environmental Services

HLA

FIGURE 1

Drawn	Job Number	Approved	Date	Revised Date
KF	18657.005.02		8/18/89	

PLAT

VESTING TENTATIVE MAP

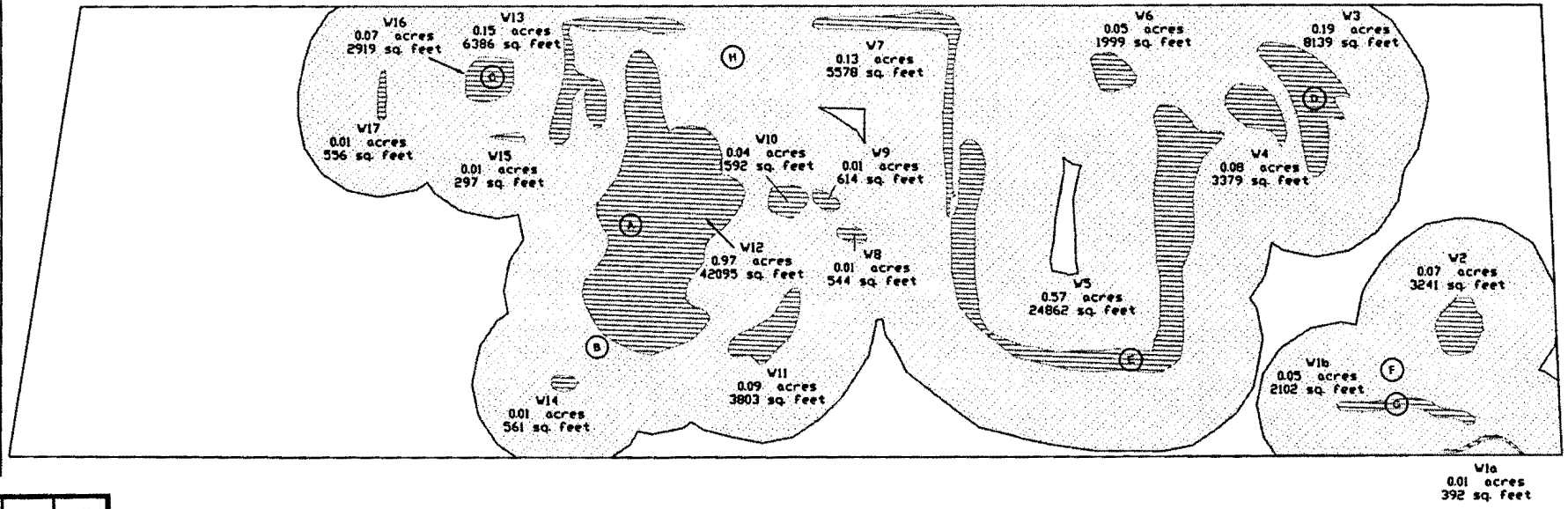
BEACHWOOD SUBDIVISION

CITY OF HALF MOON BAY CALIFORNIA

MacKay & Somps

BEACHWOOD SUBDIVISION - HALF MOON BAY

Wetland Research Associates - Wetland Study Areas



Parcel Boundary

Study Areas

Sampling Point

100 Foot Buffer Zone

N

0 200 400

Feet

NOTE: Acreages and locations approximate. For illustrative purposes only.

EXHIBIT NO. 4

APPLICATION NO. A-2-HMB-01-011

STUDY AREAS W1-W17 PLUS 100 FT. BUFFER

California Coastal Commission Technical Services Division

Source: Wetlands Research Associates, Dec. 1999

JVC, August 2001

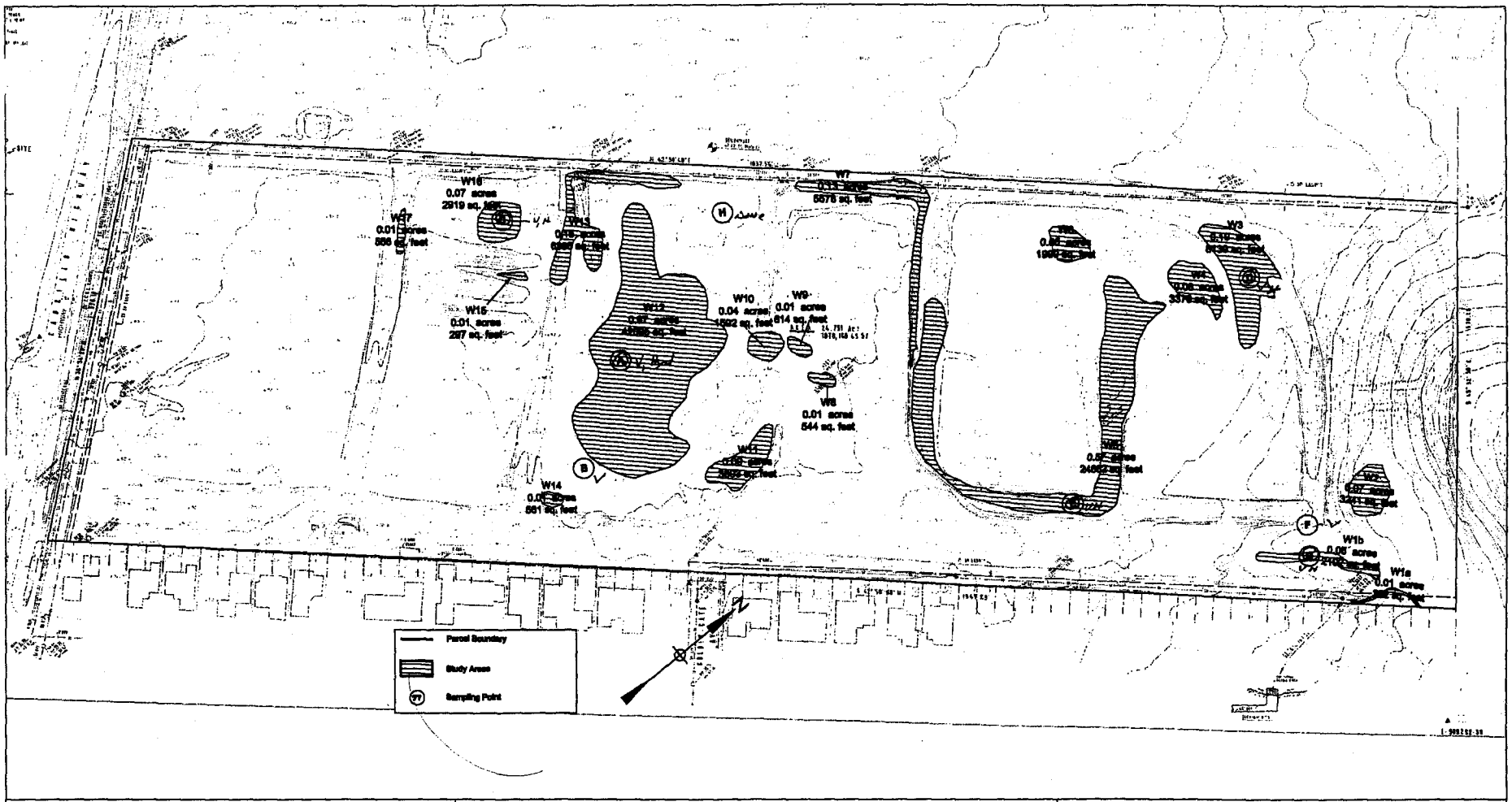


Figure 11. Study Areas at the Beachwood Subdivision with Delineation Sampling Points

SCALE 1:1560

Wetlands Research Associates, Inc.
2169-G East Francisco Blvd.
San Rafael, CA 94901
Contact: Michael Josselyn
Phone: 415-454-8868

LOCATION: Half Moon Bay, CA

COUNTY: San Mateo

APPLICATION BY: Beachwood Subdivision

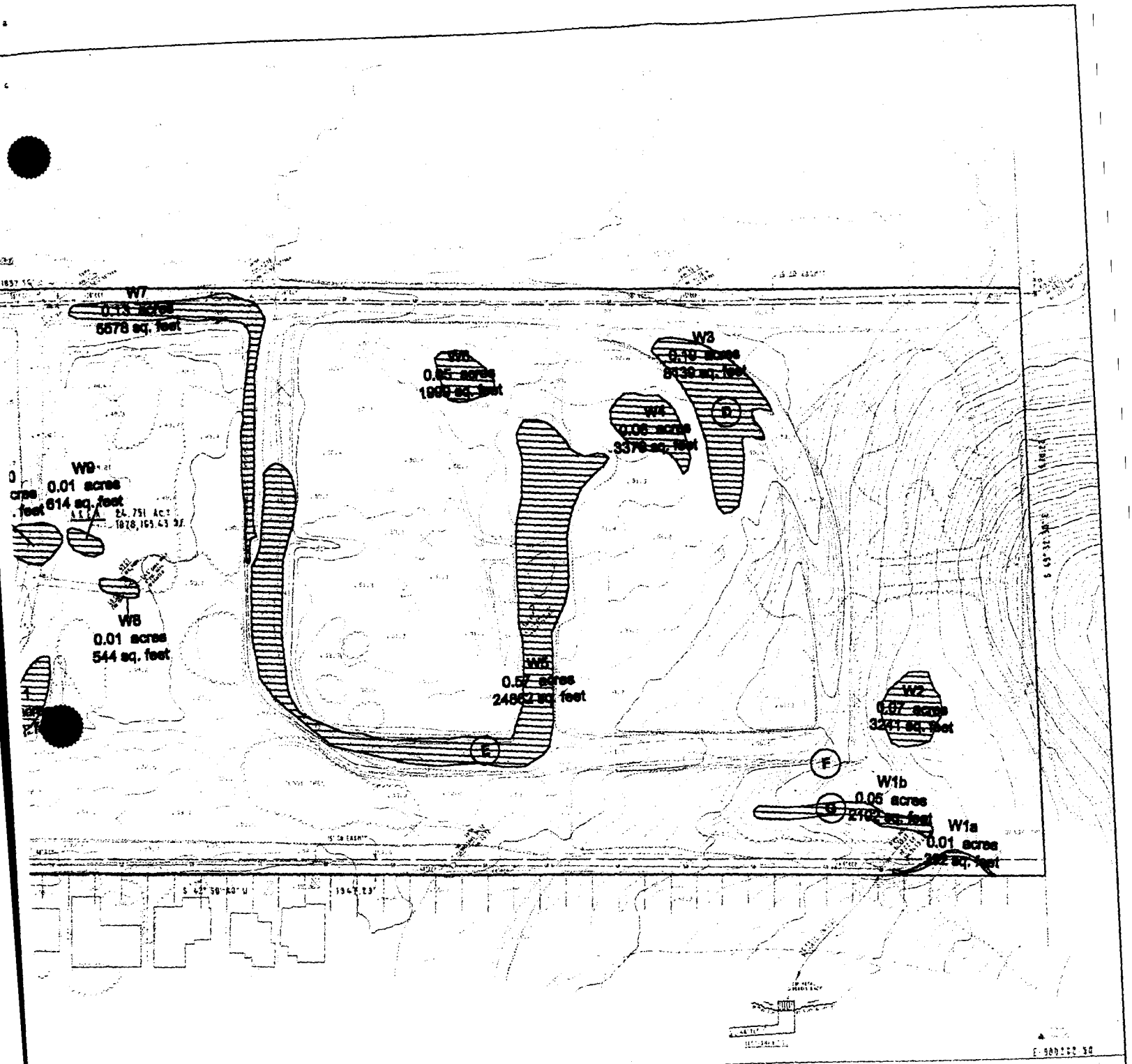
SOURCE: Base Map - Brian Kangas Foulk

DATE: OCTOBER 1999

EXHIBIT NO.

APPLICATION NO.
A-2-HMB-01-011

STUDY AREAS W1-W17
WETLANDS RESEARCH ASSOC.



65 130 FEET

1:1

Associates, Inc.
ancisco Blvd.
CA 94901
sat Joseelyn
-454-6868

LOCATION: Half Moon Bay, CA

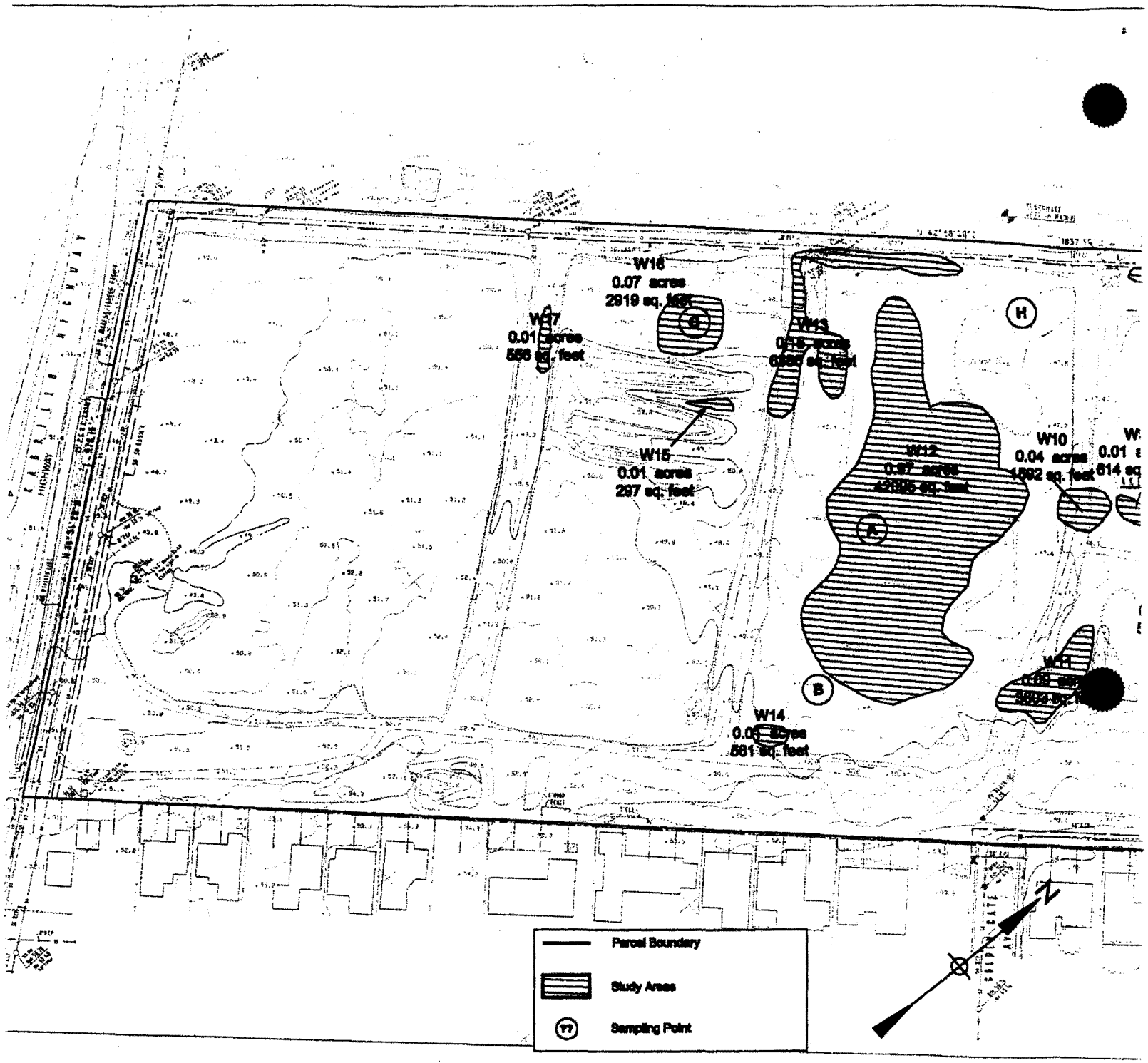
COUNTY: San Mateo

APPLICATION BY: Beachwood Subdivision

SOURCE: Base Map - Brian Kangas Foulk

DATE: OCTOBER 1999

Exhibit 4, p. 3



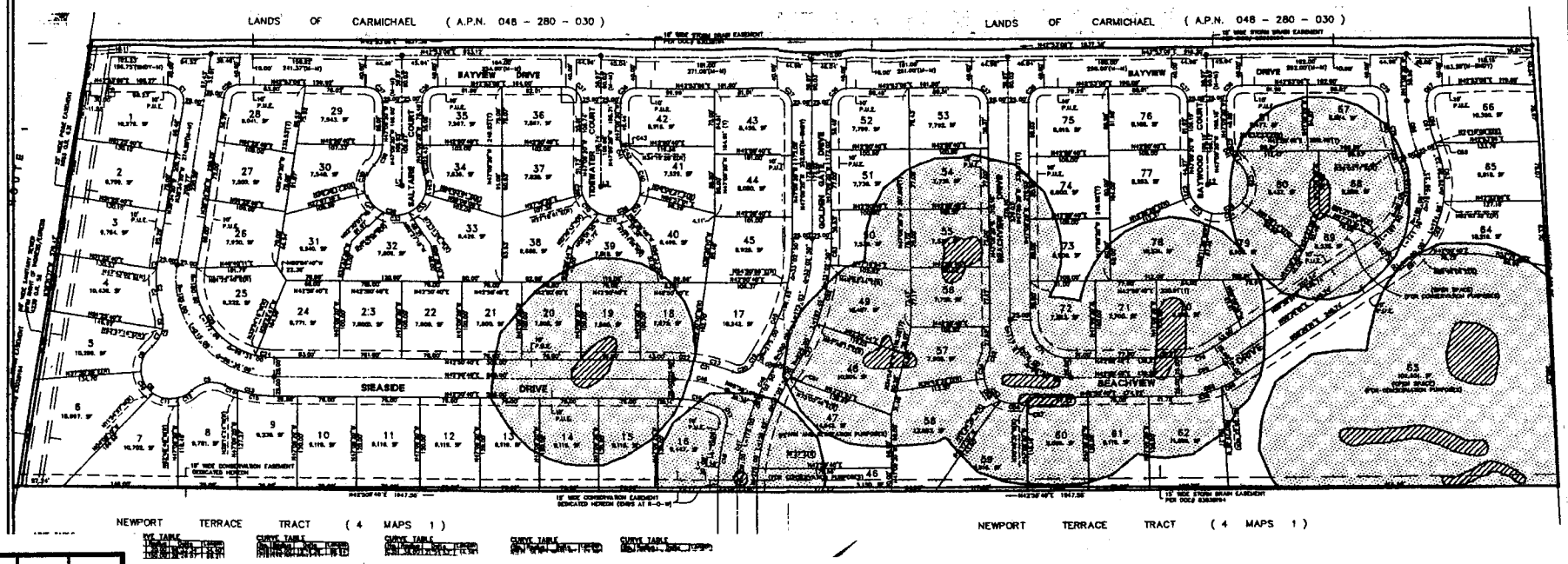
ure 11. Study Areas at the Beachwood
odivision with Delineation Sampling Points

SCALE 1

Exhibit 4, p. 4

BEACHWOOD SUBDIVISION – HALF MOON BAY

LSA "ponded areas and other areas potentially subject to LCP jurisdiction"



Parcel Boundary

Ponded and Other Areas

100 Foot Buffer Zone

N

0 200 400

Feet

NOTE: Acreages and locations approximate. For illustrative purposes only.

EXHIBIT NO. 5

APPLICATION NO. A-2-HMB-01-011

FEB. 2000 LSA

PONDED AREAS, BUFFER

California Coastal Commission
Technical Services Division

Source: LSA, Feb. 2000

JVC, August 2001

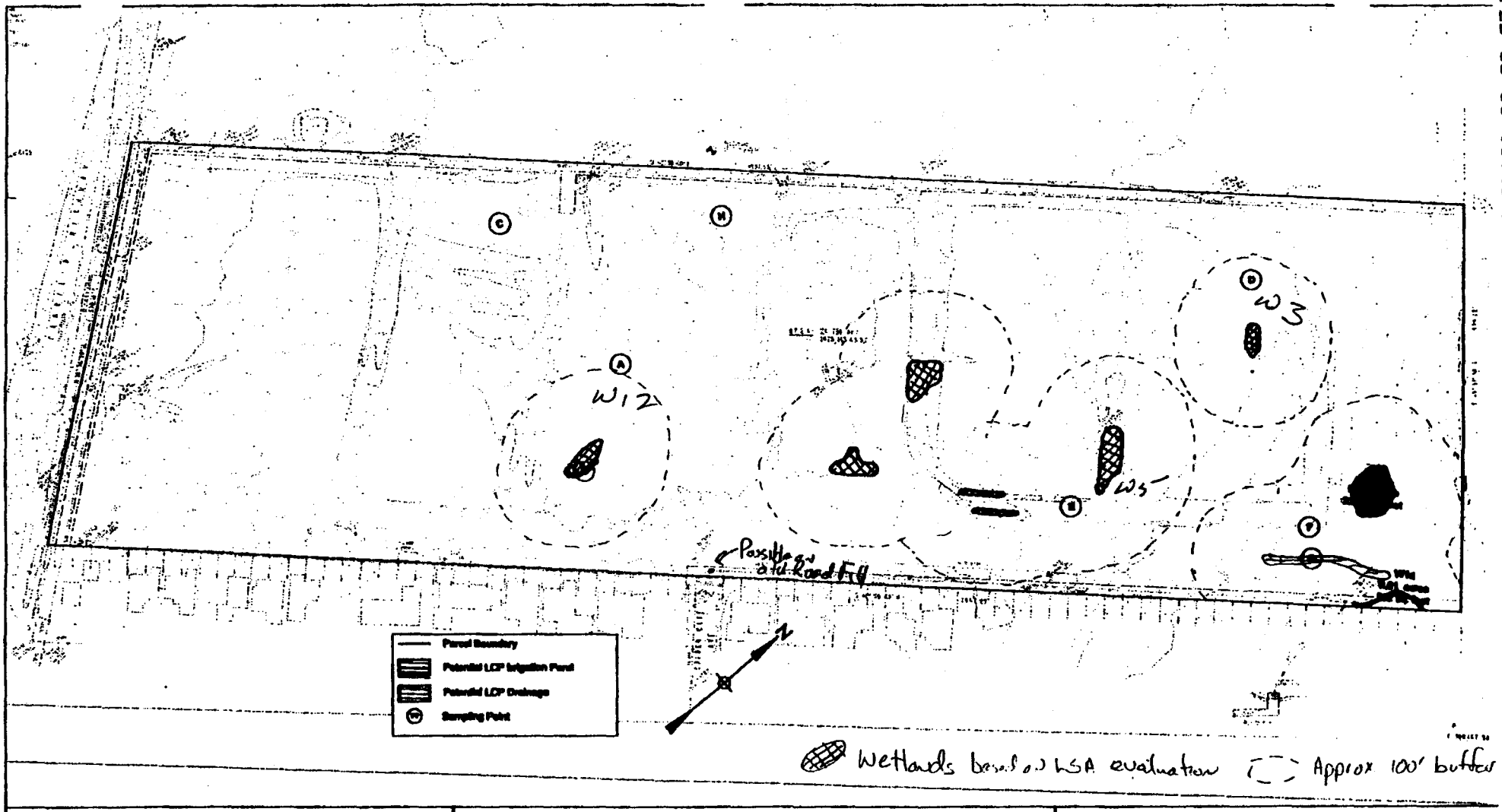


Figure 13. Potential LCP Jurisdictional Areas at the Beachwood Subdivision

SCALE 1:1000

LOCATION: Half Moon Bay, CA

COUNTY: San Mateo

APPLICATION BY: Beachwood Subdivision

SOURCE: Base Map - Brian Kangas Foulk

DATE: DECEMBER 1999

EXHIBIT NO. 5 p.2

APPLICATION NO. A-2-HMB-01-011

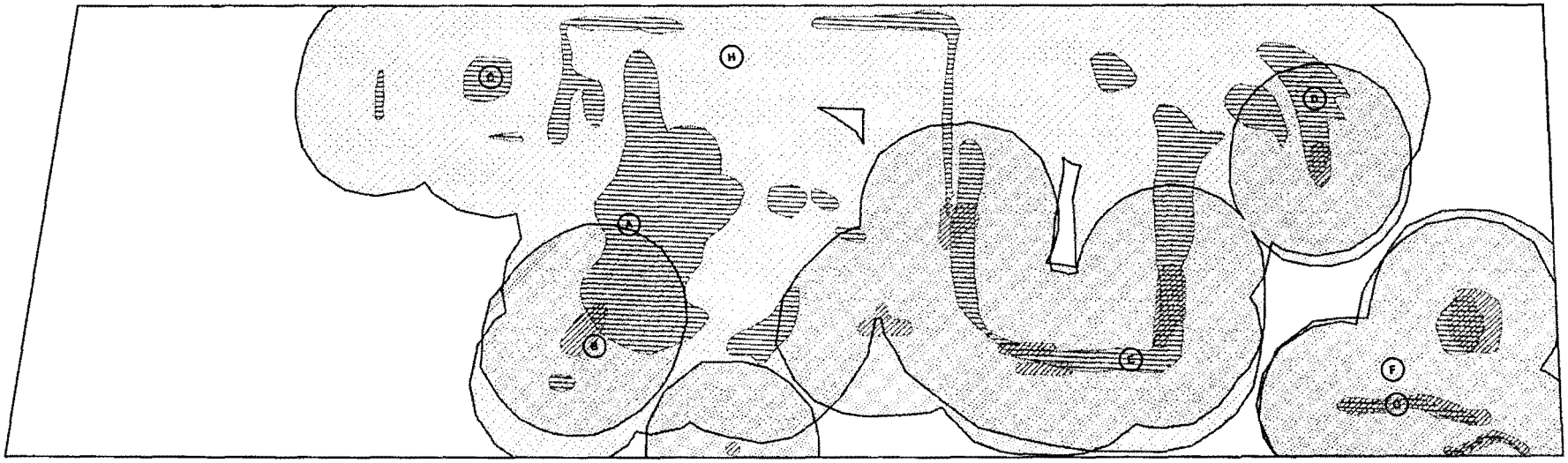
FEB. 2000 LSA

WETLAND IDENTIFIC.

Wetlands Lewis Jaworski 1979

BEACHWOOD SUBDIVISION - HALF MOON BAY

Composite WRA and LSA map showing study areas, ponded and other areas, and 100 foot buffer zones



Parcel Boundary
WRA Study Areas
WRA 100 Foot Buffer Zone
WRA Sampling Point
LSA Ponded and Other Areas
LSA 100 Foot Buffer Zone

N

0 200 400
Feet

NOTE: Acreages and locations approximate. For illustrative purposes only.

California Coastal Commission
Technical Services Division

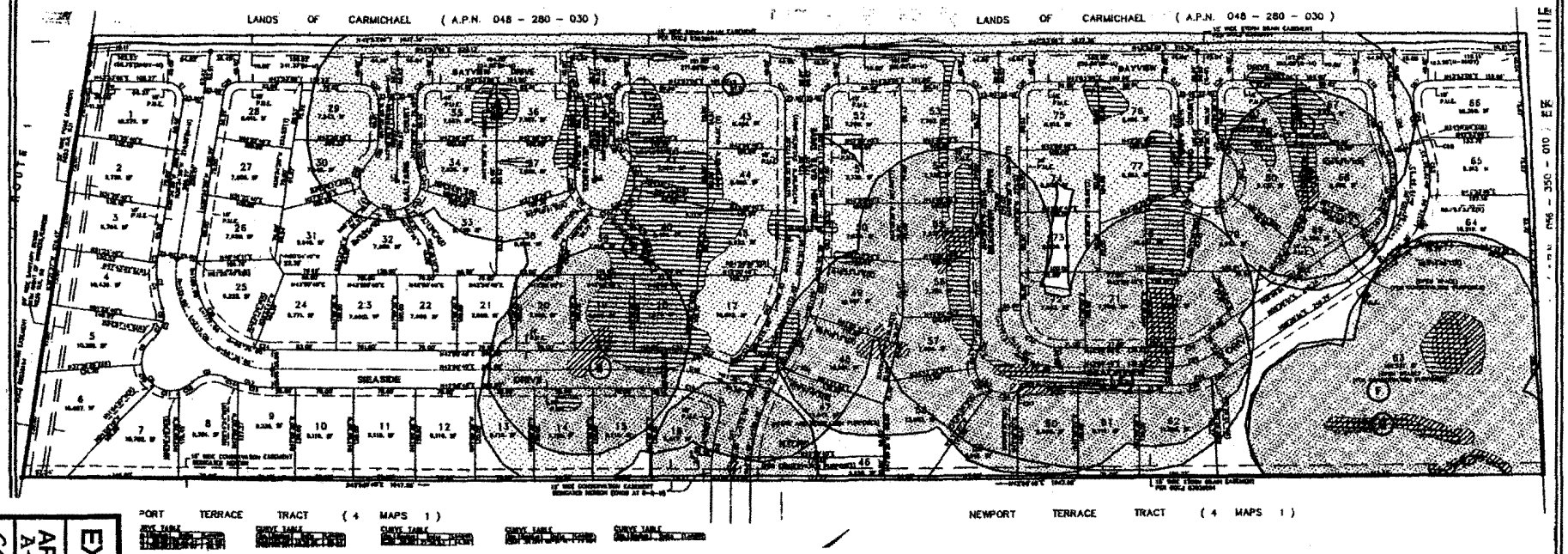
Source: WRA Dec. 1999, LSA, Feb. 2000

JVC, August 2001

EXHIBIT NO. 6
APPLICATION NO. A-2-HMB-01-011
COMPOSITE

BEACHWOOD SUBDIVISION – HALF MOON BAY

Composite WRA and LSA map showing study areas, ponded and other areas, and 100 foot buffer zones



Parcel Boundary
WRA Study Areas
WRA 100 Foot Buffer Zone
WRA Sampling Point
LSA Ponded and Other Areas
LSA 100 Foot Buffer Zone

N

0 200 400
Feet

NOTE: Acreages and locations approximate. For illustrative purposes only.

California Coastal Commission
Technical Services Division

Source: WRA Dec. 1999, LSA, Feb. 2000

JVC, August 2001

EXHIBIT NO. 7
APPLICATION NO. A-2-HMB-01-011
COMPOSITE OVER PLOT PLAN

LAWYERS
WASHBURN
BRISCOE &
MCCARTHY
A Professional Corporation

RECEIVED
JUN 11 2001
CALIFORNIA
COASTAL COMMISSION

June 7, 2001

Mr. Christopher Kern
Supervisor
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, California 94105

Re: Beachwood Subdivision--Appeal No. A-2-HMB-01-011

Dear Christopher:

This letter confirms that the above-referenced CDP on appeal is only for the subdivision, not for the construction of the houses. As stated on Beachwood's CDP application, the proposed project "is an 83-lot single family residential subdivision on a 24.7 acre site, and two lots (0.42 acre) for park and recreation and open space purposes."

