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original staff report

Memorandum **November 10, 2014**

To: Commissioners and Interested Parties

FROM: Dan Carl, North Central Coast District Deputy Director
North Central Coast District

Re: ***Additional Information for Commission Meeting Thursday, November 13, 2014***

Agenda Item	Applicant	Description	Pages
Th17a	**A-2-HMB-10-028 City of Half Moon Bay**	**Appeal Withdrawal**	**1-2**

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NOTIFICATION OF FINAL APPEAL ACTION

Date: November 7, 2014

To: Bruce Ambo, Planning Manager
City of Half Moon Bay
501 Main Street
Half Moon Bay, CA 94019

From: Nancy Cave, North Central Coast District Manager
Mary Matella, Coastal Program Analyst

Subject: **Appeal of City of Half Moon Bay Amendment Number PDP-086-07(A) to the Coastal Commission (Commission Appeal Number A-2-HMB-10-028).** Appeal by James Benjamin of City of Half Moon Bay Planning Commission's decision to amend the City's original CDP for monthly tsunami warning siren system tests (PDP-086-07) from a sound pressure level of 98 decibels (dB) at 1 meter to 98 dB at 440 feet.

Please be advised that the above-referenced appeal which was filed under Section 30603 of the Coastal Act regarding consistency with the certified City of Half Moon Bay Local Coastal Program was withdrawn by the Appellant on November 6, 2014. As such, any terms and conditions of the City of Half Moon Bay decision remain unchanged.

If you have any questions, please contact Mary Matella in the San Francisco Office at the address and phone number above.

cc: James Benjamin
Tony Condotti

Matella, Mary@Coastal

From: Jimmy Benjamin <jamben@pacbell.net>
Sent: Thursday, November 06, 2014 10:28 AM
To: Matella, Mary@Coastal
Subject: Withdrawal of Appeal No. A-2-HMB-10-28

Hi Mary,

I have decided to withdraw my appeal of the City's amendment to the tsunami siren warning system. After sleeping on the insights that our conversation provided, I believe that the best opportunity to make the warning system more reliable and less impactful is to advocate for local government to sponsor changes to this project, and to revise the zoning ordinance's treatment of noise in residential districts.

I appreciate the time that you and other members of the Commission staff took to consider the appeal.

Respectfully,

James Benjamin

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Important Hearing Procedure Note:
This is a substantial issue only hearing. Public testimony will be taken only on the question whether the appeal raises a substantial issue. Generally and at the discretion of the Chair, testimony is limited to 3 minutes total per side. Please plan your testimony accordingly.

Th17a

Appeal Filed:	8/31/2010
Action Deadline:	Waived
Staff:	M. Matella - SF
Staff Report:	10/30/2014
Hearing Date:	11/13/2014

APPEAL STAFF REPORT
SUBSTANTIAL ISSUE DETERMINATION

Appeal Number:	**A-2-HMB-10-028**
Applicant:	**City of Half Moon Bay**
Appellant:	James Benjamin
Local Government:	City of Half Moon Bay
Local Decision:	Coastal Development Permit (CDP) Amendment Number PDP-086-07(A) approved by the City of Half Moon Bay on August 10, 2010.
Project Location:	1000 North Cabrillo Highway in the City of Half Moon Bay at the Sewer Authority Mid-Coastside Facility, San Mateo County.
Project Description:	Amend the City's original CDP for installation of a siren system and monthly tsunami warning siren system tests (PDP-086-07) from a sound pressure level of 98 decibels (dB) at 1 meter to 98 dB at 440 feet.
Staff Recommendation:	No Substantial Issue

SUMMARY OF STAFF RECOMMENDATION

The City of Half Moon Bay approved an amendment to a CDP for the installation of an emergency tsunami warning siren (consisting of 8 speakers on a 37-foot tall utility pole) located in a Public Services zone at the Sewer Authority Mid-Coastside Facility at 1000 North Cabrillo Highway adjacent to Pilarcitos Creek's Arroyo Leon tributary seaward of Highway One in the

City of Half Moon Bay, San Mateo County. The amendment increases the allowable sound pressure level from the warning siren from 98 decibels (dB) at 1 meter to 98 dB at 440 feet. The warning siren is part of a network of 8 sirens installed in the County of San Mateo designed to provide public warning in the event of an approaching tsunami. All of the 8 sirens have been installed, including the siren that is the subject of this appeal. In addition to use in an emergency, the City's approval allows monthly siren testing whereby the siren is turned on for up to 60 seconds one time a month during midday in the middle of the week.

The Appellant contends increasing the sound pressure level originally permitted from the siren during monthly testing will adversely impact sensitive species in the Arroyo Leon tributary inconsistent with the sensitive habitat protection policies of the LCP. The Appellant also contends the use of a 1989 EIR for the expansion of the sewer facility to substitute for a new biological report addressing impacts of the increase in siren noise on sensitive species adjacent to the siren is inconsistent with the LCP. The Appellant additionally raises allegations that the amendment does not adequately meet CEQA Guidelines that permit substitution of mitigation measures.

After reviewing the local record, Commission staff has concluded that the approved amended project does not raise a substantial issue with respect to the project's conformance with the City of Half Moon Bay's LCP. As amended, the permit allows siren testing to produce noise in the amount of 98 dB at 440 feet. Such noise is roughly equivalent to the sound of a power saw being used at the Arroyo Leon. The Commission's senior ecologist evaluated the project materials and concluded that testing once a month for up to 60 seconds at this level was not significant. Although the siren testing may cause a startle response in birds and may act as acoustical cues for other species, it would be brief and intermittent and is not expected to significantly adversely impact sensitive species or their habitat. In short, due to the temporary nature of the siren testing and lack of data supporting any linkage of short, infrequent noise and lowered breeding success, population size, or fitness of sensitive species found near the siren, the amendment to increase the sound pressure level during testing presents no substantial issue with respect to conformity with the LCP sensitive habitat policies. The City's use of the 1989 EIR as a biological report to inform the Mitigated Negative Declaration for the original siren CDP approved in 2008 is allowable under the LCP and is not the subject of this appeal, which appeals the City's decision amending the CDP to increase the siren volume. The Appellant's CEQA contentions are restatements of the above concerns and are not valid appeal contentions because they are not questions of LCP consistency or Coastal Act access and recreation consistency.

As a result, staff recommends that the Commission determine that the appeal contentions do not raise a substantial LCP conformance issue, and that the Commission decline to take jurisdiction over the CDP for this project. The motion and resolution is found on page 4 below.

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EXHIBITS

I. MOTION AND RESOLUTION

Staff recommends that the Commission determine that **no substantial issue** exists with respect to the grounds on which the appeal was filed. A finding of no substantial issue would mean that the Commission will not hear the application de novo and that the local action will become final and effective. To implement this recommendation, staff recommends a **YES** vote on the following motion. Passage of this motion will result in a finding of No Substantial Issue and the local action will become final and effective. The motion passes only by affirmative vote of a majority of the Commissioners present.

Motion: *I move that the Commission determine that Appeal Number A-2-HMB-10-028 raises no substantial issue with respect to the grounds on which the appeal has been filed under Section 30603. I recommend a* ***yes*** *vote.*

Resolution: *The Commission finds that Appeal Number A-2-HMB-10-028 does not present a substantial issue with respect to the grounds on which the appeal has been filed under Section 30603 of the Coastal Act regarding consistency with the Certified Local Coastal Plan and/or the public access and recreation policies of the Coastal Act.*

II. FINDINGS AND DECLARATIONS

A. PROJECT LOCATION AND DESCRIPTION

The proposed project consists of an amendment to a previously issued City of Half Moon Bay CDP for an emergency tsunami warning siren (consisting of 8 speakers on a 37-foot tall utility pole) located in a Public Service (P-S) zone at the Sewer Authority Mid-Coastside Facility (SAM) at 1000 North Cabrillo Highway adjacent to Pilarcitos Creek's Arroyo Leon tributary seaward of Highway One in the City of Half Moon Bay, San Mateo County. The amendment increases the allowable sound pressure level from the warning siren from 98 decibels (dB) at 1 meter to 98 dB at 440 feet. The warning siren is part of a network of 8 such sirens in San Mateo County designed to provide public warning in the event of an approaching tsunami. All of the 8 sirens have been installed, including the siren that is the subject of this appeal. In addition to use in an emergency, the siren would be tested one time a month during the middle of the week when the siren would be turned on for up to 60 seconds. See project location in **Exhibit 1**.

B. HALF MOON BAY CDP APPROVAL

On August 10, 2010, the City of Half Moon Bay Planning Commission approved CDP PDP-086-07(A) authorizing the CDP amendment. The City's Final Local Action Notice was received in the Coastal Commission's North Central Coast District office on August 31, 2010 (See **Exhibit 2**). The Coastal Commission's ten-working day appeal period for this action began on Tuesday, September 2, 2010 and concluded at 5pm on Wednesday, September 15, 2010. One valid appeal (see **Exhibit 3**) was received during the appeal period.

C. APPEAL PROCEDURES

Coastal Act Section 30603 provides for the appeal to the Coastal Commission of certain CDP decisions in jurisdictions with certified LCPs. The following categories of local CDP decisions are appealable: (a) approval of CDPs for development that is located (1) 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, whichever is the greater distance, (2) 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, and (3) in a sensitive coastal resource area; or (b) for counties, approval of CDPs for development that is not designated as the principal permitted use under the LCP. In addition, any local action (approval or denial) on a CDP for a major public works project (including a publicly financed recreational facility and/or a special district development) or an energy facility is appealable to the Commission. This project is appealable because it is located between the first public road and the sea.

The grounds for appeal under Section 30603 are limited to allegations that the development does not conform to the certified LCP or to the public access policies of the Coastal Act. Section 30625(b) of the Coastal Act requires the Commission to consider a CDP for an appealed project de novo unless a majority of the Commission finds that "no substantial issue" is raised by such allegations.[1] Under Section 30604(b), if the Commission conducts the de novo portion of an appeals hearing and ultimately approves a CDP for a project, the Commission must find that the proposed development is in conformity with the certified LCP. If a CDP is approved for a project that is located between the nearest public road and the sea or the shoreline of any body of water located within the coastal zone, Section 30604(c) also requires an additional specific finding that the development is in conformity with the public access and recreation policies of Chapter 3 of the Coastal Act. This project is located between the nearest public road and the sea and thus this additional finding would need to be made if the Commission were to approve the project following the de novo portion of the hearing.

The only persons qualified to testify before the Commission on the substantial issue question are the Applicant, persons who made their views known before the local government (or their representatives), and the local government. Testimony from other persons regarding substantial issue must be submitted in writing. Any person may testify during the de novo CDP determination stage of an appeal, if there is one.

D. SUMMARY OF APPEAL CONTENTIONS

The Appellant contends that the City-approved project is inconsistent with the City of Half Moon Bay LCP because: 1) the approved project will cause adverse impacts to nearby sensitive species, degrading biologic productivity; 2) the City's approval did not include an updated biological report, but instead relied on an outdated EIR; and 3) the approved project does not meet the requirements of CEQA. See **Exhibit 3** for the full appeal document.

[1] The term "substantial issue" is not defined in the Coastal Act or in its implementing regulations. In previous decisions on appeals, the Commission has generally been guided by the following factors in making substantial issue determinations: the degree of factual and legal support for the local government's decision; the extent and scope of the development as approved or denied by the local government; the significance of the coastal resources affected by the decision; the precedential value of the local government's decision for future interpretations of its LCP; and, whether the appeal raises only local issues as opposed to those of regional or statewide significance. Even when the Commission chooses not to hear an appeal, appellants nevertheless may obtain judicial review of a local government's CDP decision by filing a petition for a writ of mandate pursuant to the Code of Civil Procedure, Section 1094.5.

E. SUBSTANTIAL ISSUE DETERMINATION

1. Impacts to Sensitive Species

The Appellant contends that the approved project will cause adverse impacts to nearby sensitive species, degrading biologic productivity inconsistent with the sensitive habitat policies of the LCP. See **Exhibit 3** for the full text of the Appellant's contentions.

The City's LCP includes a number of provisions designed to protect environmentally sensitive habitat areas. Coastal Act Section 30240, cited in the City's LCP and adopted as a guiding policy of the Land Use Plan pursuant to LCP Policy 1-1, requires that environmentally sensitive habitat areas (ESHA) be protected against significant disruption of habitat values and that development adjacent to ESHAs shall be sited and designed to prevent impacts which would significantly degrade the habitat area.

The LCP explicitly notes rare, endangered and unique species that might be found in Half Moon Bay. These species include raptors, California red-legged frog, and San Francisco garter snake. As defined by the LCP, sensitive habitats include riparian areas, wetlands, sand dunes, marine habitats, sea cliffs, and habitats supporting rare, endangered, and unique species (LCP Policy 3-1). The Caltrans mitigation wetlands and the stream corridor near Pilarcitos Creek's Arroyo Leon tributary bordering the siren project site are deemed sensitive habitats deserving protection according to the City's LCP because they contain riparian areas, wetlands, and habitat for rare, endangered and unique species (LCP Policies 3-1 and 3-3 and Section 18.38.020). LCP Policy 3-3 (b) states that development in areas adjacent to sensitive habitats shall be sited and designed to prevent impacts that could significantly degrade the environmentally sensitive habitats and uses shall be compatible with the maintenance of biologic productivity. See **Exhibit 4** for the LCP's applicable environmentally sensitive habitat area policies.

