STATE OF CALIFORNIA – THE RESOURCES AGENCY PETE WILSON, *Governor*

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

W 11a

September 24, 1998

TO: Commissioners and Interested Parties

FROM: Peter Douglas, Executive Director
Charles Lester, District Manager
Steve Monowitz, Coastal Planner

SUBJECT: **Permit Extension Request** for the Pigeon Point Country Inn (Coastal Development Permit No. A-3-SMC-96-008, Kathleen McKenzie applicant), for Commission Consideration at its October 13, 1998 meeting at the City of Oceanside City Council Chambers, 300 North Coast Highway, Oceanside.

Procedural Note:

Section 13169 of the Commission's Regulations provide that permit extension requests shall be reported to the Commission if:

1) The Executive Director determines that due to changed circumstances the proposed development may not be consistent with the Coastal Act, or

2) Objection is made to the Executive Director's determination of Consistency with the Coastal Act.

If three (3) Commissioners object to an extension request on the grounds that the proposed development may not be consistent with the Coastal Act, the application shall be set for a full hearing as though it were a new application. If three objections are not received, the permit will be extended for an additional one-year period.

In this case, the extension request is being reported to the Commission because an objection was received to the Executive Director's determination that there are no changed circumstances that affect the project's consistency with the Coastal Act and the San Mateo County certified LCP. This objection is attached as Exhibit A.

Background:

The applicant (Kathleen McKenzie) has requested a one-year time extension of Coastal development permit no. A-3-SMC-96-008, for the development of a 9 unit Country Inn adjacent to the Pigeon Point Lighthouse, in southern San Mateo County.

This San Mateo County Planning Commission approved the project, as originally proposed, on December 13, 1995. This decision was appealed to the Coastal Commission, and on April 10, 1996, the Commission determined that the appeal raised a substantial issue. The De Novo hearing was then continued until July 11, 1996. At that hearing, the Commission granted a permit for the project, subject to special conditions.

More recently, in June 1998, the Commission determined that changes to the project that have occurred since July 1996 require an amendment to the previously approved Coastal Development Permit. On September 8, 1998, the Commission approved an amendment allowing for these project changes. In summary, the approved amendment authorizes the installation of additional water and wastewater infrastructure facilities needed to serve the project. These include: a reverse osmosis water treatment facility; a new leachfield for the disposal of brine effluent from the reverse osmosis treatment facility; a recirculating sand filter for the treatment of project wastewater; pump facilities for circulating wastewater; curtain drains uphill of the wastewater and brine leachfields that include two outfalls with rock energy dissipaters; and, two additional water storage tanks to be installed underground. The approved amendment also revised the original permit in a manner that allows the above ground water storage tank to be screened with wood siding rather than with native vegetation.

I. STAFF RECOMMENDATION

Staff recommends that the Commission **grant** the extension request on the grounds that there are no changed circumstances that would affect the consistency of the project with the Coastal Act and the San Mateo County certified Local Coastal Program (LCP). Coastal issues raised by the new water and wastewater infrastructure incorporated into the project since the original approval have been addressed through the Commission's approval of an amendment authorizing these changes.

II. FINDINGS

A. Project Description:

The development approved by the Commission on July 11, 1996, and as amended on September 8, 1998, consists of the demolition of 2 existing warehouse type structures on the site, and the construction and operation of a 9-unit Country Inn. Three new structures, consisting of 3 units each, will be constructed on the site. 8 of the 9 units are 600 square feet each (20 feet by 30 feet). The remaining unit will be 700 square feet (20 feet by 35 feet). The previously authorized development also includes a 1,800 square foot storage/maintenance building, 14 off-street parking spaces, and the installation of water and wastewater infrastructure necessary to serve the project. Exhibit B provides a site plan for the approved project. The project location is adjacent to the Pigeon Point Lighthouse, west of Highway One, in Southern San Mateo County, approximately 30 miles north of the City of Santa Cruz and 10 miles south of the town of Pescadero (Exhibit C).

B. Standard of Review:

Section 13169 of the Commission's Administrative Regulations sets forth the procedures and standards under which the Commission may extend coastal development permits. Pursuant to this Section, a permit may be extended if there are no changed circumstances that affect the project's consistency with the California Coastal Act.

Coastal Act Section 30604(b) provides that after certification of a local coastal program, a coastal development permit shall be issued if the Commission, on appeal, finds that the proposed development is in conformity with the certified local coastal program. Part (c) of this

Section requires that every coastal development issued for any development between the nearest public road and the sea include a specific finding that the development is in conformity with the public access and public recreation policies of Chapter 3 of the Coastal Act.