If you have any questions regarding the forgoing, please do not hesitate to call me.

Very truly yours,

Anne E. Mudge

Anne E. Mudge

AEM:anh

87358 V01

EXHIBIT NO.	8
APPLICATION NO. A-2-HMB-01-011	
APPLICANT	

55 Francisco Street, Suite 600, San Francisco, California 94133 • Telephone: 415.421.3200 • Facsimi
San Francisco • Sacramento • Fresno • Tahoe City • Juneau
www.w-b-m.com

LAWYERS

WASHBURN
BRISCOE &
McCARTHY

A Professional Corporation

August 22, 2001

VIA FACSIMILE

Mr. Mark Delaplaine
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, California 94105

Re: Beachwood Subdivision

Dear Mr. Delaplaine:

This letter is to confirm that the applicant is seeking a Coastal Development Permit for 77 buildable lots at the Beachwood Subdivision in Half Moon Bay in accordance with the Improvement Plans submitted to you dated June, 2001.

Very truly yours,

Anne E. Mudge

Anne E. Mudge

AEM:aem

cc: William Crowell

93071 V01

EXHIBIT NO.

APPLICATION NO.
A-2-HMB-01-011

APPLICANT

55 Francisco Street, Suite 600, San Francisco, California 94133 • Telephone: 415.421.3200 • Facsimile: 41
San Francisco • Sacramento • Fresno • Tahoe City • Juneau
www.w-b-m.com

LAWYERS
WASHBURN
BRISCOE &
McCARTHY
A Professional Corporation

August 24, 2001

VIA FACSIMILE

Mr. Mark Delaplaine
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, California 94105

Re: Beachwood Subdivision–Half Moon Bay

Dear Mr. Delaplaine:

This letter confirms that the conditions placed by the City of Half Moon Bay on the Beachwood Subdivision as part of the Vesting Tentative Map approved in 1990 are part of the applicant's proposed project description on appeal before the Commission. For the record, this clarification does not waive our objection to the Commission's jurisdiction over the appeal.

Very truly yours,

Anne E. Mudge

Anne E. Mudge

AEM:aem
cc: William Crowell

93138 V01

EXHIBIT NO.	10
APPLICATION NO.	A-2-HMB-01-011
APPLICANT	

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EXHIBIT A

FINDINGS AND CONDITIONS OF APPROVAL

VESTING TENTATIVE MAP SUB-06-88
BEACHWOOD

FINDINGS:

1. That this application was submitted and processed in accordance with the requirements of the Subdivision Ordinance of the City of Half Moon Bay.

2. That the proposed subdivision is consistent with the City of Half Moon Bay Local Coastal Program, Land Use Plan, and all applicable codes and policies of the City.

3. That the site is physically suited for the type and density of the proposed subdivision.

4. That the design of the proposed subdivision as shown on the map dated May 15, 1990, and the proposed improvements will not be detrimental to the health, safety, or welfare of the citizens of Half Moon Bay.

5. That an Initial Study has been prepared for this project in conformance with the California Environmental Quality Act, and it has been determined that this project will not, as mitigated and conditioned, have a significant effect on the environment. The Initial Study and Negative Declaration have been accepted as complete.

CONDITIONS:

Grading and Drainage:

1. That a preliminary geotechnical report shall be required for this project. The geotechnical report shall be prepared, wet-stamped, and signed by a geotechnical engineer licensed by the State of California.

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CITY CONDITIONS	

2. That a Grading Permit obtained through the City Engineer's office shall be required for all grading outside the street right-of-way. A Grading Permit cannot be issued without an approved grading plan and an approved erosion/dust control plan that provides for winterization of the project site. Comply with all applicable provisions of Chapter 14.24 of the Half Moon Bay Municipal Code and with Standards Specifications for Public Works Construction, 1982 Edition.

3. That if historic or archaeological artifacts are uncovered during grading activities, all work shall stop and a qualified archaeologist shall be retained by the applicant, at the applicant's expense, to perform an archaeological reconnaissance and develop mitigation measures to protect archaeological resources.

4. That the Developer shall comply with all U.B.C. Regulations for grading to reduce temporary erosion impacts associated with development. The future potential for erosion will be eliminated when the sites are landscaped.

5. That a drainage report shall be submitted, as part of the initial Final Map submission, for approval by the City Engineer. The report is to include and show all areas tributary to the site and all information pertinent to the capability of the proposed drainage facilities to handle the expected runoff from the site on the site. Additionally, the report shall include or incorporate the grading plan and the erosion/dust control plan for the project to the satisfaction of the City Engineer. All roof drainage shall be collected and conveyed directly to the gutter or street. The storm drain system shall be connected to existing public lines. Submit engineering calculations confirming that existing storm drain capacity downstream of the proposed development is adequate for the additional flow. If capacity is inadequate, submit engineering calculations and plans for improvements to provide adequate capacity or on-site detention or both. Storm drains must have a manhole at each change in direction of pipe. Curved storm drains are not allowed. Manholes should be within paved streets whenever possible. Changes in flow direction greater than 90 degrees should be avoided.

Utilities:

6. That prior to recordation of the Final Map, the applicants shall submit plans for the water connections to the Coastside County Water District Engineer which shall be approved by all required parties. Furthermore, such security as deemed necessary by the Water District shall be required to insure installation of the proposed facilities.

7. That the subdivider shall submit three prints of the approved Tentative Map to each of the following utility companies: Pacific Gas & Electric Company, Pacific Bell, Weststar Cable TV Company, and the Coastside County Water District. The subdivider shall subsequently provide the City Engineer with each utility's easement needs as part of the initial Final Map submittal.

8. That a sanitary sewer report shall be submitted, as part of the initial Final Map submission, for approval by the City Engineer. The report is to include all information pertinent to the capability of the proposed sewer facilities to handle the expected wastewater from the site. The system shall be connected to existing public lines. Submit engineering calculations confirming that existing sewer capacity downstream of the proposed development is adequate for the additional flow. If capacity is inadequate, submit engineering calculations and plans for improvements to provide adequate capacity. Sanitary sewers must have a manhole at each change in direction of pipe. Curved sewers are not allowed. Manholes should be within paved streets whenever possible. Changes in flow direction greater than 90 degrees should be avoided.

9. That adequate fire hydrants shall be installed within the subdivision to the satisfaction of the Half Moon Bay Fire Protection District. A preliminary map shall be provided to the Fire District for review and approval, which shows all fire hydrant and water main locations prior to the recordation of the Final Map. A copy of the response from the Fire District shall be transmitted to the City Engineer.

10. That water supply and distribution line facilities and appurtenances be constructed for domestic water service from Coastside County Water District existing facilities. The developer shall provide evidence of water supply contracts with CCWD for not less than 83 lots. Interim water supply is proposed to be from wells. Proof of formation of a mutual water company shall be submitted prior to the submittal of the Final Map.

    To protect the water source and public health and safety, all water wells shall be set back from possible sources of pollution and contamination. The amount of setback shall depend upon the geology, soil conditions and topography of the well site. Because of the many variables involved in the determination of the safe horizontal distance of a well from potential sources of contamination and pollution, no one set of distances will be adequate and reasonable for all conditions. In areas where adverse conditions exist, the distances listed may be increased. Conversely, where especially favorable conditions exist or where special means of protection, particularly in construction of the well are provided, lesser distances may be acceptable if approved by the County Health Officer, City Director of Public Works, or his designee.

    The following minimum setbacks, measured horizontally from the well, typically shall be:

    From another existing well. . . . . 75 feet

    From any septic tanks. . . . . .50 feet

    From a septic tank leach field. . . 100 feet

    From a sewer line or lateral. . . . . 50 feet

    From a property line (sewered area). . 5 feet

    From a property line (unsewered area) 50 feet

    From an exterior wall of a building foundation. . . . . 5 feet

    From a boundary line of any easement dedicated to or reserved for sanitary sewers or wastewater facilities as shown on a map approved by a sanitary district and placed on file by the district within the City of Half Moon Bay . . . . . 50 feet

The applicant shall submit a site plan showing all wells, sewers, sewer laterals, septic tanks, septic tank leach fields, buildings, and easements for storm or sanitary sewers (both existing and proposed) within 100 feet of any well (existing or proposed) on the applicant's parcel(s).

Prior to approval of the Final Map, the applicant shall obtain a domestic well permit issued by the City of Half Moon Bay to convert the existing test well to a temporary domestic well and shall comply with the requirements herein and with the requirements of the San Mateo County Department of Health Services. The applicant shall execute an agreement to abandon and seal the interim domestic well and connect to a permanent water supply system, at the applicant's expense, within 30 days after written notification from the City of the availability of said permanent system. Said agreement shall be recorded and shall apply to all assigns and successors.

Any water filters or water tanks required as part of the on-site water system shall be anchored to prevent lateral movement in accordance with Chapter 23, Uniform Building Code.

All wells, filters, and water tanks shall be screened from view from the street or adjacent property.

11. That if the Mutual Water Company has a treatment or filtering system with backwash residue, and if it is proposed that the residue is to be discharged to the sanitary sewer system, the backwash discharge will be governed by the pretreatment requirements of the Industrial Waste program. The backwash discharge shall be subject to a sewer connection fee and sewer service charge equal to the equivalent number of single-family residences. The total number of single family equivalents shall be determined by dividing the total estimated annual backwash gallonage by seventy-four thousand eight hundred fourteen (74,814) gallons, but in no case shall it be less than one single-family equivalent.

12. That the subdivider shall pay for all maintenance and operation of all utilities and improvements from the time of installation until acceptance of the subdivision improvements by the City Council.

13. That adequate street access and water system for fire protection shall be installed and in working order prior to the beginning of any vertical construction to

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the satisfaction of the Fire District and the City Engineer.

14. That fire flow and all other applicable Fire Code Regulations shall be to the satisfaction of the Fire District.

15. That the exact location, number, size, and other pertinent information of all utilities including fire hydrants, street lights, sanitary sewers and storm drains will be checked and approved at the time the final improvement plans are submitted to the City Engineer for review.

16. That all new utilities shall be installed underground.

17. That an Encroachment Permit shall be required for all work within the public right-of-way.

Streets:

18. That the improvement plans for the subdivision shall include the design of the intersection at the proposed Bayview Drive and Highway 1. Said intersection design shall be designed in accordance with Caltrans Standards and shall be approved by Caltrans and the City Engineer.

19. That the applicant shall enter into an agreement with the City of Half Moon Bay, the form and content of which is satisfactory to the City Attorney, that provides for the payment of all costs associated with the improvement of the intersection of Highway 1 and Bayview Drive. The applicant may request that the City prepare a Reimbursement Agreement, allowing the applicant to recover a portion of the cost of the intersection improvements from the developers of the adjacent property to the North across Bayview Drive. Said developers would be required to contribute or reimburse their fair share of the intersection improvement costs prior to the approval of the Final Map for that development. Said improvements shall be those necessary to provide ingress and egress from the subject Beachwood Subdivision.

20. That the public improvements shall be in accordance with the City of Half Moon Bay Design Standards and Standard Specifications.

21. That the developer will be subject to standard traffic mitigation fees, which shall be collected prior to approval of the Final Map in accordance with Section 14.35.060 of the Half Moon Bay Municipal Code.

22. That direct vehicular access to Bayview Drive from lots adjacent to the Bayview Drive right-of-way shall not be permitted. The improvement plans for Bayview Drive, Saltair Court, Tidewater Court, Seaside Drive, Golden Gate Avenue, Beachview Drive, and Baywood Court shall be designed to meet Caltrans sight distance requirements.

23. That the driveway access for Lot 15, Block 2, and Lot 6 Block 3, shall be adjacent to the southeasterly side property line. The driveway and garage access shall be designed in such a manner as to permit vehicles to exit the site onto Golden Gate Avenue in a forward direction, rather than backing out onto the street.

24. That the driveway access for Lot 16, Block 1, and Lot 12 Block 2, shall be adjacent to the westerly side property line. The driveway and garage access shall be designed in such a manner as to permit vehicles to exit the site onto the street in a forward direction, rather than backing out onto the street.

25. That unless the subdivider can provide the City with proof of title or interest in that portion of the adjacent parcel (APN 048-280-010 - Marchioro) within 30.00 feet of the centerline of Bayview Drive prior to submitting a Final Map, then the subdivider shall submit an amended Vesting Tentative Map with the Bayview Drive right-of-way wholly within the Beachwood Subdivision.

26. That the subdivider shall construct curb, gutter, sidewalk, and pavement construction along the street frontages indicated below in accordance with the plans approved by the City Engineer.

Street	Curb Type	Sidewalk Width, FT.
Bayview Drive	Vertical	4
Saltair Court	Vertical	4
Tidewater Court	Vertical	4
Beachview Drive	Vertical	4
Baywood Court	Vertical	4
Golden Gate Avenue	Vertical	4
Seaside Drive	Vertical	4

Construct the proposed streets to applicable City standards as follows:

Street Name	Classification	Minimum Width, Ft. Right-of- Way	Curb to Curb
Bayview Drive	Secondary Arterial	80	60
Saltair Court	Minor	50	36
Tidewater Court	Minor	50	36
Beachview Drive	Minor	50	36
Baywood Court	Minor	50	36
Golden Gate Avenue	Minor	50	36
Seaside Drive	Minor	50	36

The minimum radius of any cul-de-sac shall be 30 feet to the face of curb.

27. That there shall be adequate street lighting throughout the project to IES standards for urban residential streets to the satisfaction of the Director of Public Works. The street lighting shall be owned and maintained by Pacific Gas and Electric Company.

28. That the developer shall provide a five foot wide landscaping strip adjacent to Highway 1 along the entire frontage of the development site. The landscaping plan for this area shall be reviewed and approved by the Architectural Review Committee. All landscaping and the irrigation system shall be installed prior to the City accepting the other public improvements within the development. At such time as the public improvements are accepted, the City of Half Moon Bay shall assume the responsibility for maintenance.

29. That a wall shall be constructed for sound attenuation purposes along the frontage of the development site adjacent to Highway 1. The City Engineer shall review the final location and design of the wall to ensure adequate site distance is provided at the intersection of Highway 1 and Bayview Drive.

Park Dedication Requirements:

30. That the developer shall dedicate to the City of Half Moon Bay for Park and Recreation purposes all of Lot 1A of Block 3 and all of Lot 19C of Block 3. In addition, these two sites shall be developed in essentially the same manner as proposed in the Beachwood Landscape Project Plans submitted as a part of the City Council

approval of this Vesting Tentative Map. The City Parks and recreation Director shall review the proposed park improvement plans and budget prior to the submittal of the Final Map. All facilities and landscaping shall be installed per the approved plans prior to the issuance of building permits for any residential construction. In the event that building permits are requested prior to the completion of the installation of the required park and recreation facilities, the applicant may post a bond satisfactory to the City Attorney, Public Works Director, and Parks and recreation Director to ensure that the required improvements are installed prior to the finalization of any building permits.

31. That the areas to be dedicated to the City of Half Moon Bay for Park and Recreation purposes shall be separated physically and visually from the adjacent residential building sites and the Conservation Easement Area to the satisfaction of the Director of Parks and Recreation and the Department of Fish and Game.

32. That all of Lots 1B, 19A, and 19B of Block 3 shall be subject to an irrevocable offer of dedication, and shall be maintained in a manner satisfactory to the California Department of Fish and Game.

Residential Construction:

33. That all building heights and setbacks from the lot lines must be consistent with the R-1-B-2 Zoning Regulations in Title 18 of the Half Moon Bay Municipal Code to the satisfaction of the Director of Planning.

34. That any single family homes constructed on the lots must be designed in such a manner that the ambient noise level within the structure shall meet a Sound Transmission Class (STC) of 50 (45 if field tested and verified by a registered Noise Engineer to the satisfaction of the Director of Planning).

35. That all housing units shall be designed and constructed in accordance with all U.B.C. Regulations (1982 Code) with all building plans to be reviewed and approved by the Building Department prior to the issuance of any Building Permits, to the satisfaction of the Director of Public Works. Computations and back-up data will be considered a part of the required plans. Structural calculations, engineering calculations, or both shall be prepared, signed, and wet stamped by an engineer or architect licensed by the State of California.

36. That all residential dwellings shall display lighted street address numbers in a prominent location on the street side of the residence in such a position that the number is easily visible to approaching emergency vehicles. The numerals shall be no less than four inches in height and shall be of a contrasting color to the background.

37. That the developer shall construct all structures in compliance with the strictest standards listed in the U.B.C. Regulations for single family residence earthquake safety as required by Title 24 of the California Administrative Code.

Final Map Submittal:

38. That the initial submission of the Final Map shall be in complete form and accompanied by the traverse sheets, map checking fee and all other items required by the City Engineer. The Final Map shall include a name to be approved by the City Council for any streets and offer all necessary rights-of-way and easements for dedication. The submittal shall include the latest title report (tract map) guarantee of the property.

39. That all material necessary to present the subdivision Final Map to the City Council shall be submitted to the City Engineer at least four weeks prior to the presentation. The material shall be submitted in a form satisfactory to the City Engineer.

40. That the subdivider shall submit improvement plans for the public improvements, including a grading plan and an erosion/dust control plan, as part of the initial Final Map submission. The plans shall be in complete form and in accordance with the standards established by the California Subdivision Map Act, the City's Municipal Code, and the City Engineer regarding format and design information required.

41. That the subdivider shall irrevocably offer for dedication to the public for their use, all streets, easements for public utilities, for sanitary sewers, for storm drainage, for water lines, and for public access as may be required.

42. That any permits required by the Coastal Commission, Caltrans, the California Fish and Game Department, the U.S. Army Corps of Engineers, or any other agency with permitting jurisdiction over the subject property shall be obtained by the applicant or the applicant's representative prior to the issuance of Building Permits.

43. That the subdivider pay all outstanding fees and charges due, and make any necessary escrow deposits prior to the recordation of a Final Map.

44. That the subdivider shall cause to be prepared and shall enter into a Subdivision Agreement satisfactory to the City Council covering all of the conditional items specified herein as required by law prior to or when the Final Map is submitted.

45. That the subdivider provide City standard survey monumentation in the street. Three-fourths inch diameter I.P. monuments (24 inch minimum length) shall be set at all lot corners, except where sidewalks are to be constructed or are existing. The surveyor shall set lead and tack in the sidewalk at these locations.

46. That the developer shall be subject to standard storm drainage improvement fees, which shall be collected prior to the approval of the Final Map, in accordance with Chapter 17.08 of the Half Moon Bay Municipal Code.

Special Fire Service Zone:

47. That the applicant shall agree to participate in the formation of a special service zone to assist in the funding of the additional manpower required to service the project. As additional fire service zones are developed, the assessment may be adjusted as necessary to reflect the proportionate contribution of each area for fire protection services. Prior to the issuance of building permits, the applicant shall execute an agreement with the Fire District which shall provide for fully funding the first years assessment at a date set forth in the agreement.

file: S0688FC1

LAWYERS

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March 10, 1999

VIA FACSIMILE

Rick Jarvis, Esq.
Meyers, Nave, Riback, Silver & Wilson
777 Davis Street, Suite 300
San Leandro, California 94577

Re: Beachwood Subdivision

Dear Rick:

I received your letter dated March 3, 1999. This letter responds to the four issues you addressed in that letter. I have also forwarded to my client the issue of beginning talks to discuss the development of the property.

No Coastal Development Permit Is Needed to Maintain the Historic Drainage Patterns on the Property

The City has no authority over the draining of standing water from real property. Your letter relies on the Coastal Act, in particular on Public Resources Code section 30106 and Half Moon Bay City Code section 18.20.020(c) as the potential source of such authority. These sections define "development" within the meaning of the Act and the Local Coastal Plan. You have contended that "removing . . . or extraction of any materials" includes the draining of standing water from land. We disagree. "Water" is not a "material" as used therein. First, the definition of "development" elsewhere uses the term "water" in denoting "water" as opposed to a solid material and also uses the term "liquid . . . waste" to denote a solid material suspended in water. If the definition of "materials" were intended to include "water," the definition would have said so. Second, the Act also defines "fill" as "earth, or any other substance or material." (Pub. Resources Code section 30108.2.) Unless "water" is to be construed to be "fill," it is unreasonable to interpret the term "material" as "water."

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Even if the draining of standing water could reasonably be construed as the removal or excavation of "material" within the meaning of section 30106 of the Coastal Act and section 18.20.020(c) of the City's Code, both laws exempt from coastal permitting requirements "repair and maintenance activities, that do not result in an addition to or enlargement of or expansion of, the object of such activities, except as otherwise specified in Subchapter 7, Title 14, Section 13252 of the California Code of Regulations and any amendments thereafter adopted." (Half Moon Bay City Code section 18.20.030(C)(2); Public Resources Code 30610(d); Union Oil Co. v. South Coast Regional Com. (1979) 92 Cal.App.3d 327 [repair of facilities to restore them to functional equivalent of original is exempt from Coastal Act permitting requirements under Section 30610; Coastal Commission's determination otherwise is "clearly erroneous."])

In this case, the activities my clients commenced and propose to continue are maintenance activities that will restore the drainage patterns on the property so that these existing drainage facilities will again function properly. The repair and maintenance exemption under section 30610(d) and 18.20.030(C)(2) therefore applies. 14 CCR § 13252 contains no exception to this exemption applicable here.

The factual basis for this exemption is straightforward. In 1982, the City created the Terrace Avenue Assessment District to benefit five properties (Dykstra Ranch, Beachwood, Glencree, the Terrace Avenue Subdivision , the Lands of Podesta, and a parcel where Oceanshore Hardware and Andreini Construction are located.) One of the purposes of the District was to prevent the flooding of the Beachwood property and parts of the Highland Park Subdivision, which includes Silver, Terrace and Highland Avenues. Pursuant to the Assessment District, the City installed a storm drainage system in and on the Beachwood property. This system consisted, among other things, of a 15-foot wide storm drainage easement dedicated to the City running along the southeastern border of the Beachwood property, emptying into a 48" storm drainage inlet. This storm drainage easement and inlet were intended to capture flood and surface waters flowing from the Dykstra land onto the Highland subdivision and onto the Beachwood Subdivision. These features were also intended to capture waters flowing in an intermittent stream ending at the southeast corner of the Beachwood property. A bermed ditch was also installed across the top of the Highland Park Avenue subdivision to direct water flows away from that subdivision and towards the drainage channel at the southeast corner of the Beachwood property and thence into an inlet within the easement. This diversion increased flow of waters that otherwise would have flowed into the drainage channel. Waters flowing into that drainage channel were then intended to flow into the 48" inlet and then in an underground pipe along the southern border of the property, turning south under Golden Gate Avenue.

47907 V01

As part of the 1982 Assessment District, the City also required the dedication of another storm drainage easement along the middle of the Beachwood property (under the alignment of future Bayview Drive). This easement contains an underground pipe with drainage inlets at intervals ranging from 100 to 300 feet. These drainage inlets can be seen from a visual inspection of the property and are also depicted on the Terrace Avenue Assessment District (Sheet 7 of 19) as stubby extensions off the manholes and identified by notations such as "5'—12" RCP [Reinforced Concrete Pipe] @ .005." The site was also graded in 1982 into street patterns allowing surface waters to drain into these inlets. The Terrace Avenue Assessment District Maps shows that these graded roadbeds "line up with" the drainage inlets. Aerial photographs from this time clearly show these graded roadbeds.

The drainage system described above functioned acceptably for some time. Hence, in 1989, the Army Corps of Engineers disclaimed jurisdiction over the entirety of the property, except for the .003 acre abandoned stock pond in the southeast corner. As of December 1989, therefore, no wetlands existed on the property except as specified. Recently, however, the drainage system has been malfunctioning. Specifically, instead of draining into the drainage inlets currently existing along the northern border of the property, water has been ponding in the graded roadbeds. These conditions have been caused in substantial part by excess waters flowing over the property from the southeast corner of the site as well as from lack of recent maintenance of the drainage swales themselves. The cause of the flooding of excess water on the site has been the City's failure to maintain the storm drain easement and 48" inlet it installed in 1982 in the southeast corner of the property. Due to the lack of maintenance, debris has been allowed to collect within the easement above the inlet, which has diverted water flows away from the inlet and onto the property. The inlet itself has also become clogged and has caused water to overflow onto the property. These conditions are obvious from a visual inspection of the property and have been confirmed by a hydrologist, whose report will be submitted to you shortly. We have recorded these conditions photographically and through the physical inspection thereof by several experts.[1]

The maintenance activities we propose are to (1) remove the debris and embankment repair in the City's storm drainage easement so that waters will stay in the channel and flow into the 48" storm drainage inlet in the south east corner; and (2) clear the drainage swales of silt and debris so that surface waters will once again drain into the inlet structures already installed along the properties' northern border. These maintenance activities would not require a grading permit under Section 7003 of the Uniform Building Code, subd. 8. (1991, UBC, see also Section 3306.2 of the 1994 UBC.) (The reference made by Joan Lamphier to

[1] Mr. Carney's argument that the water curves "back into" in the storm drainage easement is factually unsupported by the topography.

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the limitation of 50 cubic yards refers to *fills* under section 7003 subd.(9), not excavations.) The maintenance activities therefore do not require any discretionary permit from the City of Half Moon Bay, either under the Coastal Act or under the grading provisions of the Uniform Building Code.

Beachwood Does Not Need To Install Any New Drainage Inlets

Your March 3, 1999 letter contains a misunderstanding about the existing drainage facilities. Please be advised that we do not need to install any new drainage inlets and are not requesting permission to install any such inlets. As described above, six drainage inlets were installed by the City as part of the Terrace Avenue Assessment District and are located in a storm drainage easement that runs along the northern boundary of the property (under the planned alignment of Bayview Drive). Our plan is restore the function of these existing inlets by removing the silt and blockage that has clogged the drainage pathways leading to these inlets and also to remove the debris from the City's drainage easement. This work is necessary for Beachwood to mitigate the damage caused by the City's failure to properly maintain the storm drain facilities on the south.

The City Is Liable for Allowing Excess Surface Water To Flow Onto the Beachwood Property.

Your March 3, 1999 letter expresses your opinion that the City has no "real exposure" for causing damage to the Beachwood property due to the overflow of flood and/or surface waters onto the property. We find this position surprising in light of the many published decisions finding municipalities liable when poorly engineered or maintained public drainage systems have damaged properties by causing flooding or excessive surface water to flow onto the property. In this case, the damage that has resulted from these excess water flows is the clogging up of the properties' existing drainage system and the resultant ponding of water in the graded roadbeds of the site. If the City refuses to allow Beachwood to maintain the drainage system of its property and also denies a Coastal Development Permit for its subdivision on the ground that ponded water has created wetlands where no wetlands existed before, this will severely diminish the property's value. Beachwood will be entitled to seek compensation from the City for both a physical and a regulatory taking of Beachwood's property.

You requested legal authority on the issue of the City's liability for causing damage to property based on faulty engineering or maintenance of public storm drain and flood control systems. Many cases establish such liability in cases of both surface waters and flood waters. In the case of surface waters, it need not even be shown that the public agency acted unreasonably but only that the agency's system resulted in the inundation of

EXHIBIT 12

the plaintiff's property. In the case of flood waters, the agency's actions must have been unreasonable. In this case, we have both excess surface waters being diverted onto the property and an unreasonable action by the City in failing to maintain its storm drainage system. Examples of liability for damage to property from water include Yue v. City of Auburn (1992) 3 Cal.App.4th 75; McMahan's of Santa Monica v. City of Santa Monica (1983) 146 Cal.App.3d 683; Sheffer v. County of Los Angeles (1970) 3 Cal.App.3d 720; Burrows v. State of California (1968) 260 Cal.App.2d 29; Frustuck v. City of Fairfax (1963) 212 Cal.App.2d 345; Belair v. Riverside County Flood Control District (1988) 47 Cal.3d 550; Granone v. County of Los Angeles (1965) 231 Cal.App.2d 269. The kind of damage to property obviously varies from crop damage to loss of use. Our firm recently settled a case very much like this one against CalTrans in which CalTrans' failure to maintain drainage facilities caused wetlands to form on our client's property, in turn causing the Army Corps of Engineers to assert jurisdiction over the property where it had not done so previously. The settlement amount was close to $1 million.

We would like to resolve the drainage issue as soon as possible and avoid prolonged litigation on this issue. There is ample evidence that the City's failure to maintain its storm drainage system has caused damage to our client's property. Our maintenance of the existing drainage system will mitigate the damage caused by the City. The work requires no discretionary permit by the City. No CEQA issue is therefore raised. The work is exempt from permitting under the Uniform Building Code provisions regarding grading. As repair and maintenance of the existing drainage system, the work is also exempt from the Coastal Act's permitting requirements. The work requires no permit under the Fish & Game Code or the Clean Water Act.

Your prompt response would be appreciated.

Very truly yours,

Anne E. Mudge

Anne E. Mudge

AEM:aem
cc: William Crowell
Charles J. Keenan
Bud Carney

EXHIBIT 12 p.5

47907 V01

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February 8, 1999

VIA FACSIMILE

Benjamin P. Fay, Esq.
Meyers, Nave, Riback, Silver & Wilson
Gateway Plaza
777 Davis Street, Suite 300
San Leandro, California 94577

Re: Yamagiwa v. Half Moon Bay

Dear Mr. Fay:

I received your letter dated February 4, 1999 concerning the subpoena we served on Melanie Mayer Consulting. I have already responded to the issues raised in your letter of January 28, 1999 in my letter of February 4, 1999. In addition to repeating certain claims, your second letter raises additional meritless objections to the subpoena. We respond to those contentions as well as your unwarranted and false contentions concerning the pumping of standing water on my client's property.

A. The Business Address Shown On The Subpoena Was Proper

You allege first that we failed to properly indicate the deponent's correct business address on the subpoena. We obtained the address used on the subpoena (10 Center Street in Salinas) from a database search of business records (Lexis/Nexus) because her letterhead contains only a post office box. When service was attempted at this address, it was obviously unsuccessful since Ms. Mayer had moved. We then contacted Ms. Mayer by telephone to obtain a correct business address. She refused to provide another street address but would only provide her post office box. (Please see the attached memorandum from our process server documenting this refusal.) However, she agreed to accept service at the location of a business office she was considering renting. She did not indicate whether this location is now her permanent business address or not. Given Ms. Mayer's refusal to

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provide any current business street address, our use of the 10 Center Street business address was proper.

B. Beachwood's Maintenance Activities Are Completely Legal

Your February 4, 1999 letter also alleges that my "client was recently caught red-handed by the Department of Fish and Game trying to pump the wetland on the subject property." You then refer to this as an "illegal attempt to disrupt the City's investigation of the property by destroying evidence of the extent of the wetland." These accusations are incorrect, irresponsible and without any legal basis. Your defamatory assertions may be actionable.