The purpose of the City's proposed project amendment to conduct full volume testing (98 dB at 440 feet) instead of maintaining the mitigation measure included in the original siren CDP for partial volume testing (98 dB at 1 meter) is that the San Mateo County Area Office of Emergency Services expressed need for increased volume to ensure functional sirens are heard over the entire projected coverage area in accordance with NOAA guidelines for the Tsunami Safe Community program.[2] The original siren CDP was approved by the City based on findings of no biological resource impacts and the City included mitigation measures to reduce noise impacts to protect human hearing. On June 2, 2010, a full volume test of a tsunami siren was conducted at another San Mateo siren site on Cornell Avenue in Princeton. The results of this full volume test were used to justify raising the volume of the subject siren, because the noise mitigation measure from the original siren CDP was unnecessary to protect human hearing at the closest residence to the siren. Tests of full volume noise impacts on wildlife were not conducted for the amendment to the siren CDP. Instead, the City concluded that there were no impacts to biological resources resulting from the proposed amendment since the original CDP did not

[2] E-mail correspondence with Jeff Norris, District Coordinator, San Mateo County Sheriff's Homeland Security Division and Office of Emergency Services 10/28/2014

result in biological resource impacts and the amendment would not alter any biological resource mitigation measures incorporated into the original CDP.

Noise is sound that carries no information but can mask sounds in the environment. Sounds can be quantified by loudness, frequency, and sound energy level but are most commonly measured in decibels or dBA[3]. The decibel scale is logarithmic, so an increase of 10 dBA corresponds to a sound twice as loud. For example, a sound level of 60 dBA corresponds to the noise of an air conditioning unit at 100 feet and 70 dBA corresponds to freeway noise at 50 feet from the pavement edge.[4] The threshold of pain in humans is often reported as 130 dBA, equivalent to the noise of a jet aircraft taking off.[5]

How and why a noise causes a biological response in wildlife can vary greatly between species, and also among individuals within a population.[6] A loud infrequent noise that could startle an animal exemplifies one end of the spectrum of noise impacts, in contrast to a frequent/chronic noise that could mask biologically relevant sounds over time. Mechanistic understanding of behavioral changes and the ecological importance of temporary noise distractions are open areas of research. The most important unanswered question in anthropogenic noise research is how repeated exposure over an animal's lifetime can cumulatively impact the individual in the short and long term.[7] It is not possible to justify the assertion that noise is detrimental to a population without being able to link it to long term changes in breeding success, mortality, population size or fitness.[8] There are no thresholds established for determining whether a noise disturbance lasting 60 seconds, occurring once a month is enough to "significantly degrade" habitat quality or reduce biological productivity of species within a stream corridor or wetland.

The subject siren is located approximately 117 feet away from Pilarcitos Creek's Arroyo Leon tributary. The siren test is prefaced by a lower volume voice advisory and then reaches a steady full volume tone after it rises gradually at the beginning of the test and falls gradually at the end.

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[3] Sound meters are normally fitted with filters adapting the measured sound response to the human sense of sound. A-weighted decibel sound (dBA) is a common filter used to simulate the response of the human ear to a range of sound frequencies (less sensitive to very high and very low frequencies). C-weighted sound (dBC) is used for industrial machinery applications (FEMA 2006. Outdoor Warning Systems. Technical Bulletin Version 2.0.).

[4] FEMA 2006. Outdoor Warning Systems. Technical Bulletin Version 2.0.

[5] OSH (Occupational Safety & Health Service) 1994: Noise induced hearing loss of occupational origin: a guide for medical practitioners. Occupational Safety & Health Service, Department of Labour, Wellington, New Zealand. 50 p.; National Institute for Occupational Safety and Health, http://www.cdc.gov/niosh/topics/noise/stats.html

[6] Francis, C.D., and J.R. Barber. 2013. A framework for understanding noise impacts on wildlife: an urgent conservation priority. Frontiers in Ecology and the Environment 11.6: 305-313.

[7] Kight, C. R., and J. P. Swaddle. 2011. How and why environmental noise impacts animals: an integrative, mechanistic review. Ecology letters 14.10: 1052-1061.

[8] Harbrow, M. A.; Cessford, G. R.; Kazmierow, B. J. 2011. The impact of noise on recreationists and wildlife in New Zealand's natural areas: a literature review. Science for Conservation 314: 88 pp.

The monthly tested siren tone itself lasts for approximately 50 seconds.[9] At full volume, consistent with the new permitted volume (98 dBA at 440 feet), the Appellant noted the siren is expected to produce noise roughly equivalent to 105 dBA at a distance of 200 feet from the siren. This sound level is similar to the noise produced by a power saw.[10] Such noise may cause a startle response and flight in birds. Impacts on California red-legged frogs and San Francisco garter snake would most likely result from ground vibrations.

The Appellant cites research on birds to substantiate harm caused to birds when noise exceeds 93 dBA in the ESHA proximate to the siren. The 93 dBA threshold related to temporary threshold shifts (TTS) in hearing of birds was determined using highway noise, a source type very different from a tsunami siren.[11] In fact, this same study categorized alarms as noise source types and concluded typical noise levels from these sources do not reach levels capable of causing auditory damage and/or permanent threshold shift based on empirical data on hearing loss in birds from the laboratory. Alarms were also found unlikely to cause masking effects for birds.[12]

During the course of review of the original siren CDP, U.S. Fish and Wildlife Service informed the City that noise is not that big of a concern for both the San Francisco garter snake and the California red-legged frog. Vibration of the ground is more of a concern because it can result in collapsing small mammal burrows that these animals use for cover.[13] Subsequent communication with Hormann American, the siren manufacturer, revealed that the siren would not vibrate the ground because the siren utilizes electronic horns, not an electric motor that would vibrate the ground.[14]

Thus, while the City did not evaluate impacts to sensitive species from the proposed noise increase since no mitigation for biological resources was found necessary in the original siren CDP approval, given the lack of data supporting any linkage of short, infrequent noise and lowered breeding success, population size, or fitness, it is reasonable to assume that the sound increase from the proposed amendment will not significantly degrade sensitive habitat or reduce biological productivity. The Commission's senior ecologist evaluated the project materials and concluded that although the siren testing may cause a startle response in birds, it would be so short and intermittent that it is not expected to significantly degrade unique species populations

[9] E-mail Correspondence with Nick Gottuso, District Coordinator, Coastside, for San Mateo County Sheriff's Homeland Security Division and Office of Emergency Services 10/28/2014

[10] OSH (Occupational Safety & Health Service) 1994: Noise induced hearing loss of occupational origin:a guide for medical practitioners. Occupational Safety & Health Service, Department of Labour, Wellington, New Zealand. 50 p.

[11] Dooling, R. J., & Popper, A. N. (2007). The effects of highway noise on birds. See http://www. dot. ca. gov/hq/env/bio/files/caltrans_birds_10-7-2007b. pdf.

[12] *Ibid.* Pg 25.

[13] E-mail Correspondence with Lucy Triffleman at FWS 2/14/08

[14] E-mail Correspondence with Mark Zanfardino at Hormann American 3/10/08

or their habitat adjacent to the SAM facility.[15] Thus, the City approved project is consistent with the sensitive habitat policies of the LCP.

2. Biological Report Requirements

The Appellant contends that the City's approval did not include an updated biological report, but instead relied on an outdated EIR inconsistent with the requirements of the LCP. Specifically, the Appellant contends that the proposed amendment would remove a mitigation measure included in the original siren CDP which reduced impacts to sensitive species and habitats. Without the mitigation, the Appellant contends that further evaluation is necessary and the exception granted by the Planning Director to apply information from a previous EIR to the original siren CDP and this amendment is no longer adequate.

LCP Section 18.38.030 (B) allows the Planning Director to grant exceptions to biological reporting requirements 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." Consistent with this provision, the City relied on a 1989 EIR for the expansion of the SAM Treatment Facility as a proxy for the biological report required pursuant to LCP Section 18.38.035 for the original siren CDP.

The 1989 EIR explicitly evaluated noise impacts and provided input for the City's Mitigated Negative Declaration (MND) that resulted in the sound mitigation measure approved with the original siren CDP. The 1989 EIR did not find any significant impacts on biological resources at the developed site where the siren was proposed, so no mitigation measures for biological resource impacts were found necessary in the MND for the original siren CDP. The Appellant has noted that the 1989 EIR used by the City to justify a finding of no biological resource impacts did propose a measure to enclose all noise sources greater than 50 dBA at 50 feet to lessen the overall increase in noise levels due to the expansion of the plant. While wildlife and human protection from noise could be assumed from the original mitigation measure, there was no rationale linking the purpose of the noise mitigation to wildlife protection in the 1989 EIR or the original siren CDP MND. The original CDP was not appealed and the current issue under review is the siren volume increase, not the Planning Director's use of the 1989 EIR to inform assessment of biological resources to allow the development itself.

Further, the original permit's sound mitigation was proposed citing the Committee on Hearing, Bioacoustics, and Biomechanics (CHABA) of the National Academy of Sciences threshold of 123 dBA to prevent hearing damage. The City stated that due to the increase in ambient noise levels in the project vicinity above levels existing without the project, they proposed a mitigation measure allowing 98 dBA at 1 meter from the source for monthly testing to reduce potential impacts to people. The rationale did not consider impacts to species in sensitive habitats located adjacent to the siren (117 feet to Arroyo Leon). The mitigation measure was only addressing the threshold of damage stated by CHABA. Using this logic, the amended sound level still meets the CHABA standard and has no significant impact. The higher volume test allows the City to meet public safety standards and still maintains protection for human hearing at the nearest residence.

[15] Email Correspondence with Coastal Commission Ecologist John Dixon, PhD, on 6/24/13 and 10/22/14

Noise can have a significant impact on people, as the Appellant points out. As such, the City does limit noise levels near residences and on borders of industrial-residential boundaries. The siren is located in a Public Service (P-S) zoning district that is bordered by R (Residential) and UR (Urban Reserve) districts to the north and south respectively. Pursuant to the implementing ordinance Section 18.07.030, noise restrictions are placed on **commercial land uses** (zoned C-R and C-D) bordering an R, OS, UR or OSR district. Because the siren is located in a Public Service zone, those restrictions do not apply in this case.[16]

It is relevant to point out that the noise typical of industrial land uses would be frequent or chronic, not infrequent and short, which characterizes the monthly 60 second siren test. In cases where the Commission has supported noise restrictions more stringent than the CHABA threshold of 123 dBA to prevent hearing damage, the noise type has always been of longer duration. Traffic noise and construction site noise are frequently more regulated because they are persistent and of much longer duration than 60 seconds. Considering the infrequent and brief nature of the siren testing, it is not appropriate to compare the amended noise level with restrictions placed on roads or industrial sites near residences.

Thus, the City's use of the 1989 EIR as a biological report to inform the MND for the original siren CDP approved in 2008 is allowable under the LCP and is not the subject of this appeal. As discussed in the previous sections, the City-approved amendment will not significantly degrade protected species and their habitat or diminish biological productivity. The sound mitigation for the original siren CDP was included to address the threshold of damage stated by CHABA; therefore, the amended sound level still meets the CHABA standard and has no significant impact. The Commission encourages the City to explicitly evaluate the impact of noise on sensitive species and habitats especially when the noise is frequent, persistent and longer in duration. In this case, however, the Appellant's contentions regarding biological report requirements do not raise a substantial issue with the policies or implementing ordinances of the LCP.

3. Required conformance to CEQA

The Appellant raised allegations that the amendment does not adequately meet CEQA Guidelines section 15074.1 that permits substitution of mitigation measures. Such an allegation is not an LCP allegation per se, and is thus not properly before the Commission as an appeal contention.[17] The Appellant's CEQA contention is an extension of his concerns regarding noise and biological impacts, each of which is covered above. Thus, even if such a contention were appropriate for appeal, it has been addressed above, and does not raise a substantial issue with the policies or implementing ordinances of the LCP.

F. CONCLUSION

When considering a project that has been appealed to it, the Commission must first determine

[16] In commercial land uses (zoned C-R and C-D) bordering an R, OS, UR or OSR district, sounds in excess of 80 dBA are not allowed at any time between the hours of 7 AM to 10 PM. LCP Policy 18.07.030(D).

[17] Contentions regarding the City's compliance with CEQA are not valid appeal contentions because, per the Coastal Act, they are limited to questions of LCP consistency and Coastal Act access and recreation consistency.

whether the project raises a substantial issue of LCP conformity, such that the Commission should assert jurisdiction over a de novo CDP for such development. At this stage, the Commission has the discretion to find that the project does not raise a substantial issue of LCP conformance, even if the project is not entirely consistent with the applicable certified LCP. As explained above, the Commission is guided in its decision of whether the issues raised in a given case are "substantial" by the following five factors: the degree of factual and legal support for the local government's decision; the extent and scope of the development as approved or denied by the City; the significance of the coastal resources affected by the decision; the precedential value of the City's decision for future interpretations of its LCP; and, whether the appeal raises only local issues as opposed to those of regional or statewide significance.

First, the City had legal and factual support for its decision. The City followed the provisions of the LCP by using the 1989 EIR to assert no significant impacts to biological resources by the construction of the siren on the site. The City took proper precautions to ensure the threshold of damage for human hearing would not be reached under full volume testing through the proposed amendment. Tests of full volume noise impacts on wildlife were not conducted for the amendment to the siren CDP. Instead, the City concluded that there were no impacts to biological resources resulting from the proposed amendment since the original CDP did not result in biological resource impacts and the amendment would not alter any biological resource mitigation measures incorporated into the original CDP. The impacts of full volume testing of warning sirens on sensitive species should be analyzed when such sirens are proposed to be installed, even if noise mitigation measures will usually be in place during siren operation. However, given the lack of data supporting any linkage of short, infrequent noise and lowered breeding success, population size, or fitness of sensitive species found near the siren, it is reasonable to assume that the proposed amendment will not significantly degrade sensitive habitat or wildlife populations. In the future, the City should directly evaluate noise levels proximate to all current sensitive habitats especially when the noise is frequent, persistent and longer in duration. In this case, however, the outcome of finding no substantial issue would be the same regardless of whether a new biological report had been completed. Thus, there is adequate factual and legal support for the City's decision.