Coastal Development Permit A-3-SMC-96-008 for the Pigeon Point Country Inn was heard on appeal of the coastal development permit approved by San Mateo County pursuant to the San Mateo County certified LCP. In addition, the project is located between the first public road and the sea. Thus, the standard of review for an extension of this permit is whether there are changed circumstances affecting the project's consistency with the San Mateo County certified Local Coastal Program and the public access and recreation policies of Chapter 3 of the Coastal Act.

C. Executive Director's Determination:

On August 24, 1998, the Executive Director determined that there are no changed circumstances affecting the proposed development's consistency with the Coastal Act. The basis for this determination was that the only changed circumstances had to do with the new water and wastewater infrastructure. The consistency of these changes with the San Mateo County LCP and the public access and recreation policies of the Coastal Act were addressed through the coastal development permit amendment process. The Commission approved an amendment authorizing these changes on September 9, 1998.

D. Objection Received:

On September 1, 1998 an objection was received to the Executive Director determination described above. This objection, which is attached as Exhibit A, contends that the requested amendment for the revised water and wastewater systems does not comply with Section 1.8 of the San Mateo County LCP and Section 30250 of the Coastal Act.

E. Issue Analysis:

LCP Section 1.8 provides:

> 1.8 Land Uses and Development Densities in Rural Areas
>
> a. Allow new development (as defined in Section 30106 of the California Coastal Act of 1976) in rural areas only if it is demonstrated that it will not: (1) have significant adverse impacts, either individually or cumulatively, on coastal resources and (2) diminish the ability to keep all prime agricultural land and other land suitable for agriculture (as defined in the Agriculture Component) in agricultural production.
>
> b. Permit in rural areas land uses designated on the Local Coastal Program Land Use Plan Maps, and conditional uses at densities specified in Tables 1.2 and 1.3.
>
> c. Require density credits for non-agricultural land uses in rural areas, including any residential use, except affordable housing (to the extent authorized in Policy 3.27 of the Local Coastal Program on March 25, 1986, the date notice

of circulation of this ordinance was published) and farm labor housing. One density credit shall be required for each 315 gallons maximum daily water use as a result of a land use. For purposes of this ordinance, a single family dwelling unit shall be deemed to use 315 gallons per day. In order to give priority to Public and Commercial Recreation land uses, one density credit shall be required for those uses for each 630 gallons of maximum daily water use. Water use shall be calculated on the best available information and shall include all appurtenant uses, e.g., landscaping, swimming pools, etc.

Coastal Act Section 30250 states:

(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.

Aspects of the above standards that relate to the subject project include part a. of LCP Policy 1.8, and part (a) of Coastal Act Section 30250. In this case, however Coastal Act Section 30250 does not apply; Coastal Act Section 30604 (b) establishes the certified LCP and the access and recreation policies of Chapter 3 of the Coastal Act as the standard of review. Nonetheless, both LCP Section 1.8 a. and Coastal Act Section 30250 call for new development to be located in areas where it will not have an adverse impact on coastal resources, such as agricultural land.

The objection to the extension of this permit asserts that there are changed circumstances that cause the project to be inconsistent with these requirements. More specifically, the objection contends the on-site well may not adequately support the development's water needs, and may result in salt water intrusion, which, in turn will increase the salinity of the brine effluent that will be discharged from the reverse osmosis water treatment system.

The adequacy of the on-site water supply has been a long-standing issue for this project. Concerns regarding the ability of the well to support the proposed development were acknowledged in the Commission's original approval of the project. The Commission therefore required, as a condition of permit issuance, that the permittee submit final plans for the project's

water supply system, after they had been approved by the San Mateo County Department of Environmental Health. This approval was obtained on May 14, 1998, and is attached as pages 7 and 8 of Exhibit A.

In its approval of the water supply system, the Health Services Agency recommends that additional conditions be placed on the permit to address the marginal nature of the approved water supply system. Such conditions were incorporated into the Commission's September 8, 1998 approval of an amendment to the coastal development permit. They require that a qualified water system operator monitor both the quality and quantity of water from the project's well. The monitor must submit monitoring reports to the County Division of Environmental Health, with a copy to the Coastal Commission, on the following:

- Water quantity: the depth of water in the well shall be reported monthly for the first 6 months and then annually thereafter. If the monitoring indicates potential failure of the well's production, the applicant shall immediately implement measures to reduce water use including but not limited to (a) reducing the pumping rate not to exceed 1.25 gallons per minute, (b) reduce occupancy of the units and/or (c) develop an alternative well source on the site or additional storage. Note: Any alternative well source or additional storage would be subject to the review and approval of the Coastal Commission. The Commission's approval of the amendment specifically prohibits the trucking of water to support the project.