Contrary to your letter, the owners of Beachwood were engaged in legitimate maintenance activities at the site to restore the property to its normal condition. The pumping of standing water from real property is legal under all federal, state and local law. No permit is required of any agency for this activity.

The pumping was preparatory to performing legitimate repair and maintenance of the drainage system on the property which, under normal conditions, flows through the "horseshoe" area identified by Melanie Mayer in a January 13, 1999 letter to the City to an inlet pipe on the northwest corner of the "horseshoe." The water has been ponding in this horseshoe area due to the silting up of the drainage pathways and due to the City's failure to maintain its storm drain system, as explained in more detail below.

We want to advise you further that if the City ultimately prevents the property owner from developing the site, or any portion thereof, due the potential presence of wetlands not in existence in 1990, the owner will look to the City for compensation for a physical taking of property. The basis for this inverse condemnation claim is clear: the only wetlands that existed on the property in 1990 were .003 acres of wetlands in the southeast corner (the abandoned stock pond) as described by the Harding Lawson report of 1990 and formally confirmed by the Army Corps of Engineers' disclaimer letter of December of 1989. If wetlands have developed since that time, they have developed only because the City's actions and inaction have prevented the owner from developing the property. Specifically, the City has failed to properly maintain the public storm drainage system on the southern eastern edge of the property. Not only is the normal functioning of the inlet structure impaired by sediment and debris (including plywood in and over the structure), but substantial debris blockage within the storm drainage easement above the inlet structure has diverted water over the site instead of draining into the City's system. As a result, water has flowed in a north west direction over the property and ponded in the graded road beds identified as the "horseshoe area" in Melanie Mayer's January 13, 1999 letter to Joan

Lamphier. This ponding is the direct result of the City's failure to maintain its system. (I am informed that as of February 5, 1999 the City has already performed maintenance work on this inlet.) Our maintenance of the drainage system via pumping is an attempt to mitigate the damage caused by the City's negligence.

The effect of the City's mismanagement of the drainage system has been exacerbated by its on-going refusals to allow the property to be properly graded or developed into residential housing in accordance with the vesting tentative map approved by the City in 1990. If wetlands have formed anywhere on the property during this period, it is only because Beachwood's legitimate plans to grade and develop the site were thwarted by the City. The City's actions to keep the property undeveloped include, but are not limited to, the following:

(1) The City's repeated refusals in 1989 and 1990 to reserve sewer connections for the Beachwood development despite granting a Vesting Tentative Map for 85 lots;

(2) The City's imposition in 1991 of a sewer moratorium precluding the issuance of a coastal development permit at that time, ultimately precluding development of the property for the next eight years;

(3) The City's refusal in 1992 to allow the property owner to operate a temporary private sewer plant on the property until the public sewer facility could be expanded;

(4) The City's refusals to allow the property owner to grade the property pending the end of the sewer moratorium;

(5) The City's delays in financing and constructing an expansion of the sewer treatment plant despite having assessed the property owner nearly $1 million in 1994 for this purpose;

(6) The City's refusal to accept and process a Coastal Development Permit application for the subdivision from June 1997 to April 1998 despite having issued CDPs to other property owners during this same period;

(7) The City's demand for $43,000 in processing fees as a condition to accepting an application for a development application as complete;

EXHIBIT 13 p3

(8) The City's refusal to be bound by its previous findings of consistency with the Local Coastal Plan;

(9) The City's demand for payment of traffic mitigation fees vastly more than the project's fair share of the impacts of the project on Highway 1 as a condition of the issuance of a Coastal Development Permit;

(10) The City's violation of the Permit Streamlining Act by failing to provide notice of time-lines and permitting requirements;

(11) The City's repeated failure to set a hearing on the owner's application for a CDP until told that it must do so to comply with the Permit Streamlining Act;

(12) The City's failure to provide the owner with notice of any hearing on the CDP.

(13) The City's "eleventh hour" suggestion that wetlands exist on the property as a basis for requiring an EIR when less than four months ago the City indicated a Negative Declaration would be appropriate.

(14) The City's intimidation of the property owner's workcrew without any basis in law;

(15) The City's encouragement of vigilantism by a neighbor who informed the workcrew, without any legal basis, that they would be arrested.

This list of the City's obstruction of development is not exclusive. Based on its past actions, moreover, we anticipate that the City will manufacture additional reasons the property cannot be developed as allowed under the Vesting Tentative Map. Indeed, during a February 3, 1999 meeting with Bud Carney, Planning Director, Mr. Carney suggested that the City may now assert there are endangered species on the property. Mr. Carney apparently was not aware that, in June of 1998, the City's consulting botanist and biologists indicated that no endangered species are present on the property. (See Initial Study at pp. 8 and 10.) If there are endangered species on the property now, it would only be because someone has purposefully put them there in order to thwart development. If that were to be true, we are told by Warden Brian Arnold of the Department of Fish and Game that the persons responsible would be guilty of a felony.

Please also be advised that we met with Warden Arnold at the site on February 3, 1999. He informed us that he was responding to a complaint received from Mr. George

Carmen who lives in the subdivision next to the Beachwood site who called to state that workers were "pumping water from a creek" on the property. As you well know, no creek was pumped. Based on his erroneous belief, Mr. Carmen intimidated the workmen at the site by telling them that he "would have them arrested." Mark Hoffman, an assistant planner, also confronted a worker on the site and told them to stop doing any work and that he was going to take pictures. Mr. Hoffman declined to talk to the owner when offered the opportunity and proceeded onto the property to take photographs. When advised he had no permission to do so, Mr. Hoffman then replied he would go get the police and the Department of Fish & Game, and that he was "going to stop this today." Mr. Hoffman had and has no legal basis to stop the activity. Warden Arnold has made no indication, nor could he, that the pumping activities of the previous day were unlawful in any way since pumping standing water from land is not illegal. Indeed, he issued no orders whatsoever. (Assistant Planner Ambrosia Smith at the City informed us on February 3, 1999 that Warden Arnold had issued a "cease and desist" order. This is false.) He indicated only that he would examine the permit history of the site and issue a report on the Department of Fish & Game's role, if any, with respect to the incident report filed with his department.

The City's continuous attempts to find new grounds on which to unvest the vesting tentative map, including its recent attempts to find new wetlands on the site are outrageous and unconstitutional. I am available if you would like to discuss the contents of this letter.

Very truly yours,

Anne E. Mudge

Anne E. Mudge

AEM:aem
cc: Mr. William Crowell
Mr. Charles J. Keenan
Mr. John Truxaw
Mr. Bud Carney

EXHIBIT 13 p.5

46726 V02

TAYLOR • PRICE
ATTORNEY SERVICE
P.O. BOX 411291
SAN FRANCISCO, CA 94141-1291
(415) 543-0700 FAX (415) 543-6450

DATE: 01/22/99 INVOICE NO. 99-01532

FIRM NAME: WASHBURN, BRISCOE & McCARTHY
STREET: 55 Francisco Street, Suite 600
CITY/STATE/ZIP: San Francisco, CA 94133
PHONE: (415) 421-3200
COURT: San Mateo Superior - Redwood City
CASE #: 402781
PLAINTIFF: JOYCE YAMAGIWA, etc., et al.
DEFENDANT: CITY OF HALF MOON BAY, et al.

ATTORNEY: Anne E. Mudge (SBN 133940)
ATTENTION: Alleen Hodgkin
ATTY FILE #: 2180-001
ATTY FOR: Joyce Yamagiwa, as Trustee

HEARING: 02/11/99 @ 10:00 a.m.

DOCUMENTS: DEPOSITION SUBPENA FOR PRODUCTION OF BUSINESS RECORDS

SUBJECT: Custodian of Records, Melanie Mayer Consulting

ADDRESS: 8022 Moss Landing Road
Moss Landing, CA 95039

	DATE	A.M.	P.M.	SERVER:
Other	01/21/99	9:55		Anthony R. Quilici

REPORT:

Attempting service at 10 Center Street, Salinas, we found that Melanie Mayer Consulting is no longer there.

Service was effected personally on Melanie Mayer by appointment at the address listed above (Ms. Mayer was looking at office space to rent, this is not her business address. She would only provide a mailing address (PO Box 570, Moss Landing, CA 95039).

ITEM	CHARGES
Service	150.00
Att Service	75.00
Witness Fees	15.00
Check Charge	5.00
TOTAL:	245.00

MEMBER CALIFORNIA ASSOCIATION OF PHOTOCOPIERS AND PROCESS SERVERS AND NATIONAL ASSOCIATION OF PROFESSIONAL PROCESS SERVI

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EXHIBIT 13 p.6

MEYERS, NAVE, RIBACK, SILVER & WILSON
A PROFESSIONAL LAW CORPORATION

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777 DAVIS STREET, SUITE 300
SAN LEANDRO, CALIFORNIA 94577
TELEPHONE: (510) 351-4300
FACSIMILE: (510) 351-4481

MICHAEL R. NAVE
STEVEN R. MEYERS
ELIZABETH H. SILVER
MICHAEL S. RIBACK
KENNETH A. WILSON
DAVID W. SKINNER
STEVEN T. MATTAS
MICHAEL F. RODRIQUEZ
CLIFFORD F. CAMPBELL
RICK W. JARVIS
KATHLEEN FAUBION, AICP
ARNE B. SANDBERG
BENJAMIN P. FAY
DANIEL A. MULLER
LIANE M. RANDOLPH
PATRICK WHITNELL
KATHARINE G. WELLMAN
JOHN W. TRUXAW
GARY A. WATT
JULIE L. HARRYMAN
ADAM U. LINGREN
DIANE B. ROLEN
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5250 CLAREMONT AVENUE
STOCKTON, CA 95207
TELEPHONE: (209) 951-4080
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March 3, 1999

Reply To:
San Leandro

VIA FACSIMILE & U.S. MAIL

Anne E. Mudge
Washburn, Briscoe & McCarthy
55 Francisco Street. Suite 600
San Francisco, CA 94133

EXHIBIT NO.	14
APPLICATION NO. A-1-HMB-01-011	
CITY	

RE: *Yamagiwa v. Half Moon Bay*

Dear Anne:

This follows our meeting on Monday. At that meeting, you asked two questions: (1) pursuant to what legal authority did City staff direct your clients to cease pumping the apparent wetlands on their Beachwood property; and (2) whether the City would be willing to install drainage inlets at certain manholes along the northwestern boundary of the Beachwood property. You also suggested that the City faces some potential liability for the creation of apparent wetlands on the property, and we also discussed stipulating to additional continuances of the pending CDP application. I address each of these issues in turn:

<u>City Authority Over Wetlands Pumping</u>

The California Coastal Act is the source of City authority over the pumping activities engaged in by your clients. The Act mandates that any person "wishing to perform or undertake any development in the coastal zone . . . shall obtain a coastal development permit." (Pub. Resources Code § 30600, subd. (a).) The Act broadly defines "development" to include "removing . . . or extraction of any materials." (Pub. Resources Code § 30106; *see also*, Half Moon Bay City Code § 18.20.020, subd. (C).) Clearly, the pumping of water falls within this definition, and is thus subject to the CDP

requirement. As you know, the City implements the Act within its jurisdiction. The City thus properly exercised its authority to direct your clients to terminate their pumping activities, which were conducted unlawfully without a CDP. We have conferred with representatives of the California Coastal Commission who concur with this conclusion. We understand that the Commission will be separately contacting your client to investigate this matter.

Should your clients wish to conduct further pumping, it will be necessary for them to first apply for a CDP from the City. Of course, the City will be required to review any such application in accordance with CEQA.

Request for Installation of Drainage Inlets to Drain the Beachwood Property

In order for the City to consider the installation of the requested drainage inlets, the City would first need to comply with the California Coastal Act and CEQA. The procedures for obtaining a CDP would have to be followed (since such installation would fall within the Act's broad definition of "development"), and the City would have to analyze the environmental impacts the drainage would have on the apparent wetlands on your clients' property. Again, we would recommend as a first step that your clients apply for a CDP for this activity.

City Exposure to Liability for the Creation of Wetlands

I have reviewed this matter with other attorneys in our office and continue to be of the opinion that the City has no real exposure to liability to your clients for the potential creation of wetlands on their property. At a minimum, your clients would have to prove that the City somehow "caused" such wetlands to be created. Whether the wetlands were created from natural surface flows (coming from property which the City does not even own) or from groundwater, they were not caused by the City. Rather, it appears that the wetlands are developing in artificial "low areas" created as a result of grading and/or trenching activities conducted by the property owners themselves. Given the fact that the entire area used to be a marsh, before it was filled some decades ago, it is hardly surprising that nature is "reasserting" itself, especially in these low areas.

At most, you only seem to be chastising the City for not preventing the wetlands from being created. You seem to argue that, by installing drainage improvements in the area, the City somehow assumed a duty to prevent such occurrences. However, the drainage improvements were neither intended nor designed to drain wetlands, or to otherwise drain raw land. Rather, they were designed to serve future development. I am not aware of any legal theory under which the City could be found liable.

If you disagree with my position, I would welcome citations to any case or other authority under which a municipality or other defendant was found liable under analogous circumstances. Otherwise, I will continue to advise the City that the prospects of it being found liable to your clients for the creation of wetlands are quite remote.

Status of the Pending CDP Application

I have verified with John Truxaw our legal opinion that, under a very recent change in the law (Stats.1998, ch. 283, § 4), the City and your clients have no authority under the Permit Streamlining Act to stipulate to further continuances of the Planning Commission's consideration of your clients' CDP application. (See Gov. Code § 65957, as amended.) Thus, it will be necessary for the Planning Commission to take final action on the CDP application at its next meeting. Given the unresolved issues regarding the apparent wetlands on the property, we anticipate that the Commission will deny the application without prejudice.

Should you have any questions regarding the foregoing, please do not hesitate to give John or me a call.

Very truly yours,

MEYERS, NAVE, RIBACK, SILVER & WILSON

Rick W. Jarvis

c: John Truxaw, City Attorney
Blair King, City Manager
Anthony "Bud" Carney, Planning Director
Joan Lamphier

J:\WPD\MNRSW\465\24\LTR\MUDGE.302

EXHIBIT 14 p.3

STATE OF CALIFORNIA – THE RESOURCES AGENCY

GRAY DAVIS, Governor

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

VIA FACSIMILE AND REGULAR MAIL
(510) 351-4481 (Meyers, Nave, Riback, Silver, and Wilson)
(650) 726-9389 (City of Half Moon Bay)

March 20, 2000

EXHIBIT NO. 15
APPLICATION NO. A-2-HMB-01-011
CCC

John Truxaw, City Attorney
City of Half Moon Bay
Meyers, Nave, Riback, Silver, and Wilson
777 Davis Street, Suite 300
San Leandro, CA 94577

RE: Beachwood Wetlands; Appeal of the Planning Commission Denial Without Prejudice of an Application for a Coastal Development Permit for the Beachwood Subdivision

Dear Mr. Truxaw:

On February 15, 2000, you requested our opinion on how to interpret the definition of wetlands contained in the City's certified Local Coastal Program ("LCP"). (See enclosure.) Your request arose in the context of a coastal development permit ("CDP") application involving the Beachwood subdivision pending before the City Council on appeal. The CDP application, PDP-10-98, is agendized for the City Council's meeting of March 21, 2000. This letter responds to that request.

As explained in your letter, attached, the developer of the Beachwood subdivision claims that the City's LCP excludes from the definition of wetlands vernally wet areas that do not contain hydric soils, even if those vernally wet areas support the growth of plants which normally are found to grow in water or wet ground. However, the developer's interpretation of the certified LCP is contrary to the language of the LCP and is inconsistent with the Coastal Act and its implementing regulations. The City's LCP explicitly defines wetlands to include areas where the water table is near the land surface long enough to support the growth of plants which normally are found to grow in water or wet ground even if the water table is not near the surface long enough to support the formation of hydric soils. The additional discussion following the

definition of wetlands excludes only vernally wet areas with neither hydric soils nor hydrophytes.

Our understanding of the LCP's definition of wetlands is (1) mandated in light of the guiding provisions of the Coastal Act; (2) consistent with the definition of wetlands contained in section 30121 of the Coastal Act (the guiding framework for the City's LCP provision) and section 13577(b)(1) of the Coastal Commission's ("Commission's") regulations; and (3) provided for in section 18.38.020(E) of the City's certified LCP.

First, in interpreting the City's LCP, section 30009 of the Coastal Act instructs that the Coastal Act shall be liberally construed to accomplish its purposes and objectives. The courts are thus obligated to construe the City's LCP liberally in a manner consistent with the Coastal Act and most protective of environmental resources. Given the dramatic loss of wetlands in this country, including California's coastal zone, the importance of protecting this dwindling resource must be underscored.

Second, our interpretation of the City's LCP is consistent with the definition of wetlands contained in the Coastal Act and its implementing regulations. Given that local governments adopt LCPs in order to implement the Coastal Act, and that the Commission found the City's LCP to be in conformity with the Coastal Act, the City's definition of wetlands must be interpreted in a manner consistent with the Coastal Act and its implementing regulations where such an interpretation is possible.

Section 30121 of the Coastal Act defines wetlands to include any areas periodically covered with shallow water. Section 30121 of the Coastal Act states:

> "*Wetland means land within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.*"

Section 13577 of the Commission's regulations implements and further clarifies section 30121 of the Coastal Act. This provision provides that wetlands include areas where the water table is near the land surface long enough to promote the formation of hydric soils or hydrophytes. Section 13577 states:

> *"For purposes of Public Resources Code Sections 30519, 30600.5, 30601, 30603, and all other applicable provisions of the Coastal Act of 1976, the precise boundaries of the jurisdictional areas described therein shall be determined using the following criteria:*
>
> . . .

(b) Wetlands.

(1) Measure 100 feet landward from the upland limit of the wetland. ***Wetland shall be defined as land where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes****, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent and drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentration of salts or other substances in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deep-water habitats. For purposes of this section, the upland limit of a wetland shall be defined as:*

(A) the boundary between land with predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover;

(B) the boundary between soil that is predominantly hydric and soil that is predominantly nonhydric; or

(C) in the case of wetlands without vegetation or soils, the boundary between land that is flooded or saturated at some time during years of normal precipitation, and land that is not.

. . . " [emphasis added.]

Thus, under the definition of wetlands contained in the Commission's regulations, areas at the Beachwood site where the water table is near the surface long enough to support the growth of plants which normally are found to grow in water or wet ground are considered wetlands even if the water table is not near the surface long enough to support the formation of hydric soils. As explained below, the definition of wetlands in the City's LCP is entirely consistent with the definition of wetlands in the Coastal Act and its implementing regulations.

Third, the position that wetlands include areas with hydrophytic vegetation even if the site is vernally wet and the soils are not hydric is mandated by the plain language of the certified LCP itself. The definition of wetlands contained in section 18.38.020(E) of the City of Half Moon Bay's certified LCP states:

For San Mateo County, it is appropriate to adapt the definition of wetland used by the U.S. Fish and Wildlife Service (Classification of

> *Wetlands and Deep-Water habitats of the United States, (1977). This definition embraces several important concepts which are relevant to the San Mateo Coast: (1) the relationship of the water table with respect to the ground surface; (2) the duration of the water on or at the surface; (3) the soil types involved with the permanent or temporary saturated conditions; and (4) the flora and fauna adapted to the wet conditions.*
>
> *The most important feature which acts as a common denominator is the soil as indicated in Item 3, above. As a result of the above considerations, the Local Coastal Plan adopts the following U.S. Fish and Wildlife Service definition of wetland:*
>
> ***Wetland is an area where the water table is at, near or above the land surface long enough to bring about the formation of hydric soils or to support the growth of plants which normally are found to grow in water or wet ground.*** *Such wetlands can include mudflats (barren of vegetation), marshes and swamps. Such wetlands can be either fresh or saltwater, along streams (riparian), in tidally influenced areas (near the ocean and usually below extreme high water of spring tides), marginal to lakes, ponds, and man-made impoundments. Wetlands do not include areas which in normal rainfall years are permanently submerged (streams, lakes, ponds and impoundments), nor marine or estuarine areas below extreme low water of spring tides, nor vernally wet areas where the soils are not hydric.* [emphasis added.]

Like the Coastal Act and its implementing regulations, the City's certified LCP provides that wetlands include areas where the water table is near the land surface long enough to promote the formation of hydric soils **or** to support the growth of plants which normally are found to grow in water or wet ground. Thus, given the bolded portions of the above referenced wetland definitions, wetlands include either vernally wet areas with hydric soils **or** vernally wet areas with hydrophytes. Accordingly, if the vernally wet areas contain hydrophytes, they are considered wetlands even if they do not contain hydric soils.

After providing a definition of wetlands consistent with the Coastal Act's implementing regulations, the City's certified LCP definition goes on to provide various examples of areas where the water table is near the surface long enough to promote the formation of hydric soils or support the growth of plants which normally are found to grow in water or wet ground. These examples illuminate the meaning of the bolded portion of the City's definition. After providing such examples, the definition of wetlands contained in the City's certified LCP goes on to identify examples of areas where the water table is not near the surface long enough to promote

the formation of hydric soils or support the growth of plants which normally are found to grow in water or wet ground. One such example identified in the last sentence of section 18.30.020(E) is "vernally wet areas where the soils are not hydric." Given that the term "vernally wet" describes areas which are wet during the spring rather than other periods of the year, such areas might not be wet long enough to promote the formation of hydric soils. This example of non-wetland areas does not extend to vernally wet areas that contain hydrophytes. Thus, these latter vernally wet areas remain within the definitions of wetlands. Accordingly, only vernally wet areas with neither hydric soils nor hydrophytes would be excluded from the City's definition of wetlands.

This interpretation harmonizes the underlined portion of section 18.30.020(E) with the bolded portions of that section and gives meaning to the word "**or**" contained in that bolded portion. Reading the last sentence of the LCP definition in conjunction with the bolded portions of the above-referenced LCP definition and the examples which follow results in an interpretation of the City's LCP that is consistent with the Coastal Act and its implementing regulations, and gives meaning to every phrase of the City's definition.

The Beachwood developer instead argues in favor of a narrow construction of section 18.38.020(E), one that would exclude vernally wet areas without hydric soils, even if those areas were wet enough to support the growth of plants that normally grow in water or wet ground. However, such an interpretation would exclude wetland areas otherwise expressly included in the bolded portions of the above-referenced definitions and effectively convert the word "**or**" to the word "**and**." Not only is this construction inconsistent with the plain language of the LCP, such construction is also inconsistent with the Coastal Act and its implementing regulations. Therefore, this illogical construction cannot stand.

Furthermore, we note that even if the certified LCP excludes vernally wet areas that contain hydrophytes but lack hydric soils as the Beachwood developer incorrectly states, we agree with the City's staff recommendation that such exclusion is not applicable to the wet areas at the Beachwood site. As stated on page 21 of the City staff's recommendation, the areas identified by the City's biological evaluation meet the LCP's definition of wetlands "because the[] ponded areas were found to be inundated beyond the 'vernal' period under rainfall conditions which could not be characterized as abnormal, because of the inability [to] effectively rule out the presence of hydric soils in such areas, and because of the ability of these areas to support the growth of plants which are normally found to grow in water or wet ground."

In conclusion, the most logical interpretation of the above-quoted language contained in the City's certified LCP, construed in light of the Coastal Act as a whole, requires the City to protect those areas at the Beachwood site where the water table is near the land surface long enough either to support the growth of hydrophytes or to support the formation of hydric soils. As such, only vernally wet areas with neither hydric soils nor hydrophytes are excluded from the City's definition of wetlands. This interpretation is supported by the guiding provisions of the

Coastal Act, its implementing regulations, and the need to give significance to every word and phrase of the City's definition.

Thank you for the opportunity to provide you with input on this significant matter.

Sincerely,

RALPH FAUST
Chief Counsel

All w/enc.

cc: Peter Douglas, Executive Director – California Coastal Commission
Dennis Coleman, Mayor – City of Half Moon Bay
Deborah Ruddock, Vice-Mayor – City of Half Moon Bay
Jerry C. Donovan, City Council Member – City of Half Moon Bay
Naomi Patridge, City Council Member – City of Half Moon Bay
Toni Taylor, City Council Member – City of Half Moon Bay
Mike Ferreira, Chairman of Planning Commission – City of Half Moon Bay
James L. Benjamin, Vice-Chair of Planning Commission – City of Half Moon Bay
Robin King, Planning Commission – City of Half Moon Bay
John Sullivan, Planning Commission – City of Half Moon Bay
Don Heinz, Planning Commission – City of Half Moon Bay
Robert Hansen, Planning Commission – City of Half Moon Bay
Blair King, City Manager – City of Half Moon Bay
Ken Curtis, Planning Director – City of Half Moon Bay

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STATE OF CALIFORNIA—THE RESOURCES AGENCY GRAY DAVIS, *GOVERNOR*

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

MEMORANDUM

FROM: John Dixon

TO: Chris Kern

SUBJECT: Beachwood Wetlands

DATE: July 23, 2001

There has been a great deal written about whether wetlands exist on the Beachwood property at Half Moon Bay. Most of the useful information has been presented by Wetland Research Associates (WRA), Sequoia Associates (Sequoia), LSA Associates (LSA), and Huffman-Broadway Group (Huffman). Although the disagreements among these consultants regarding the presence of wetlands at the site have occasionally bordered on the acrimonious, there is consensus regarding the basic facts. All appear to agree that:

- As a result of grading in the past, there exist numerous depressions and areas of compacted soil that, at least occasionally, pond water or are saturated to the surface.
- The native soils on the Beachwood site are classified as "mollisols." These soils have dark surface horizons and low chroma[1] colors that are derived from the presence of organic matter rather than from soil saturation. As a result, low chroma is not a reliable indicator of hydric soils and redoximorphic features[2] (other common indicators) are extremely difficult to see. In the context of wetland delineation, these are "problem soils."
- Although a few redoximorphic features have been observed in some soil samples, they are no where abundant and some may be relicts of past conditions. The redoximorphic features that have been observed are not sufficient evidence to conclude that the soil in which they were found is hydric.

[1] "Chroma" is a characteristic used to describe colors in the Munsell system. It indicates color "strength" and is determined by matching soil samples to special color charts, which is analogous to matching a paint chip from one's house to charts found in paint stores. Low chroma can develop in response to the reducing conditions associated with saturated soils.

[2] "Redoximorphic features," such as mottles and concretions, are formed by reduction, translocation, and oxidation of iron and manganese compounds in periodically saturated soils.

EXHIBIT NO. 16

APPLICATION NO. A-2-HMB-01-011

CCC

- There is a preponderance of wetland plants (designated FACW or OBL[3]) in many of the depressions at Beachwood, including those designated W1-W17 by Wetland Research Associates.

The disagreements among the consultants are not over the validity of the various field observations, but rather over their interpretation. At particular issue, is whether the available data provide evidence of hydric soils and wetland hydrology, which are closely related issues.

Soils

The soils at the Beachwood site are problematic. Neither the presence of low chroma colors nor the absence of redoximorphic features can be unambiguously interpreted. However, the National Technical Committee for Hydric Soils (NTCHS) has determined that the following hydric soil criteria may be used as field indicators of the presence of hydric soils: 3) Soils that are frequently[4] ponded for long or very long duration[5] during the growing season, or 4) Soils that are frequently flooded for long or very long duration during the growing season. The issue then becomes one of hydrology.

Hydrology

WRA visited the site on July 27, 1999 and concluded that, based on field indicators used by the ACOE for routine delineations, wetland hydrology[6] was present in each of the depressions designated W1-W17 and that each of those areas was a "man-induced wetland" according to the 1987 ACOE Wetland Delineation Manual[7,8]. However, WRA only found field indicators of hydric soils at 2 locations (W1a & W2), and concluded that the remaining areas with a preponderance of wetland vegetation were not wetlands

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[3] Reed, P.B. 1988. National list of plant species that occur in wetlands: California (Region O). U. S. Fish and Wildlife Service Biological Report 88 (26.10); Experts estimate that 66-99% of occurrences of FACW and more than 99% of occurrences of OBL plants are in wetlands.

[4] "Frequently flooded or ponded" is a frequency class in which flooding or ponding is likely to occur often under usual weather conditions (more than 50 percent chance in any year, or more than 50 times in 100 years); Hurt, G.W., P.M. Whited, and R.F. Pringle, eds. Field indicators of hydric soils in the United States. Version 4.0, March 1998. USDA, Natural Resources Conservation Service.

[5] "Long duration" is a period of inundation for a single event that ranges from 7 days to 1 month, whereas "very long duration" is greater than 1 month; Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Department of the Army, Waterways Experiment Station, Corps of Engineers.

[6] The ACOE Manual requires that the soil be saturated in the upper 12 inches for at least 5% of the growing season (18 days in California) for wetland hydrology to be present, but for routine delineations accepts field indicators of periodic inundation (e.g., observation of ponding, sediment deposits or algal mats) as sufficient evidence of the existence of wetland hydrology.

[7] WRA. October 1999. Beachwood Subdivision Half Moon Bay, CA, Corps File Number: 18154S20, Corps of Engineers "Water of the United States" delineation study. A report submitted to Washburn, Briscoe, and McCarthy, S.F., Ca.

[8] The ACOE did not exert jurisdiction over any of the wetlands within the project footprint because they were deemed exempt as "waterfilled depressions created in dry land incidental to construction activity"; Fong, C.C. (ACOE). January 10, 2000. Letter to Michael Josselyn, WRA.

under the definition in the Local Coastal Plan because hydric soils were not present[9]. Subsequent to these determinations, WRA and Sequoia took additional soil samples on December 3, 1999 and found no indicators of hydric soils that would change the conclusions of the October, 1999 reports[10]. WRA also compared the pattern of rainfall near Beachwood in 1999 with the long-term pattern and found that rainfall during January was 137% of normal and during February was 199% of normal. Based on this observation, WRA concluded that Huffman's[11]observations of ponding in February 1999 and the evidence of periodic ponding observed by WRA during their field work in July 1999 were both artifacts of abnormal conditions[12]. WRA issued a revised report which concludes that there was no evidence of wetland hydrology at Beachwood, except in drainage W1a and irrigation pond W2[13].