Second, the extent and scope of the approved amendment are extremely limited. The monthly testing of this one siren for up to 60 seconds is infrequent and brief.

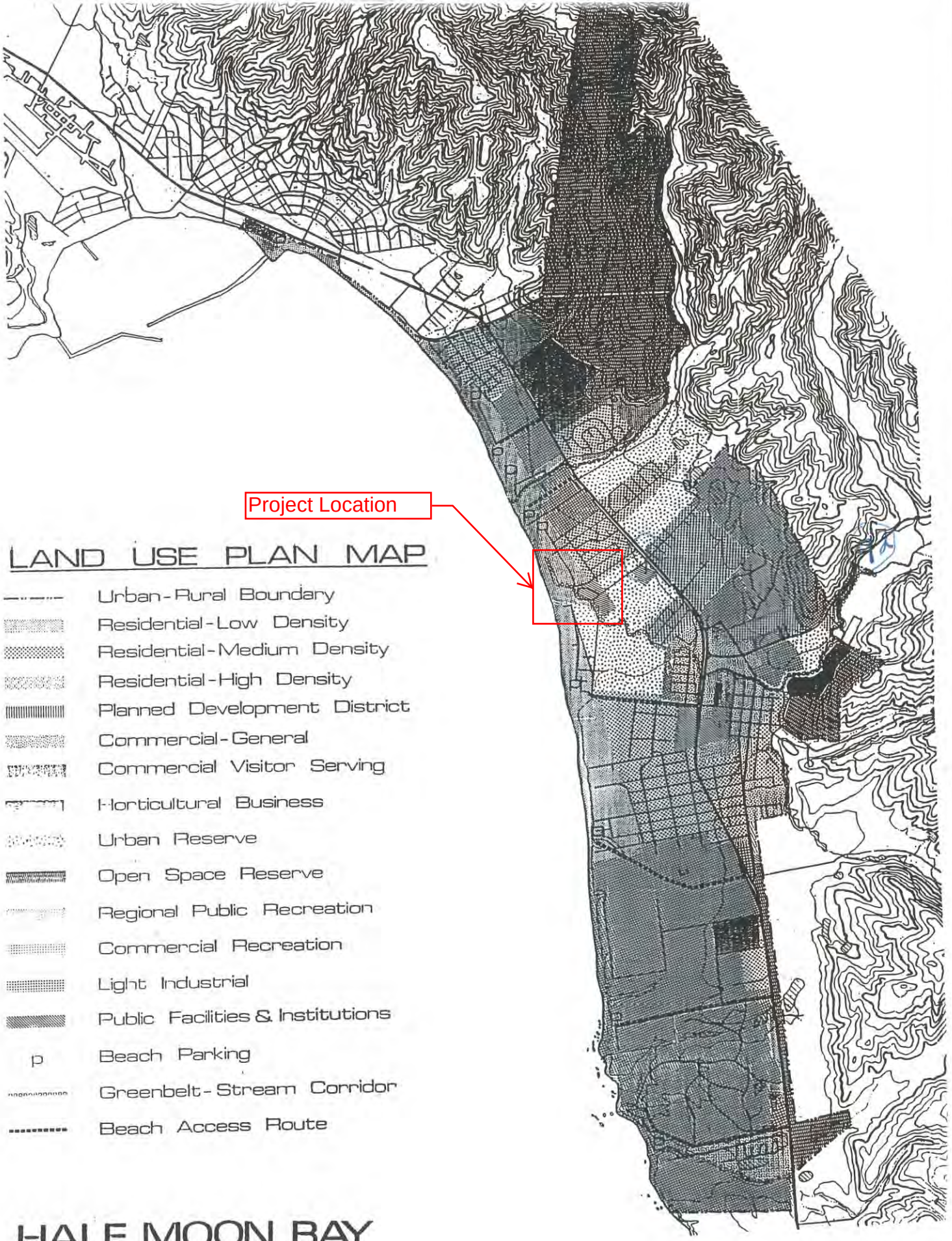
Third, in terms of the significance of the coastal resources affected by the approved amendment, the potential impacts to coastal resources such as sensitive species are minimal. The monthly testing begins with a lower volume voice announcement and ramps up the sound before reaching full volume, further reducing the potential for startling nearby birds. The lack of siren ground vibration ensures ground dwelling frogs and snakes are not significantly disturbed. Thus, the affected coastal resources will not be significantly impacted.

Fourth, the approved amendment does not present an adverse precedent for future interpretations of the City's LCP. The amended noise mitigation measure is consistent with the LCP noise restrictions because the siren is located in a Public Service zoning district. The Commission encourages the City to explicitly evaluate the impact of noise on sensitive species and habitats in future decisions regarding installations of warning sirens. In this case, the City's actions were consistent with the LCP. Thus, the project is not expected to set an adverse precedent for future

interpretation of the LCP.

Lastly, the City's approved amendment raises only local issues as opposed to those of regional or statewide significance. Based on the limited scale of the project, and the absence of any significant legal issue of interpretation or LCP application, the appeal filed for this development presents essentially a local issue.

Based on the foregoing, including when all five substantial factors are weighed together, the appeal contentions do not raise a substantial LCP conformance issue and thus the Commission declines to take jurisdiction over the CDP application for the amended project.



LAND USE PLAN MAP

- Urban-Rural Boundary
- Residential-Low Density
- Residential-Medium Density
- Residential-High Density
- Planned Development District
- Commercial-General
- Commercial Visitor Serving
- Horticultural Business
- Urban Reserve
- Open Space Reserve
- Regional Public Recreation
- Commercial Recreation
- Light Industrial
- Public Facilities & Institutions
- P Beach Parking
- Greenbelt-Stream Corridor
- Beach Access Route

HALF MOON BAY LOCAL COASTAL PROGRAM

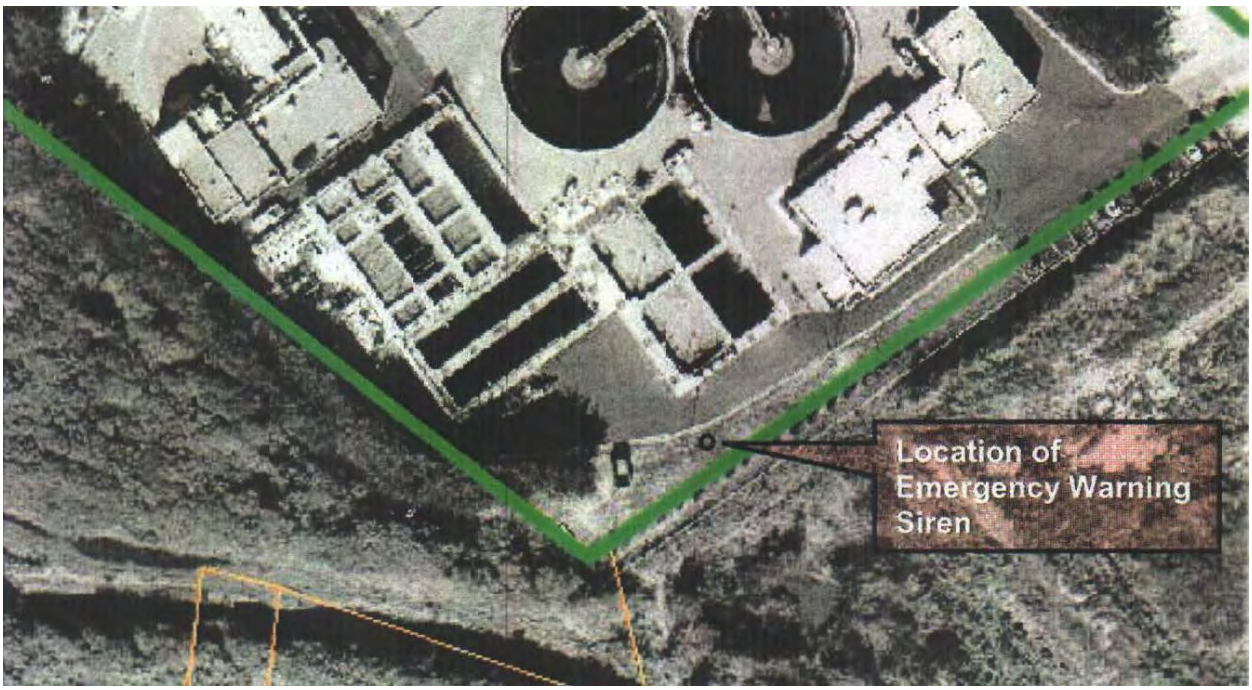
A-2-HMB-10-028
Exhibit 1
Page 1 of 3

Project location map

Project Site and Surrounding Area

(Property lines are approximate)

Location of the Emergency Warning Siren



2- HMB-10-089

NOTICE OF FINAL ACTION
Coastal Development Permit

City of Half Moon Bay Planning Department
501 Main Street, Half Moon Bay, CA 94019
(650) 726-8250 FAX (650) 726-8261

RECEIVED
AUG 31 2010
CALIFORNIA
COASTAL COMMISSION

Date: August 26, 2010 File: PDP-086-07(A)

Applicant: City of Half Moon Bay
501 Main Street
Half Moon Bay, CA 94019

Planner: Steve Flint, Planning Director

This notice is being distributed to the Coastal Commission and to those who requested notice. The following project is located within the appealable area of the Coastal Zone. The Planning Commission approved an amendment to an approved Coastal Development Permit on August 10, 2010, by Resolution No. P-10-10.

Project Description: Coastal Development Permit and Use Permit Amendment Pertaining to the Operation of an Existing Emergency Warning Siren System in a P-S (Public and Quasi-Public Land Use) Zoning District (APN 048-240-030)

Project Location: Sewer Authority Mid-Coastside facility, 1000 North Cabrillo Highway, Half Moon Bay, CA 94019

APPROVED by the Planning Commission on August 10, 2010, based on Findings for Approval contained in the attached Resolution.

Local Review of this Coastal Development Permit Application is now complete. The City's approval of this Coastal Development Permit application may be appealed to the California Coastal Commission in accordance with California Public Resources Code Section 30603. A 10 working-day appeal period for appeal of this action to the Coastal Commission will commence the next working day following the Commission's receipt of this notice of final local action. Please contact the Coastal Commission's North Central Coast District Office at (415) 904-5260 for further information about the Commission's appeal process.

PLANNING COMMISSION RESOLUTION P- 10-10
RESOLUTION FOR APPROVAL
PDP-086-07(A)

Coastal Development Permit and Use Permit Amendment Pertaining to the Operation of an Existing Emergency Warning Siren System Located at the Sewer Authority Mid-Coastside facility, 1000 North Cabrillo Highway, in a P-S (Public and Quasi-Public Land Use) Zoning District (APN 048-240-030)

WHEREAS, on August 28, 2008, the Planning Commission of the City of Half Moon Bay made the required findings, adopted a Mitigated Negative Declaration and Mitigation Monitoring Plan, and approved a Coastal Development Permit and Use Permit to allow the installation and operation of an Emergency Warning Siren System at the Sewer Authority Mid-Coastside (SAM) facility, 1000 North Cabrillo Highway; and

WHEREAS, subsequent to the approval, the San Mateo Sheriff's Office of Emergency Services installed the siren in accordance with the conditions of approval; and

WHEREAS, the City's Director of Emergency Services requested an amendment to one condition of approval adopted for the Coastal Development Permit and Use Permit that limited the operation of the siren system; and

WHEREAS, an evaluation was performed by a qualified acoustical engineer on June 2, 2010 to ensure that the proposed sound testing level would not result in any adverse effects to the neighborhood more than 400 feet away; and

WHEREAS, Condition A.20 restricting the testing of the siren to a low power audible level of no more than 98 decibels at one meter from the source, to occur no more than one time each month, to occur midday and midweek, and not exceed the duration of fifteen seconds was unnecessary mitigation; and

WHEREAS, Amending Condition A.20 to restrict the testing of the siren to an audible level of no more than 98 decibels at 440 feet from the source, to occur no more than one time each month, to occur midday and midweek, and not exceed the duration of sixty seconds was sufficient to ensure no adverse effects to the neighborhood ; and

WHEREAS, section 15074.1. of the California Environmental Quality Act (CEQA) includes provisions for the substitution of mitigation measures when the lead agency concludes that certain mitigation measures identified in the mitigated negative declaration are infeasible or otherwise undesirable; and

WHEREAS, the procedures for the amendment of the condition and substitution of the mitigation measure have been followed as required by law; and

WHEREAS, the Planning Commission conducted a duly noticed public hearing on August 10, 2010, at which time all those desiring to be heard on the matter were given an opportunity to be heard; and

WHEREAS, the Planning Commission considered all written and oral testimony presented for their consideration; and

WHEREAS, the Planning Commission has made the required finding for approval of the project, set forth in Exhibit A to this resolution;

NOW, THEREFORE, BE IT RESOLVED that, the Planning Commission hereby approves PDP-086-07(A), an Amendment to a Coastal Development Permit and Use Permit, modifying Condition A.20 to allow audible testing of the emergency warning siren system at the Sewer Authority Mid-Coastside facility, 1000 North Cabrillo Highway (APN 048-240-030), at a sound level not to exceed 98(c) decibels at 440 feet from the source no more than one time each month only during midday and midweek, not exceed the duration of sixty seconds, based upon the Findings and Evidence contained in Exhibit A of the Draft Resolution, and subject to the Conditions of Approval contained in Exhibit B, as amended.