- Water quality: water samples shall be taken at the well and at the distribution from the reverse osmosis system. Monitoring for electric conductivity to detect saltwater intrusion shall be reported monthly for the first six months, and annually thereafter. A standard full mineral analysis, including monitoring of sodium, chloride, magnesium, boron, and other minerals, shall also be conducted annually. If monitoring indicates that saltwater intrusion is occurring, or that the content of minerals within the water is increasing, the applicant shall immediately implement measures to address the need for additional treatment, and shall report these measures to the Regional Water Quality Control Board as well as Environmental Health.

With these conditions, the Commission determined that the project's water supply system complies with the requirements of the San Mateo County certified LCP. Thus, the Commission's approval of the amendment effectively addressed the change circumstances that the objection is based upon. As a result, the extension of this permit will not jeopardize project compliance with the San Mateo County certified Local Coastal Program and the California Coastal Act.

August 29, 1998

Mr. Peter M. Douglas, Executive Director
California Coastal Commission
c/0 725 Front Street, Suite 300
Santa Cruz, CA 95060
Attention: Lee Otter, District Chief Planner

Re: Extension Request of Kathleen McKenzie for Permit No. A-3-SMC-96-008-E1, at 921 Pigeon Point Road, San Mateo County

Dear Mr. Douglas,

Pursuant to Section 13169 of the Commission Regulations, the Committee for Green Foothills objects to the determination by the Executive Director that there are no changed circumstances affecting the proposed development's consistency with the Coastal Act of 1976.

Specifically, the project is currently the subject of a permit amendment request, and the Commission has yet to act on that request. Although the request is calendared for the September 8, 1998 meeting, we believe that the Commission cannot make the required findings that the project is in conformity with County LCP Section 1.8 and the Coastal Act Section 30250. Section 30250 requires new development to be located ..."in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources."

Please consider our August 29, 1998 comments on the project's permit amendment as the basis for our objections to any approval by the Commission of the permit extension without addressing the long-term adequacy of the well water source to serve this project, both in terms of water quantity and quality. Without your assurance as to the long-term adequacy of the ground water resource, and without assurance there is no potential for salt water intrusion, the confined aquifer could be dewatered, and/or increased levels of desalinization could be required with resulting increased brine discharge. We incorporate by reference our detailed comments on these issues contained in our permit amendment letter of August 29, 1998. Thank you for consideration of our objections.

Sincerely,
Lennie Roberts

Lennie Roberts, Legislative Advocatge
Committee for Green Foothills
339 La Cuesta
Portola Valley, CA 94028

EXHIBIT NO. A, p.1
APPLICATION NO. A-3-SMC-96-008-E1
Objection to Extension

August 29, 1998

ITEM Tu 16b

Chairman Rusty Areias and Members
California Coastal Commission
735 Front Street, Suite 300
Santa Cruz, CA 95060
Attention: Steve Monowitz

Re: Permit No. A-3-96-008-A1 Coastal Development Permit Amendment, Kathleen McKenzie, Applicant, 921 Pigeon Point Road, San Mateo County

Dear Chair Areias and Members of the Commission,

I am writing on behalf of Committee for Green Foothills to urge your Commission to not approve this amendment request until the adequacy of the well water source to serve this project is demonstrated.

In May, 1996, a 735 foot deep well was drilled on the site. A 24 hour pump test was performed on June 7, 1996. The well testing data provided to the Commission (see Attachment 1) indicates that the water level in the well never stabilized during the 24 hour pump test. The notes accompanying the well test report state: "Sustained Yield. Sustained yield is the pumping rate at which long-term pumping can be maintained, and is the rate normally used to compare wells. If the test is of sufficient duration (and assuming the aquifer has a large storage capacity), sustained yield is the best inicator of long term well production during regular operation. As used in this report, sustained yield is the production rate measured at the conclusion of a test in which the pumping level in the well is held constant for the period of time indicated."

It is important to note that the water level at the start of the test was 80 feet below sea level; at the end of the test the level had dropped to 672 feet below sea level -- a decline of 592 feet. There is no indication of the time it took for the water level to recover, and there is no Final Sustained Yield indicated on the well test report (see line 7 of Attachment 1, Exhibit Q). The sustained yield of the well is crucial to the determination of the long term viability of the well for this project. Absent information as to the sustained yield of the well, we believe the Commission cannot make the findings there will be no long-term effects, individually or cumulatively, on coastal resources, as required by LCP Policy 1.8 and Section 30250 of the Coastal Act.

Under the County Well Ordinance, a single family dwelling requires a minimum of two and a half gallons per minute at a stabilized water level during pumping with at least 1,250 gallons of storage. This Bed and Breakfast facility, which will serve the equivalent of at least six single family residences

(at the County's estimated size of 2.54 persons per single family dwelling), only had a pump test rate of 5 gallons per minute, with minimal storage.