For soils to be considered hydric, they must be saturated to the surface for at least seven consecutive days during the growing season (all year at Beachwood) during half of all years, on average. In the context of Beachwood, Dr. Stephen Faulkner of Sequoia put it thusly[14]: "In the current situation, some may state that hydric soils are present due to Criteria 3 (frequently ponded for long duration). The concept of this criteria as a field indicator requires that the frequency and duration be established." In their December 1999 revised report, WRA presented the following analysis (based on examining photographs under magnification) of the frequency and duration of ponding at Beachwood:

> Additional photographic information was collected for the site including photographs taken on January 24, 1991; March 29, 1995; and February 11, 1999. Rainfall in the 30 days preceding these photographs was 11%, 210%, and 264% of normal, respectively. No ponding was observed in either the 1991 or the 1995 aerial photographs despite the high rainfall prior to the 1995 photo. Isolated ponding was observed in the 1999 aerial photograph; however, this date was preceded by an extraordinary rainfall event of over 3.54 inches of rain in the previous 5 days. This evidence shows that the soils do not, under normal circumstances, pond for a sufficiently long duration to be considered hydric and that the most recently observed hydrologic indicators are the result of extraordinarily high rainfall in early 1999.

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[9] WRA. October 1999. Beachwood Subdivision Half Moon Bay, CA, Corps File Number: 18154S20, Local Coastal Plan Wetland Delineation Study. A report submitted to Washburn, Briscoe, and McCarthy, S.F., Ca.

[10] Faulkner, S. (Sequoia). December 27, 1999. Letter to Anne Mudge, Washburn, Briscoe and McCarthy, S.F., CA

[11] Huffman, T. March 4, 1999. Letter to Joan Lamphier, Lamphier and Associates, Oakland, CA.

[12] 199% of the average is not necessarily "abnormal," although it may be. Normality must be judged relative to the actual frequency distribution of rainfall events as expressed, for example, by the standard deviation about the mean. Such an analysis has apparently not been done.

[13] Wetland Research Associates. December 1999. Beachwood Subdivision Half Moon Bay, CA, Corps File Number: 18154S20, Local Coastal Plan Wetland Delineation Study. A report submitted to Washburn, Briscoe, and McCarthy, S.F., Ca. In this report WRA took the unusual action of changing the basic data on the July 1999 data sheets and annotating them extensively based on their later rainfall analysis. Observations of oxidized root channels, moist soil at 10", sediment deposits, and wetland drainage patterns, present in the October report, are absent in the December report. Changing conclusions based on new data is appropriate; removing data is not. Leaving the data unaltered would not change the conclusions of the revised report but would allow the reader to make an independent judgement of the significance of the July observations.

[14] op. cit., Faulkner, December 27, 1999.

The methodology underlying this analysis is not appropriate. One cannot reliably observe standing water within vegetated areas in normal color aerial photographs[15]. Therefore, whereas the presence of standing water in such a photograph can be interpreted, the apparent absence of standing water cannot. There is also specific evidence that the results of the WRA photographic analysis are incorrect. LSA examined other portions of the February 11, 1999 photograph that included the adjacent Pacific Ridge property where LSA were making ground observations[16]. They found that, "Standing water was present in all of the wetlands on the Pacific Ridge site on February 9. These wetland areas continued to be flooded or ponded into April. Other than the pond on the Pacific Ridge site, no standing water is visible [in the photograph] in any of the other wetlands on the Pacific Ridge site or on the roads where water was also present. All of the shallow ponding is obscured by the low growing grassy vegetation. We assume similar conditions would occur on the Beachwood site where the vegetation is much taller than the grazed lands on Pacific Ridge Project site."

There is also direct evidence of long or very long duration ponding on the Beachwood site during 2000 when rainfall was about 112% of average, which is unlikely to be considered abnormal by any definition. On January 19, 2000, several of the areas with wetland vegetation had standing water. On February 8, in addition to the wetlands identified earlier by WRA, there was standing water in nine areas with depths ranging from 2 to 18 inches. LSA noted that, "The most recent rainfall at the site had fallen on Febuary 5, however this was a fairly small storm that could not have generated enough runoff to result in the deep ponding observed on the 8th. The next most recent storm was large enough to generate runoff, and had taken place around the first of the month. The ponding observed in the basins had therefore lingered at least several weeks prior to our site visit." There was additional rainfall after the 8th and the areas still were inundated with 2 to 18 inches of water when LSA again visited Beachwood on February 22, 2000.

On July 2, 2001, I visited the Beachwood site with Dr. Michael Josselyn of WRA. At W5, the soil was still very moist 3 to 6 inches below the surface, suggesting that, at least at that location, there was probably long or very long duration saturation in 2001, also.

Dr. Terry Huffman[17], a wetland scientist and regulatory specialist, reviewed the various data reports produced by WRA, Sequoia, and LSA and came to the following conclusions:

> "Based on this analysis, it appears that the depressional and low lying areas located within the WRA study areas (areas W1a, W1b and W2 thru 14) would be classified as having hydric soil conditions given that it is more probable than not that they have soil drainage, permeability, and runoff characteristics which would satisfy the NTCHS hydric

[15] For such an analysis, large scale color infrared photographs would normally be taken and examined using specialized photo-interpretation techniques; J. Van Coops, CCC Mapping/GIS Program Manager, personal communication.

[16] Lohmann, S. and S. Foreman (LSA). February 24, 2000. Letter to Ken Curtis, City of Half Moon Bay.

[17] Huffman, T. January 29, 2001. Letter to Amrit Kulkarni, Meyers Nave Riback Silver & Wilson

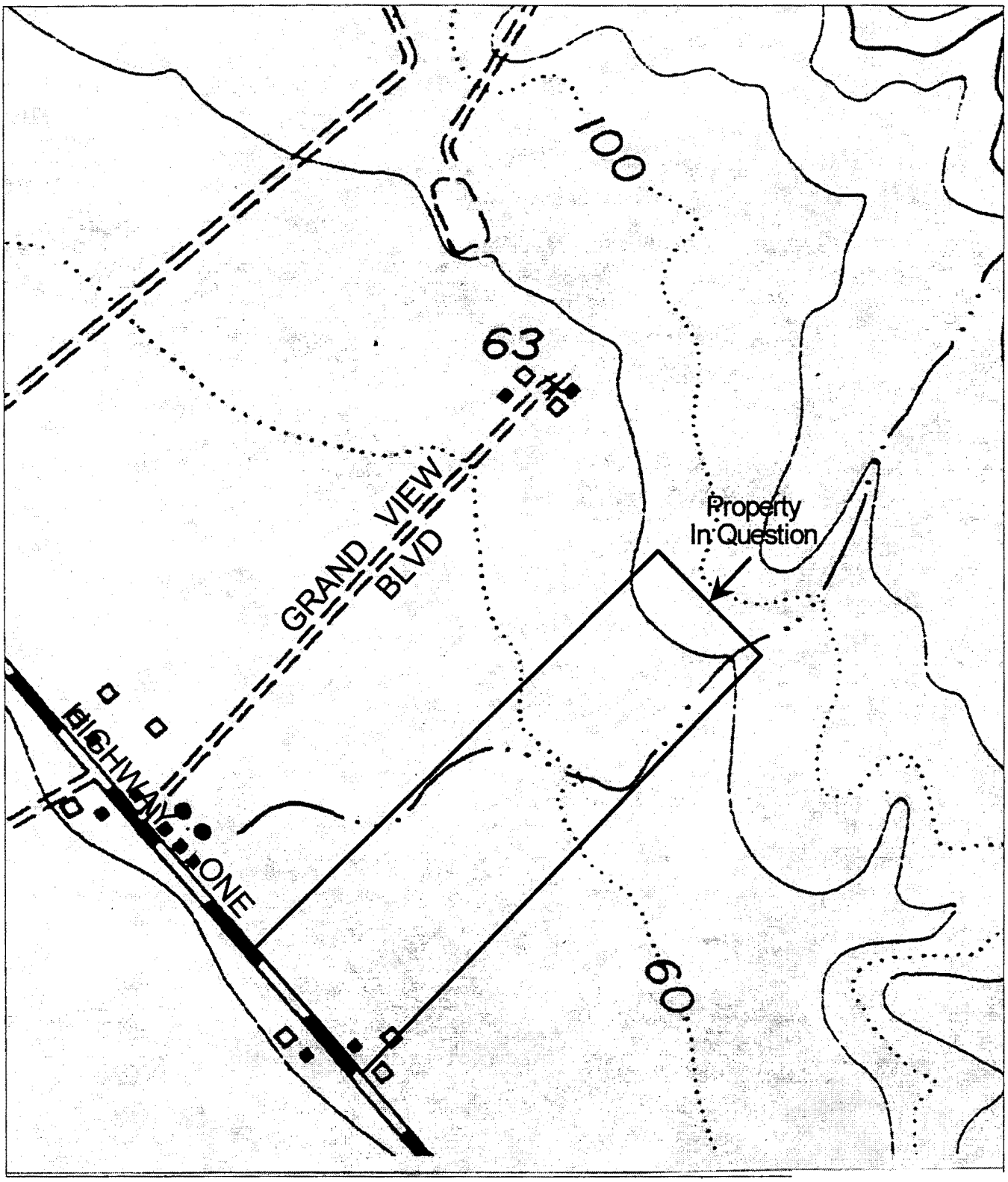
soils definition. This opinion is based on the findings that: 1) the soils within the depressional areas have slow to very slow permeability characteristics as a result of grading and compaction; 2) the depressional areas capture storm water due to their low lying landscape position; 3) The depressions impeded surface runoff and cause surface and near surface (0 to 12") water to collect; and 4) it is more probable than not that the multiple sequential periodic nature of coastal rain fall patterns, which occur during normal as well as above normal water years prior to March 21, can continue to recharge the depressional areas sufficiently enough to bring about ponding and or near soil surface saturation for a minimum of seven days."

One other issue needs to be addressed. In their discussion of soils in their December 1999 revised report, WRA assert that, "At the Beachwood site, there has been insufficient time for hydric soil formation and therefore, the soils here do not meet the hydric soils definition." In the context of wetland delineation, current conditions which result in frequent saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil is a sufficient indicator of hydric soils, regardless of whether the conditions have been in effect long enough to create the morphological characteristics generally associated with hydric soil series. This seems to be acknowledged by WRA later in their report where they state that, "Areas that are vernally wet and that do not exhibit hydric soil indicators or do not meet the hydric soil criteria are not regulated as 'wetlands' under the City of Half Moon Bay's certified Local Coastal Program."

At Beachwood many vernally wet areas do meet hydric soil Criterion 3 which is also an accepted hydric soil indicator. I conclude that the preponderance of evidence strongly indicates that the areas with a prevalence of wetland vegetation that are designated W1a, W1b, and W2 through W14 by WRA are "wetlands" both in an ecological sense and under the definition of the City of Half Moon Bay's certified Local Coastal Program.

Beachwood Subdivision

Showing Beachwood Property and Intermittent Streams



Portion of 1952 USGS Topographic map
Half Moon Bay Quadrangle

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0 500 1000 ft

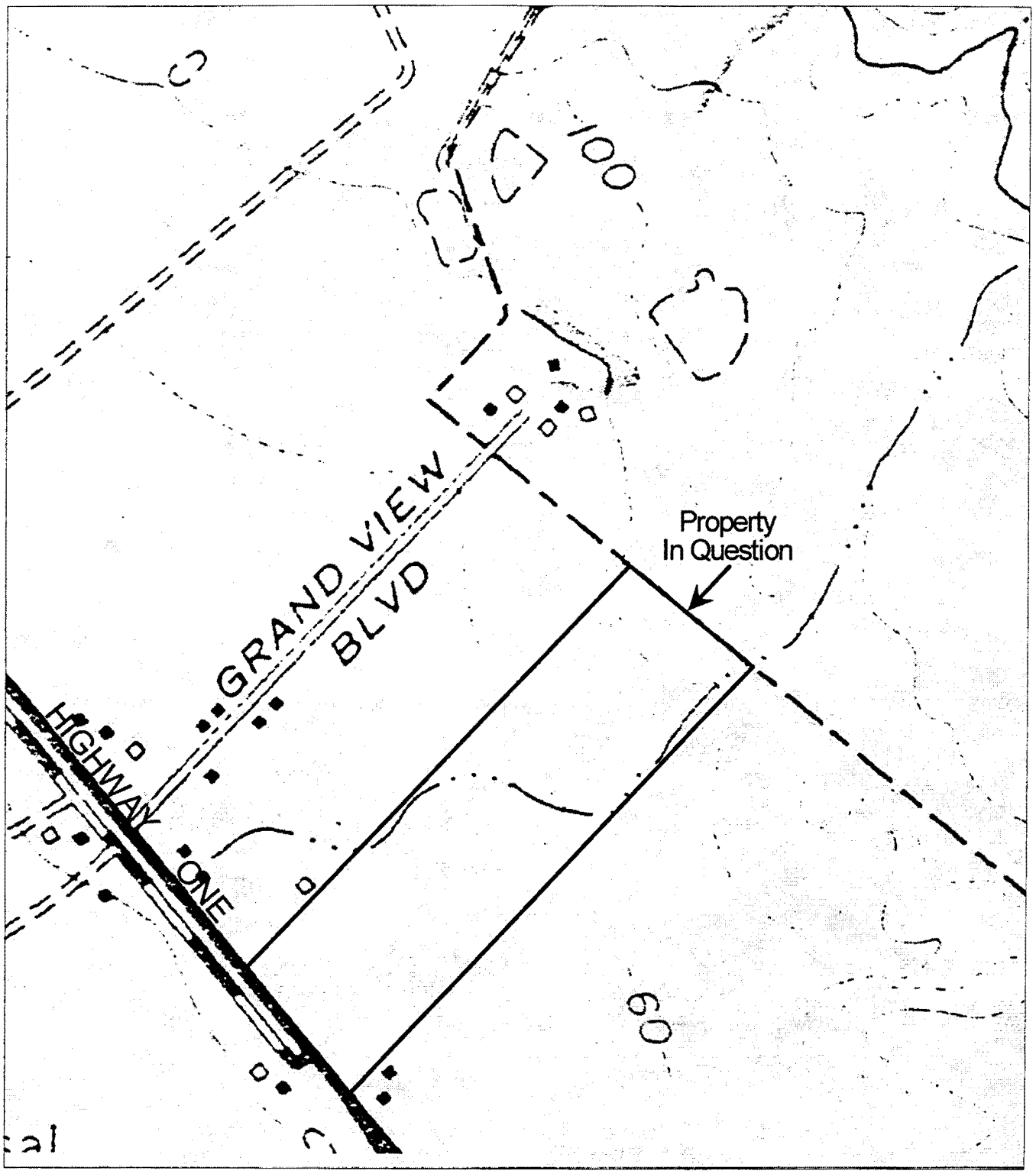
California Coastal Commission

Note: Locations Approximate - For Illustrative Purposes Only

EXHIBIT NO.	17
APPLICATION NO. A-2-HMB-01-011	
USGS	

Beachwood Subdivision

Showing Beachwood Property and Intermittent Streams



Portion of 1961 USGS Topographic map
Half Moon Bay Quadrangle

N

0 500 1000 ft

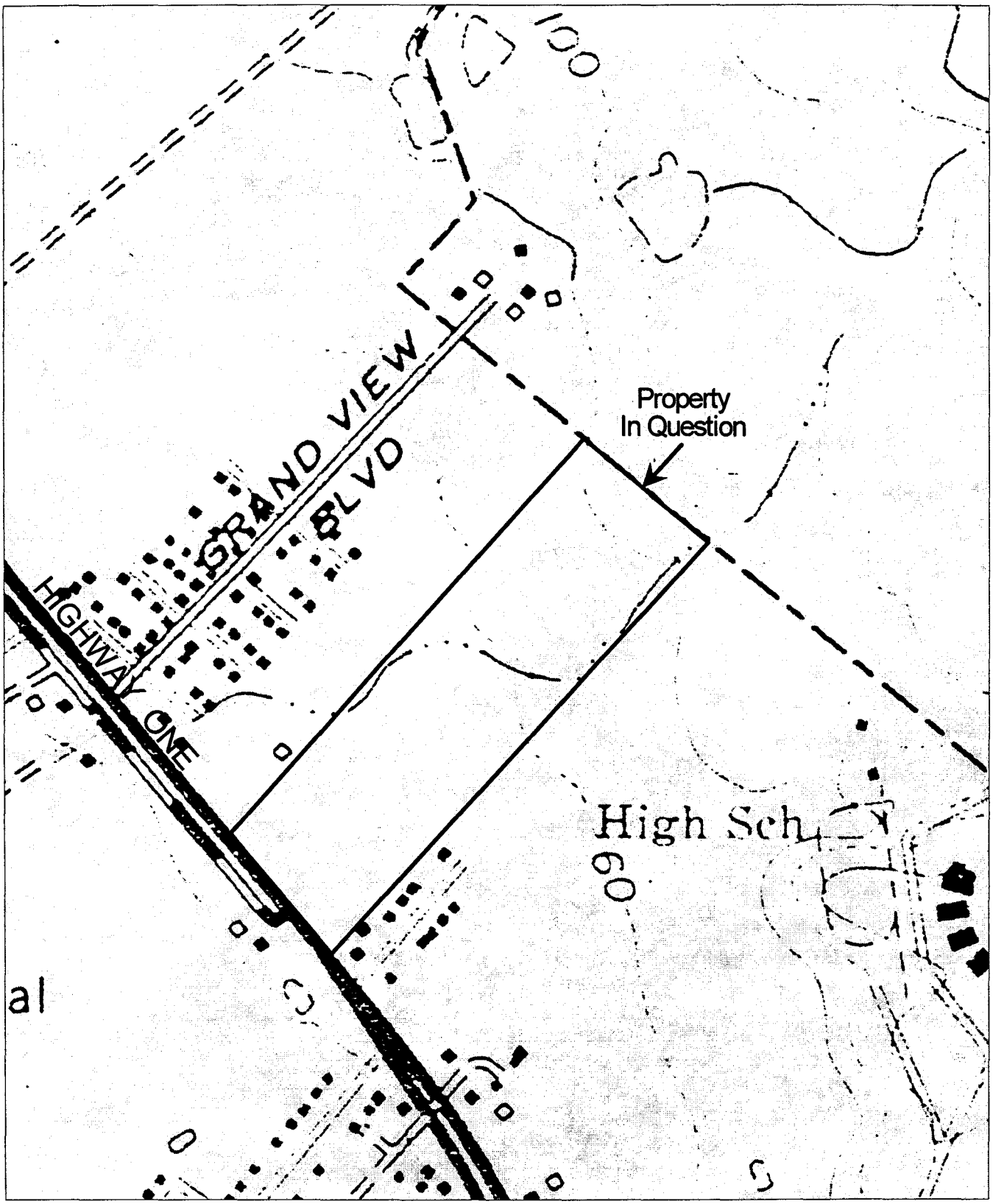
California Coastal Commission

Note: Locations Approximate - For Illustrative Purposes Only

EXHIBIT 17 p.2

Beachwood Subdivision

Showing Beachwood Property and Intermittent Streams



Portion of 1968 USGS Topographic map
Half Moon Bay Quadrangle

N

0 500 1000 ft

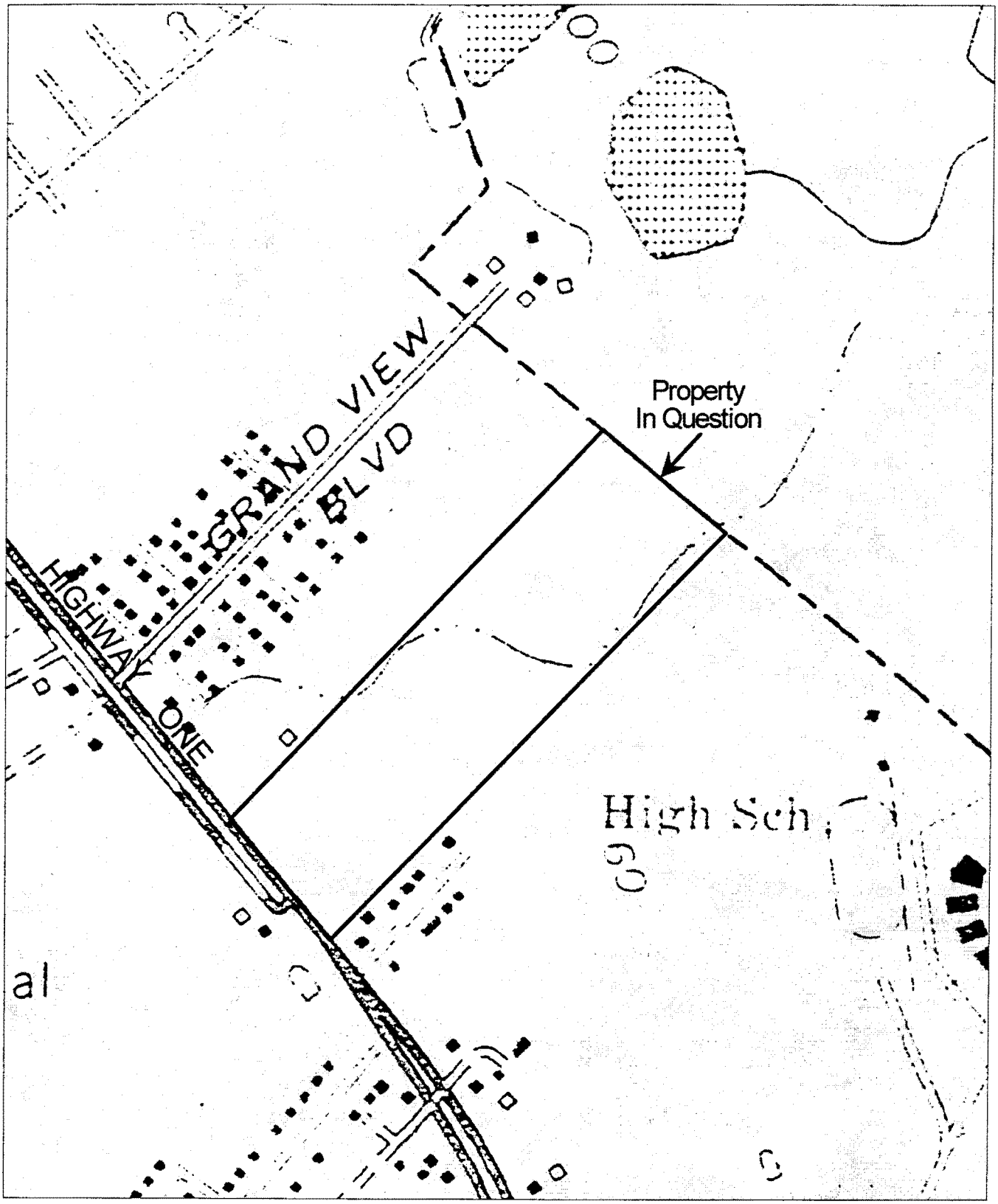
EXHIBIT 17 p.3

California Coastal Commission

Note: Locations Approximate - For Illustrative Purposes Only

Beachwood Subdivision

Showing Beachwood Property and Intermittent Streams



Portion of 1973 USGS Topographic map
Half Moon Bay Quadrangle

N

0 500 1000 ft

EXHIBIT 17 p.4

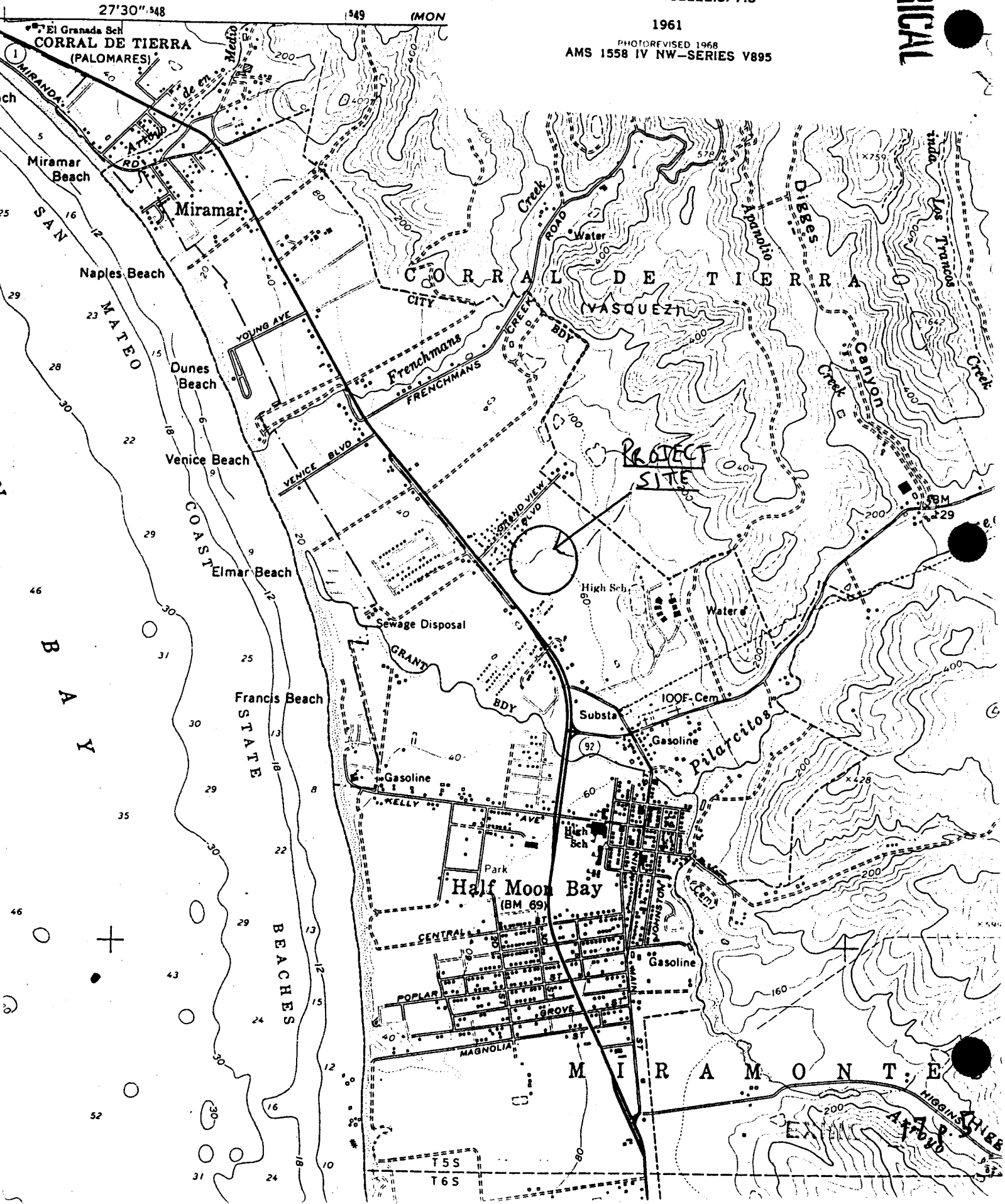
California Coastal Commission

Note: Locations Approximate - For Illustrative Purposes Only

HALF MOON BAY, CALIF.
NW/4 HALF MOON BAY 15' QUADRANGLE
N3722.5—W12222.5/7.5

1961

PHOTOREVISED 1968
AMS 1558 IV NW—SERIES V895



HISTORICAL

Mr. and Mrs. George Carman
657 Terrace Avenue
Half Moon Bay, CA 94019

Anthony Carney, Director of Planning
City of Half Moon Bay
501 Main Street
Half Moon Bay, CA 94019

Dear Director Carney:

We wish to bring the following facts regarding the site of the proposed Beechwood development to the attention of the City of Half Moon Bay.

The site is located across the street from our home and can be plainly seen from our living and dining room. From there, we can see a large pond on the site and hear scores of frogs croaking from the area in the evening. From January 30 to February 2, we noted a marked decline in the level of the pond, and a reduced number of vocalizations from the frogs. This was very odd given the high rainfall that had occurred over that weekend.

At approximately 10:30 am on the morning of Tuesday, February 2 we observed a workman in a green truck drive up and park across the street. The workman got out of the truck and carried a red plastic gas container onto the site. We thought this very odd, since we knew of no machinery on the site. Over the next twenty minutes we watched the workman through binoculars. We observed him uncover a generator hidden in the brush and refill its gas tank. We also observed him moving a yellow hose that extended from the pond to a pair of trees about 300 feet to the west. Nest, we observed him reposition a submersible pump from the edge of the pond to its center. Finally, we saw him restart the generator, which could be faintly heard in the distance.

As we were aware that the site was under study as a possible wetland, I called the City of Half Moon Bay to inform them of these events. I spoke with Planning Director Bud Carney who said he would investigate the matter. I then went outside and waited on the sidewalk for the workman. When he returned to the truck, I asked him what he was doing. He was evasive. When pressed, he admitted that the property owner had hired Andreini Construction to drain the pond, and that he had been told to keep the equipment operating. At that point, I informed him that his actions might be illegal and suggested he stop pumping. After arguing with me, he reluctantly returned to the pump and turned it off. He then returned to his truck and drove off. I noted the truck was a Ford F250 and had California license number 2H88265.

Noting that the site was not fenced or posted, I walked to the pond and took photographs of the pump, the generator, and the drainage hose as I found them. I did not move or alter any of the equipment. I have enclosed these photographs with this letter. I also noted that the pond is surrounded by approximately 350' by 400' of swampy ground that made walking very difficult.

The draining of this pond would irreversibly damage the wetland, thus destroying one of our scenic and ecological resources. We appreciate the prompt response of the City of Half Moon Bay and the Department of Fish and Game to investigate this matter. Please let us know if we can provide any further information. We will be watching every day.

Sincerely,

George J. Carman

02/03/99

EXHIBIT NO.	18
APPLICATION NO. A-2-HMB-01-011	
GEORGE CARMAN	

HA

Planners halt draining of possible wetland site

By VIVA CHAN
Half Moon Bay Review

Following up a tip from a Half Moon Bay resident, the state department of Fish and Game and federal Fish and Wildlife are investigating whether a contractor was illegally draining a potential wetland Tuesday.

At press time, it wasn't clear exactly who had authorized the work order that called for pumping about three-quarters of the water from a pond just west of a stand of trees at the east end of Terrace Avenue and flushed it down a manhole.

Three men riding a green and white pickup truck refused to comment, except to say they were doing the work for Andreini Brothers, a local contractor who may have been hired by the developer of the proposed Beachwood subdivision that abuts Terrace Avenue.

After Terrace Avenue resident George Carman alerted the city about the unusual activity across from his house, a city planner was dispatched to the property and immediately ordered a halt to the work.

Photo courtesy of George Carman

The hose in the center of this picture was attached to a generator that was draining this pond at the end of Terrace Avenue Tuesday.

"We don't want to accuse anyone of violating the public trust," Planning Director Bud Carney said. "But if it's a wetland, we're all stewards of coastal resources."

Carney said a biologist who recently visited the site said there is enough evidence that a wetland exists, but it's uncertain whether there are any endangered species.

"There are lots of wildlife there," said planner Mark Hofman who instructed the men who were draining the pond to pack up. "If left that way, that's a wetland."

According to Coastal Development Permit policy, the city has the authority to enter the private property and halt the work.