PASSED AND ADOPTED by the City of Half Moon Bay Planning Commission at a duly noticed public hearing held on August 10, 2010, by the following vote:

AYE, Commissioners Poncini, King, Roman and Vice Chair Deman

ABSENT: Chair Jonsson

NOE,

APPROVED:

ATTEST:

APPROVED:

_____ _____

Steve Flint, Planning Director Les Deman, Vice Chair

EXHIBIT A

FINDINGS AND EVIDENCE
PDP-086-07(A)

Coastal Development Permit and Use Permit Amendment Pertaining to the Operation of an Existing Emergency Warning Siren System Located at the Sewer Authority Mid-Coastside facility, 1000 North Cabrillo Highway, in a P-S (Public and Quasi-Public Land Use) Zoning District (APN 048-240-030)

Coastal Development Permit – Findings

All findings and evidence adopted in Resolution P-18-08 approving the Coastal Development Permit for this project remain in effect.

Use Permit – Findings

The finding that he establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, be detrimental to the public welfare or injurious to property or improvements and evidence adopted in Resolution P-18-08 approving the Use Permit for this project remain in effect.

CEQA *Review – Findings*

The finding that the project is consistent with CEQA guidelines and will not have a significant effect on the environment as adopted in Resolution P-18-08 approving the Mitigated Negative Declaration for this project remains in effect.

The Planning Commission further finds that the following new measure is equivalent or more effective in mitigating or avoiding potential significant effects and that it in itself will not cause any potentially significant effect on the environment.

Measure 1-1: Audible testing of the emergency warning siren system shall be limited to a sound level not to exceed 98(c) decibels at 440 feet from the source, to occur no more than one time each month during midday and midweek periods only, for a duration not to exceed sixty seconds.

EXHIBIT B

CONDITIONS OF APPROVAL

PDP-086-07(B)

Coastal Development Permit and Use Permit to allow the installation and operation of an Emergency Warning Siren System at the Sewer Authority Mid-Coastside treatment facility located at 1000 North Cabrillo Highway

(APN 048-240-030)

Authorization: Approval of the permits authorizing installation and operation of an emergency warning siren system at 1000 North Cabrillo Highway, APN 056-310-140, as shown on plans with City date stamp of January 28, 2008, remains in effect, except for the following amended condition.

A.20. MITIGATION MEASURES: All mitigation measures listed in the MND and the Mitigation Monitoring Plan are adopted as conditions of approval and are incorporated herein by this reference, except as amended below.

Measure 1-1: Audible testing of the emergency warning siren system shall be limited to a sound level not to exceed 98(c) decibels at 440 feet from the source, to occur no more than one time each month during midday and midweek periods only, for a duration not to exceed sixty seconds.

CALIFORNIA COASTAL COMMISSION
NORTH CENTRAL COAST DISTRICT OFFICE
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE (415) 904-5260 FAX (415) 904-5400

APPEAL FROM COASTAL PERMIT DECISION OF LOCAL GOVERNMENT

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

SECTION I. Appellant(s)

Name: James Benjamin

Mailing Address: 400 Pilarcitos Avenue

City: Half Moon Bay Zip Code: 94019-1475 Phone: (650) 712-0543

SECTION II. Decision Being Appealed

1. Name of local/port government:

City of Half Moon Bay

2. Brief description of development being appealed:

PDP-086-07(A) Coastal Development Permit and Use Permit Amendment pertaining to operation of an existing emergency warning siren system located at the Sewer Authority Mid-Coastside facility, 1000 North Cabrillo Highway, in a P-S zoning district containing ESHAs with protected species. PDP-086-07 was conditioned to limit sound pressure level (SPL) of 98 dB at 1m. This amendment allows siren tests at 98 dB SPL at 440 ft.

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

Sewer Authority Mid-Coastside Wastewater Treatment Facility
1000 North Cabrillo Highway
Half Moon Bay, CA 94019 APN 048-240-030

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

☐ Approval; no special conditions

☒ Approval with special conditions:

☐ Denial

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

TO BE COMPLETED BY COMMISSION:

APPEAL NO: _____

DATE FILED: _____

DISTRICT: _____

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

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

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

6. Date of local government's decision: 10 August 2010

7. Local government's file number (if any): PDP-086-07 (A)

SECTION III. Identification of Other Interested Persons

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

a. Name and mailing address of permit applicant:

17 February 08 staff report for PDP-086-07 identified Owner/Applicant is:
Sewer Authority Mid-Coast
Sewer Authority Mid-Coastside
P.O. Box 3100
Half Moon Bay, CA, 94019

Operator of project is:
San Mateo County Sheriff's
Office of Emergency Services
400 County Center
Redwood City, CA 94063

Amendment PDP-086-07(A) was filed on behalf of SMC OES by:
City of Half Moon Bay
501 Main Street
Half Moon Bay, CA 94019

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

(1) Mr. Joseph Borges,
1370 N. Cabrillo Highway
Half Moon Bay, CA 94019

(2) Mr. George Muteuff
408 Redondo Beach Road
Half Moon Bay, CA 94019

(3) Mr. Michael Klass
141 Turnberry Ct.
Half Moon Bay, CA 94019

(4) Ms. Silvia Prewett
Spruce Street (no street number provided in testimony or found in records)
Half Moon Bay, CA 94019

SECTION IV. Reasons Supporting This Appeal

PLEASE NOTE:

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

Project PDP-086-07(A) effectively repeals the only mitigation condition included in PDP-086-07, a coastal development permit and use permit for installation and operation of an emergency warning system at the Sewer Authority Mid-Coastside (SAM) wastewater treatment facility at 1000 North Cabrillo Highway (APN -240-030). The project site is adjacent to environmentally sensitive habitat areas (ESHAs) for several protected species, including California red-legged frog, San Francisco garter snake, western snowy plover, salt marsh (aka San Francisco) yellowthroat and many raptors. Many of these protected species could be disturbed or harmed by the high sound pressure level resulting from siren tests permitted by the amendment. The species' aversion response could cause them to retreat from the ESHA, thereby degrading its biologic productivity. Adverse impacts on protected species and reductions of ESHA productivity are inconsistent with the certified Local Coastal Program / Land Use Plan (LCP/LUP) and its implementing ordinances.

The local agency exempted the project from biological reports, citing analysis of noise in a 1989 environmental impact report (EIR) for expansion of the wastewater treatment plant on the same site. The 1989 EIR cannot adequately fulfill biological report requirements because the impacts of noise from monthly full-power tests of the emergency warning siren system are not comparable to impacts of noise from the 1989 project (which were mitigated), and because the adjacent habitat has changed. Therefore the amended project should not have been exempt from biological reporting requirement. Without this report and any required mitigations to conform to policies and ordinances protecting ESHAs and listed species, approval of the amendment to allow full-power monthly tests is not consistent with Coastal Act 30240 and policies of Chapter 3 of the City of Half Moon Bay's certified LCP/LUP, and with the coastal resource conservation standards in chapter 18.38 of its implementing ordinances.

In addition, Chapter 18.38 requires the initial study and biological report prepared for this project to be consistent with the California Environment Quality Act (CEQA). Testimony in the record for the project shows the project as amended would lead to periodic large increases in sound pressure levels near the site. Reports in the scientific literature indicate that such noisy disturbances can meet the ESA definition of "take" which rises above the low threshold of the "fair argument" doctrine and should result in a mandatory finding of significance which mandates the preparation of an environmental impact report (EIR) for the project. As no EIR has been prepared, the finding that the project reports are consistent with CEQA cannot be made. No evidence refutes the claim that the 60+ dB increases over ambient sound in nearby ESHAs could have a significant adverse effect on nearby habitat and its protected species. As a result, the project is inconsistent with the certified LCP/LUP and its implementing ordinances with respect to required evaluation of potential impacts and protection of sensitive biological resources; and with respect to prohibitions of projects which could have significant adverse impacts on sensitive habitat areas; and with respect to uses permitted in and adjacent to ESHAs.

SECTION V. Certification

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

Signature of Appellant(s) or Authorized Agent

Date: 30 August 2010

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

Section VI. Agent Authorization

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

Signature of Appellant(s)

Date: _____

PLANNING COMMISSION RESOLUTION P- -10
RESOLUTION FOR APPROVAL
PDP-086-07(A)

Coastal Development Permit and Use Permit Amendment Pertaining to the Operation of an Existing Emergency Warning Siren System Located at the Sewer Authority Mid-Coastside facility, 1000 North Cabrillo Highway, in a P-S (Public and Quasi-Public Land Use) Zoning District (APN 048-240-030)

WHEREAS, on August 28, 2008, the Planning Commission of the City of Half Moon Bay made the required findings, adopted a Mitigated Negative Declaration and Mitigation Monitoring Plan, and approved a Coastal Development Permit and Use Permit to allow the installation and operation of an Emergency Warning Siren System at the Sewer Authority Mid-Coastside (SAM) facility, 1000 North Cabrillo Highway; and

WHEREAS, subsequent to the approval, the San Mateo Sheriff's Office of Emergency Services installed the siren in accordance with the conditions of approval; and

WHEREAS, the City's Director of Emergency Services requested an amendment to one condition of approval adopted for the Coastal Development Permit and Use Permit that limited the operation of the siren system; and

WHEREAS, an evaluation was performed by a qualified acoustical engineer on June 2, 2010 to ensure that the proposed sound testing level would not result in any adverse effects to the neighborhood more than 400 feet away; and

WHEREAS, Condition A.20 restricting the testing of the siren to a low power audible level of no more than 98 decibels at one meter from the source, to occur no more than one time each month, to occur midday and midweek, and not exceed the duration of fifteen seconds was unnecessary mitigation; and

WHEREAS, Amending Condition A.20 to restrict the testing of the siren to an audible level of no more than 98 decibels at 440 feet from the source, to occur no more than one time each month, to occur midday and midweek, and not exceed the duration of sixty seconds was sufficient to ensure no adverse effects to the neighborhood ; and

WHEREAS, section 15074.1. of the California Environmental Quality Act (CEQA) includes provisions for the substitution of mitigation measures when the lead agency concludes that certain mitigation measures identified in the mitigated negative declaration are infeasible or otherwise undesirable; and

WHEREAS, the procedures for the amendment of the condition and substitution of the mitigation measure have been followed as required by law; and

WHEREAS, the Planning Commission conducted a duly noticed public hearing on August 10, 2010, at which time all those desiring to be heard on the matter were given an opportunity to be heard; and

WHEREAS, the Planning Commission considered all written and oral testimony presented for their consideration; and

WHEREAS, the Planning Commission has made the required finding for approval of the project, set forth in Exhibit A to this resolution;

NOW, THEREFORE, BE IT RESOLVED that, the Planning Commission hereby approves PDP-086-07(A), an Amendment to a Coastal Development Permit and Use Permit, modifying Condition A.20 to allow audible testing of the emergency warning siren system at the Sewer Authority Mid-Coastside facility, 1000 North Cabrillo Highway (APN 048-240-030), at a sound level not to exceed 98 decibels at 440 feet from the source no more than one time each month only during midday and midweek, not exceed the duration of sixty seconds, based upon the Findings and Evidence contained in Exhibit A of the Draft Resolution, and subject to the Conditions of Approval contained in Exhibit B, as amended.

PASSED AND ADOPTED by the City of Half Moon Bay Planning Commission at a duly noticed public hearing held on August 10, 2010, by the following vote:

AYE,

NOE,

APPROVED:

ATTEST:

APPROVED:

Steve Flint, Planning Director

Patric Bo Jonsson, Chair

EXHIBIT A

FINDINGS AND EVIDENCE
PDP-086-07(A)

Coastal Development Permit and Use Permit Amendment Pertaining to the Operation of an Existing Emergency Warning Siren System Located at the Sewer Authority Mid-Coastside facility, 1000 North Cabrillo Highway, in a P-S (Public and Quasi-Public Land Use) Zoning District (APN 048-240-030)

Coastal Development Permit – Findings

All findings and evidence adopted in Resolution P-18-08 approving the Coastal Development Permit for this project remain in effect.

Use Permit – Findings

The finding that he establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, be detrimental to the public welfare or injurious to property or improvements and evidence adopted in Resolution P-18-08 approving the Use Permit for this project remain in effect.

CEQA Review – Findings

The finding that the project is consistent with CEQA guidelines and will not have a significant effect on the environment as adopted in Resolution P-18-08 approving the Mitigated Negative Declaration for this project remains in effect.

The Planning Commission further finds that the following new measure is equivalent or more effective in mitigating or avoiding potential significant effects and that it in itself will not cause any potentially significant effect on the environment.

Measure 1-1: Audible testing of the emergency warning siren system shall be limited to a sound level not to exceed 98 decibels at 440 feet from the source, to occur no more than one time each month during midday and midweek periods only, for a duration not to exceed sixty seconds.

EXHIBIT B

CONDITIONS OF APPROVAL

PDP-086-07(B)

Coastal Development Permit and Use Permit to allow the installation and operation of an Emergency Warning Siren System at the Sewer Authority Mid-Coastside treatment facility located at 1000 North Cabrillo Highway

(APN 048-240-030)

Authorization: Approval of the permits authorizing installation and operation of an emergency warning siren system at 1000 North Cabrillo Highway, APN 056-310-140, as shown on plans with City date stamp of January 28, 2008, remains in effect, except for the following amended condition.