We are astonished by the San Mateo County Department of Environmental Health's letter to Mrs. McKenzie (Exhibit A) which acknowledges three major deficiencies in the groundwater resource supply for the proposed project, but then approves the water supply. The deficiencies are:

1. Actual daily demand for water from the well is 1,800 gallons per day rather than the original amount estimated by the consultant to the project of 428 gallons per day.
2. The 24 hour pump test 'may be inadequate' to predict long term sustainability of the water supply. (The point we emphasize above).
3. There is a potential that the well may induce salt water intrusion.

The issue of potential salt water intrusion is of particular concern, because if the salinity increases in the well, more water will be needed to be processed through the reverse osmosis plant (required to make the water supply potable), resulting in additional brine effluent or effluent of increased salinity. There is no area on the site for expanding the proposed brine field, nor, given constraints for setbacks for drainfields, etc. is there a suitable location for a second water supply groundwater well, should this one fail.

Yet despite these admissions, the County Environmental Health Department approved the water supply well, with the following caveats:

"Due to the marginal nature of the proposed water system, we intend to recommend to the County Planning Department to add the following conditions to the use permit:

1. Water quality monitoring and water depth be measured monthly for the first 6 (six) months and annually thereafter.
2. If water quality and water depth measurements indicate potential failure of the system then strict water usage rates should be enforced."

It is not possible for these recommendations to be added to the County's Coastal Development Permit (which is incorrectly referenced as a use permit in the letter to Mrs. McKenzie from Environmental Health) as the decision on the CDP is now vested with the Commission, not the County. These intended recommendations are vague, unworkable, and inadequate, given the marginal nature of the groundwater supply. Strict water usage rates are already calculated in the project's water use and conditions, due to the use of ultra low flow fixtures. The only practicable limit if the water system fails is to reduce the occupancy of the project.

It is imperative that your Commission require the applicant to demonstrate long-term viability of the well, which has not been done to date. This would

entail testing of the drawdown over a significantly longer period than 24 hours, perhaps one week. As part of this determination, data must be collected to determine the rate at which the water level returns to its original elevation. Additionally, it is essential to ensure that salt water intrusion will not occur. A seven day pump test, and a requirement for monitoring for salt water intrusion during the test, could assist in making this determination. Further, as a condition of the Coastal Development Permit, a plan of action must be required of the applicant that will be followed in the event that salt water intrusion does occur over time.

If long-term viability of the groundwater resource can be demonstrated, the Coastal Commission should at a minimum require the following:

A qualified operator (certified hydrogeologist) shall monitor and report the following to the County Department of Environmental Health, with a copy to the Coastal Commission and the Regional Water Quality Control Board:

(1) Production of the well: the rate of pumping shall not exceed a maximum of 1.25 gallons per minute. The depth of water in the well shall be reported monthly for the first six months, and then quarterly thereafter. If the monitoring indicates potential failure of the well's production, the applicant shall immediately implement measures to reduce water use (such as reducing the number of units occupied) and/or shall develop an alternative adequate well water source on the site, or additional storage.

(2) Water quality: water samples shall be taken at the well head, the treated water outflow of the reverse osmosis system, and at the wastewater outflow of the reverse osmosis system. Monitoring of sodium, chloride, magnesium and boron to detect salt water intrusion shall be reported monthly for the first six months, and quarterly thereafter. If monitoring indicates that salt water intrusion has occurred, the applicant shall immediately implement measures to address the need for additional treatment, and shall report these measures to the Regional Water Quality Control Board as well as Environmental Health. An amendment to the Regional Board's Waste Discharge permit may be necessary.

Thank you very much for considering our comments, and we commend your staff and your Commission for your ongoing concern for the special resources of the California Coast.

Sincerely,

Lennie Roberts

Lennie Roberts, Legislative Advocate
Committee for Green Foothills
339 La Cuesta
Portola Valley, CA 94028

A-3-SMC-96-008-E1
Exhibit A, p. 4

MAGGIORA BROS. DRILLING, INC.

DRILLING CONTRACTORS – PUMP SALES & SERVICE
CALIFORNIA CONTRACTOR'S LICENSE NO. 249967

Corporate Office
595 Airport Boulevard
Watsonville, CA 95076
(408) 724-1338

(800) 728-1480

Branch Office
2001 Shelton Drive
Hollister, CA 95023
(408) 637-8228

WELL TEST REPORT

A. Customer: KATHLEEN MCKENZIE / JAMES KEITH Telephone: 415-879-1455
Mail address: 732 37TH AVE., SAN FRANCISCO, CA 94121
Well Location: 921 PIGEON POINT APN:
Date Drilled: MAY 11, 1996 By: MAGGIORA BROS. DRILLING, INC.