As for whether the site consists of wetlands, the Army Corps of Engineers has passed the issue to Fish and Wildlife authorities for consideration because of the litigious nature of the Beachwood project. Beachwood's developers are suing the City of Half Moon Bay.

What is certain is that the pond is a home to unidentified green frogs. The proof comes from the symphony Terrace Avenue homeowners hear every evening.

"When you open the door, you hear frogs. It's wonderful," Carman said. "It's deafening ... even louder than a foghorn."

On Tuesday afternoon, Carman, who would usually be at work, was waiting for a repairman when he looked outside and saw a man toting a gas can walk across the vacant grassy flatland.

He watched as three men plopped down a generator, a pump and ran out a hose heading west to dump water about 350 feet away from the pond into a ditch.

"What's brown and muddy now was full of water since December," Carman said from his home that opens to a view overlooking the Beachwood subdivision project site.

Carman said he wasn't sure how long the drainage work was going on because he had just returned from out of town this weekend.

Carman said his preference would be to keep the ridge line as green as possible, but when he bought his house he realized new development would be inevitable.

"The developer has his rights to build, (but) whatever goes in here, we want it done lawfully."

Besides the long-planned 80-home Beachwood subdivision, which is currently seeking a Coastal Development Permit from the Planning Commission, there were two 'For Sale' signs posted for undeveloped land fronting Terrace Avenue. Adjacent to those empty lots the Beachwood subdivision would begin from the fence line.

EXHIBIT NO.	19
APPLICATION NO. A-2-HMB-01-011	
NEWS ARTICLE	

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
3310 El Camino Avenue, Suite 130
Sacramento, California 95821-6340

IN REPLY REFER TO:
1-1-99-TA- 857

March 11, 1999

Mr. Anthony J. Carney
City of Half Moon Bay
501 Main Street
Half Moon Bay, California 94109

Subject: Beachwood Subdivision Site Inspection, San Mateo County, California

Dear Mr. Carney:

This documents the U.S. Fish and Wildlife Service's (Service) February 9, 1999, inspection of the Beachwood Subdivision site in the City of Half Moon Bay (City). Cecilia Brown of my staff spoke to you on Tuesday, February 2, 1999, regarding the development. You reported that the property owner was draining a ponded area on the project site with a small electric pump. While inspecting the pumping activities, City staff observed a single frog of undetermined species in the ponded area. City staff expressed concern that this pumping activity might have an adverse effect on endangered species habitat, specifically the California red-legged frog (red-legged frog) (*Rana aurora draytonii*) and the San Francisco garter snake (garter snake) (*Thamnophis sirtalis tetrataenia*). Ms. Brown inspected the site with you and Joan Lamphier of Lamphier and Associates Consulting. The purpose of the inspection was to determine whether suitable habitat was present for red-legged frog or the garter snake.

The project site is located on a shallow-sloped valley at the eastern edge of Half Moon Bay, south of state highway 92. You stated that the property is disked on a regular basis to comply with local fire regulations. Vegetation consisted of annual grasses and forbs. The area had received heavy rainfall during the past four days. Several large areas of shallow ponded water were present. Everyone present during the inspection heard chorus frogs calling throughout the project area. Due to the presence of ponded water and chorus frogs, the Service suggests that a wetland delineation be conducted for the entire site. Red-legged frogs and chorus frogs are known to co-occur. In addition, garter snakes are known to occur within five miles of the project site. To avoid possible take of listed species, the Service suggests that the developer hire a qualified biologist to conduct surveys for the red-legged frog and the garter snake.

Section 9 of the Endangered Species Act as amended, (Act) and its implementing regulations prohibit the "take" of federally listed fish and wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any listed wildlife species. "Harm," in this definition, includes significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering . The Service defines "barass" as actions that create the likelihood of injury to listed species to such an extent as to disrupt normal behavior patterns which include, but are not limited to, breeding, foraging, or resting (50 CFR § 17

EXHIBIT NO. 20
APPLICATION NO. A-2-HMB-01-011
VSFWS

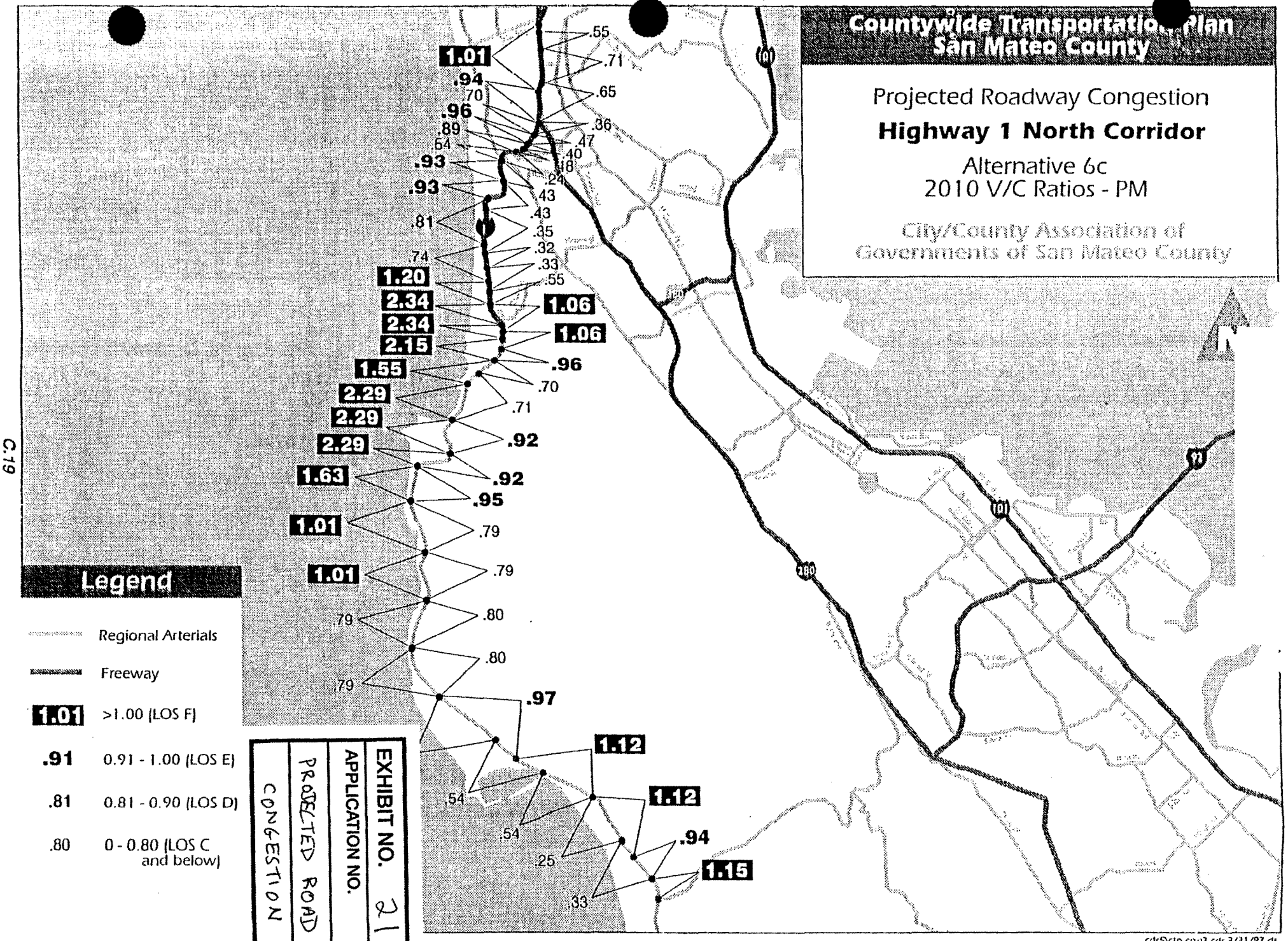
Mr. Anthony J. Carney

Thank you for conducting a tour of the site. If you have any questions, you may contact Cecilia Brown or Ken Sanchez of my staff at (916) 979-2752.

Sincerely,

Cay C. Goude

Cay Goude
Acting Field Supervisor


Countywide Transportation Plan
San Mateo County
Projected Roadway Congestion
Highway 1 North Corridor
Alternative 6c
2010 V/C Ratios - PM
City/County Association of Governments of San Mateo County
Legend
Regional Arterials
Freeway
1.01 >1.00 (LOS F)
.91 0.91 - 1.00 (LOS E)
.81 0.81 - 0.90 (LOS D)
.80 0 - 0.80 (LOS C and below)
EXHIBIT NO. 21
APPLICATION NO.
PROJECTED ROAD CONGESTION
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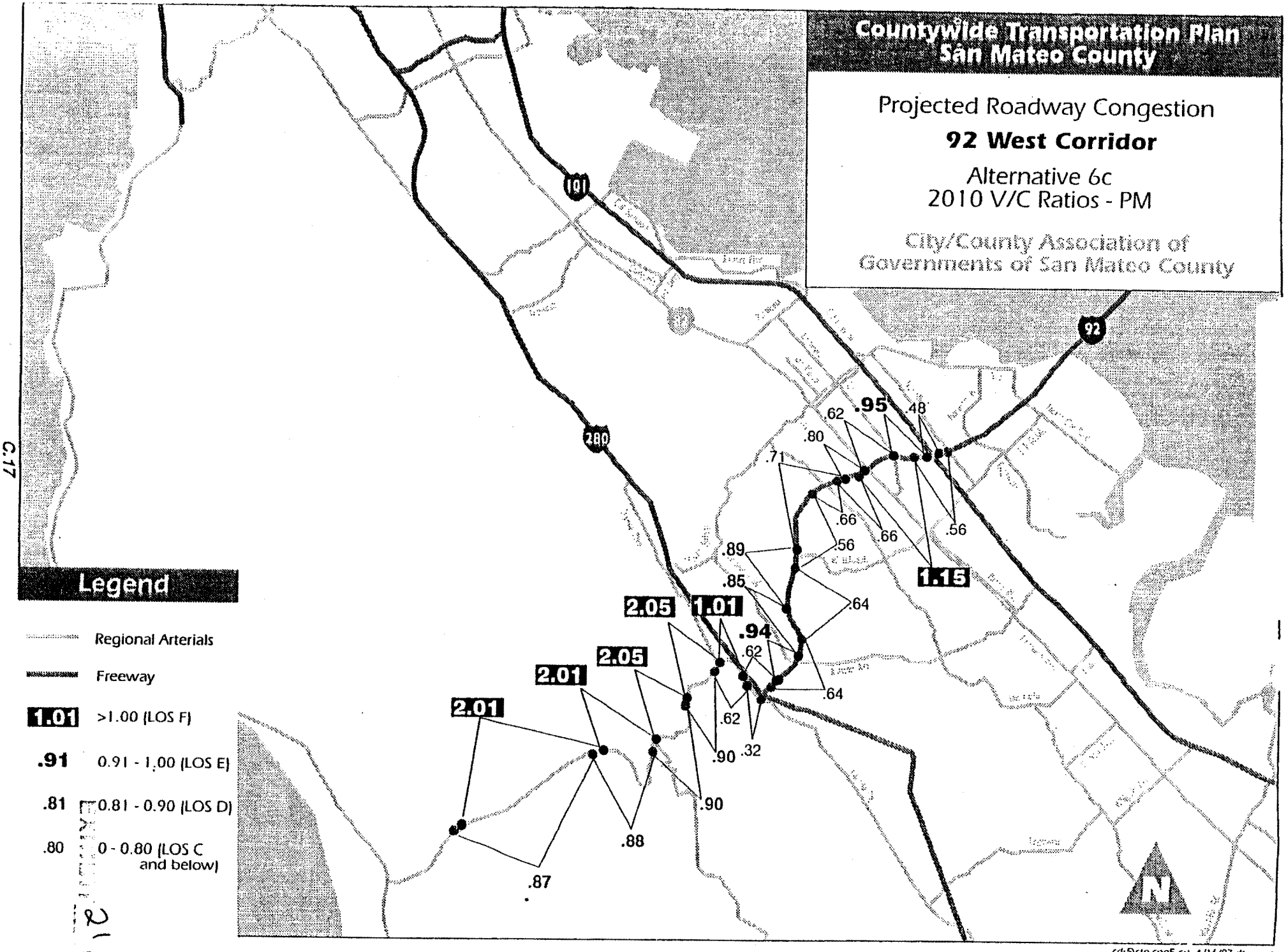

EXHIBIT 21 P.2

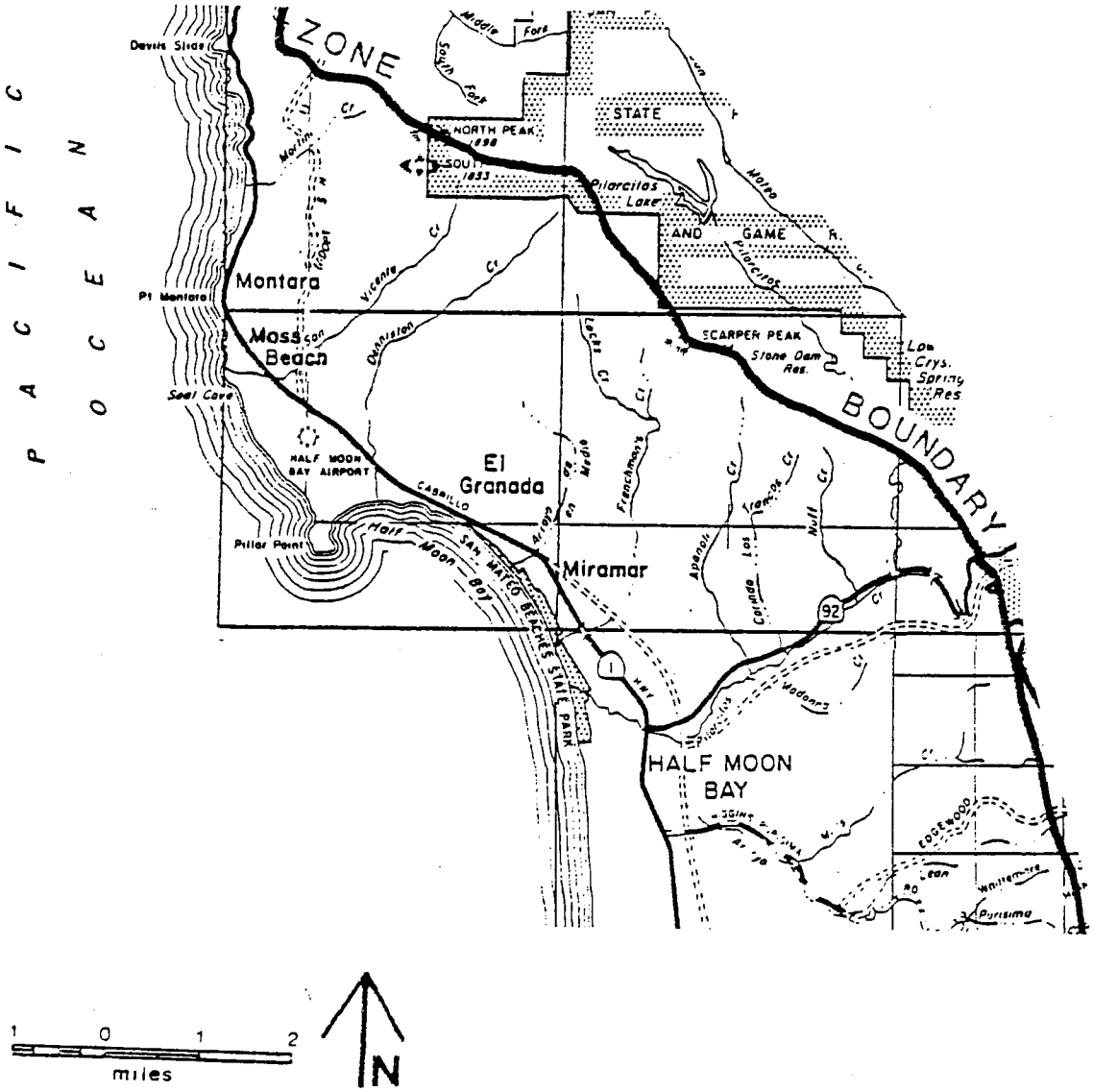

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EXHIBIT NO. 22
APPLICATION NO. A-2-HMB-01-011
DONOR AREA
San Mateo County Mid-Coast Region

SUPERIOR COURT, STATE OF CALIFORNIA, COUNTY OF SAN MATEO

PRESENT: Hon. Rosemary Pfeiffer, Judge of the Superior Court

NO. 402781 w/413013 Joyce Yamagiwa, et al., v. City of Half Moon Bay, et

(ENDORSED)
FILED
SAN MATEO COUNTY
JAN 26 2001
Clerk of the Superior Court
By DONNA CARTER
DEPUTY CLERK

Submitted December 14, 2000

DECISION

Submitted Decision is Attached

EXHIBIT NO.	23
APPLICATION NO.	A-2-HMB-01-011
SUPERIOR COURT	

DATED: January 26, 2001

JUDGE OF THE SUPERIOR COURT

YAMAGIWA V. CITY OF HALF MOON BAY, ET AL
CASE NO. 402781 CONSOLIDATED WITH 413013

This matter came on for hearing on December 14, 2000 on petitioner's request for a writ of mandate compelling the city to approve a CDP in conformance with the tentative vesting map and in conformance with the LCP definition of wetlands which contains an exclusion for "vernal wet areas where the soils are not hydric."

The petition for writ of mandate is granted. The city is ordered to approve a CDP consistent with the tentative vesting map.

In response to the Request for Statement of Decision filed by the City, the Court provides the following:

1. There is no evidence that the City intended to provide a definition of wetlands in its LCP that was less restrictive that the regulations of the Coastal Commission. The reality is that the City's definition contains an exception that is not present in the regulations. The Coastal Commission has approved the City's definition.

2. The Council's finding as set forth at AR 24:7477 is not reasonable. The finding itself nullifies the last portion of the wetland definition found in the LCP. It appears to be an attempt to circumvent the plain language of the LCP, which has been approved by the Commission.

3. This Court cannot make a finding that an interpretation of the LCP as requested by petitioners might provide less environmental protection than the Commission regulations; this Court defers to the approval by the Commission of the LCP and so finds, because the Commission would not approve a lesser standard of environmental protection, that that approval is binding. In addition the Coastal Act, itself, has a broad definition of wetland that does not provide a meaningful standard. See City of Carmel. The City relies on a supplemental definition from Commission Regulations, 14 Cal. Regs 13577, without authority for its application here.

4. Regarding the expert report at AR 25:7931-7939, as well as evidence as AR22:6713-6724 and AR 19:6125-6136, that evidence distinguishes vernal wetness and hydrophytic vegetation. None of that evidence supports a finding that hydric soil exists on the site, which is the subject of the LCP definition and exception.

5. Whether the petitioner's property meets the definition of wetlands under the Commission's regulations is irrelevant; the LCP definition is controlling per PRC 30604(b).

6. Regarding the issue of whether the petitioner acquired a "fundamental vested right" and so the exercise of independent judgment by the Court is appropriate, this Court finds a fundamental right vested per Goat Hill Tavern and Government Code 66498.9.

AFFIDAVIT OF MAILING CASE NO. 402781 with 413013

DOCUMENT: **Decision on Submitted Matter**

I declare under penalty of perjury that on the following date I deposited in the United States Post Office mail box at Redwood City a true copy of the foregoing document, enclosed in an envelope, with the proper and necessary postage prepaid thereon, and addressed to the following:

Rick W. Jarvis, Esq.
Amrit Kulkarni, Esq.
MEYERS, NAVE, RIBACK, SILVER & WILSON
777 Davis Street, Suite 300
San Leandro, CA 94577

Edgar B. Washburn, Esq.
Anne E. Mudge, Esq.
WASHBURN, BRISCOE & McCARTHY
A Professional Corporation
55 San Francisco Street, Suite 600
San Francisco, CA 94133

Tara L. Mueller, Esq.
Deputy Attorney General
California Department of Justice
1515 Clay Street, 20th FLOOR
Oakland, CA 94612

Richard D. Norton, Esq.
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Executed on January 26, 2001
at Redwood City, California
Clerk of the Superior Court

By DONNA CARTER
Donna Carter, Courtroom Clerk

EXHIBIT 23 p.4

LSA

LSA Associates, Inc.

Environmental Analysis
Transportation Engineering
Biology and Wetlands
Habitat Restoration
Resource Management
Community and Land Planning
Landscape Architecture
Archaeology and Paleontology

February 24, 2000

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Ken Curtis, Planning Director
City of Half Moon Bay
City Hall
501 Main Street
Half Moon Bay, CA 94019

Subject: Wetland Assessment, Beachwood Subdivision, Half Moon Bay, California.

Dear Ken:

This letter summarizes our assessment of the possible wetland status of portions of the above-mentioned property under the Half Moon Bay Local Coastal Plan (LCP). The assessment is based on our own on-site investigations, as well as on our review of the October 1999 and the revised December 1999 Beachwood Subdivision LCP Wetland Delineation Study prepared by Wetlands Research Associates (WRA).

The aforementioned reports conclude that there are two relatively small areas at the eastern end of the site that meet the LCP wetland definition. Our assessment is that there are nine additional areas on the site that also meet the LCP wetland definition. We have attached a map of the property that depicts these areas. Please note that the map is based on rough field mapping, and is intended primarily for illustration. Precise boundaries should be stacked and surveyed to provide precise locations if the City determines the areas to be subject to LCP jurisdiction.

In general, we agree with WRA's conclusions that the site presents a difficult situation and that visual field indicators that would provide positive proof of hydric soils are generally absent on most of the site. We also agree that any observations of ponding resulting from last years abnormally high rainfall does not represent a normal condition for the site. That is the ponding and other hydric indicators associated with the rainfall in the winter of 1999 does not meet

EXHIBIT NO. 24
APPLICATION NO. A-2-HMB-01-011
ADMIN. RECORD
PAGES

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the currently accepted definitions for frequently ponded: *"flooding, ponding, or soil saturation is likely to occur under usual weather conditions (more than 50 percent chance in any year, or more than 50 times in 100 years).*

SITE INVESTIGATIONS

Our on-site investigations were conducted on January 19, February 8, and February 22 , 2000. Our January 19 assessment was conducted following the first significant rainfall in the region. During this field evaluation, we noted several areas of ponded water and/or saturated soil in areas associated with hydrophytic vegetation. We recommended that these areas be monitored to determine if the ponding would persist for greater than seven days under weather conditions which were or would be closer to the normal rainfall and that would be more likely to meet the greater than 50 percent precipitation probability. Rainfall by January 19 was reported to be 12.49 inches for the season or 86 percent of the normal season to date of 14.47 inches (weather data reported in the Half Moon Bay Review).

Significant rainfall, 7.11 inches, occurred between January 19 and February 8, bringing the season total to 19.60 inches or 111 percent of the normal season to date total. On February 8, we noted standing water in the nine additional areas with depths ranging from 2 to 18 inches, similar to our January 19 observations. No significant additional areas of standing or ponding had developed and several of the areas of concern were no longer saturated. The most recent rainfall at the site had fallen on February 5, however, this was a fairly small storm that could not have generated enough runoff to result in the deep ponding observed on the 8th. The next most recent storm was large enough to generate runoff, and had taken place around the first of the month. The ponding observed in the basins had therefore lingered at least several weeks prior to our site visit.

A strong storm occurred in Northern California soon after the second visit, and unsettled weather continued through mid-February. Rainfall by February 22 was reported to be 20.75 inches of 112 percent of the normal season to date total of 18.59 inches. On February 22, we again observed ponding of 2 to 18 inches in the various basins. Photographs of each of the ponded basins were taken on both the February 8 and February 22 site visits.

An LSA botanist visited the site on February 22 to assist in the identification of the plant cover in and around the ponded basins. This was necessary because the grasses and herbs were immature and therefore difficult to positively identify by non-botanists. Mature cover from the preceding season had been tilled, and could not be used to characterize the plant cover at the various ponding locations.

During the February 8 visit we characterized the soil characteristics, plant cover, and depth of ponding (or groundwater) at each location where we observed persistent ponding. In doing so, we followed wetland determination methodology presented in the U.S. Army Corps of Engineers Wetland Determination Manual. Specifically, we established sample sites both within and adjacent to suspected wetlands in order to document presence or absence of wetland characteristics. Sample site locations located within the areas that were considered potential LCP wetlands were located near the outermost boundaries of the potential wetlands, because the more centrally located areas were deeply ponded in all cases. Surface ponding and near-surface groundwater impeded our ability to assess deeper horizons in the soil profiles at many locations, including several locations deemed unlikely to meet LCP wetland criteria. The locations of the sampling sites are indicated on the attached map, and copies of the field data sheets for these sites are attached.

Our observations at these sites may be summarized as follows:

- Soils at all of the sites have low chroma (dark-colored) surface horizons, which are considered to be indicative of hydric soil conditions. Application of this indicator is complicated by the fact that soils on the site are Mollisols. Low chroma surface horizons may not be a reliable indicator of hydric soil conditions in Mollisols.

- Redoximorphic depletions and concentrations of iron , both caused by reducing soil conditions, are present in several of the basin features.

- Surface ponding or saturation at the soil surface was observed at every site located near the mapped margins of the basins.

- Algal blooms, which require long-term inundation, were present in most of the basins on February 8. They were present in all basins on February 22. These basins began ponding as early as January 19.

- Plant cover in all basins was dominated by facultative-wetland species. These are species that are adapted for growth in saturated soil conditions, and evince a preference for wetlands. Facultative wetland species are those that are found from 66 to 99 percent of the time in areas considered to be wetlands. The plant cover in the basins is dominated in most instances by more than one of these wetland species. All of which are considered to be reliable indicators of likely wetland conditions

- Plant species not adapted to saturated soil conditions are largely or entirely excluded from the ponded basins. In those cases where non-hydrophytic plant species do occur within the margins of the basins, they

are growing in small clusters on localized areas that have been elevated by the discing.

Our observations of ponded water on the site also closely correspond to our observation of other wetlands in California. In many areas where we are conducting on going studies, we did not see wetlands fully hydrate and start to pond water until after the heavy weekend storm between January 21st and 23nd, several days after our initial site assessment. Our observations include several wetland areas in Contra Costa County, Solano County, and Merced County. If anything, the areas on the Beachwood site began to pond water earlier than many other wetlands in the region and after the first major storm of the season.

We have used the rainfall data presented in the Half Moon Bay Review for assessing rainfall conditions, primarily with respect to normal conditions. This was a similar approach used by WRA to assess monthly rainfall in their report. While this approach does not directly provide information with respect to the greater than 50 percent precipitation probability, we believe it provides a reasonable measure to assess the likelihood that ponding has a strong probability of occurring more than 50 out of 100 years.

These observations, and our direct observation of long-term ponding on the site, lead us to conclude that all of the areas indicated on the attached map meet the LCP definition of wetlands.

REVIEW OF APPLICANTS CONCLUSIONS

We have reviewed the documents provided by the applicant's consultants (Consultants), including the original and revised wetland delineation report prepared by Wetlands Research Associates and letters from Wetlands Research Associates (February 2, 2000), Sequoia Associates (February 4, 2000), and Washburn, Briscoe and McCarthy (February 4, 2000). These documents present and defend the conclusion that only the two areas at the eastern end of the Beachwood Subdivision site meet the LCP definition of wetlands. We feel that this conclusion is based on questionable regulatory interpretation, restricted to interpretation of only one wetland parameter (soils), and is not supported by the physical evidence of other observable wetland parameters (vegetation and hydrology) on the site.

We also note that the Corps of Engineers (Corps) exerted jurisdiction over a third study area in the southeastern corner of the site (site W1b) which was not identified by WRA as a wetland. The Corps did not consider other areas on the site to be waters of the United States. This disclaimer of jurisdiction, however, is based on exemption from Section 404 jurisdiction found at 33CFR323.3 for water filled depressions created in dry land incidental to construction activity.

The Corps does not specifically address whether the other sample areas are or are not wetland.

A full discussion of every regulatory point and piece of historical or scientific evidence that is in contention would be long indeed. We will summarize what we feel are the most crucial points that render their collective argument unconvincing:

- The wetland definition in the LCP begins with the following statement:

  "Wetland is an area where the water table is at, near, or above the ground surface long enough to bring about the formation of hydric soils or to support the growth of plants which are normally found to grow in water or wet ground"

  The definition ends with the proviso that:

  "Wetlands do not include...vernally wet areas where the soils are not hydric."

  We do not agree that the term "vernally wet" should be applied to all areas that are not saturated on a year-round basis. Plant, soil, and hydrologic evidence at the site indicates that the basin areas are inundated or saturated during below to normal winters, and that inundation lasts long enough to have some effect on soil characteristics and substantial effects on the composition of the plant community. If such an area meets the description of "vernally wet", then, due to California's mediterranean climate, so would the majority of potential wetlands in the LCP region.. This interpretation would lead to the requirement that almost all potential wetlands would have to exhibit indisputable evidence of hydric soils, which is in clear contradiction to the intent of the initial definition - *the formation of hydric soils <u>or</u> to support the growth of plants which are normally found to grow in water or wet ground.* We believe both soils and vegetation criteria are met, even though it would appear the LCP definition only requires two criteria: 1) hydrology and soils or 2) hydrology and vegetation.

- The Consultants rely on the questionable categorization of the potential wetlands on the site as "vernally wet" to restrict the determination to presence or absence of hydric soils. Considering that the soils on the site are extremely disturbed and problematic even in their natural state, exclusion of hydrology and vegetation from the determination process does not present an accurate assessment of wetland or non-wetland status.

- Having restricted the wetland determination process to discussion of hydric soils alone, the consultants then conclude hydric soils are not present. This conclusion is based for the most part on the fact that none of the field indicators approved by the NTCHS are present in the ponded areas. The first sentence in the *Field Indicators of Hydric Soils in the United States* (Indicators List) states that the document is meant to act as a *guide* to help identify hydric soils. Nowhere in the Indicators List is there a statement that hydric soil conditions must always result in the formation of one or more of the approved indicators. The Indicators List may represent the best science available, but the best science available is far from complete or infallible. The Indicators List itself states that there are a variety of situations where observable indicators may be lacking, and later specifically mentions Mollisols, as one instance where the indicators are difficult to apply. An even more specific example is mentioned in the definition of Indicator F6 (Redox Dark Surface). This indicator largely consists of the presence of an abundance of redoximorphic concentrations in a dark topsoil. The first note associated with this indicator is that the concentrations may be "masked" by organic matter. Another note states that a depleted horizon should be present below the dark surface horizon, but may not be present where a soil is wet due to surface ponding (rather than groundwater). These exceptions *exactly* describe the situation at the project site. This is a situation that is in fact fairly common in the Bay Area. We must also consider that the soils on the site are aggressively tilled, further hampering the determination.