A.20. MITIGATION MEASURES: All mitigation measures listed in the MND and the Mitigation Monitoring Plan are adopted as conditions of approval and are incorporated herein by this reference, except as amended below.

Measure 1-1: Audible testing of the emergency warning siren system shall be limited to a sound level not to exceed 98 decibels at 440 feet from the source, to occur no more than one time each month during midday and midweek periods only, for a duration not to exceed sixty seconds.

Exhibits

Exhibit 1. Project is located in Appeal Zone

Exhibit 2. City of Half Moon Bay Master Fee Schedule (June 01, 2010)

City of Half Moon Bay
Master Fee Schedule
Permits, Other Fees & Services

Description of Services	Fee		Unit / Type
VI. Planning			
PRE-ENTITLEMENT PROCESSING			
1 Pre-Application Meeting	Based on number of departments/agencies attending - hourly rates apply		
2 Measure 'D'			
Single Allocation (per allocation)	$667.00	Flat fee[1]	
Phasing Agreement	$2,600.00	Deposit[2]	
ENTITLEMENT PROCESSING			
1 Coastal Development Permit			
CDP Exemption	$133.50	Flat fee[1]	
2 Single Family Residential			
<= 2,400 square feet	$1,300.00	Deposit[2]	
> 2,400 square feet	$2,600.00	Deposit[2]	
3 Multiple Family Residential			
<= Four dwelling units (<= 10,000 square feet)	$2,600.00	Deposit[2]	
> Four dwelling units (> 10,000 square feet)	$5,200.00	Deposit[2]	
4 Commercial / Mixed Use			
<= 10,000 square feet	$2,600.00	Deposit[2]	
> 10,000 square feet	$5,200.00	Deposit[2]	
5 Industrial / Institutional			
<= 20,000 square feet	$5,200.00	Deposit[2]	
> 20,000 square feet	$6,500.00	Deposit[2]	
6 Architectural Review			
Planning Director	$667.00	Flat fee[1]	
Architectural Review Committee	$1,300.00	Deposit[2]	
ARC and Planning Commission	$2,600.00	Deposit[2]	
7 Site and Design Review			
Planning Director	$1,300.00	Deposit[2]	
Architectural Review Committee	$2,600.00	Deposit[2]	
8 ARC and Planning Commission	$5,200.00	Deposit[2]	
9 Use Permit			
Temporary Use	$133.50	Flat fee[1]	
Conditional Use	$2,600.00	Deposit[2]	
Home Occupation	$133.50	Flat fee[1]	
10 Variance	$2,600.00	Deposit[2]	
11 Exception			
Building Height	$650.00	Deposit[2]	
Development Standard	$650.00	Deposit[2]	
Parking	$1,300.00	Deposit[2]	
12 Amendments			
Permits and Entitlements	$2,600.00	Deposit[2]	
Local Coastal Program (includes LUP/Policies)	$6,500.00	Deposit[2]	
IP/Zoning Code/Rezoning	$6,500.00	Deposit[2]	
13 Annexation	$2,600.00 plus LAFCo fees	Deposit[2]	
14 Appeals	Half the original fee if applicable. All other appeals $680 deposit[2]		
15 Specific Plan/PUD Plan			
Review and Processing	$6,500.00	Deposit[2]	
Amendments	$5,200.00	Deposit[2]	

[1] Flat fees are adjusted annually by the CPI All Urban Consumers/San Francisco-Oakland-San Jose established at the beginning of every fiscal year
[2] Total cost equal to 100% of staff and/or consultant time and materials, plus 20% overhead cost

11-15

Supplemental Information from Appellant

I. Summary of Appeal

Project PDP-086-07(A) effectively repeals the only mitigation condition included in PDP-086-07, a coastal development permit and use permit for installation and operation of an emergency warning system at the Sewer Authority Mid-Coastside (SAM) wastewater treatment facility at 1000 North Cabrillo Highway (APN -240-030). The project site is adjacent to environmentally sensitive habitat areas (ESHAs) for several protected species, including California red-legged frog, San Francisco garter snake, western snowy plover, salt marsh (aka San Francisco) yellowthroat and many raptors. Many of these protected species could be disturbed or harmed by the high sound pressure level resulting from siren tests permitted by the amendment. The species' aversion response could cause them to retreat from the ESHA, thereby degrading its biologic productivity. Adverse impacts on protected species and reductions of ESHA productivity are inconsistent with the certified Local Coastal Program / Land Use Plan (LCP/LUP) and its implementing ordinances.

The local agency exempted the project from biological reports, citing analysis of noise in a 1989 environmental impact report (EIR) for expansion of the wastewater treatment plant on the same site. The 1989 EIR cannot adequately fulfill biological report requirements because the impacts of noise from monthly full-power tests of the emergency warning siren system are not comparable to impacts of noise from the 1989 project (which were mitigated), and because the adjacent habitat has changed. Therefore the amended project should not have been exempt from biological reporting requirement. Without this report and any required mitigations to conform to policies and ordinances protecting ESHAs and listed species, approval of the amendment to allow full-power monthly tests is not consistent with Coastal Act 30240 and policies of Chapter 3 of the City of Half Moon Bay's certified LCP/LUP, and with the coastal resource conservation standards in chapter 18.38 of its implementing ordinances.

In addition, Chapter 18.38 requires the initial study and biological report prepared for this project to be consistent with the California Environment Quality Act (CEQA). Testimony in the record for the project shows that the project as amended would lead to periodic large increases in sound pressure levels near the site. Reports in the scientific literature indicate that such noisy disturbances meet the ESA definition of "take" which rises above the low threshold of the "fair argument" doctrine and should result in a mandatory finding of significance which mandates the preparation of an EIR for the project. As no such EIR has been prepared, the finding that the project reports are consistent with CEQA cannot be made. No evidence refutes the claim that the 60+ dB increases over ambient sound in nearby ESHAs could have a significant adverse effect on nearby habitat and its protected species. As a result, the project is inconsistent with the certified LCP/LUP with respect to required evaluation of potential impacts and protection of sensitive biological resources; and with respect to prohibitions of projects which could have significant adverse impacts on sensitive habitat areas; and with respect to uses permitted in ESHAs and their buffer zones.

II. Local Government Action

28 Aug 2008: Half Moon Bay Planning Commission approved PDP-086-07, modifying CEQA checklist acknowledging potential noise impacts and adding a mitigation measure to address them, and modifying conditions on the coastal development permit (Resolution P-19-08).

21 Oct 2008: City Council declined review of use permit.

10 Aug 2010: Half Moon Bay Planning Commission approved PDP-086-07(A) adopting findings of PDP-086-07 and amending mitigation condition to permit full power monthly testing of siren.

III. Appeal Procedures

Appeal Zone

The amendment to PDP-086-07 is appealable to the Coastal Commission because the project involves development that is located between the first public road and the sea, and the project site is adjacent to Pilarcitos Creek, an unnamed tributary of the same creek, and the Caltrans mitigation wetland southwest of the siren (see Exhibit 1).

Participation in Local Decision

The appellant provided oral and written testimony opposing project during the Half Moon Bay Planning Commission's consideration of both PDP-086-07 and PDP-086-07(A).

Exhaustion of Local Remedy

In Master Schedule of fees adopted June 1, 2010, the City of Half Moon Bay charges appellant for appeal processing expenses against a deposit of $650 or half the cost of the permit being appealed to the City Council (see Exhibit 2). Because the City charges a fee for appeals of coastal development permits and their amendments, no appeal of the Planning Commission decision to the City Council is required for local remedy to be deemed exhausted (Half Moon Bay Municipal Code 18.20.075(H)(1)(d)).

IV. Appeal

Appellant asks the Coastal Commission to revise or deny amendment because of these substantive issues:

1. The ESHAs adjacent to project provide habitat for several species protected under the certified LCP/LUP and under state and federal laws. Chapter 3 of the certified LCP/LUP and Chapter 18.38 of its implementing ordinances require the preparation of biological reports that identify conditions that will protect these species and preserve the biologic productivity of their habitat area. These reports have not been prepared; the local decision exempted the project from biological report requirements based on an irrelevant and outdated EIR and ignores adverse physical effects such as sound that propagates from the project. Scientific literature suggests that the high sound pressure levels created by the project as amended may alter the behavior of listed species and degrade habitat, thereby harassing the species and constituting a "take" as defined by the Endangered Species Act of 1973, 87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.* (ESA).

2. Where chapter 18.38 of the implementing ordinances of the certified LCP/LUP require conformance with CEQA, the local decision encourages the practice of segmented adoption of controversial projects by accommodating the withdrawal of previously adopted mitigation measures imposed to address public concern by discounting the previously acknowledged and mitigated impact. The previously adopted mitigation resulted from extensive correspondence and persistent public participation; such reversals discourage public participation in the CEQA process.

Issue 1: ESHA and Protected Species

Environmental sensitivity: The Habitat Areas and Water Resources Overlay of Half Moon Bay's certified LCP/LUP shows the project site and adjacent land contain riparian habitat, so this area is designated by section 18.38.020 of the municipal code to be a Sensitive Habitat Area within a designated Coastal Resource Area. Biological reports[1],[2],[3] confirm habitat for the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) (SFGS), California red-legged frog (*Rana aurora draytonii*) (CRLF), the salt marsh common yellowthroat (*Geothlypis trichas sinusa*), yellow warbler (*Dendroica petechia*), white-tailed kite (*Elanus caeruleus*), sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*Accipiter cooperii*) and Northern harrier hawk (*Circus cyaneus*) on and adjacent to the SAM plant, and reports confirm occurrences of SFGS, CRLF and salt marsh common yellowthroat there (see Exhibit 3). The beach and dunes across Pilarcitos Creek from the SAM plant are critical habitat for the western snowy plover (*Charadrius alexandrinus nivosus*).[4] A Cooper's hawk has used the area immediately northwest of the SAM plant (see Exhibit 4). Pilarcitos Creek adjacent to the SAM plant also contains breeding habitat for protected steelhead. In fact, habitat for listed species surrounds most of the SAM plant site, with the emergency warning siren system installed immediately adjacent to the Caltrans mitigation wetland.[5]
Impacts: Scientific research has improved our understanding how birds and snakes are affected by acute loud noises, and that research has been used by the Coastal Commission to condition projects that generate acute loud noise. In findings for approval for construction of an overpass in the City of Goleta[6], the Commission findings cited recent research[7] that showed temporary loud noise can harm a bird by causing it to suffer a temporary hearing threshold shift (i.e., a temporary loss of hearing) at sound pressure levels above 93 dBA, and permanent damage when exposed to higher sound pressure levels. When noise rises above ambient conditions, noise can harass a bird by defeating its ability to hear relevant biological signals through background noise, hindering communication, navigation and detection of prey and/or predators. Noise can also stimulate an aversion response, causing a bird to retreat from the habitat.[8] Such harm or harassment of a listed species is a "take" under Section 9 of the ESA.[9]

In the staff report for the Goleta project, the Coastal Commission's staff biologist, with concurrence from Caltrans, determined that a maximum of noise level of 80 dB at the sensitive habitat was an appropriate threshold to apply to that project in light of a pre-existing estimated peak-hour traffic noise level of 65 dB to which the birds were believed to have habituated. The same report supposes peak-hour noise levels of 40-45 dBA in a quiet rural area such as the vicinity of the SAM plant. The SAM plant generates its own noise, however, which is conditioned by the 1989 FEIR not to exceed 50 dBA at 50 feet. Treating 50 dBA

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[1] French, A., Coastal Development Permit CDP-01-96, City of Half Moon Bay, May 23, 1996, attachment.
[2] *Habitat Assessment for the City of Half Moon Bay Kehoe Ditch Flood Control Project*, Essex Environmental, Aug. 2005.
[3] Busnardo, M., *Sewer Authority Mid-Coastside Biotic Constraints Assessment for A.P.N.048-240-040,* H.T. Harvey & Associates, Oct. 2005.
[4] *Recovery Plan for the Pacific Coast Population of the Western Snowy Plover*, Vol. 1, U.S. Fish and Wildlife Service, August 2007 (72 FR 54279 54280 Sept 2007), page 129.
[5] "The area proposed for biological mitigation is adjacent to Pilarcitos Creek and extends the width of the parcel." French, *op. cit.*
[6] Coastal Commission Staff Report, Application No. 4-07-116, California Dept. of Transportation and City of Goleta
[7] Dooling, R.J. and A.N. Popper, *The Effects of Highway Noise on Birds*, Environmental BioAcoustics, Sept. 2007.
[8] Bowles, A.E., Response of wildlife to noise in *Wildlife and recreationists: coexistence through management and research*, Knight R.L. and Gutzwiller, K.J. eds., pp.109-156.
[9] Endangered Species Act of 1973, 87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*

as an ambient noise level 50 feet from the SAM plant, and ignoring effects of wind, humidity and temperature, the following sound pressure level calculations can be made (see Exhibit 5):

- Under the original condition of PDP-086-07 which limits audible tests to a sound pressure level of 98 dB at 1m, the sound pressure level 50 feet from the base of the siren's 37-foot tower is about 72 dB. This is more than the Goleta study masking threshold for impact 15 dB above ambient noise, but that is based on estimated ambient noise conditions. 800 feet away at the dunes identified as critical habitat for the western snowy plover critical habitat, the c. 50 dB sound pressure level produced by the siren is much quieter than the c. 66-70 dBA surf.
- At full power, however, the emergency warning siren will produce a sound pressure level of approximately 117 dB at a distance of 50 feet from the base of the siren's tower, and a sound pressure level slightly more than 105 dB at a distance of 200 feet from the base of the siren's tower. These sound pressure levels are well above the 93 dBA threshold for causing THS and far above the threshold that would startle and mask relevant environmental sounds for birds. The siren would produce a sound pressure level of c. 93 dB at 800 feet, 8 dB (more than twice as loud) over the 15 dB ambient noise threshold used in the Goleta project.