B. Well Data:

	Previously Reported:	Measured In Test
Depth of Well:		735'
Diameter of Casing:		5" PVC
Depth of Perforation:		
Type of Perforation:		FACTORY PERF.
Standing Water Level:		80'
Pump Type and HP:		GRUNDFOS 3HP
Depth Pump Set:		672'

C. Well Test: Date of Test: JUNE 5, 1996

(1) Water Level at Start:	80	ft.
(2) Sustained Pumping Level:	672	ft.
(3) Drawdown (1-2):	592	ft.
(4) Test Duration:	1440	min.
[X]		
(5) Observed Total Production:	7250	gal.
(6) Average Yield for Test Period (5/4):	5.03	gpm
[ ]		
(7) Final Sustained Yield:		gal.
(8) Calculated Total Production (4x7):		gpm

Pump Broke Suction During test:	Yes [ ]	No [X]
Bacteriological Analysis Attached:	Yes [X]	No [ ]
Chemical Analysis Attached:	Yes [X]	No [ ]

D. Water System Visual Inspection (N/Ob means not observed):

Pump Operation:	Normal [X]	Deficient [ ]	N/Ob [ ]
Electrical Equip.:	Normal [ ]	Deficient [ ]	N/Ob [X]
Pressure Tanks:	Normal [ ]	Deficient [ ]	
Water Pipes:	Normal [ ]	Deficient [ ]	
Storage Tanks:	Normal [ ]	Deficient [ ]	

E. Comments: WELL STABILIZED AT 5 GPM AT THE TOP OF THE PUMP.

Dated: JUNE 7, 1996

Rev. 11/94

Page 1 of 2

PLEASE SEE DEFINITIONS AND ADDITIONAL TERMS OF THE R

DRILLING – Municipal, Industrial, Agricultural, Domestic, Foundation, Test Holes, Envi
PUMPS – Turbine, Submersible, Centrifugal, Jet, Split Case, Waste &

EXHIBIT NO. A, p. 5
APPLICATION NO. A-3-SMC-96-008-E1
Objection to Extension

Attachment 1

EXHIBIT NO. Q
APPLICATION NO. A-3-SMC-96-08

WELL TEST REPORT

DEFINITIONS AND ADDITIONAL TERMS

Sustained yield. Sustained yield is the pumping rate at which long-term pumping can be maintained, and is the rate normally used to compare wells. If the test is of sufficient duration (and assuming the aquifer has a large storage capacity), sustained yield is the best indicator of long term well production during regular operation. As used in this report, sustained yield is the production rate measured at the conclusion of a test in which the pumping level in the well is held constant for the period of time indicated.

Average yield. In many wells, especially wells with small diameter casings, water levels cannot be monitored during pumping, and sustained yield can only be approximated by calculating average yield (which is total volume pumped divided by total pumping time including any period in which the pump breaks suction). Since the pumping level may be declining while testing, and the measured water production may include water in storage in the well and surrounding formation at the start of the test, average yield calculations may be significantly higher than the true sustained yield (particularly where the pumping time is less than four hours).

Unusual pumping conditions. Wells which break suction while pumping, or have high drawdowns in relation to the standing water level, are often indicative of marginal long term water producers. These wells should always have protective shutoff devices on the pumps to prevent pump burnout from lack of water. A smaller capacity pump may improve electrical efficiency and sustain less wear by enabling longer pumping cycles. Conversely in stronger wells, the pump itself may be too small to pump the full well capacity, and thus the true sustained (or average) yield may be higher than observed in this test.

Sole report. This report contains the sole observations and conclusions of the company pertaining to the testing of the Customer's well. Any prior statements of the agents or employees of the company which are not contained herein are superseded by this report, and shall be relied upon at the Customer's own voluntary risk.

Test limitations. The data and conclusions provided are based upon the tests and measurements of the company using standard and accepted practices of the groundwater industry. However, conditions in water wells are subject to dramatic changes in even short periods of time. Additionally, the techniques employed may be subject to considerable error due to factors within the well and groundwater formation which are beyond the company's immediate control or observation. Therefore, the data are valid only as of the date and to the extent of the observational limitations of the test or installation indicated.

Use of test. The test conclusions are intended for general comparison of the well in its present condition against known water well standards or guidelines, and should not be relied upon to predict either the future quantity or quality of water that the well will produce. Wells should be periodically retested to show both seasonal and long-term fluctuations.

Disclaimers. In presenting the data and conclusions, the company makes no warranties, either express or implied, as to future water production of the well. Further, the company, unless expressly stated to the contrary, does not represent (1) that the well or pump system is in any particular condition or state of repair, or (2) that the test results will satisfy cognizant governmental ordinances or regulations, or (3) that the test duration or methodology is sufficient to meet local water system or new construction permit standards (which usually require 24 hour or more tests), or (4) that the water is adequate for a particular purpose contemplated by Customer, (5) the accur
report for any purpose more than one year after the date of the test.