- The consultants repeatedly refer to a "preponderance of evidence" that hydric soils and wetland conditions do not exist on the site. The evidence that they refer to is a collection of old and/or unreliable information sources that can hardly be considered to outweigh the firsthand evidence of wetland conditions that exists on the site as this letter is written. The evidence we refer to includes not only vegetation and hydrologic evidence, but evidence of reducing soil conditions. While none of the Field Indicators is clearly met, most likely due to the confounding factors listed above, there is clear evidence at several locations that soil reduction does take place. This evidence consists of the redoximorphic concentrations and depletions noted in the Observations portion of this letter. These features are not present in enough abundance or at the proper depths to meet specific indicator definitions in the Field Indicators, but the fact that they are visible *at all* under the circumstances is significant. Furthermore, our direct observation of long duration ponding on the site under circumstances that do not appear to be particularly abnormal is considered by NTCHS to be a perfectly suitable field indicator of hydric soil conditions.

- The evidence that the site does not pond water on frequent basis is based, in part, on review of several aerial photographs and a lack of observable ponding on the aerial photographs. We do not believe these photographs can be assumed to provide positive evidence of a lack of ponding. For example, Figure 11 in the December 1999 WRA report is of an aerial taken on February 11, 1999, following a 30 day period when rainfall was 264% of normal as reported by WRA. WRA notes that ponding is evident in only some of the roadbeds and concludes this evidence shows that this limited ponding only occurs after extraordinarily high rainfall events. This same aerial photograph also covers the adjacent Pacific Ridge site and served as the basis for the wetland mapping on that site by LSA (the picture in the WRA report is only of the Beachwood site). We have first hand observations of the conditions on the Pacific Ridge site on February 9, two days before the aerial photograph was taken, and for several months thereafter. (Note: February 9 was also the day of the City Council field trip to the Pacific Ridge site). Standing water was present in all of the wetlands on the Pacific Ridge site on February 9. These wetland areas continued to be flooded or ponded into April. Other than the pond on the Pacific Ridge site, no standing water is visible in any of the other wetlands on the Pacific Ridge site or on the roads where water was also present. All of the shallow ponding is obscured by the low growing grassy vegetation. We assume similar conditions would occur on the Beachwood site where the vegetation is much taller than the grazed lands on Pacific Ridge project site.

The consultants do not adequately address these issues in their letters. Their conclusion that the soils in the ponded basins are not hydric and that there are only two small LCP wetlands on the site cannot be justified unless these points are addressed.

Sincerely,

LSA ASSOCIATES, INC.

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Assistant Project Manager/Soil Scientist

Steve Foreman
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cc: John Truxaw - Myers, Nave, Rybek and Wilson
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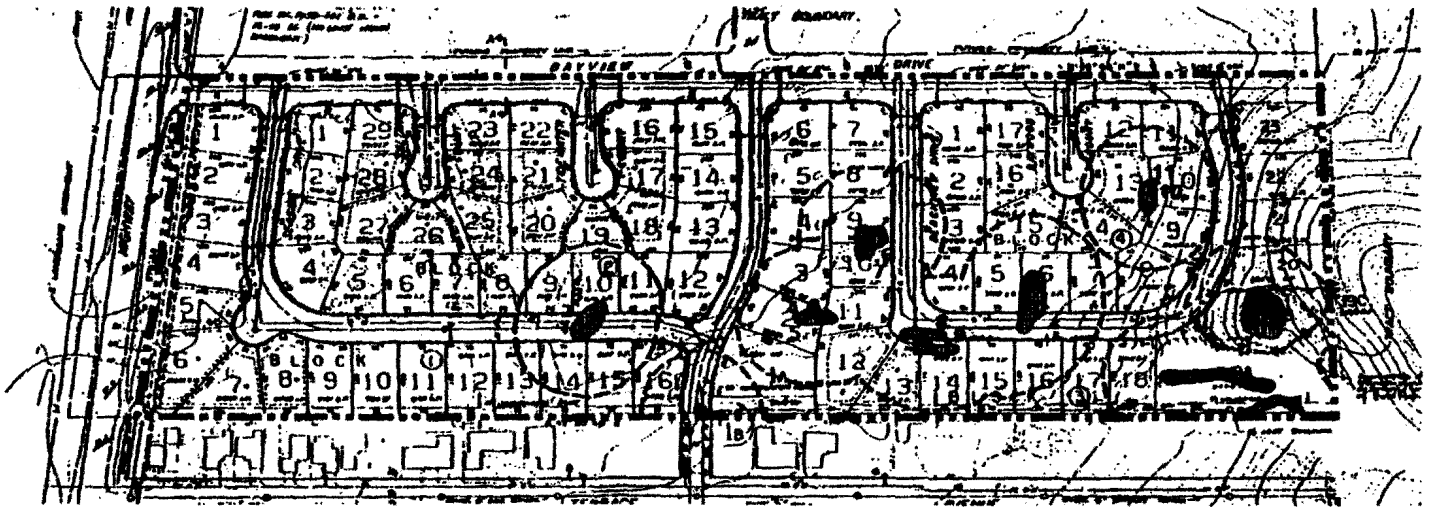
EXHIBIT 24 p.7

Literature Cited:

Hurt, G.W., P.M. Whited, and R.F. Pringle, eds. 1998. Field Indicators of Hydric Soils in the United States. Version 4.0. USDA NRCS Wetl. Sci. Institute and Soil Survey Division in cooperation with the National Technical Committee for Hydric Soils. NRCS Wetland Science Institute, Baton Rouge, LA.

Reed, Porter, B. Jr. 1997. Revision of the National List of Plant Species That Occur in Wetlands. Dept. Interior, U.S. Fish and Wildlife Service in cooperation with the National; and Regional Interagency Review Panels.



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Scale in feet
0 200

LCP Jurisdictional Area
Sampling Point
100 foot Buffer
Parcel Boundary

Beachwood Subdivision
Location of Ponding Areas and Other Areas of Potentially Subject to LCP Jurisdiction

EXHIBIT 24 p.9

LSA Associates, Inc.

Environmental Analysis
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Habitat Restoration
Resource Management
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LSA

January 24, 2000

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Subject: Review of Updated LCP Wetland Delineation Study, Beachwood Subdivision, Half Moon Bay, California.

Dear Ken:

We have reviewed the updated, December 1999, Beachwood Subdivision LCP Wetland Delineation Study (referred to henceforth as Study) prepared by Wetlands Research Associates as you requested. This letter presents our comments concerning some of the points raised in the Study.

Revisions included in the updated report are primarily intended to address LSA's preliminary comments and concerns that lack of hydric soils on the site had not been adequately documented in the previous report and that the presented data seemed to support the presence of hydric soils at many of the sample sites. This point is important because the presence of hydric soils is the key issue in determining the status of several potential wetland areas on the site under the LCP.

WRA has provided additional data, expert opinion, and discussion to the updated report in support of their original finding that hydric soils are only present at three locations on the site (areas W1a, W1b, and W2 in the southeastern corner of the site). Overall, the additional arguments and review by Dr. Stephen Faulkner, a recognized expert and member of the National Technical Committee on Hydric Soils (NTCHS), are generally technically sound and successfully raise doubts about whether soils on other portions of the site are hydric. We do not believe, however, that the report positively establishes that hydric soils are not present on the site.

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EXHIBIT 24 p10

We should mention that we did not observe convincing hydric soil indicators in potential wetland areas during our own on-site investigations, and that we cannot present definitive evidence that hydric soils are present at more than the three locations. We believe, however, that the presence of wetlands is suggested by the presence of strongly hydrophytic plant species (and a corresponding absence of upland species) at several of the sample sites. WRA's contention and analysis that the hydrological conditions necessary to form hydric soils are lacking under more normal rainfall conditions is not conclusive.

Given that the previous WRA study was completed in a rainfall year that would not meet normal usual conditions as required in the definition of hydric soils, we recommend that additional monitoring and site assessment be completed this rainfall season. Now is the appropriate time to assess wetland hydrology and the possible development of hydric soils. To date, rainfall is below normal, although the additional rains over the last week have been significant. If ponding, flooding or saturation occurs under below or closer to normal conditions (if this situation persists), then we believe the presence of hydric soils would be established. Conversely, lack of ponding may not positively prove absence of hydric soils, but would provide additional field evidence to support WRA's conclusions that hydrologic conditions suitable to create hydric soils are not present on the during usual conditions .

Hydric soil determination in the Study is based primarily on two issues. First, is the presence or absence of hydric soil indicators as described in the Field Indicators of Hydric Soils in the United States (Version 4.0, March 1998) (Indicators). Second, is the need for hydric soils to develop over a long period of time.

Following is a discussion of the key points of our analysis and review of the WRA Study.

Hydric Soil Indicators

We generally agree with WRA that majority of the identified study areas on the site (Figure 12) do not exhibit wetland characteristics. The primary area of concern is their study area A. However, we also believe there may be other, smaller pockets of wetland within some of the study areas based on our observations during our November 24, 1999 and January 19, 2000 field evaluations. No sampling points are presented for several of these areas by WRA, however. Many of these areas are within areas previously excavated for roads or other activities.

Sample Point A and surrounding sites are determined to not have hydric soils because no field indicator criteria are met at the site. While we also did not

artificially induced hydrologic regime and did not meet the definition before the artificial measures were applied." (USDA -NRCS 1999). This point is not directly addressed in the WRA report or Dr. Faulkner's analysis. We believe the concept of artificial hydric soils would be applicable to portions of the previously excavated and graded areas.

Hydric Soil Formation

The presence of artificial hydric soils relates to the second point to WRA's analysis: the time required for hydric soils to form and develop.

The Natural Resource Conservation Service (1994) defines hydric soils as:

> *"A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part."*

WRA states hydric soils need to be formed over a long time. In a footnote on page 24 of the Study, WRA presents the following information:

> *"A soil that is frequently ponded for a long or very long duration meets one of the hydric soil criteria. However, as clarified by the NTCHS, a frequently ponded hydric soil must meet the definition and be ponded for 50 or of 100 years under usual weather conditions in order to be classified as a hydric soil. In other words, not all ponded soils are hydric."*

The first part of the footnote relates to hydric soil criteria 3. (We also note that the hydric soil criteria also includes criterion 4 regarding soil saturation). For clarification, the term "long duration" is defined as from 7 days to one month for a single event and a very long duration is defined as greater than 1 month for a single event. A period of 7 to 14 days of continuous ponding/saturation has been demonstrated to be a sufficient period for anaerobic conditions to begin develop in most soils.

They key issue is the frequency at which anaerobic conditions occur. WRA's footnote seems to imply that these conditions must occur 50 out of a 100 years under usual weather conditions in order for a soil to be considered hydric. We believe this is a misinterpretation of the NTCHS clarification for frequent ponding or soil saturation. We believe the correct interpretation for frequency is to define usual or normal weather conditions and not a specific period of years in which soils need to develop. As we understand, frequent is defined by the NTCHS to mean that *"flooding, ponding, or soil saturation is likely to occur under usual weather conditions (more than 50 percent chance in any year, or more than 50 times in 100 years)."* Not that it takes ponding in 50 years out of

a 100 or more years for hydric soils to form. We believe the correct interpretation is that hydric soils can be formed in one growing season, if that flooding, ponding or saturation is likely to occur under usual weather conditions.

The Study address this issue from two perspectives: historical soil development on the site and an analysis of weather patterns during the time period of the observed ponding on the site 1999.

First, the Study presents several historical information sources to support the contention that the site does not have a history of wetland hydrology or aquic moisture regimes. WRA and Dr. Faulkner both conclude that hydric soils were unlikely to have occurred on the site prior to disturbance, and have not developed since. They seem to base this assessment on the long term, farming activity on the site. Neither party, however, addresses the fact that the NRCS (then SCS) mapped a substantial area in the east-central portion of the site as Farallone coarse sandy loam (over coarse sands, gently sloping, seeped phase). The decision by the SCS to map the soil in the central part of the site as a seeped phase strongly implies the potential for seep wetlands to have occurred on the site when the soil mapping was completed. We should note that this soil survey was published in 1961 and was completed using 1948, 1953, and 1958 black and white aerial photographs.

The topography and soil characteristics of the site supports the NRCS mapping decision. The area mapped as Farallone is a coarse-textured alluvial fan created by one or more small watercourses that historically entered the site in the south central and southeastern corner of the property. Groundwater recharge, at least historically, probably took place in the streambed and at the head of the fan, and groundwater discharge could emerge anywhere on the property below that point. The seepage areas would most likely occur towards the bottom (western end) of the Farallone unit in the vicinity of study site A.

We recognize that these historic conditions have been substantially altered. The stream flow as it enter the property prior to at least 1975 is now diverted into the Terrace Avenue storm drain. One of the historic streams has been completely diverted and the majority of the outflow from the other stream is captured in an existing storm drain in the southeastern corner of the property. A substantial amount of the flow from this stream has also been diverted into another watershed to fill an agricultural pond on the adjacent Pacific Ridge property. This diversion was first established around 1955 and was maintained until at least the mid 1980s. This diversion was eliminated for a number of years, but was re-established in 1998 or 1999 by the ranch lessee. On the Beachwood site, human alterations of the site (agricultural uses, development site grading, and drainage diversions on and off the site) would have removed the seeps and surface channels.

These alterations have greatly reduced surface flow and recharge on the property, but may not have had little or no effect on subsurface flow. These flows could continue to feed downslope some wetlands; however, we do not have any specific data or information to document that subsurface seepage is occurring or that it is sufficient to support wetlands on the site.

The historic presence of seepage through the coarse Farallone sands would explain some occurrences of redoximorphic features at seemingly random locations that we noted during our on-site visit and in WRA's analysis. These features may also be relicts of the natural soil formation on the site. WRA's data sheets indicate that the many of the iron-manganese nodules have sharp edges which is considered to be a probable characteristic of relict features (active features tend to have smooth or rounded edges) (NRCS-NTCHS 1998). Relict features would not be considered indicators of current or active hydric soils.

The second perspective addressed by WRA is the above normal rainfall in 1999 prior to the wetland assessments. The lack of visible winter ponding on various aerial photographs of the site over a period of years is cited by WRA and Dr. Faulkner as evidence that prolonged winter ponding does not take place. Shallow ponding, however, could very well be undetectable on the photographs that are included in the report. Groundwater seepage or soil saturation would be even harder to detect.

It is important to point out that the repeated references made by both WRA and Dr. Faulkner to rainfall totals of approximately 200 percent of normal during the 30-day period preceding certain dates as abnormal does not address the hydric soil as having hydrological conditions that form an aquic moisture regime. As we discussed above, the NTCHS defines usual frequency as having roughly a 50 percent chance of occurring every year (1 out of 2 years, 5 out of 10, 50 out of 100, etc.).

California has remarkably wide variations in seasonal and monthly rainfall. Variations in rainfall on the order of 200 percent over a period of 30 days or a couple of years may not be that uncommon. Rather than addressing rainfall in terms of percent of average, a better measure is how many times or what percentage of time has that amount or more of rainfall been documented over the period of record.

We quickly reviewed the rainfall records for Half Moon Bay for the period of 1948 to 1999 or 51 years as a measure of occurrence for assessing ordinary or normal conditions. For November 1998, rainfall was met or exceeded in 31 of the 51 years of record (61 percent). December was exceptionally dry and as low or lower rainfall was only recorded in 9 of the 51 years of record (18 percent). The combined total rainfall for November and December, which would reasonably approximate the conditions preceding the January 1999 observations

by Meyer Consulting, was 74 percent of average rainfall for the two months and rainfall amounts equal to or lower than the 5.87 inches has occurred in 21 of the 51 years of recorded rainfall data (41 percent).

As reported by WRA, Meyer Consulting identified two possible wetlands on the site. This sort of condition is more closely meeting what we would considered a usual reasonable or average conditions, but is also during a period of the year prior to when most seasonal wetlands in California really start to fully hydrate. Basically, we wouldn't necessarily expect to see all wetlands on any site ponded by the end of December in a below normal rainfall period.

While the fall period was dry, the prime rainfall months of January through March were wet, with an uncharacteristic almost daily rainfall. January rainfall total was met or exceeded in 18 of 51 years of record (35 percent), February 9 of 51 years (18 percent), and March 19 of 51 years (37 percent). This analysis tends to support WRA's contention that the observed ponding and other hydric indicators (algal mats) resulting from last years rainfall are abnormal and probably would not meet the normal frequency or average conditions used to define hydric soil conditions.

WRA presents the results of several previous wetlands assessments are presented in the Study in order to attempt to address the lack of wetlands on the site under other conditions or periods of time. Most of which do not identify large expanses of wetlands on the site, but most of these assessments have not been completed to the level of detail required for an accurate delineation of such a problematic site. The exception, presumably, is a 1989 Harding Lawson and Associates (HLA) report that was verified by the Corps. This determination was completed during a cycle of dry conditions, but the rainfall for the 1998-99 year was 24.51 inches or 89.9 percent of normal for Half Moon Bay. This year would likely be considered a relatively usual or normal year. WRA reports the Corps did not exert jurisdiction because of lack of evidence of hydric soils or wetland hydrology. We agree with WRA that Dr. Huffman's observations of several possible wetlands/hydric soils on the site last year are similarly unreliable due to higher than normal rainfall.

We also note that WRA submitted the Study to the Corps with a request for verification of jurisdiction. On January 10, 2000, the Corps provided a determination that exerts Section 404 jurisdiction over Study Areas W1a (draiange channel), W1b (seasonal wetland), and W2 (the pond) as shown on Figure 13 of the Study. The Corps did not consider other areas on the site to be waters of the United States. This disclaimer of jurisdiction, however, is based on exemption from Section 404 jurisdiction found at 33CFR323.3 for water filled depressions created in dry land incidental to construction activity. The Corps does not specifically state whether the other sample areas are or are not wetland.

Summary and Recommendations

In summary, WRA's arguments are technically sound and successfully raise doubts about whether hydric soils are present on the site. WRA provides considerable assessment of soils in what are potentially the wetter portions of the site and no reliable visual indicators of hydric soils are present. Observations of ponding/soil saturation resulting from the above normal rainfall in 1999 also would not meet current, accepted criteria for defining hydric soils. We agree with these points. WRA also provides an opinion from a recognized expert and member of the National Committee on Hydric Soils that hydric soils are not likely present on the site. The 1989 Corps jurisdictional determination also did not identify any wetlands on the site. This assessment was conducted during a relatively normal rainfall year, at least with respect to total annual precipitation. We do not believe that there is a significant difference between the Corps wetland criteria and the LCP wetland criteria with respect to the types of wetlands present on the site.

We disagree with WRA that hydric soils did not form or historically occur on the site. We believe that the information suggest that hydric soils were present on the site prior to grading, or more importantly, the alternation of the natural drainage patterns and capture of the historic stream courses into storm drains. This historic development or conditions may be irrelevant to assessing current conditions and the presence hydric soils and wetlands given the previous substantial alterations of the natural hydrology and land form.

While we do not believe that the report positively establishes that hydric soils are not present on the site, we cannot positively prove that soils that would meet the hydric soil definition are present under more normal rainfall conditions. We base our opinion that wetlands may be present on the property on the occurrence of what we consider to be strongly hydrophytic or reliable plant species indicators of wetlands. We generally agree with WRA that facultative species such as *Picris* and even facultative wetland species such as *Rumex crispus* are poor indicators of wetlands (these two species can grow well in wetlands, but also grow in other disturbed soil conditions as well).

Other species documented on the site, however, are more typically restricted to wetlands. We believe the vegetation data suggests that wetland vegetation is present at sample sites A, D, and G. These three sites support species such as *Lythrum hyssopifolium, Polypogon monspeliensis,* and *Cyperus eragrostris.* While these species can occur in upland habitats, it is uncommon and no apparent upland plants were recorded for these sites which would help suggest that the sites are not wetlands.. Sample sites B, F, and H support some component of upland vegetation and appear to be upland sites.

Sample sites C and E are inconclusive. Site C is dominated by two species, *Rumex crispus* and *Conium maculatum*, which are common, characteristic species of disturbed sites. Both species are considered facultative wetland species in the U.S. Fish and Wildlife Service's 1988 wetland plant list used by the Corps. The most recent ____ addition of the plant list, however, changed the indicator status of *Conium* to facultative. Also, upland indicator plants (*Raphnus sativa* and *Brassica* sp.) dominated the site during our January 19, 2000 field visit.

While the dominant plant species at site E are primarily facultative wetland species and contain two species which are typically found in wetlands, *Polypogon monspeliensis* and *Juncus bufonius*, WRA also recorded a number of upland plants species such as *Avena fatua* as subdominants. In difficult or disturbed sites, the characteristics of the subdominant plants is often more definitive than the dominant plants.

As stated at the beginning of this letter, none of the preceding points establishes that hydric soils, and therefore LCP wetlands, are more abundant on the site than is asserted in the Study. We do feel that they show that the site is problematic and that hydric soil conditions could be present despite a seeming lack of visual soil indicators.

If additional occurrences of hydric soils are present on the site, they are unlikely to cover as much area as is represented by the Study Areas indicated on Figure 12 of the Study. They are more likely to be small pockets in the various depressions on the site, or stringers along swales and erosion gullies along old roadways. We also suspect that the visual indicators of hydric soils in such areas will be in conclusive.

The attached hand drawn map outlines several areas that we have identified as the major areas on the site where we believe potential wetlands may be present. This assessment was based on Steve Foreman's observations on January 19, 2000 of areas where some shallow ponding was beginning to occur and/or where the more indicative hydrophytic plant species are present. This assessment conducted during a light rain and following a reported 0.8 of rain in the last 24 hours for Half Moon Bay. The observed ponding, however, may not persist for sufficient periods to create hydric soil.

We recommend additional monitoring of these areas and the remainder of the site to determine if ponding or soil saturation occurs for a period of 14 days or more under more normal or subnormal rainfall conditions. This monitoring will provide useful information if the current weather patterns persist. Any monitoring, however, will need to carefully consider evaluate weather patterns, especially if the rainfall amounts increase substantially.

If additional monitoring is completed, additional data points should be established and analyzed in their other study sites. No sampling points were established in many of the potential wetland study areas and additional data points need to be established in the larger study areas such as W5, W7, and W13 in order to adequately characterize the range of conditions in these areas. Additional upland sample points should also be established. We also recommend that the applicant coordinate with the Coastal Commission staff to obtain a final wetland assessment.

The Study also only addresses the presence of wetlands on the site. It does not appear to provide the required information to be fulfill the requirements of a Biological Report as required by the City regulations which we assume are applicable to this project.

Sincerely,

LSA ASSOCIATES, INC.

Sean Lohmann
Assistant Project Manager/Soil Scientist

Steve Foreman
Project Manager/Wildlife Biologist

cc: John Truxaw - Myers, Nave, Rybek and Wilson
Joan Lamphier

Literature Cited:

Hurt, G.W., P.M. Whited, and R.F. Pringle, eds. 1998. Field Indicators of Hydric Soils in the United States. Version 4.0. USDA NRCS Wetl. Sci. Institute and Soil Survey Division in cooperation with the National Technical Committee for Hydric Soils. NRCS Wetland Science Institute, Baton Rouge, LA.

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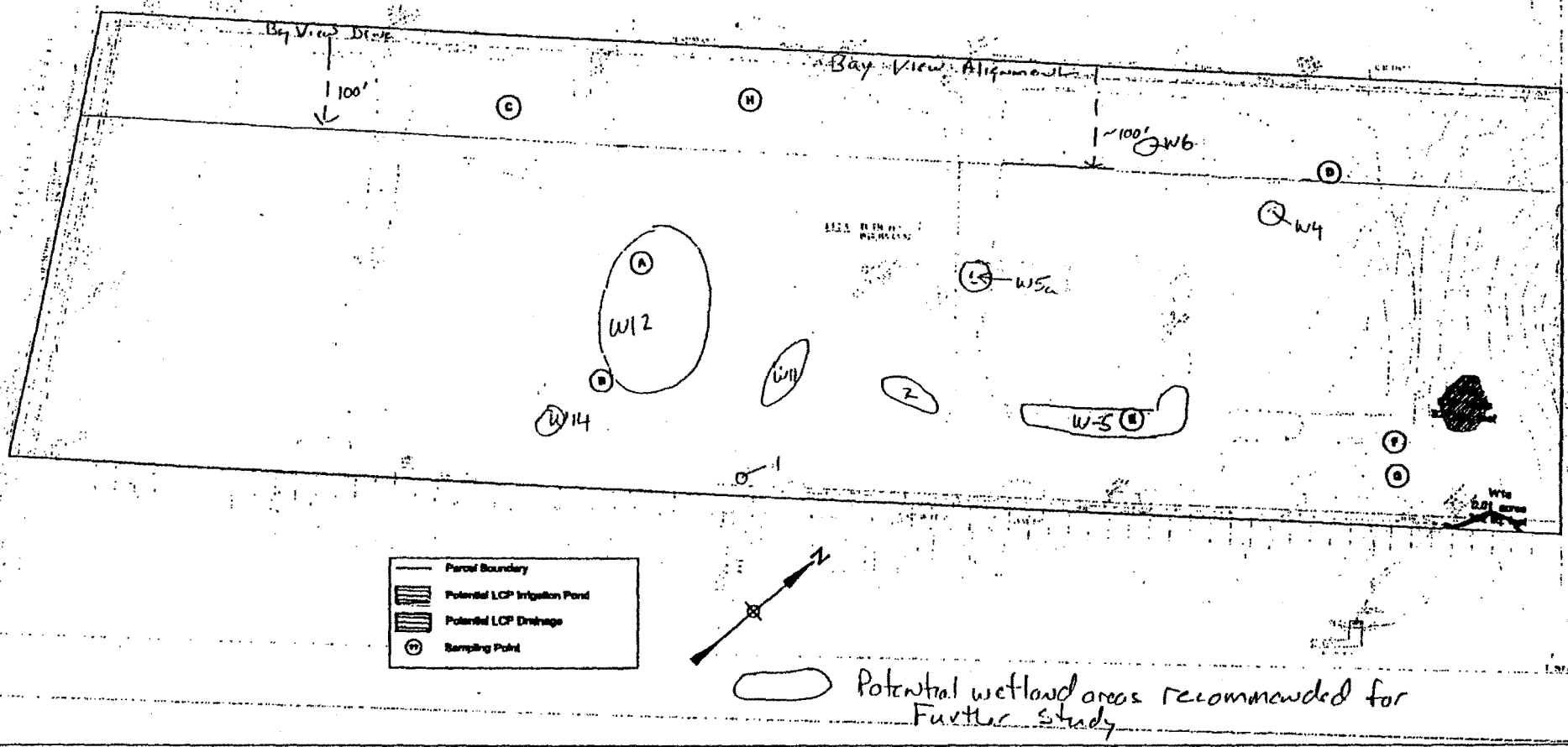

Figure 13. Potential LCP Jurisdictional Areas at the Beachwood Subdivision

SCALE 1:1500

LOCATION: Half Moon Bay, CA

COUNTY: San Mateo

APPLICATION BY: Beachwood Subdivision

SOURCE: Base Map - Brian Kangas Foulk

DATE: DECEMBER 1999

Exhibit 24 p.20

6136

LSA

LSA ASSOCIATES, INC.
157 PARK PLACE
PT. RICHMOND, CALIFORNIA 94801
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OTHER OFFICES:
BERKELEY
IRVINE
RIVERSIDE
ROCKLIN

TRANSMITTAL

TO: Ken Curtis, Planning Director
City of Half Moon Bay

ATTN:

DATE: March 7, 2000

PROJECT: Beachwood Subdivision

PROJECT NUMBER: LPH930

TRANSMITTED:

☐ FOR YOUR REVIEW ☐ FOR YOUR FILES
☐ AT YOUR REQUEST ☐ FOR YOUR INFORMATION
☐ FOR YOUR APPROVAL ☐ DISTRIBUTION

SUBJECT: Wetland Delineation Data Sheets and Map

ITEMS BELOW ARE TRANSMITTED: ☐ HEREWITH ☐ UNDER SEPARATE COVER ☐ VIA:

DATE	COPIES	DESCRIPTION

GENERAL REMARKS:

Ken - Enclosed are copies of our wetland delineation sheets. These were apparently left out of the transmittal for our February 24, 2000 wetland assessment report. I apologize for any inconvinience this may have caused. I have also included a larger version of our wetland map. Per Joan Lamphier's request, I am also forwarding copies to Anne Mudge and Mike Josselyn.

COPIES TO: John Truxaw, Joan Lamphier, Mike Josselyn, and Anne Mudge

BY: Steve Foreman

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No ANNUAL TILLAGE
Is the area a potential Problem Area? (Yes) No - SOIL DISTURBED

Sample Site No.: SS 1
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California
AREA "A"

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. DESCHAMPSIA CESPITOSA (?)	40	FACW	1. HOLCUS LANATUS (?)	10	FAC
2. RUMEX CRISPUS	20	FACW	2. GERANIUM MOLLE	5	UPL
3.			3. PICRIS ECHIOIDES	10	FAC+
4.			4. OXALIS PES-CAPRAE	10	UPL
5.			5. LYTHRUM HYSSOPIFOLIA		FACW
6.			6.		
7.			7.		

100 % dominant species that are OBL, FACW or FAC (except FAC-). 20 % Bare ground

Remarks: COMMUNITIES UNDIFFERENTIATED DUE TO TILLAGE. BARE GROUND A CONSEQUENCE OF PONDING. IDENTIFICATION OF GRASS SPECIES DIFFICULT DUE TO IMMATURE CONDITION.

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph; _____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: 0-3 (in.)
Depth to free water in pit: SURFACE (in.)
Depth to saturated soil: SURFACE (in.)

Wetland hydrology indicators:
X Inundated
_____ Water marks
_____ Sediment deposits
X Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
X Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidized root channels in upper 12"

Physiographic position of site/Remarks: LOCATED IN SUMPS [illegible] PERENNIAL PONDING [illegible] DIRECTLY. VEGETATION SUPPRESSED AND RETARDED BY PONDING. ALGAL BLOOMS IN MOST AREAS. PONDING OBSERVED ON 1/19/00.

SOILS

Map unit name: EARLLONE CLSL, SEEPED
Taxonomy (subgroup): —
Drainage class: WELL
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-9	Ap	10YR 5/1	NONE		SCL, MATTED
9-14+	Ag	10YR 5/1	NONE		SCL
		10YR 3/2			

Hydric Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
X Gleyed or low-chroma colors
_____ Organic streaking
X Sulfidic odor
X Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks: SULFIDIC ODORS WERE NOTED WHILE WALKING IN PONDED AREAS IN VICINITY OF SAMPLE SITE. LOW CHROMA COLORS COULD BE A CONSEQUENCE OF GRASSLAND INFLUENCE, BUT SITE CHARACTERISTICS SUGGEST A PROBABLE AQUIC MOISTURE REGIME.