Published research has caused scientists to reverse the long-held belief that snakes do not respond to sound. The literature has long reflected snakes' ability to hear in the range of 100 Hz – 1 kHz.[10] More recent research shows that snakes can contextualize sound and respond with consistent predatory or defensive behaviors, suggesting a greater role for auditory stimuli than was previously realized.[11] Since SFGS habitat is found in Pilarcitos Creek, its tributary to the north, and the Caltrans mitigation wetland as well as their respective uplands, exposure to these sound pressure levels could alter important biological behaviors of the SFGS. Alternatively the sound levels could cause SFGS to retreat from the habitat, reducing the biologic productivity of the area.

The above analysis assumed that sensitive receptors are on the ground at least 50 feet from the base of the emergency warning siren. In fact, even greater impacts could occur within 50 feet of the siren where there are trees which provide roosting habitat for raptors and habitat for terrestrial species. These potential impacts of loud noise may explain why emergency warning siren systems are not located in sensitive habitat areas.[12]

Non-conformance with certified LCP/LUP and its implementing ordinances:

1. The project does not conform to Chapter 18.38 of the ordinance implementing the Half Moon Bay LCP/LUP. Chapter 18.38 of the Municipal Code requires biological, archaeological and geological reports for projects in proximity to coastal resource areas. More specifically subsection 18.38.030(A) requires such reports to recommend feasible measures to mitigate significant impacts, including siting decisions and development intensity, and such reports are to be reviewed for consistency with the California Environmental Quality Act (CEQA). Subsection B

[10] Wever, E.G. and J.A. Vernon, The problem of hearing in snakes, *J. Auditory Res.* (Supplement 5), Vol. 1 pp.77-83.
[11] Young, B.A., Snake bioacoustics: toward a richer understanding of the behavior ecology of snakes, *Q. Rev. Biol.,* Vol. 78, No. 3, Sept. 2003, pp.303-325.
[12] Current, J. and M. O'Kelly, Locating emergency warning sirens, *Decision Sciences*, 23(1), Jan/Feb 1992, 221-234.

provides that the Planning Director may grant exceptions to the reporting requirements of Chapter 18.38 when it is found that existing studies adequately fulfill the requirements of this chapter, provided such studies were prepared by a qualified biologist.
In 1989, a final environmental impact report (SCH# 87122901) was completed and certified for the Sewer Authority Mid-Coastside's wastewater treatment plant expansion. The EIR did not include a section on biological resources; the study did not mention adjacent habitat, let alone the confirmed presence of protected species in the area. The EIR analyzed the impact of treatment plant expansion in other several categories, including noise (see Exhibit 6). The potentially significant impact was that noise increases of less than 3 dBA were caused by additional horsepower needed to operate the plant. Mitigations included the enclosure of noise sources producing sound pressure levels greater than 50 dBA at 50 feet. The mitigations have been effective in reducing noise produced by SAM; At 11:30-11:45 a.m. on a cloudy day with a temperature of 57°F and almost negligible southwest winds, the sound pressure levels adjacent and northeast of the SAM plant were measured at 40-42 dBA, with SAM sounds blending with that of the ocean. Periodic increases to 45 dBA were caused by Pillar Point's foghorn, and occasional increases to 46 dBA were caused by birds singing in willows near the sound meter.

In its originally approved form including the mitigations limiting test noise, significant adverse consequences were not likely to result from the planning director's reliance on the 1989 study in granting the biological report exception for the PDP-086-07 (see Exhibit 7). With the amendment PDP-086-07(A) allowing full-power testing, however, the noise impacts of the 1989 SAM Plant expansion bear no resemblance to the periodic 50+ dB increases in sound pressure levels that the amended project will cause 440 feet from the siren location, and the 60+ dB increases above the ambient noise in the Caltrans mitigation wetland. The noise impacts analyzed in the SAM expansion no longer justify the exception to the biological study requirement of Section 18.38, hence associated findings for approval cannot be made.

Because a biological report is required but not provided, additional requirements imposed by chapter 18.38 have not been met:

- For any project located within 100 feet of a Sensitive Habitat Area, Section 18.38.035 requires a biological report ***prior to*** development review [emphasis in the original] which contains a mapping of coastal resources, including existing sensitive habitats, riparian areas and wetlands located on or within 200 feet of the project site, descriptions of habitat requirements of rare, endangered and unique species, and the distribution of such reports with request for comments from federal and state agencies with relevant review authority, including but not limited to the US Fish and Wildlife Service, the US Army Corps of Engineers, the California Coastal Commission, the California Department of Fish and Game, and the Regional Water Quality Control Board.

  In addition, the SAM plant parcel hosting the emergency warning siren is located in a Coastal Resource Area, and subject to the provisions of Section 18.38.050 which constrain development in such areas. Specifically:

- Subsection (A)(2) requires that development and land use shall be sited and designed to prevent impacts that could significantly degrade adjacent sensitive habitat area, or significantly degrade areas adjacent to sensitive habitat areas.

- Subsection (A)(3) requires that development and land use be compatible with the maintenance of biologic productivity of any adjacent sensitive habitat areas.

- Subsection (A)(4) requires that development and land use shall be permitted within sensitive habitat areas only if they are resource-dependent uses, or other uses which will not have any significant adverse environmental impacts and if the uses comply with US Fish and Wildlife Service and State Department of Fish and Game regulations.

- Subsection (A)(6) requires that development and land use shall comply with restrictions applicable to each coastal resource area, and with all other applicable sections of the City's certified LCP/LUP.

- When the Biological Report indicates the existence of rare or endangered species in an area, section 18.38.085 limits the uses which are permitted in that area to (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. Even within this limited set of uses, additional standards and habitat preservation requirements from the policies of Chapter 3 of the LCP are imposed. The endangered San Francisco garter snake (SFGS) has been found in Pilarcitos Creek which is adjacent to the SAM plant, and habitat for SFGS has been identified in the Caltrans mitigation wetland and in the stream and associated uplands of an unnamed tributary to Pilarcitos Creek adjacent to the north side of the SAM plant. As previously noted, published scientific research has confirmed the sensitivity of snakes to sound, and the potential for sound to alter snake behavior. The policies of Chapter 3 of the certified LCP/LUP prohibit projects which have such impacts.

- Section 18.38.090 imposes similar restrictions on projects with the potential to impact Unique Species, which include raptors and the CRLF. The previously cited biological reports confirm CRLF are present in Pilarcitos Creek and in the Caltrans mitigation wetland; additional CRLF habitat is provided in the stream and associated uplands of an unnamed tributary that runs north of the SAM plant; as noted in the attached biological reports, raptors make use of the trees and grasslands in the vicinity of the plant.

- Section 18.38.100 requires the Planning Commission to impose development conditions on proposed projects within *or adjacent to* designated coastal resources that require a CDP and are subject to the provisions of chapter 18.38 [emphasis added].

2. The amended project does not conform to Chapter 18.01 of the zoning ordinances implementing the Half Moon Bay LCP/LUP. Specifically, section 18.01.020 requires that no land and no structure shall be used in any district except in conformance with the zoning ordinance.

3. The project does not conform to adopted policies for protecting environmentally sensitive habitat areas in Chapter 3 of the certified LCP/LUP. In adopting the certified LCP/LUP the City made the finding that "[t]he City needs to protect the riparian habitats of all perennial and intermittent streams. In addition the City needs to establish buffer zones to protect stream habitats from the possible adverse impacts of adjoining land uses."[13] Specifically,

    - Coastal Act Policy 30240 and LCP/LUP Policy 3-3 requires that ESHAs be protected against any significant disruption of habitat values, and that development in areas adjacent to ESHAs shall be sited and designed to prevent impacts which would significantly degrade such areas.

    - LCP/LUP Policy 3-4 prohibits significant adverse impact and requires conformance with U.S. Fish and Wildlife and California Department of Fish and Game regulations. Under section 7 (a) (2) of the ESA, federal agencies must, in consultation with the U.S. Fish and Wildlife Service, ensure that any action they fund is not likely to result in the destruction or adverse modification of critical habitat. The dunes and beach adjacent to the SAM plant are critical habitat for the western snowy plover.[14] To the extent that FEMA or other federal agencies were involved in funding the emergency warning siren system, adverse impacts on critical habitat such as masking as discussed above, cannot be a likely effect of the project. No evidence in the record suggests that such consultation took place.

    - LCP/LUP Policy 3-5 requires CDP applicants to obtain a biologic report by a qualified professional to determine if significant impacts on sensitive habitats may occur, and recommend the most feasible mitigation measure if impacts may occur. The report is required to consider both identified sensitive habitats and areas adjacent. There is no exception for previous reports, and the site of development need not itself be an ESHA.

    - LCP/LUP Policy 3-21 (a) and the confirmed presence of SFGS confer the designation "Habitat for Rare and Endangered Species" on Pilarcitos Creek in the vicinity of the SAM plant. Policy 3-24 requires the preservation of all habitats of rare and endangered species using the LCP/LUP and implementing ordinances. Policy 3-23 (a) requires a qualified biologist to prepare a report which defines the requirements of SFGS, including recommended mitigation if development is permitted within or adjacent to identified habitat. Such a report would include mitigation for any significant impacts from noise that could occur. Appellant is unaware of any such report.

[13] *Local Coastal Program / Land Use Plan*, City of Half Moon Bay, 1993, p. 44.
[14] *Endangered and Threatened Wildlife and Plants; for the Pacific Coast Population of the Western Snowy Plover, Final Rule*, 70 FR 56969 57119, U.S. Fish and Wildlife Service, Sept. 2005.

- LCP/LUP Policy 3-32 and biological reports of CRLF and raptors (owls, hawks eagles and vultures) confer the designation "Habitats of Unique Species" on Pilarcitos Creek and its riparian corridor, the unnamed tributary to the north of the SAM plant, and the Caltrans mitigation wetland where CRLF have been identified, together with the upland habitat used by CRLF. Adjacent trees and other habitat used by raptors are similarly designated. Policy 3-34 requires that a qualified biologist prepare a report defining the requirements of a unique organism including animal food, water, nesting or denning sites and reproduction, predation and migration requirements. Appellant is unaware of any such report. The potential for noise from the project to interrupt the behavior of the unique species should be considered.

The project also does not comply with LCP/LUP Policy 9-3, which requires that any project for which a CDP is required shall comply with all other policies of the LCP/LUP.

Issue 2: 18.38 Required conformance to CEQA

The substitution mitigation is not equivalent to or more effective than the original mitigation.

CEQA Guidelines section 15074.1 permits the agency to modify a mitigation if the substitute mitigation will avoid or reduce the significant effect to at least the same degree as, or to a greater degree than, the original measure and will create no more adverse effect of its own than would have the original measure. It does not permit the agency to redefine the significant effect.

The certified LCP/LUP's implementing ordinance includes subsection 18.38.030 (A)(4) which states that required biological reports prepared by a qualified professional shall be reviewed for consistency with CEQA, and 18.38.050, which requires projects within Coastal Resource Areas to be evaluated in an Initial Study and any necessary subsequent CEQA documents. The CEQA declaration contains an assessment of all potential impacts within the considered category. Although no biologic reports were prepared for PDP-086-07, the Planning Commission Resolution P-19-08 approving the project adopted findings that an incorporated CEQA initial study and mitigated negative declaration (IS/MND) for the project was complete, and identified no potentially significant biological impacts from the project.[15] The IS/MND specifically found that with the inclusion of mitigation measure 1-1, the project would result in a less-than-significant noise impact. Under the Noise category of the CEQA checklist (see Exhibit 8) the Planning commission found that the impacts of:

> exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

and

> substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

were reduced to less than significant with mitigation incorporation. The remaining noise categories were assessed to pose "less than significant impact" or "no impact" regardless of the

[15] Gallegos, S.K., *Emergency Warning Siren System Project, 1000 North Cabrillo Highway Final Initial Study / Mitigated Negative Declaration*, State Clearinghouse #2008052058, 28 Aug. 2008, pp. 9-10.

mitigation measure.[16] Therefore, the noise mitigation is aimed squarely at addressing these impacts. After stating the Committee on Hearing and Bioacoustics (CHABA) determination that "an audible warning device should be located and operated so that no person is likely to be subject to a sound level great enough to cause hearing damage" and noting that 123 dB is the maximum tolerable sound level before hearing damage occurs, the Planning Commission adopted the following text as part of its findings:

> Due to the increase in ambient noise levels in the project vicinity above levels existing without the project, the following mitigation measure is proposed. As a result, the project sound outputs will be subject to mitigation measure 11-1 [sic], which reduces the impact to a less than significant level.
>
> > **Mitigation Measure 1-1.** A low power audible testing of all sirens of no more than 98 decibels at one meter from the source shall occur no more than one time each month and shall occur midday and midweek and not exceed the duration of fifteen seconds.

The Planning Commission judged that noises do not have to reach the level of damaging human hearing to present a significant impact. In light of the adopted impact checklist, discussion and mitigation, appellant did not appeal the Planning Commission's 2008 approval.

The sole effect of amendment PDP-086-07(A) is to revise the Planning Commission's reasoning to circumvent the associated mitigation and allow testing at full power, now that the emergency warning siren system has been installed at the SAM plant. This appeal's coastal resource / ESHA issues section illustrates how noise produced by the amended project can have a significant impact independent of the CHABA threshold.