Customer's release. In accepting this report, the Customer rele
harmless from liability for consequential or incidental damages arising
express or implied warranty of future water production, or (2) in any ma
nation of this report, or its conclusions, by either Customer or third p
tion is required to complete the project or other activity for which the

EXHIBIT NO. A, p.6
APPLICATION NO. A-3-SMC-96-008-E1
Objection to Extension

Exhibit Q, p.2

HEALTH SERVICES AGENCY

May 14, 1998

Ms. Kathleen McKenzie
730 37th Avenue
San Francisco, CA 94127

SUBJECT: 921 PIGEON POINT AT HIGHWAY 1, PESCADERO, CALIFORNIA, SAN MATEO COUNTY

Dear Ms. McKenzie:

I would like to thank you for your patience while we have been performing our review of the proposed water system for the subject site. For staff to issue approval of the water supply, minimum quality and quantity must be demonstrated. A number of potential concerns were raised early in the process that required a more in depth review of the data obtained. In order to ensure a fair and adequate review and evaluation I asked several professionals to review and comment on the proposed system. These professionals consisted of the County Contract Geologist, the Division's Registered Engineer, and consultation with a Registered Engineer from the State Office of Drinking Water and consultation with an Engineering Geologist with the California Department of Water Resources.. The issues raised are summarized below:

1. Kleinfelder's June 6, 1996 Water Use Assessment concluded that a peak consumption factor of 428 gallons per day (gpd) would be adequate for the project. This calculation did not take into account a number of factors, most importantly the proposed "soak tubs." Expected peak use is anticipated to be closer to double Kleinfelder's estimate. Taking into account the estimated 50% efficiency of the proposed treatment unit, actual daily need of raw water would climb to almost 1,800 gpd or a sustained rate of 1.25 gallons per minute (gpm). Since the designed water usage is the driving factor for other components of the project it is recommended that a more realistic usage rate be utilized. The other components that are affected are the size of the storage tank and most importantly the quantity of effluent from the treatment unit.

2. The 24 hour pump test may be inadequate to predict long term sustainability of the water well. This is due to the geology of the site. Bedrock systems do not lend themselves well to modeling and even if a longer pump test is performed it may not shed more light on the long term viability of the water supply. However, some preliminary research in bedrock aquifers has shown that a good rule-of-thumb is that long-term sustainability can be estimated by using twenty-five percent (25%) of the tested pump rate. In this case that would be 25% of 5 gpm or 1.25 gpm. Using this information coupled with the more realistic potential draw from the well (1.25 gpm) indicates that the system may be at it's upper limit of sustainability.

PUBLIC HEALTH AND ENVIRONMENTA
Board of Supervisors: Ruben Barrales • Richard S. Gordon • Mary Griffin • Tom Hue
590 Hamilton Street • Redwood City, California 94063 • PHONE 650.

3. Salt-water intrusion was another concern. Due to the proximity to the ocean and the extreme depth of the well and pump, there is a potential that the well may cause local saltwater intrusion concerns. Based on the information presented and known to my staff it is inconclusive as to if saltwater intrusion is a concern for this particular well. Regional damage from saltwater intrusion, however, is not a concern based on the limited pumping that is proposed by this well. The water analysis meets the minimum water quality standard adopted by San Mateo County. Since there is no concern for regional long-term impact of salt-water intrusion, the risk to the system in inherent upon you as the owner of well.

Based on the above findings and the rigorous review this project has received, it is determined that while the proposed system appears marginal it does meet the minimum quantity and quality requirements. Therefore, the proposed water system is approved.

Due to the marginal nature of the proposed water system, we intend to recommend to the County Planning Department to add the following conditions to the use permit:

1. Water quality monitoring and water depth be measured monthly for the first 6 (six) months and annually thereafter.
2. If water quality and water depth measurements indicate potential failure of the system then strict water usage rates should be enforced.

Again, thank you for your patience and cooperation throughout this process. If you have any questions please give me a call at (650) 363-4305.