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present (Yes) No
Wetland hydrology present (Yes) No

Is this sampling point within a wetland? (Yes) No

Remarks:

EXHIBIT 24 p.22

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No TRACE
Is the area a potential Problem Area? (Yes) No - SOIL DISTURBED

Sample Site No.: SS 2
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California
AREA "A"

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. CONIUM MACULATUM	20	FACW	1. HIRSCHFELDIA INCANA	2	UPL
2. OXALIS PES-CAPRAE	30	UPL	2. GERANIUM MOLLE	1	UPL
3. PICRIS ECHIOIDES	20	FAC	3. RUMEX CRISPUS	5	FACW-
4. HORDEUM MARINUM	22	FAC	4.		
5.			5.		
6.			6.		
7.			7.		

75 % dominant species that are OBL, FACW or FAC (except FAC-). ~50 % Bare ground

Remarks: MEETS HYDROPHYTIC CRITERION, BUT SITE CONTAINS AN UPLAND DOMINANT AND TWO UPLAND SUBDOMINANTS.

HYDROLOGY

Recorded data (describe in remarks):
____ Stream, lake, or tide gage; ____ Aerial photograph; ____ Other;
____ No recorded data available.

Field observations:
Depth of surface water: NONE (in.)
Depth to free water in pit: 4 (in.)
Depth to saturated soil: 2 (in.)

Wetland hydrology indicators:
____ Inundated
____ Water marks
____ Sediment deposits
X Drift Lines
____ Water-stained leaves
____ Other (explain in remarks)
X Saturated in upper 12"
____ Local soil survey data
____ Drainage patterns in wetlands
____ Oxidized root channels in upper 12"

Physiographic position of site/Remarks: LOCATED IN SWALE ABOUT 20' OFF CULTERLINE DRAINAGE [illegible] INDICATE PONDING DURING LAST RAINFALL NOT SATURATED TO SURFACE FOLLOWING SUBSTANTIAL RAINFALL.

SOILS

Map unit name: FAGRIONE CL, SEEPED
Taxonomy (subgroup): —
Drainage class: WELL
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-15	Ap	10YR 2/1	NONE	[illegible]	SIL (HIGH SAND CONTENT, HIGH OM)

Hydric Soil Indicators:
____ Histosol
____ Reducing conditions
____ High organic content in surface layer
____ Listed on national hydric soils list
____ Histic epipedon
X Gleyed or low-chroma colors
____ Organic streaking
____ Sulfidic odor
____ Probable aquic moisture regime
____ Concretions
____ Listed on local hydric soils list
____ Other (explain in remarks)

Remarks: LOW CHROMA TOPSOIL IS ONLY INDICATION OF POSSIBLE WETLAND HYDROLOGY. LOW CHROMA TOPSOIL NOT A RELIABLE INDICATOR OF HYDRIC SOILS IN THE ABSENCE OF CONFIRMING EVIDENCE OF A LIKELY AQUIC MOISTURE REGIME

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling point within a wetland? Yes (No)

Remarks: HYDRIC SOIL INDICATOR PRESENT, BUT UNRELIABLE. VEGETATION MEETS HYDROPHYTIC CRITERION, BUT PROBABLY WOULD NOT MEET A FAC-NEUTRAL TEST.

02/07/00(P:\LPH930\WET.FRM)

EXHIBIT 24 p.27

6715

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No TILLED
Is the area a potential Problem Area? (Yes) No - SOIL DISTURBED

Sample Site No.: SS 3
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California
AREA "A"

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. CYNODON DACTYLUM	25	FACW	1. OXALIS PES-CAPRAE	15	UPL
2. HIRSCHFELDIA INCANA	25	UPL	2. GERANIUM MOLLE	10	UPL
3.			3. ACHIS ECHINOIDES	5	FAC+
4.			4. RUMEX CRISPUS	3	FACW
5.			5. RUBUS VRSINUS	7	FAC
6.			6.		
7.			7.		

50 % dominant species that are OBL, FACW or FAC (except FAC-). ~40% Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph; _____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: NONE (in.)
Depth to free water in pit: 15 (in.)
Depth to saturated soil: 15 (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidized root channels in upper 12"

Physiographic position of site/Remarks: LOCATED 50' FROM SWALE & FLOW SS 2. NO EVIDENCE OF PONDING.

SOILS

Map unit name: FARALLONE CASL, SEEPED
Taxonomy (subgroup): –
Drainage class: WELL
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-15		10YR 2/1	NONE		
15-20+		10YR 3/1	NONE		

Hydric Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ X Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks: HYDRIC SOIL INDICATOR PRESENT, BUT UNRELIABLE.

WETLAND DETERMINATION

Hydrophytic vegetation present Yes (No)
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling point within a wetland? Yes (No)

Remarks:

02/07/00(P:\LPH930\WET.FRM)

EXHIBIT 24 p.24

6716

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No TILLED
Is the area a potential Problem Area? (Yes) No – SOIL DISTURBED

Sample Site No.: SS 4
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California
AREA "B"

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. POLYPOGON MONSPELIENSIS	64	FACW	1. JUNCUS EFFUSUS	10	OBL
2. PICRIS ECHIOIDES	20	FAC+	2. CYPERUS ERYTHRORHIZOS	1	FACW
3.			3. LYTHRUM HYSSOPIFOLIA	5	FACW
4.			4.		
5.			5.		
6.			6.		
7.			7.		

100 % dominant species that are OBL, FACW or FAC (except FAC-). 5 % Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph; _____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: 0-1 (in.)
Depth to free water in pit: SURFACE (in.)
Depth to saturated soil: SURFACE (in.)

Wetland hydrology indicators:
X Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
X Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
X Oxidized root channels in upper 12"
FEW/FINE

Physiographic position of site/Remarks: LOCATED IN INDUSTRIAL SOIL. PERSISTENTLY PONDED FOLLOWING JANUARY RAINFALL. PONDING OBSERVED ON 1/19/00.

SOILS

Map unit name: FARALLONE COSL, SEEPED
Taxonomy (subgroup): –
Drainage class: WELL (AS MAPPED)
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0 - 4	Ap1	10YR 2/1	7.5YR 4/6	≤ 1%	SCL (FEW CHUNKS POTENTIAL)
14 - 20 +	Ap2	10YR 2/1	7.5YR 4/3	~5% (CID)	C MASSIVE " "
				MATRIX RL	

Hydric Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
X Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
X Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks: FEW REDOXIMORPHIC FEATURES. SOME OXIDIZED ALLUVIUM. FINE RHIZOSPHERES IN TOPSOIL. TILLAGE MAY HAVE REDUCED NUMBERS OF RH IN SURFACE HORIZON. DIRECTLY OBSERVED LONG-TERM PONDING

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present (Yes) No
Wetland hydrology present (Yes) No

Is this sampling point within a wetland? (Yes) No

Remarks: ALL THREE CRITERIA ARE MET.

02/07/00(P:\LPH930\WET.FRM)

EXHIBIT 24 p.25

6717

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No
Is the area a potential Problem Area? (Yes) No - SOIL DISTURBED

Sample Site No.: SS 5
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California
AREA B

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. OXALIS PES-CAPRAE	60	UPL	1.		
2. LOLIUM MULTIFLORUM	40	FAC	2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

50 % dominant species that are OBL, FACW or FAC (except FAC-). Ø % Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph; _____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: NONE (in.)
Depth to free water in pit: [illegible] (in.)
Depth to saturated soil: [illegible] (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
X Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidized root channels in upper 12"

Physiographic position of site/Remarks: [illegible]

SOILS

Map unit name: FARALLONE CLSL, SLOPED
Taxonomy (subgroup): -
Drainage class: WELL-DRAINED
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-14	Ap	10YR 3/1	NONE		PIECES OF Bt CHURNED IN BY DISCING
14-18+	Bt	2.5YR 5/4	10YR 6/2		FAINT CLAY
			10YR 4/1		

Hydric Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
X Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks: CLAYPAN AT 14", APPROXIMATELY. DISCING HAS DISRUPTED HORIZONATION. REDOXIMORPHIC MOTTLING IN CLAYPAN NOT A RELIABLE INDICATOR OF AN AQUIC MOISTURE REGIME.

WETLAND DETERMINATION

Hydrophytic vegetation present Yes (No)
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling point within a wetland? Yes (No)

Remarks:

02/07/00(P:\LPH930\WET.FRM)

EXHIBIT 24p.26

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No ROAD
Is the area a potential Problem Area? (Yes) No - SOIL DISTURBED

Sample Site No.: SS 6
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California
AREA "C"

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. RUMEX CRISPUS	40	FACW	1.		
2. CYPERUS ERYTHROSTIS	20	FACW	2.		
3. POLYPOGON MONSPELIENSIS	40	FACW	3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

100 % dominant species that are OBL, FACW or FAC (except FAC-). ~70 % Bare ground PONDED

Remarks: COVER ESTIMATES ARE APPROXIMATE DUE TO PONDING.

HYDROLOGY

Recorded data (describe in remarks):
____ Stream, lake, or tide gage; ____ Aerial photograph; ____ Other;
____ No recorded data available.

Field observations:
Depth of surface water: ____ (in.)
Depth to free water in pit: ____ (in.)
Depth to saturated soil: ____ (in.)

Wetland hydrology indicators:
X Inundated
____ Water marks
____ Sediment deposits
____ Drift Lines
____ Water-stained leaves
____ Other (explain in remarks)
X Saturated in upper 12"
____ Local soil survey data
____ Drainage patterns in wetlands
____ Oxidized root channels in upper 12"

Physiographic position of site/Remarks: LOCATED IN [illegible] DEEPLY PONDED.

SOILS

Map unit name: FARALLONE CO SL, SEEPED
Taxonomy (subgroup): —
Drainage class: ____
Field observations confirm mapped soil series? Yes (No) EXCAVATED

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
NO EXCAVATION					

Hydric Soil Indicators:
____ Histosol
____ Reducing conditions
____ High organic content in surface layer
____ Listed on national hydric soils list
____ Histic epipedon
____ Gleyed or low-chroma colors
____ Organic streaking
____ Sulfidic odor
X Probable aquic moisture regime
____ Concretions
____ Listed on local hydric soils list
____ Other (explain in remarks)

Remarks: DEEPLY PONDED [illegible] THAN A WEEK FOLLOWING LAST SUBSTANTIAL RAINFALL.

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present (Yes) No
Wetland hydrology present (Yes) No

Is this sampling point within a wetland? (Yes) No

Remarks: DIRECTLY OBSERVED PERSISTENT PONDING DURING NORMAL WINTER RAINFALL.

02/07/00(P:\LPH930\WET.FRM)

EXHIBIT 24 p.27

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No ROADS
Is the area a potential Problem Area? (Yes) No - SOILS DISTURBED

Sample Site No.: SS
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California
AREA "C"

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. LOLIUM MULTIFLORUM	64	FAC	1. PICRIS ECHIOIDES	5	FAC+
2. POLYPOGON MONSPELIENSIS	30	FACW	2. GERANIUM MOLLE	1	UPL
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

100 % dominant species that are OBL, FACW or FAC (except FAC-). 30 % Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph; _____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: MINIMAL (in.)
Depth to free water in pit: SURFACE (in.)
Depth to saturated soil: SURFACE (in.)

Wetland hydrology indicators:
X Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
X Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
X Oxidized root channels in upper 12" FEW

Physiographic position of site/Remarks: LOCATED AT EDGE OF PONDED BASIN, ABOVE APPARENT MAXIMUM EXTENT OF PONDING.

SOILS

Map unit name: FARALLONE CL, SEEPED
Taxonomy (subgroup): -
Drainage class: -
Field observations confirm mapped soil series? Yes (No) EXCAVATED

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-7	A1	10YR 3/1	NONE		LS
7-14+	A2	10YR 3/1	2.5YR 4/6	~1% RH	L
		10YR 4/2			

Hydric Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
X Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks: LOW CHROMA TOPSOIL IS AN UNRELIABLE INDICATOR OF HYDRIC SOIL CONDITIONS. AQUIC MOISTURE REGIME UNLIKELY GIVEN MINIMAL PONDING WHEN MOST OTHER LOW AREAS ARE INUNDATED.

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present Yes No UNCERTAIN
Wetland hydrology present Yes (No)

Is this sampling point within a wetland? Yes No

Remarks: WETLAND HYDROLOGY UNLIKELY BASED ON LACK OF PONDING. SATURATED CONDITIONS WOULD NOT PERSIST AT THIS LOCATION WITHOUT PERSISTENT RAINFALL.

02/07/00(P:\LPH930\WET.FRM)

24p.28

6720

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No ROAD CUT
Is the area a potential Problem Area? (Yes) No - DISTURBED SOILS

Sample Site No.: SS 3
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California
AREA "G"

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. HORDEUM MARINUM	80	FAC	1. POLYPOGON MONSPELIENSIS	5	FACW
2.			2. CYPERUS SCAROSTIS	5	FACW
3.			3. RUMEX CRISPUS	5	FACW-
4.			4. GERANIUM MOLLE	5	UPL
5.			5.		
6.			6.		
7.			7.		

100 % dominant species that are OBL, FACW or FAC (except FAC-). 50 % Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph; _____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: 0-2 (in.)
Depth to free water in pit: SURFACE (in.)
Depth to saturated soil: SURFACE (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
X Saturated in upper 12" TO SURFACE
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidized root channels in upper 12"

Physiographic position of site/Remarks: LOCATED IN LOW POINT IN EXCAVATED ROADWAY

SOILS

Map unit name: FARALLONE CLAY, SEEPED
Taxonomy (subgroup): —
Drainage class: —
Field observations confirm mapped soil series? Yes (NO) - EXCAVATED

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-12	Ap	10 YR 3/1	NONE		SIL

Hydric Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
X Gleyed or (low-chroma) colors
_____ Organic streaking
_____ Sulfidic odor
X Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks: LOW CHROMA IS AN UNRELIABLE INDICATOR ON ITS OWN, BUT SOILS ARE DISTURBED AND PERSISTENT PONDING WAS DIRECTLY OBSERVED.

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present (Yes) No
Wetland hydrology present (Yes) No

Is this sampling point within a wetland? (Yes) No

Remarks:

02/07/00(P:\LPH930\WET.FRM)

Exhibit 24 p.29

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No ROADCUT
Is the area a potential Problem Area? (Yes) No DISTURBED SOIL

Sample Site No.: SS 9 6
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. HORDEUM MARINUM	94	FAC	1. GERANIUM MOLLE	5	UPL
2.			2. RUMEX CRISPUS	1	FACW
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

____% dominant species that are OBL, FACW or FAC (except FAC-). ____% Bare ground

Remarks: WOULDN'T PASS FAC - NEUTRAL.

HYDROLOGY

Recorded data (describe in remarks): ____ Stream, lake, or tide gage; ____ Aerial photograph; ____ Other; ____ No recorded data available.

Field observations:
Depth of surface water: NONE (in.)
Depth to free water in pit: 13 (in.)
Depth to saturated soil: ~13 (in.)

Wetland hydrology indicators:
____ Inundated
____ Water marks
____ Sediment deposits
____ Drift Lines
____ Water-stained leaves
____ Other (explain in remarks)
____ Saturated in upper 12" ONLY [illegible]
____ Local soil survey data [illegible]
____ Drainage patterns in wetlands
X Oxidized root channels in upper 12" - FEW

Physiographic position of site/Remarks: LOCATED IN ROADCUT. SATURATION AT SOIL SURFACE - IN TOPSOIL LAYER ONLY.

SOILS

Map unit name: FARALLONE CL, SEEPED
Taxonomy (subgroup): –
Drainage class: –
Field observations confirm mapped soil series? Yes (No) EXCAVATED

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0 - 6		10YR 3/1			L
6 - 11		10YR 3/2			C
		10YR 4/2			
11 - [illegible]		"	7.5YR 3/2	<1%	CONCRETIONS [illegible] C

Hydric Soil Indicators:
____ Histosol
____ Reducing conditions
____ High organic content in surface layer
____ Listed on national hydric soils list
____ Histic epipedon
X Gleyed or low-chroma colors
____ Organic streaking
____ Sulfidic odor
____ Probable aquic moisture regime
____ Concretions
____ Listed on local hydric soils list
____ Other (explain in remarks)

Remarks: LOW CHROMA ONLY 6" DEEP. NO OTHER HYDRIC INDICATORS OR EVIDENCE OF PROBABLE AQUIC MOISTURE REGIME.

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling point within a wetland? Yes (No)

Remarks:

02/07/00 (P:\LPH930\WET.FRM)

24 p.30

6722

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No GRADED, TILLED
Is the area a potential Problem Area? (Yes) No SOIL DISTURBED

Sample Site No.: SS 10
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California
AREA "E"

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. PLANTAGO CORNOPUS	25	FAC	1.		
2. POLYPOGON MONSPELIENSIS	50	FACW	2.		
3. LOLIUM MULTIFLORUM	25	FAC	3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

____% dominant species that are OBL, FACW or FAC (except FAC-). ____% Bare ground

Remarks: WILLOW NEARBY. COVER ESTIMATES APPROXIMATE DUE TO PONDING AND IMMATURE PLANTS.

HYDROLOGY

Recorded data (describe in remarks):
____ Stream, lake, or tide gage; ____ Aerial photograph; ____ Other;
____ No recorded data available.

Field observations:
Depth of surface water: 0-1 (in.)
Depth to free water in pit: – (in.)
Depth to saturated soil: – (in.)

Wetland hydrology indicators:
X Inundated
____ Water marks
____ Sediment deposits
____ Drift Lines
____ Water-stained leaves
____ Other (explain in remarks)
X Saturated in upper 12"
____ Local soil survey data
____ Drainage patterns in wetlands
X Oxidized root channels in upper 12"

Physiographic position of site/Remarks: LOCATED IN PONDED LOW POINT IN GRADED AREA. SATURATION TO SURFACE ALSO OBSERVED ON 1/19/00.

SOILS

Map unit name: FARALLONE OR WATSONVILLE
Taxonomy (subgroup): –
Drainage class: –
Field observations confirm mapped soil series? Yes (NO) EXCAVATED

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-5		10YR 3/2	N 4/0	~20% DEPLETED SANDS	SCL
5-8		10YR 4/2 (COMPLEX)	7.5YR 3/4	~1% RL	SCL
8+	BC	10YR 5/3 (COMPLEX)			GRAVELLY CL - POSSIBLE PAN OR BEDROCK

Hydric Soil Indicators:
____ Histosol
____ Reducing conditions
____ High organic content in surface layer
____ Listed on national hydric soils list
____ Histic epipedon
X Gleyed or low-chroma colors
____ Organic streaking
X Sulfidic odor
X Probable aquic moisture regime
____ Concretions
____ Listed on local hydric soils list
____ Other (explain in remarks)

Remarks: SULFIDIC ODOR NOTED WHILE WALKING IN PONDED AREAS IN VICINITY OF SAMPLE SITE.

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present (Yes) No
Wetland hydrology present (Yes) No

Is this sampling point within a wetland? (Yes) No

Remarks: ALL THREE CRITERIA ARE MET.

02/07/00(P:\LPH930\WET.FRM)

24 p.31

6723

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Beachwood Subdivision
Applicant:
Investigator(s): S. Lohmann
LSA Associates, Inc., 157 Park Place, Point Richmond, CA 94801
Have vegetation, soils, or hydrology been disturbed? (Yes) No GRADED
Is the area a potential Problem Area? (Yes) No - SOIL DISTURBED

Sample Site No.: SS 11
Date: February 8, 2000
Location: Half Moon Bay
County: San Mateo
State: California
AREA "E"

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a*)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. LOLIUM MULTIFLORUM		FAC	1. GERANIUM MOLLE	10	UPL
2. HORDEUM MARINUM		FAC	2. PICRIS ECHIOIDES	10	FAC+
3. OXALIS PES-CAPRAE		UPL	3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

66 % dominant species that are OBL, FACW or FAC (except FAC-). 26 % Bare ground

Remarks: WOULD NOT PASS FAC-NUETRAL TEST FOR WETLAND VEGETATION.

HYDROLOGY

Recorded data (describe in remarks):
____ Stream, lake, or tide gage; ____ Aerial photograph; ____ Other;
____ No recorded data available.

Field observations:
Depth of surface water: NONE (in.)
Depth to free water in pit: 7 (in.)
Depth to saturated soil: 6 (in.)

Wetland hydrology indicators:
____ Inundated
____ Water marks
____ Sediment deposits
____ Drift Lines
____ Water-stained leaves
____ Other (explain in remarks)
X Saturated in upper 12"
____ Local soil survey data
____ Drainage patterns in wetlands
____ Oxidized root channels in upper 12"

Physiographic position of site/Remarks: LOCATED ON HILLSIDE ADJACENT TO SMALL POND. WETLAND HYDROLOGY UNLIKELY DUE TO LACK OF PONDING FOLLOWING SUBSTANTIAL RAINS.

SOILS

Map unit name: FARALLONE or WATSONVILLE
Taxonomy (subgroup): —
Drainage class: —
Field observations confirm mapped soil series? Yes (No) EXCAVATED/CAPPED

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-15+		10YR 3/2	NONE		
		10YR 3/1			

Hydric Soil Indicators:
____ Histosol
____ Reducing conditions
____ High organic content in surface layer
____ Listed on national hydric soils list
____ Histic epipedon
X Gleyed or low-chroma colors
____ Organic streaking
____ Sulfidic odor
____ Probable aquic moisture regime
____ Concretions
____ Listed on local hydric soils list
____ Other (explain in remarks)

Remarks: NO HYDRIC INDICATORS.

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling point within a wetland? Yes No

Remarks: CRITERIA ARE NOT SATISFIED, EXCEPT FOR VEGETATION. VEGETATION CRITERION ONLY MET IN A TECHNICAL SENSE, AS NO SPECIES ARE PRESENT THAT PREFER WETLANDS.

02/07/00(P:\LPH930\WET.FRM)

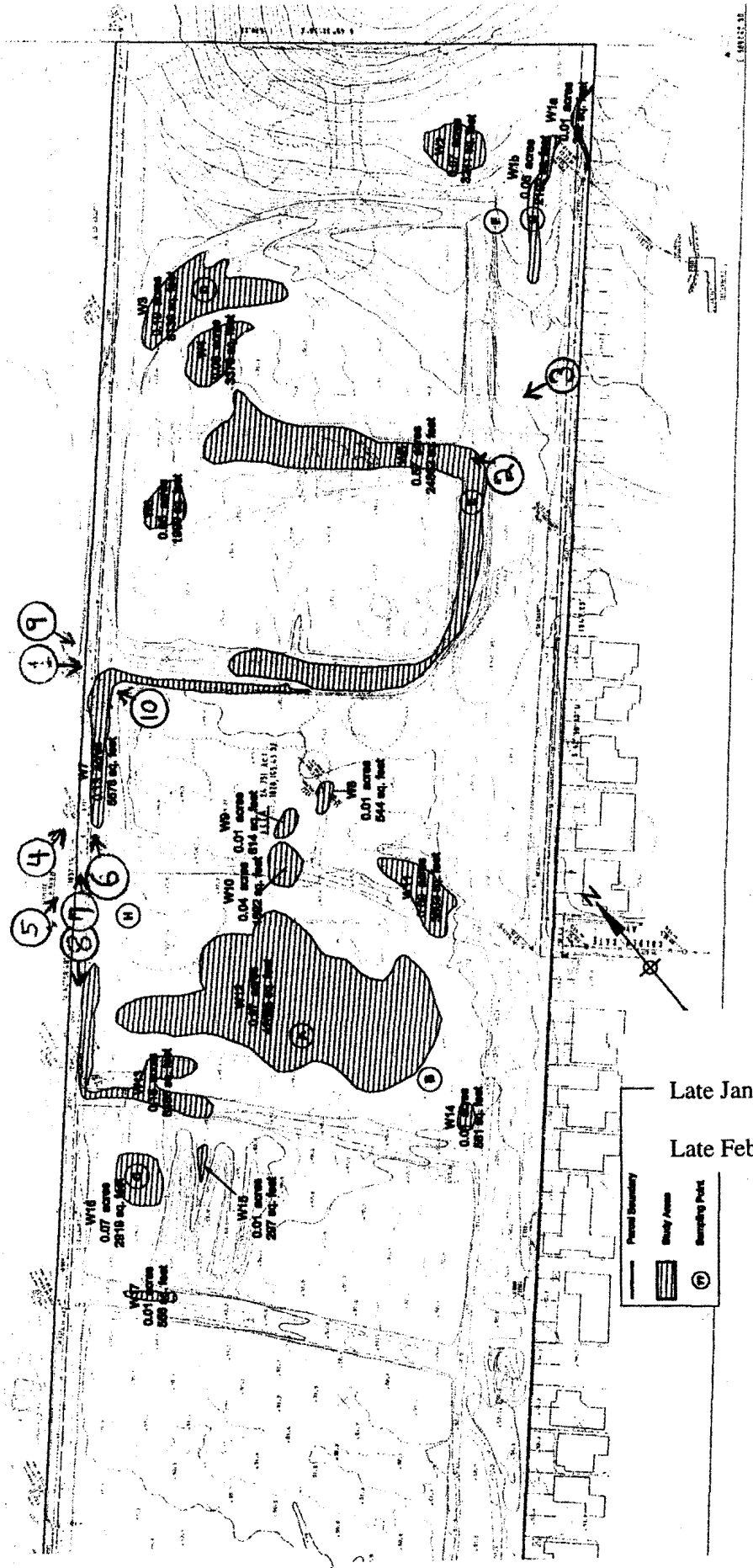


Photo Dates:
Late January, 2001 - Photos 2, 3, 6, 7, 8, 9, & 10
Late February, 2001 - Photos 1, 4, & 5

Photos taken by appellant Mike Ferreira in late January and late February 2001 overlain on Study Areas Map

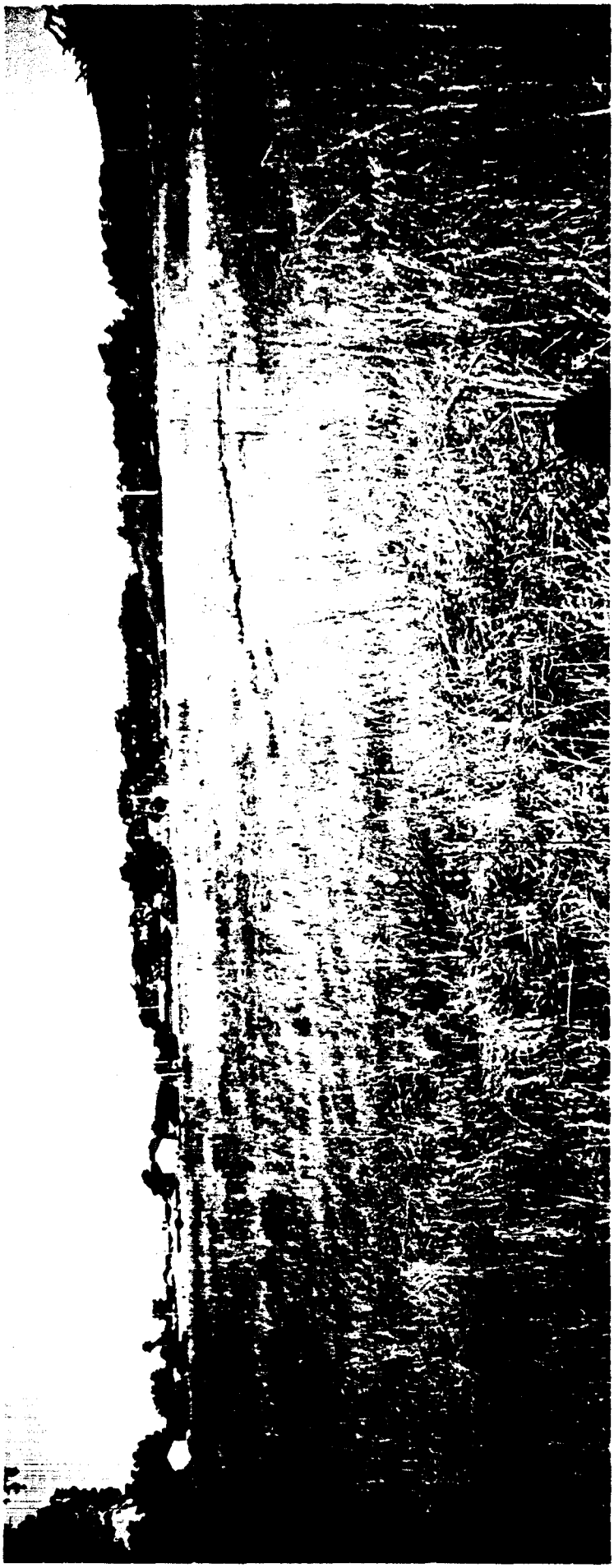
Photo numbers correspond to attached photos. Arrows show photo orientation.