Noise can also have a significant impact on people. Section 18.07.030 of the LCP/LUP's implementing ordinance provides clear guidance that the community considers exterior daytime noise levels of 80 dBA or more to be an unacceptable amount of noise, regardless of duration, at the boundary of commercial districts with residential, open space or urban reserve districts.

Facilities in industrial districts are subject to noise limitations of subsection 18.10.080, although the restriction is by frequency band. Converting the sound pressure level restriction by frequency band into an overall sound pressure level restriction on industrial noise generation of 55 dB(A) for industrial-residential boundaries. The following table combines these sounds for several background noise levels:

Ambient Noise, in dB(A):	45	50	55	60	65
Ambient and 55 dB(A) industrial noises combined:	55.4	56.2	58	61.2	65.4

Whether seen as standalone noise sources or as part of an overall noise level, the sound pressure levels generated by the full power tests of the emergency warning system siren as amended by PDP-086-07 would create sound pressure levels far in excess of these standards at adjoining residential districts.

[16] *Ibid*., pp. 23-25.

The absence of a noise generation restriction for PS Districts does not imply that any sound pressure level is acceptable, nor does it imply that any sound pressure which does not cause damage to human hearing is acceptable. In fact, the Coastal Commission recognized that traffic noise, while less than the CHABA limits, was unacceptably high for homes adjacent to Highway 1 in the Half Moon Bay subdivision of Ocean Colony, and approved a coastal development permit for a 10.5 foot sound wall despite the visual impacts (see Exhibit 9). A wall was also built to protect the residents of Canada Cove from the noise of traffic on Miramontes Point Road.

Using the rule of reason, it is difficult to see how a noise eight times [80+18 dB(A)] louder than the maximum permissible noise reaching the sensitive receptors in R, OS, UR or OSR districts from a commercial or industrial district could be considered anything but a significant increase in noise over 40-45 dBA ambient sound levels. The substitution mitigation approved in PDP-086-07(A) does nothing that the original mitigation did to reduce noise impacts; it simply disavows the previously recognized significance of those impacts.

The Planning Commission's original assessment of noise impacts was thoroughly discussed over several meetings and well-reasoned, and it should stand. For reasons discussed earlier, the glossing over of biological impacts of the amended project in the CEQA checklist is a serious omission. For the document to be complete, the scientifically recognized potential for significant adverse impacts to protected species must be recognized.

Conclusion

The appellant does not oppose emergency preparedness. Every comment by appellant on the project has reflected appellant's desire for the City to be able to quickly advise citizens of an emergency, and supports the construction and testing of a well-designed system which does not pose unpermitted and unnecessary impacts on the environment or citizens. The applicant is free to pursue substitute mitigations that are more desirable in that they permit full-power testing, provided the criteria in CEQA Guidelines 15074.1 for substitute mitigations are satisfied. As appellant pointed out in 2008, the current location of the siren unnecessarily limits the portion of the City that will likely hear an effective warning signal above background noise. But PDP-086-07(A) has significant and adverse impacts, and does not conform to the certified LCP/LUP. Appellant respectfully requests that the Coastal Commission take jurisdiction of PDP-086-07(A) to ensure any project amendments will include mitigation measures to ensure that the project continues to comply with the certified LCP/LUP.

Such mitigations could include relocating the siren away from sensitive receptors and using additional and less powerful and/or directional emergency warning siren systems to provide an adequate warning signal along longitudinal features such as Half Moon Bay State Beach. This approach would have the added benefit of improving the efficiency of the warning system (at the current location, nearly half of the warning signal disk [see Exhibit 10] attenuates over the Pacific Ocean) and increase the fraction of the City that would hear and might be trained to recognize and respond to an emergency warning signal.

The location of emergency sirens is a well-studied problem. As Current and O'Kelly pointed out nearly 20 years ago, emergency warning sirens are both desirable and obnoxious facilities, in that

people want to be able to hear a siren but do not want one located next door to them. Location decisions should be based on cost, effectiveness, and location-based impacts, and subject to policy constraints such as budgeting and avoidance of environmentally sensitive areas.[17] Training citizens to respond to emergency warnings would involve periodic soundings. The location and design of Half Moon Bay's emergency warning system should be designed to avoid damaging habitat and taking protected species, and avoid unnecessary huge noise increases over ambient levels for some citizens and inadequate thresholds over background noise for others. Appellant stands ready to assist applicant in developing a substitute mitigation to achieve their objectives.

Appellant thanks the Coastal Commission for consideration of this appeal.

[17] Current, J. and M. O'Kelly, *op. cit.*

Exhibits

Exhibit 1. Project is located in Appeal Zone

Exhibit 2. City of Half Moon Bay Master Fee Schedule (June 01, 2010)

City of Half Moon Bay
Master Fee Schedule
Permits, Other Fees & Services

Description of Services	Fee	Unit / Type
VI. Planning		
PRE-ENTITLEMENT PROCESSING		
1 Pre-Application Meeting	Based on number of departments/agencies attending - hourly rates apply	
2 Measure 'D'		
Single Allocation (per allocation)	$667.00	Flat fee[1]
Phasing Agreement	$2,600.00	Deposit[2]
ENTITLEMENT PROCESSING		
1 Coastal Development Permit		
CDP Exemption	$133.50	Flat fee[1]
2 Single Family Residential		
<= 2,400 square feet	$1,300.00	Deposit[2]
> 2,400 square feet	$2,600.00	Deposit[2]
3 Mulliple Family Residential		
<= Four dwelling units (<= 10,000 square feet)	$2,600.00	Deposit[2]
> Four dwelling units (> 10,000 square feet)	$5,200.00	Deposit[2]
4 Commercial / Mixed Use		
<= 10,000 square feet	$2,600.00	Deposit[2]
> 10,000 square feet	$5,200.00	Deposit[2]
5 Industrial / Institutional		
<= 20,000 square feet	$5,200.00	Deposit[2]
> 20,000 square feet	$6,500.00	Deposit[2]
6 Architectural Review		
Planning Director	$667.00	Flat fee[1]
Architectural Review Committee	$1,300.00	Deposit[2]
ARC and Planning Commission	$2,600.00	Deposit[2]
7 Site and Design Review		
Planning Director	$1,300.00	Deposit[2]
Architectural Review Committee	$2,600.00	Deposit[2]
8 ARC and Planning Commission	$5,200.00	Deposit[2]
9 Use Permit		
Temporary Use	$133.50	Flat fee[1]
Conditional Use	$2,600.00	Deposit[2]
Home Occupation	$133.50	Flat fee[1]
10 Variance	$2,600.00	Deposit[2]
11 Exception		
Building Height	$650.00	Deposit[2]
Development Standard	$650.00	Deposit[2]
Parking	$1,300.00	Deposit[2]
12 Amendments		
Permits and Entitlements	$2,600.00	Deposit[2]
Local Coastal Program (includes LUP/Policies)	$6,500.00	Deposit[2]
IP/Zoning Code/Rezoning	$6,500.00	Deposit[2]
13 Annexation	$2,600.00 plus LAFCo fees	Deposit[2]
14 Appeals	Half the original fee if applicable. All other appeals $550 deposit[2]	
15 Specific Plan/PUD Plan		
Review and Processing	$6,500.00	Deposit[2]
Amendments	$5,200.00	Deposit[2]

[1] Flat fees are adjusted annually by the CPI All Urban Consumers/San Francisco-Oakland-San Jose established at the beginning of every fiscal year
[2] Total cost equal to 100% of staff and/or consultant time and materials, plus 20% overhead cost

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Exhibit 3 Biological reports of protected species in vicinity

3(a) Excerpt from Draft Conceptual Mitigation Report, State Route 92 Slow Vehicle Lanes from Half Moon Bay to Route 35 Skyline Blvd., San Mateo County, California, August 12, 1994, appendix to staff report for approved project CDP-01-96, May 1996.

Species of Special Concern

According to the California Natural Diversity Database (CDFG 1993), the federal and state endangered San Francisco garter snake (SFGS) (*Thamnophis sirtalis tetrataenia*) and the federal candidate 2 saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*) are known to occur downstream near the mouth of Pilarcitos Creek northwest of the sewage treatment plant on State Park property. The SFGS inhabits ponding areas of Pilarcitos Creek and the saltmarsh common yellowthroat inhabits the brackish marshes, willow riparian, and nearby upland coastal scrub.

The mitigation site currently does not have ponding areas or brackish marshes to support SFGS though does have riparian vegetation and the creek flowing through the eastern part of the parcel. The landfill removal and mitigation construction activities would not affect the Pilarcitos Creek channel though may temporarily disturb the

narrow strip of riparian habitat and ruderal upland vegetation existing on the east side of the creek.

The mitigation site, however, will result in enhancing and increasing wildlife habitat and widening the corridor for wildlife species. It will be noted that this mitigation is only restoring Waters and native riparian habitat in replacement of ACOE jurisdictional areas and riparian vegetation impacted from the roadway project in the upper watershed, which presently does not support sensitive species. This mitigation site is not intended to mitigate sensitive species habitat, although may have an indirect beneficial affect by restoring and expanding the wildlife corridor for sensitive species.

3(c) Excerpt from Busnardo, M., *Sewer Authority Mid-Coastside Biotic Constraints Assessment for A.P.N.048-240-040,* H.T. Harvey & Associates, October 2005

SPECIAL-STATUS ANIMAL SPECIES

California Red-legged Frog

The California red-legged frog is federally-listed as threatened, and is listed by the state as a Species of Special Concern. California red-legged frogs occur primarily in and near aquatic habitats. They breed in ponds or still pools within streams (typically more than 2 feet deep), and disperse to forage in a variety of aquatic habitats. California red-legged frogs can regularly occur in upland habitats up to 300 feet from aquatic habitats, and can occasionally disperse through upland habitats up to 1.25 miles or more between aquatic habitats (USFWS 2004).

Red-legged frogs have been found at the Caltrans mitigation wetland adjacent to Pilarcitos Creek, about 100 feet south of the wastewater treatment plant, and at other sites on Pilarcitos Creek (CNDDB 2005). Habitat in Kehoe Ditch is marginal for breeding; the largest pools observed during the September 2005 site visit were less than 1 foot deep. However, these pools could provide breeding habitat during the breeding season, in early spring, and frogs from Pilarcitos Creek could disperse into Kehoe Ditch for foraging at any time of year.

California red-legged frog use of the site would not necessarily be restricted to the Kehoe Ditch and associated riparian habitat. It is possible that California red-legged frogs could disperse throughout the entire site. California red-legged frogs should be considered to be present within Kehoe Ditch, and potentially present in upland habitats on the site. Protocol-level surveys could be conducted in Kehoe Ditch, which may result in a finding that they do not breed there. However, due to the proximity of the breeding population adjacent to Pilarcitos Creek, it would not be possible to rule out presence of dispersing individuals on the site. Impacts to red-legged frog dispersal habitat would likely be considered significant under CEQA, and would require mitigation in consultation with

the USFWS. However, under the City's LCP, no impacts (even those mitigated for and approved by the USFWS) are allowed to habitat for this species, except for management activities to enhance habitat for the species.

San Francisco Garter Snake

The San Francisco garter snake is federally-listed and state-listed as endangered. This species occurs in and near aquatic habitats, almost exclusively in San Mateo County. San Francisco garter snakes prey primarily on amphibians, including California newts (Taricha torosa), and ranid frogs, such as the California red-legged frog. They have never been found at or near sites that do not also support ranid frogs. Exact CNDDB locations of San Francisco garter snakes are suppressed, due to concern about illegal collection of the species. However, there are two CNDDB records for the Half Moon Bay USGS quadrangle, both associated with Pilarcitos Creek. The presence of red-legged frogs at the Caltrans mitigation wetland near the wastewater treatment plant makes it likely that San Francisco garter snakes could occur along this portion of Pilarcitos Creek. If desired, the project location can be provided to the CDFG, and the CDFG will provide information on the proximity of CNDDB sightings.

San Francisco garter snakes can move into upland habitats during summer, to prey on amphibians aestivating in small mammal burrows. They could potentially forage on amphibians in Kehoe Ditch, and disperse and/or aestivate anywhere on the site. San Francisco garter snakes should be considered to be potentially present throughout the project site. Protocol-level surveys could be conducted, which could potentially result in a finding that the species is absent from the site. No official protocol is available in written form, but the USFWS approves qualified biologists to conduct standardized daily trapping surveys for several months during the spring. Impacts to San Francisco garter snake habitat would likely be considered significant under CEQA, and would require mitigation in consultation with the U.S. Fish and Wildlife Service (USFWS). However, as with the California red-legged frog, under the City's LCP, no impacts (even those mitigated for and approved by the USFWS) are allowed to habitat for this species, except for management activities to enhance habitat for the species.