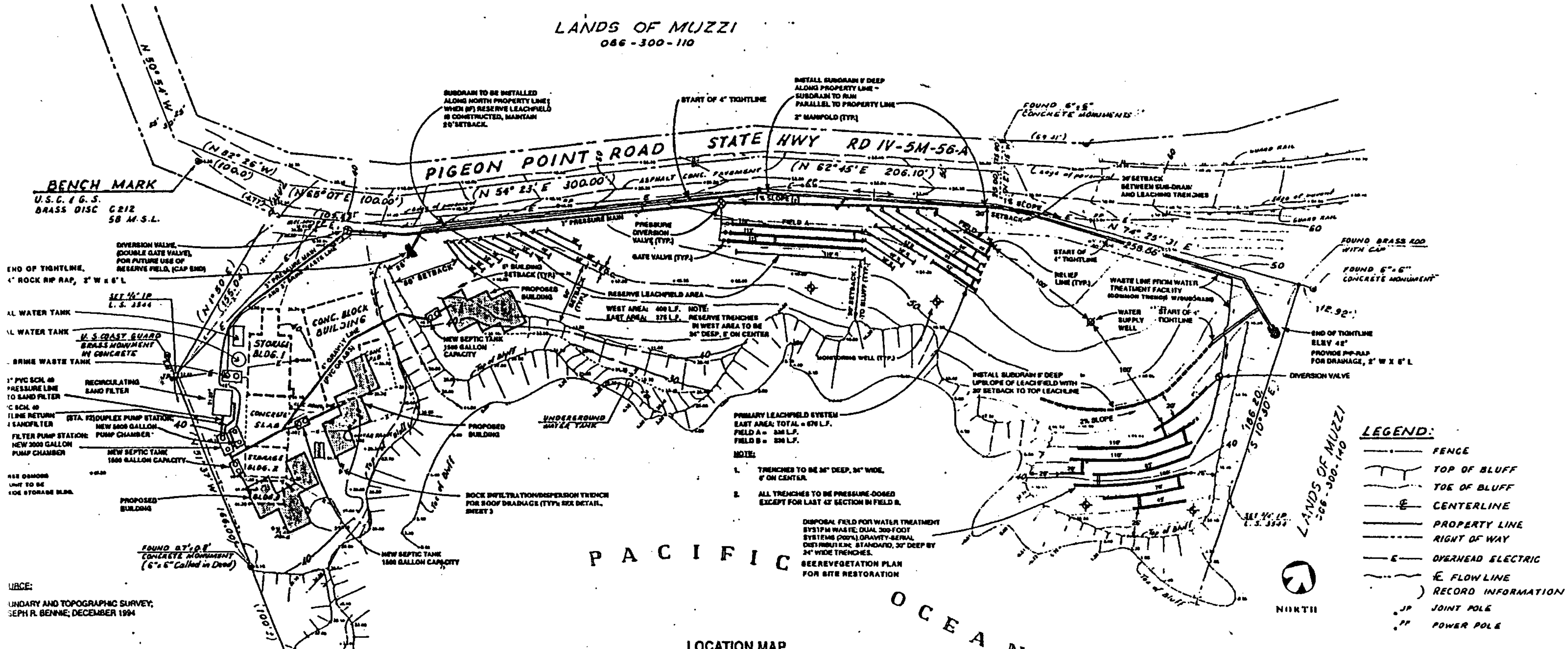
Sincerely,

Brian J. Zamora, REHS, MPH
Director, Public Health and Environmental Health

cc: Supervisor Richard Gordon, 3rd District
Margaret Taylor, Director, Health Services
Dean Peterson, Program Supervisor, Environmental Health
Ken Robinson, REHS, Environmental Health
Harry O'Brien, Coblentz, Patch, Duffy, Bass, LLP
Michael Murphy, Deputy County Counsel
Janice Jagelski, County Planning
Norman Hantzsche, Questa Engineering
Lennie Roberts, Commission for Green Foothills
Ed Heber, Monterey Bay National Marine Sanctuary
Steve Monowitz, California Coastal Commission
Robert Zatkin

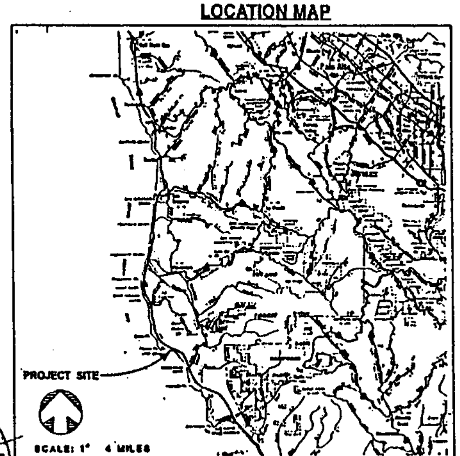
EXHIBIT NO. A, p. 8
APPLICATION NO. A-3-SMC-96-008-E
Objection to Extension

~~Exhibit A, p. 2~~



SOURCE:
BOUNDARY AND TOPOGRAPHIC SURVEY;
JOSEPH R. BENNIE; DECEMBER 1994

LOCATION MAP



SITE PLAN

SCALE: 1 INCH = 40 FEET

CONSTRUCTION NOTES:

RECIRCULATING SAND FILTER CONSTRUCTION SPECIFICATIONS

GENERAL

MATERIALS

CONSTRUCTION

Questa Engineering Corporation

SEWAGE DISPOSAL PLAN

921 PIGEON POINT ROAD

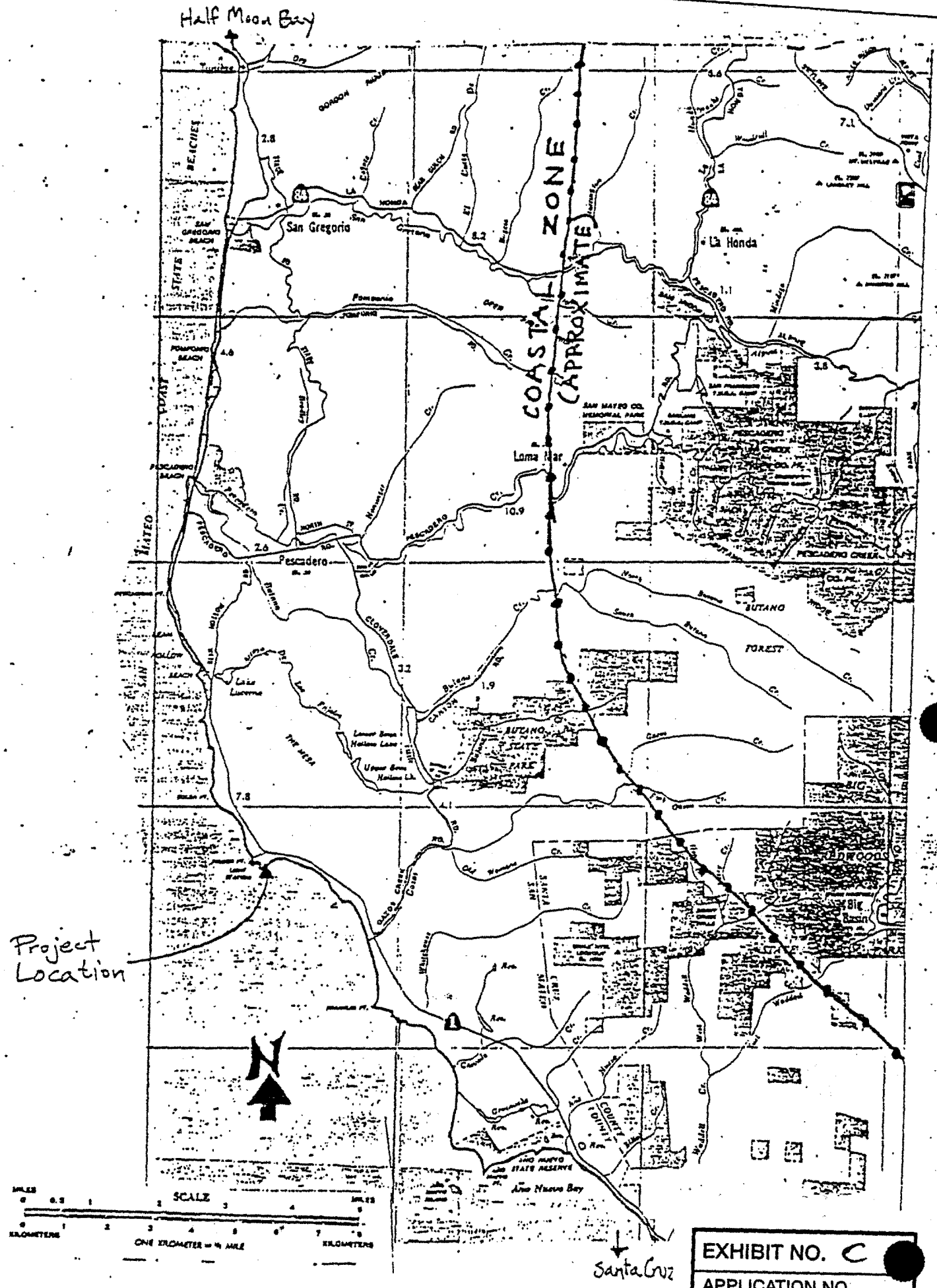
SAN MATEO COUNTY, CALIFORNIA

RECEIVED
AUG 12 1998
CALIFORNIA COASTAL COMMISSION CENTRAL COAST AREA

JOB/CAD NO. 96073 01
SCALE: 1" = 40'
DATE: 11-20-96
SHT: 1 of 3

EXHIBIT NO. B

APPLICATION NO.
A-3-SMC-96-008-E1
Site Plan



SAN MATEO CO. - SOUTH

EXHIBIT NO. C

APPLICATION NO. A-3-SMC-96-008-E1

Location Map