EXHIBIT NO. 25
APPLICATION NO. A-2-HMB-01-011
PHOTO LEGEND
WINTER 2001

#1

#2

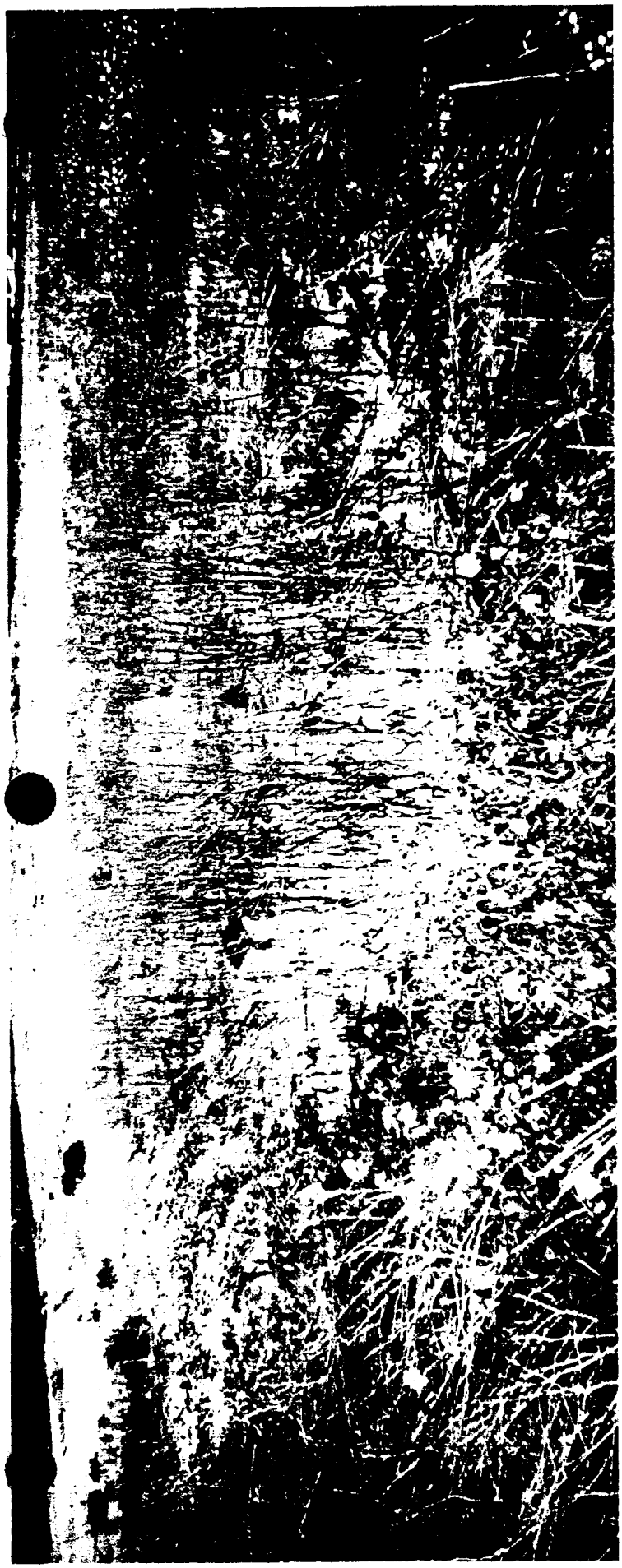
EXHIBIT 25 P.1



#3

#4

EXHIBIT 25 P.2



#5

#6

EXHIBIT 25 P.3

#7

#8

EXHIBIT 25 P.4

#9

#10

EXHIBIT 25 P.5

Michael J. Ferreira
361 Cypress Point Road
Half Moon Bay, Ca 94019

California Coastal Commission
Attn. Mr. Mark Delaplane
45 Fremont Street, Suite 2000
San Francisco, Ca 94105-2219

August 29, 2001

Dear Mr. Delaplane,

The attached photos were taken by me in the vicinity of the Beachwood project and were done in three sessions.

The first was in late January, 2001, in which my purpose was to create a visual record of the generally unrecognized - and oddly installed - storm drain infrastructure draining the site. Those are photo #s 6, 7, 8, & 10.

The second was on or about February 1, 2001, in which I wanted to record the degree of obvious ponding in the particular area that has been the subject of specific controversy, i.e. the area in the eastern portion downslope from the Terrace Avenue Assessment District undergrounding of the creek as it exits Pacific Ridge. This is the area that was the subject of the newspaper story regarding unpermitted pumping and is a particular focus of the Applicant's lawsuit against the City. Those are photo #s 2 and 3.

The third was in mid-to-late February, 2001, in the company of a biologist acquaintance, Mr. Gary Deghi. My purpose was to record the degree of standing water in the vicinity of, and directly on, the proposed Bayview Avenue alignment. Those are photo #s 1, 4, and 5.

The attached map shows the locations and orientations from which the photos were taken. Please let me know if there are any particular details in the photos which need further explanation.

Sincerely,

Michael J. Ferreira

Beachwood Subdivision
Half Moon Bay, CA
Corps File Number: 18154S20

Corps of Engineers
"Waters of the United States"
Delineation Study

Prepared for:

Washburn, Briscoe, and McCarthy
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Telephone: (415) 454-8868

October 1999

EXHIBIT NO. 26
APPLICATION NO. A-2-HMB-01-011
WRA DELINEATIONS
EXCERPTS

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EXHIBIT 26 p. 2

of the construction and development activity at the Beachwood Property. The Beachwood site has been zoned for residential development since early 1970s. In 1976, the City of Half Moon Bay granted a tentative map to the then-owner for 97 lots. The City extended this tentative map several times. However, approval of the final map was precluded because of various sewer and water moratoria. The City granted a vesting tentative map for 83 units in 1990.

Details of the landowners efforts to develop the property are contained in the Crowell letter. Activities by the landowners to undertake development have been continuous from the 1970's to present. Construction activities have been initiated several times; however, City wide moratoria, permit approval processing, and environmental review have not allowed the construction to proceed to completion as originally approved.

The property owner has diligently pursued completion of construction and has not abandoned the project. The construction process has created conditions were ponding of water has occurred and these features are a result of the ongoing construction process towards completion of a residential development on the site.

3.5 Potential Jurisdictional Wetlands within the Study Area

The location of areas meeting the criteria used by the Corps of Engineers to designate man-induced and potentially jurisdictional wetlands is shown in Figure 11. These areas include vernally wet areas in depressions caused by road excavation [W3, W5, W13, W17] or low topographic areas within filled areas [W6, W8-11, W14]. It appears that all of these features are the result of human activities that were initiated with the grading of the road system but developed over time as a result of inadequate drainage because the storm drain system was not properly maintained.

One large depression within the center of the site [W12] may be the result of earthmoving that either created the depressional area or blocked drainage so that it could no longer effectively drain to the storm drain system. Several smaller areas were found within or adjacent to piles of construction fill [W15, 16, 17] or in ditches along the "road" features [W13, W7].

A small wetland area near the eastern corner is a former irrigation pond [W2]. An ephemeral drainage course which is a potential waters of the U.S. ("other waters") is present in the southeastern corner of the site [W1a]. An adjacent vegetated swale [W1b] appears to be a former drainage channel which has filled with sediment after water was diverted to the existing drainage channel. These potential jurisdictional wetlands are shown in Figure 12 and 13.

Some of the site specific criteria used to determine areas that met Corps manual requirements for man-induced and jurisdictional wetlands on the site were:

- *Soils.* Sampling plots were examined which had surface soils with low value, low chroma

black color (10YR2/1). Black soil color was observed in both man-induced, construction related wetland areas and in upland areas without wetland hydrologic indicators or wetland vegetation. Black soils were expected to be found on the site as five of the six soil phases mapped on the site are described with surface horizons exhibiting low value and low chroma,black, 10YR2/1 colors. The low chroma of black or very dark soils is often the result of organic matter accumulation under grassland vegetation and not the result of iron and manganese depletion under anaerobic wetland conditions. Under these circumstances, the 1987 *Corps Manual* requires that low chroma soils, which also have low value, must also have gray mottles (redox depletions). Soils with low value and low chroma color observed on the Beachwood site were not considered hydric because gray mottles were not observed.

According to The Field Office Official List of Hydric Soil Map Units of San Mateo Area, California (USDA, Soil Conservation Service, 1992), three of the six soil phases mapped in the San Mateo Soil Survey (USDA, 1961) on the Beachwood Subdivision may contain unnamed inclusions of hydric soils in natural depressions or floodplains. Natural depressions or floodplains do not occur on the site under existing conditions. The depressions on the site appear to be the result of grading. On-site inspection of the property revealed no unnamed inclusions of hydric soil.

– Construction activities have either compacted the soils or allowed for ponding due to the low topographic position relative to the rest of the landscape. These types of wetlands are considered "man-induced wetlands" and therefore, according to the 1987 *Corps Manual*, do not require all three parameters since hydric soils may be slow to develop. Both the hydric soil definition as developed by the NHSTC and the Corps Manual emphasize the importance of hydric soil formation over long periods of time under regular conditions of saturation or inundation. At the Beachwood site, there has been insufficient time for hydric soil formation. Therefore, in situations where hydric soils are not present due to recent man-induced activities, the Corps Manual places more reliance on wetland hydrology and wetland plants in making wetland determinations in these areas.

- *Hydrology.* The irrigation pond in the eastern corner of the site appears to have year round wetland hydrology. The pond was saturated to the surface during a late dry season site visit on September 28, 1999. On the remainder of the site, no direct observations of soil saturation or inundation could be made due to the time of year when the sampling was completed. Site photographs taken by Dr. Terry Huffman (undated–but site visits occurred on Feb 1999) were also reviewed. Wetland hydrology indicators in depressions that had obligate wetland plants generally included soil surface indicators, such as algal mats and sediment deposits, and soil profile indicators, such as oxidized root channels. Areas considered to be upland areas did not have these wetland indicators.

- *Vegetation.* Dominant plants in depressions that had wetland hydrology indicators were

species with a FAC or wetter indicator such as dense-flower spike-primrose (*Epilobium densilflorum* (*Boisduvalia densiflora*); OBL), willow dock (*Rumex conglomeratus*; FACW), tall flatsedge (*Cyperus eragrostis*; FACW), hyssop loosestrife (*Lythrum hyssopifolia*; FACW), bristly ox-tongue (*Picris echioides*; FAC*), and rabbitfoot grass (*Polypogon monspeliensis*; FACW). Dominant plants in areas considered to be uplands included FAC and FACW plants, such as bristly ox-tongue (*Picris echioides*; FAC*), curly dock (*Rumex crispus*; FACW-), but also included FACU plants, such as soft chess (*Bromus hordeaceus (B. mollis)*; FACU-), and not listed plants, including coyote brush (*Baccharis pilularis*) and wild oats (*Avena fatua*).

4.0 DISCUSSION

The determination of the extent of wetlands is based on application of the 1987 *Corps of Engineers Wetlands Delineation Manual* (Technical Report Y-87-1). The manual requires the identification and mandatory findings for three criteria: wetland hydrology, wetland soils, and hydrophytic vegetation. The presence of all three must either be documented through the use of indicators observed on the site or use of assumptions when indicators are not present and the delineator determines that some man-induced alteration has occurred at the site or the site has unique conditions that do not normally allow for all three indicators to be present. The Manual provides guidance on these particular situations under Section 7 (Atypical situations), Subsection 4 (Man-induced wetlands). In this instance, the site has been altered by on-going construction activities and therefore special consideration is given to wetland hydrology and vegetation since hydric soil conditions have not had sufficient time to develop.

Even when a wetland is delineated using the Corps manual, it may not be subject to Corps jurisdiction. The Corps does not consider the following as "waters of the United States" (see 33 CFR 323.2):

- Non-tidal drainage and irrigation ditches dug on dry land.
- Artificially irrigated areas which would revert to upland if the irrigation ceased
- Artificial lakes and ponds created by excavating and/or diking dryland to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
- Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
- Water-filled depressions created on dry land incidental to construction activity and pits excavated on dry land for the purpose of obtaining fill, sand, or gravel unless and until construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States.

The Corps of Engineers issued its disclaimer on jurisdiction over the site in 1989. At that time, the road system and drainage system were in place. The applicant had full intentions of completing development of the lands but was withheld from development for a variety of permitting and economic reasons. The construction and development history of this site, as explained in the Crowell letter, indicates that the development process and construction activities on the Beachwood site have never been abandoned. Rather, the property owners have pursued development and construction of residential units on the site, but have been precluded from doing so by a series of regulatory obstacles. Efforts to complete the development are ongoing. A CDP application is pending before the City for the 83-lot subdivision originally approved in 1990.

All of the delineated features, with the exception of W1 and W2 are a result of "water-filled" depressions created on dry land incidental to construction activity. In fact, if it were not for the excavation and construction activities that resulted in ponding of water, this site would revert to entirely uplands. The soils are generally well-drained and the slopes are sufficient to allow for drainage under natural conditions. The only substantial cause of ponding has been the creation of depressions due to construction activities and drainage system which in recent years has not functioned to remove storm water as designed.

W1a is a remnant of the upstream drainage that flows to the existing drainage system. W1b appears to be a former channel that has filled with sediment following the construction of the on-site drainage system. Due to lack of maintenance, debris has clogged the drainage channel [W1a] and has apparently caused water to flow into W1b. In recent years, the extent of W1b has increased. It is expected that once the drainage system is repaired and functional, the size of W1b will diminish.

W2 is a former irrigation pond and is excluded under the Corps jurisdiction; however, the Corps applies a rule of "abandonment" to such features and is likely to consider it to be a jurisdictional wetland because it has not been used for its original purpose for several decades.

5.0 CONCLUSION

Construction activities on the Beachwood site have significantly altered its condition prior to development. The prior condition was coastal terrace on non-hydric soils. The construction activities have resulted in the removal of soil surface layers, introduction of soils to the site, and the creation of depressions in the road network, and excavation of areas adjacent to fill piles. Man-made disturbance and the lack of functioning drainage system as originally designed, has created the vernally wet depressions observed on site. These man-made disturbances are recent and hydric soils have not developed. The 1987 Corps Manual allows this type of "man-induced wetlands" to be considered a wetland without the presence of hydric soils. Acreage for each of the wetland features is given in Table 1.

However, W3 through W17 are all related to man-made construction activities that have not been abandoned by the landowners and therefore, they are not jurisdictional in accordance with the Corps of Engineers regulations. W1a is a drainage channel that delivers water to the stormdrain in the east corner of the property. W1b appears to be a former channel that has filled with sediment. W2 was constructed as an irrigation pond; however, its use is now abandoned. W1a, W1b and W2 would therefore be considered jurisdictional by the Corps.

Beachwood Subdivision
Half Moon Bay, CA
Corps File Number: 18154S20

Half Moon Bay
Local Coastal Plan
Wetland Delineation Study

Prepared for:

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December 1999

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hydrology were undertaken are shown in Figure 12. These areas similar to those studied by Dr. Huffman. They are all man-made features with low topographic position caused by road excavation [W3, W5, W13, W17] or low topographic areas within filled areas [W6, W8-11, W14]. One large depression within the center of the site [W12] may be the result of earthmoving that either created the depressional area or blocked drainage so that it could no longer effectively drain to the storm drain system. Several smaller areas were found within or adjacent to piles of construction fill [W15, 16, 17] or in ditches along the "road" features [W13, W7]. All of these features are the result of human activities that were initiated with the grading of the road system but developed over time as a result of inadequate drainage because the storm drain system was not maintained. All of the features (with the exception of the irrigation pond) were dry at the time of observation and aerial photographic evidence indicates that they are only wet, if at all, during the later winter or spring months.

A small wetland area near the eastern corner is a former irrigation pond [W2] which remains saturated to the surface year round. An ephemeral drainage course [W1a] is present in the eastern corner of the site. These areas, which are potentially regulated as wetlands under the LCP, are shown in Figure 13 and 14. An adjacent vegetated swale [W1b] appears to be the former drainage channel which has filled with sediment after water was diverted to the existing drainage channel.

Some of the site specific criteria used to determine areas that met the City of Half Moon Bay's LCP definition of wetlands are:

- *Soils.* Sampling plots were examined which had surface soils with low value, low chroma black color (10YR2/1). Black soil color was observed in both man-induced, construction related low topographic areas and in upland areas without wetland hydrologic indicators or wetland vegetation. Black soils were expected to be found on the site as five of the six soil phases mapped on the site are described with surface horizons exhibiting low value and low chroma black, 10YR2/1 colors. The low chroma of black or very dark soils is often the result of organic matter accumulation under grassland vegetation and not the result of iron and manganese depletion under anaerobic wetland conditions.

  Black soils are characteristic of the non-hydric soils described for this site. The low chroma of black or very dark soils is often the result of organic matter accumulation under grassland vegetation. The NTCHS has issued guidance for the finding of field indicators in such soils. In some cases, field indicators were observed in isolated locations; however, more thorough examination of the soils indicated that these

conditions were not prevalent (see Data Sheets). The inconsistent finding of redoximorphic features was probably a function of soil disturbance during construction activities that introduced new soils or exposed subsurface layers that are well below the level at which field indicators must be observed for a hydric soil determination. Based on the extensive field investigation, none of the soils satisfied the indicators for Redox Dark Surface soils (F6) or Redox Depressions (F8) contained in the 1998 Field Indicators. The Depleted Below Dark Surface indicator (F4) was not satisfied because a depleted layer was not observed within 12 inches of the surface. The few (less than 2%) and inconsistent redoximorphic features present in the upper 12 inches of this soil are indicative of saturation and reduction that is not frequent enough (greater than 50 out of 100 years) to be meet the criteria for hydric soils (see section on hydrology).

According to The Field Office Official List of Hydric Soil Map Units of San Mateo Area, California (USDA, Soil Conservation Service, 1992), three of the six soil phases mapped in the San Mateo Soil Survey (USDA, 1961) on the Beachwood Subdivision may contain unnamed inclusions of hydric soils in natural depressions or floodplains. However, natural depressions or floodplains do not occur on the site under existing conditions. The depressions on the site appear to be the result of grading. On-site inspection of the property revealed no unnamed inclusions of hydric soil.

Finally, both the hydric soil definition as developed by the NHSTC and the Corps Manual emphasize the importance of hydric soil formation over long periods of time under regular conditions of saturation or inundation. At the Beachwood site, there has been insufficient time for hydric soil formation and therefore, the soils here do not meet the hydric soil definition.

- *Hydrology.* The irrigation pond in the eastern corner of the site appears to have year round wetland hydrology. The pond was saturated to the surface during a late dry season site visit on September 28, 1999. On the remainder of the site, soil saturation or inundation was not evident in July 1999.

  Site photographs taken by Dr. Terry Huffman (undated–but site visits occurred on Feb 1999) did show ponding in some areas. However, the rainfall in January 1999 was 137% of normal and during February 1999 was 199 % of normal. Over 3.54 inches of rain fell in the 5 days prior to his early February site visit. These extraordinary levels of rainfall are beyond the normal condition used to describe hydric soils[1]. The wetland hydrology

[1] A soil that is frequently ponded for long or very long duration meets one of the hydric soil criteria. However, as clarified by the NTCHS, a frequently ponded hydric soil must meet the definition and be ponded for 50 years out of 100 years under usual weather conditions in order to be classified as a hydric soil. In other words, not all ponded soils are hydric.

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indicators observed in the depressions in October 1999 for this delineation were surface indicators, such as algal mats and sediment deposits. These features probably resulted from the abnormal rainfall events in February and should not be considered the normal conditions. Even with such rainfall, these areas were dry during the summer months and would, therefore, be characterized as only vernally wet.

Additional photographic information was collected for the site including photographs taken on January 24, 1991; March 29, 1995; and February 11, 1999. Rainfall in the 30 days preceding these photographs was 11%, 210%, and 264% of normal, respectively. No ponding was observed in either the 1991 or the 1995 aerial photographs despite the high rainfall prior to the 1995 photo. Isolated ponding was observed in the 1999 aerial photograph; however, this date was preceded by an extraordinary rainfall event of over 3.54 inches of rain in the previous 5 days. This evidence shows that the soils do not, under normal circumstances, pond for a sufficiently long duration to be considered hydric and that the most recently observed hydrologic indicators are the result of extraordinarily high rainfall in early 1999.

- *Vegetation.* Dominant plants in depressions that had wetland hydrology indicators were species with a FAC or wetter indicator such as dense-flower spike-primrose *(Epilobium densilflorum* (*Boisduvalia densiflora*); OBL), willow dock (*Rumex conglomeratus*; FACW), tall flatsedge (*Cyperus eragrostis*; FACW), hyssop loosestrife (*Lythrum hyssopifolia*; FACW), bristly ox-tongue (*Picris echioides*; FAC*), and rabbitfoot grass (*Polypogon monspeliensis*; FACW). Dominant plants in areas considered to be uplands included FAC and FACW plants, such as bristly ox-tongue (*Picris echioides*; FAC*), curly dock (*Rumex crispus*; FACW-), but also included FACU plants, such as soft chess (*Bromus hordeaceus (B. mollis*); FACU-), and not listed plants, including coyote brush (*Baccharis pilularis*) and wild oats (*Avena fatua*).

4.0 DISCUSSION

4.1 Local Coastal Program California Coastal Act

The California Coastal Act defines wetlands as:

"Wetland means land within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens."

(Public Resources Code sec. 30121.)

The City of Half Moon Bay has adopted a Land Use Plan, Local Coastal Program ("LCP"), to implement the provisions of the California Coastal Act. The LCP contains a definition of wetlands that expands upon the definition of wetlands in the Coastal Act itself (see page 1). This definition is identical to the definition of wetlands contained in the LCP of the County of San Mateo, which was certified by the CCC in 1982. Excluded from the LCP's definition of wetlands are those areas that are "vernally wet where the soils are not hydric." "Vernal" means "relating to or occurring in the spring." "Vernally wet areas" are therefore those areas that are temporarily wet during the winter or spring months.

In 1985, the Coastal Commission certified the Land Use Plan portion of the City of Half Moon Bay's Local Coastal Program as being in conformance with, and adequate to meet the requirements of, the policies of the Coastal Act. The policies of the Coastal Act include wetland protection policies. In 1996, the Coastal Commission certified the City's implementing ordinances (which incorporate the LCP's definition of wetland) pursuant to Public Resources Code section 30513. In doing so, the Commission found that the LCP's definition of wetland which excludes "vernally wet areas where the soils are not hydric" was adequate to carry out the provisions of the certified Land Use Plan and, hence, was adequate to implement the wetland protection policies of the Coastal Act.

In 1994, the Coastal Commission staff prepared a document called "Procedural Guidance For The Review Of Wetland Projects In California's Coastal Zone." Page 25 of that document confirms that "the local governmental also has a direct role in the identification and delineation process [of wetlands) in areas with a certified Local Coastal Program."

All of the site features exist on non-hydric soils as defined by the NRCS soil surveys and as determined from these investigations. Dr. Stephen Faulkner, Professor at the Wetland Biogeochemistry Institute of Louisiana State University and a member of the National Technical Committee on Hydric Soils concurs with these findings in his own analysis of the site (Appendix E). He conducted a site visit in December 1999 and concluded that the site did not have hydric soils prior to construction activities being initiated and does not support hydric soils under current conditions.

None of the areas observed by Huffman as ponded in February 1999 were ponded or saturated at the time of this determination in July 1999. Furthermore, recent aerial photographic evidence shows that ponding on the site is related to extraordinary winter/spring rainfall and is not present under normal circumstances nor outside of the 1999 time period. The only site that has ponded water for a greater length of time is W-2, the former irrigation pond. For this reason, W-2 would be considered as a wetland under the LCP definition as it is saturated to the surface year round and is not vernally wet.

5.0 CONCLUSION

Construction activities on the Beachwood site have significantly altered its condition prior to development. The prior condition was coastal terrace on non-hydric soils. The construction activities have resulted in the removal of soil surface layers, introduction of soils to the site, and the creation of depressions in the road network, and excavation of areas adjacent to fill piles. Man-made disturbance and the lack of functioning drainage system as originally designed has created the vernally wet depressions which, in some cases, may pond water following extraordinary high rainfall periods (as observed by Dr. Huffman in February 1999). These man-made disturbances are recent and hydric soils have not developed. Acreage for each of the features is given in Table 1.

Areas that are vernally wet and that do not exhibit hydric soil indicators or do not meet the hydric soil criteria are not regulated as "wetlands" under the City of Half Moon Bay's certified Local Coastal Program. Under this definition, the only area of the site that is a regulated wetland is the drainage channel W1a, and W2 which is a former irrigation pond that is saturated to the surface year round.

II. Recent Sales Information, Vacant Parcels in Terrace Avenue Area

	Property Address	APN	Recording Date	Sale Price	Lot Area (Sq. Ft.)	Price/Sq. Ft.
1	320 Miramontes Ave.	056-096-380	9/14/99	222,500	9,450	23.54
2	229 Correas St.	056-066-090	7/19/01	237,000	9,200	25.76
3	Silver Ave.	056-085-290	11/10/00	220,000	8,250	26.67
4	653 Highland Ave.	056-088-230	11/7/00	230,000	8,625	26.67
5	641 Highland Ave.	056-088-210	12/22/00	250,000	9,200	27.17
6	Highland Ave.	056-085-520	11/17/00	234,000	8,250	28.36
7	656 Silver Ave.	056-082-690	11/8/00	245,000	8,625	28.41
8	Silver Ave.	056-062-550	9/13/00	249,000	8,625	28.87
9	216 Correas St.	056-103-040	4/7/00	249,000	7,500	33.20

Avg. Price/ Sq. Ft.	**27.63**
Median Sq. Ft. Price	**27.17**

(Source: First American Real Estate Solutions)

EXHIBIT NO. 27
APPLICATION NO. A-2-HMB-01-011
LOT SALE DATA

STATE OF CALIFORNIA—THE RESOURCES AGENCY GRAY DAVIS, *GOVERNOR*

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

MEMORANDUM

FROM: John Dixon

TO: Chris Kern

SUBJECT: Beachwood Wetlands

DATE: August 30, 2001

In my July 23, 2001 memo to you on this subject, I concluded that those areas designated by Wetland Research Associates as W1a, W1b, and W2 through W14 are wetlands under the definition of Half Moon Bay's certified Local Coastal Program. This was in the context of the exception in the LCP that excludes "vernally wet areas where the soils are not hydric." My conclusion was based on the substantial evidence that those areas had both a preponderance of wetland vegetation and hydric soils.

However, areas W15 through W17 also have a preponderance of wetland vegetation. Although Dr. Huffman in his review did not include these locations in his list of areas that had evidence of hydric soils, there is evidence that they are seasonally wet during both the winter and spring and hence are not merely "vernally" wet. As such they would also qualify as wetlands under the LCP.

EXHIBIT NO. 28
APPLICATION NO.
A-2-HMB-01-011

STATE OF CALIFORNIA— THE RESOURCES AGENCY GRAY DAVIS, GOVERNOR

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

MEMORANDUM

FROM: John Dixon

TO: Chris Kern

SUBJECT: Half Moon Bay Rainfall Patterns

DATE: September 12, 2001

In their December 1999 wetland report, Wetlands Research Associates (WRA) asserted that the level of rainfall in early 1999 was "extraordinary." The staff report addresses this and clearly demonstrates that the rainfall in January and February 1999 was not unusual. WRA also asserted that, "Isolated ponding was observed in the 1999 aerial photograph; however, this date was preceded by an extraordinary rainfall event of over 3.54 inches of rain in the previous 5 days." I did an analysis to determine whether that amount of rainfall in 5 days is unusual.

I used the National Weather Service rainfall data for Station 043714 (Half Moon Bay) obtained from the Western Regional Climate Center. First, I extracted the data for December through March for the years 1948 through 2000. In a spreadsheet, I summed the rainfall for all possible consecutive 5-day periods for every month (e.g., days 1-5, 2-6,..., 27-31). I then identified the maximum 5-day rainfall event for each month. I grouped these events in 0.5-inch rainfall classes (e.g., 0-0.5", 0.5-1.0", etc) and tallied the frequency of occurrences in each class. This is plotted in the attached Figure 1. As in the previous analyses, I defined the wettest 10% and driest 10% of values as "unusual" or "abnormal." The median and the 10th and 90th percentiles are shown in the figure. A 3.54-inch 5-day event is shown by an arrow. Such an event is within the 80th percentile, hardly unusual. If a 3.54-inch 5-day event were defined as abnormal, then 40% of all 5-day events would be so defined.

Since it is obvious that a 3.54-inch 5-day event is within the normal range of variability, the observation of ponding in the February 11, 1999 aerial photograph is yet another piece of evidence that many areas on the Beachwood site frequently pond for long or very long duration.

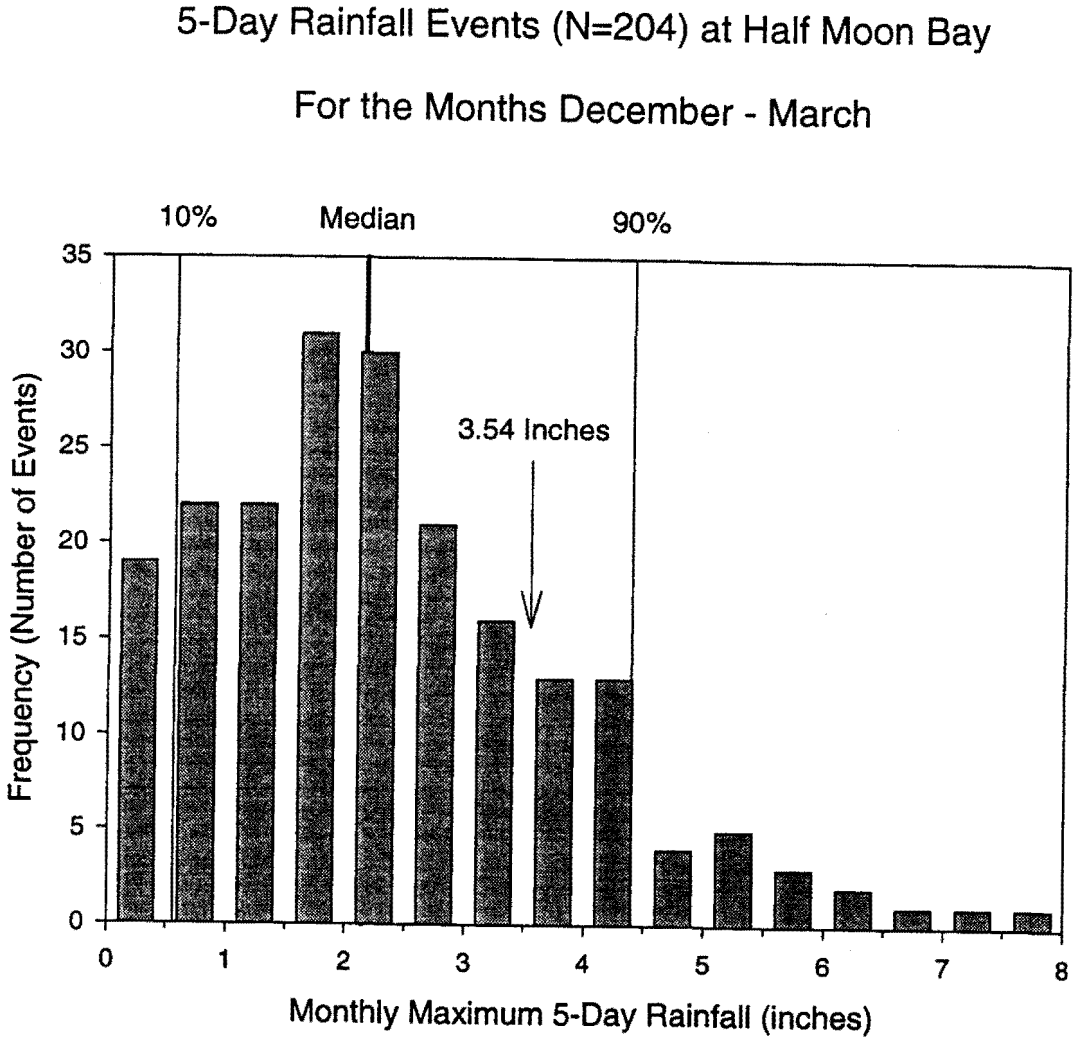

Figure 1. Frequency distribution of monthly maximum 5-day rainfall events for the months December through March for the period 1948 – 2000 (there were 8 months with no data). The median and 10th and 90th percentile are shown by vertical lines. By the convention adopted here, all 5-day rainfall events between the 10th and 90th percentiles are "normal."