Other Special-status Wildlife

Three wildlife species listed as CSSC by CDFG could potentially occur on the project site. These are species that may be uncommon or declining in California, or for which suitable habitat has been dramatically reduced, but which do not warrant immediate listing under the Federal or California Endangered Species Acts. CSSC species that could occur on the project site are the Saltmarsh Common Yellowthroat (*Geothlypis thrichas sinuosa*), the California Yellow Warbler (*Dendroica petechia brewsteri*), and the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). Saltmarsh Common Yellowthroats nest in salt marshes, in emergent freshwater vegetation, and in riparian habitats. There is a CNDDB record of singing male Common Yellowthroats along Pilarcitos Creek near the wastewater treatment plant in 1988 and 1989, and this species is likely to nest in the dense riparian vegetation along Pilarcitos Creek. Saltmarsh Common Yellowthroats could also potentially nest in riparian habitat on the site. California Yellow

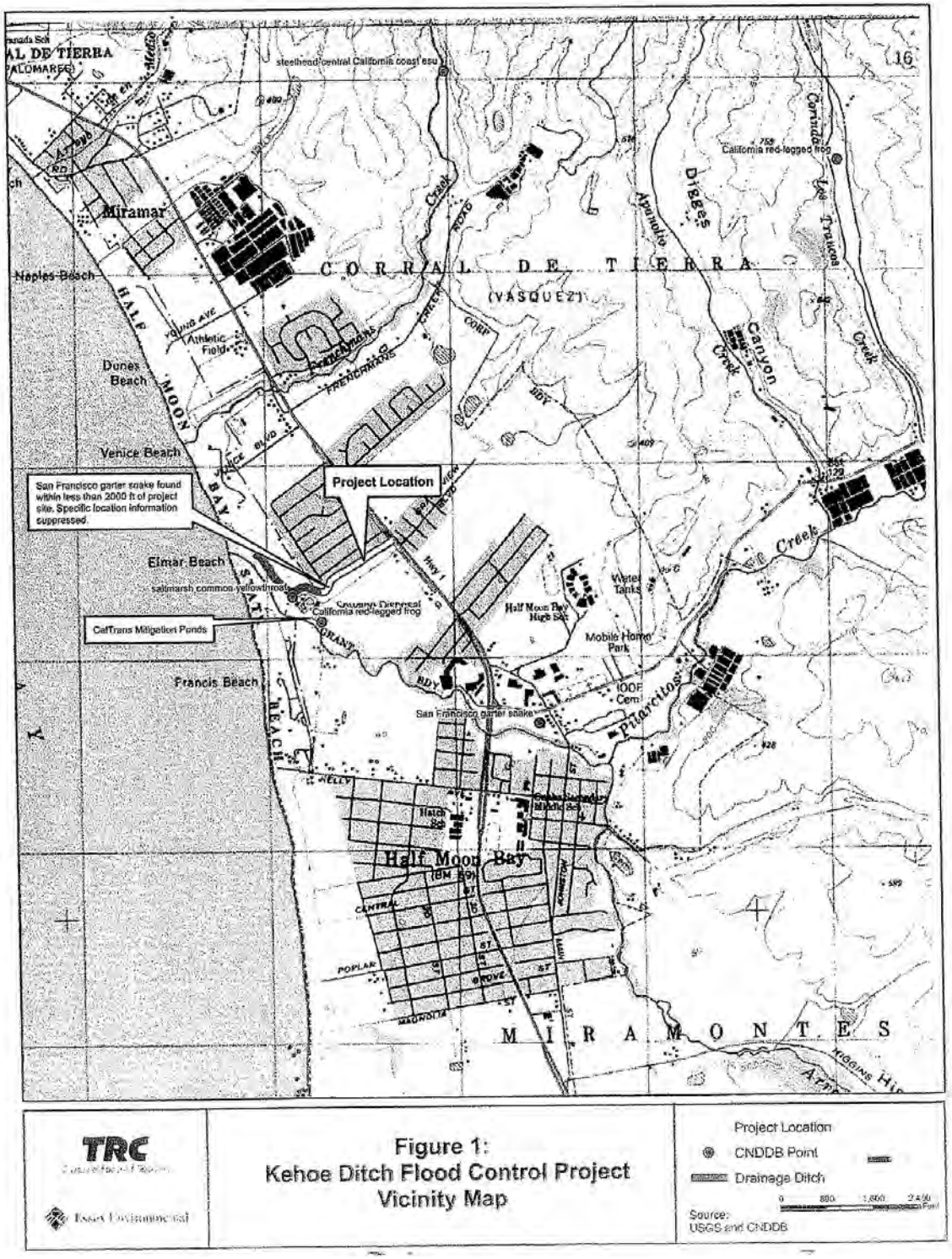
Warblers nest in well-developed riparian habitats. There is a remote possibility that Yellow Warblers could nest in the limited willow riparian habitat on the site. San Francisco dusky-footed woodrats occur in wooded habitats, including riparian woodlands and coastal scrub with large woody shrubs. The dense coastal scrub habitat on the project site could provide suitable habitat for this species. It should be noted that no special-status bird species were observed on the site during the field visit in September 2005, and no woodrat nests, which are large conspicuous piles of sticks, were observed.

In addition, the White-tailed Kite (*Elanus leucurus*) could potentially occur on-site. This raptor species nests in trees and large shrubs and forages over grasslands and other similar habitats. There are no local records of breeding White-tailed Kites, and none were observed during the September 2005 reconnaissance survey, but this species may forage on the site and could potentially nest on-site. This species is listed as "Fully Protected" by the CDFG.

The City of Half Moon Bay LCP also identifies all nesting raptors as "unique" species. There is a remote possibility that other raptor species, such as Red-tailed Hawks, could nest in the larger trees on or immediately adjacent to the project site.

Although impacts to all Saltmarsh Common Yellowthroats, Yellow Warblers, San Francisco dusky-footed woodrats, and White-tailed Kites may not be considered significant under CEQA, their presence on the site would qualify the habitat in which they occur as an EHSA under the City's LCP. Thus, under the LCP, even presence of Red-tailed Hawks (a raptor, and thus a "unique species") nesting on the site would limit development of that nesting habitat, regardless of any mitigation or minimization measures.

3(c) Excerpt from "Habitat Assessment for the City of Half Moon Bay Kehoe Ditch Flood Control project," Essex Environmental, August 2005.



A-2-HMB-10-028
Exhibit 3
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Table 2: Sensitive Animal Species With Potential to Occur in the Project Area

Species	Listing Status	Habitat Association	Potential in Project Area
Steelhead-central California coast ESU *(Oncorhynchus mykiss)*	FT CSC CH	Requires cool, deep pools for holding through the summer, prior to spawning in the winter. Generally found in shallow areas, with cobble or boulder bottoms at the tails of pools.	Unlikely to occur within Kehoe Ditch. No historical records of steelhead occurring in Kehoe Ditch or Pilarcitos Creek. Lacks cool, deep pools and other favorable habitat characteristics. The California Natural Diversity Data Base (CNDDB) search listed no occurrence within 5 miles of the project area.
California red-legged frog *(Rana aurora draytonii)*	FT CSC CH	Inhabits areas of dense shrubby or emergent riparian vegetation; permanent or semi-permanent still or slow moving water with some available areas greater than 2-feet-deep.	Likely to occur in the project area. CNDDB search listed numerous occurrences within 5 miles of the project, with the closest occurrences within 0.5 mile. Project area provides suitable habitat.
San Francisco garter snake *(Thamnophis sirtalis tetrataenia)*	FE SE	Occurs in the vicinity of freshwater marshes, ponds, and slow moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least 1 foot.	Likely to occur in the project area. Kehoe Ditch is within the historical range of the species and exhibits favorable habitat characteristics, such as dense vegetative cover and year-around flow. The CNDDB search listed no occurrences within 5 miles of the project however, known occurrences have been documented within 0.5-mile of the project area.
Saltmarsh common yellowthroat *(Geothlypis trichas sinusa)*	CSC	Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	Has potential to occur or nest in the thick riparian habitat in the project area. The CNDDB search listed no occurrences within 5 miles of the project area. However, it has been documented at the mouth of Pilarcitos Creek, approximately 1 mile from the project site.
Yellow warbler *(Dendroica petechia)*	CSC	Nests in trees in deciduous riparian woodlands. Common in Half Moon Bay during fall migration.	Has potential to occur and nest in riparian habitat in the project area. The CNDDB search listed no occurrences within 5 miles of the project area.
White-tailed kite *(Elanus caeruleus)*	CFP	Nests in trees in riparian woodland, savanna, marsh areas, open grassland, and agricultural areas.	Has potential to occur and nest in trees near the project area and may use coastal prairie as hunting ground. The CNDDB search listed no occurrences within 5 miles of the project area.

Species	Listing Status	Habitat Association	Potential in Project Area
Sharp-shinned hawk (*Accipiter striatus*)	CSC	Inhabits and nests in trees in mixed woodlands.	Has potential to occur and nest in trees near the project area. A regularly occurring species in winter. The CNDDB search listed no occurrences within 5 miles of the project area. Breeding documented just north of Half Moon Bay in 1993.
Cooper's hawk (*Accipiter cooperii*)	CSC	Nests mainly in deciduous riparian forests; forages in open woodlands.	Has potential to occur in trees near the project area. Unlikely to nest near the project area due to the lack of riparian forest. Regularly occurring species in Half Moon Bay in the winter. The CNDDB search listed no occurrences within 5 miles of the project area.
Northern harrier (*Circus cyaneus*)	CSC	Nests on the ground and shrubs in ungrazed grassland, savanna, wet meadow, and marsh areas with good foraging.	Has potential to occur and nest in grasslands south of Kehoe Ditch. The CNDDB search listed no occurrences within 5 miles of the project area.
Short-eared owl (*Asio flammeus*)	CSC	Inhabits brush and trees associated with marshland. Nests on the ground in prairie, meadow, savanna, and marsh areas.	Has potential to occur but is unlikely to nest near the project area due to the lack of marshland habitat. The CNDDB search listed no occurrences within 5 miles of the project area.

Source: CNDDB, 2005

U.S. FISH AND WILDLIFE SERVICE
FT Federally listed, threatened
FE Federally listed, endangered
CH Critical habitat
CALIFORNIA DEPARTMENT OF FISH AND GAME
SE State listed, endangered
CSC California species of special concern
CFP California fully protected

California Red-legged Frog

The California red-legged frog (CRLF) is a federally threatened species and a California species of special concern. The project area is within the San Mateo-Northern Santa Cruz critical habitat unit for this species. The CNDDB documents several occurrences of CRLF within 2 miles of the project area. This frog prefers dense, shrubby, or emergent riparian vegetation that grows near deep, still, or slow-moving water. However, they may also be found in ephemeral creeks, drainages, culverts, and ponds without riparian vegetation. Existing animal burrows, rocks, and organic and industrial debris may be used as retreat sites. During the dry season, frogs may disperse up- and downstream of creeks and drainages and, during the wet season they may randomly disperse overland to get to new breeding sites. Downstream of Highway 1, Kehoe Ditch has some meanders in the channel that provide slow backwater pools of suitable foraging depth along with emergent and streamside vegetation. A wetland mitigation area constructed for the California Department of Transportation is located approximately 0.5-mile south of the

project area. These ponds support a healthy breeding population of CRLF (McGinnis, 2005). Based on the suitable habitat available along the ditch and near the project site, there is a high potential for CRLF to occur within the project area.

San Francisco Garter Snake

The San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) is a federally and state endangered species. The project area is within the historical range of the snake and the CNDDB documents two occurrences of San Francisco garter snake within 3 miles of the project area. Ideal habitat for this species is ponds with densely vegetated edge and near an open hillside where the snake can feed on frogs and retreat into existing rodent burrows. The dense vegetation in and around the project site and the year round flow within the ditch may provide suitable habitat for this snake. The snake feeds exclusively on Pacific tree frogs (*Hyla regilla*) and the CRLF. The ditch provides suitable habitat for tree frogs, which may also breed in the ditch. In 1988, the U.S. Fish and Wildlife Service (USFWS) directed Dr. Samuel M. McGinnis to conduct a three-month trapping protocol survey for the San Francisco garter snake along the upper bank at the mouth of Pilarcitos Creek. During this time period, two San Francisco garter snakes were trapped and released. Due to known occurrences within a 2000-foot-radius of the project site and documentation of movement in excess of 2000 feet of this species (McGinnis, 2005), presence of the San Francisco garter snake should be assumed.

Central California Coast Steelhead

The Central California Coast steelhead (*Oncorhynchus mykiss*) is a federally threatened and California species of special concern. The project area is within the San Mateo hydrologic unit of proposed critical habitat for this species. This fish requires cool, deep pools for holding through the summer prior to spawning in the winter. It is generally found in shallow areas, with cobble or boulder bottoms at the tails of pools. Kehoe Ditch provides marginal habitat for steelhead in that it provides year-round flow and is a tributary of Pilarcitos Creek, which terminates into the Pacific Ocean, thus providing the opportunity for steelhead migration. However, due to the low quality of steelhead habitat found within the ditch and the lack of known historical occurrences in Kehoe Ditch and Pilarcitos Creek, it is unlikely that steelhead will occur in the project area.

Saltmarsh Common Yellowthroat

The saltmarsh common yellowthroat (*Geothlypis trichas sinusa*) is a federal species of concern and California species of special concern. The CNDDB documents one occurrence of saltmarsh common yellowthroat within 1 mile of the project site (CNDDB, 2005). This songbird requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, and willows for nesting. Potential nesting habitat for the yellowthroat is available in the dense willows along Kehoe Ditch.

Yellow Warbler

The yellow warbler (*Dendroica petechia*) is a California species of special concern. A summer resident in the north and winter migrant to the south, its habitat includes riparian deciduous woodlands and montane shrubs in open conifer forests. Elevation ranges include coastal and

desert lowlands up to 8,000 feet. This songbird is a common species in Half Moon Bay during fall migration (City of Half Moon Bay, 2004). Migrants arrive in California in April and move to winter ranges by October. Breeding occurs between mid-April and August. A cup nest is built 2 to 16 feet off the ground in a young tree or shrub (Green, 1990). Parasitism by brown-headed cowbirds (*Molothrus ater*) has been a major cause of population decline in lowland locations. Loss of riparian habitat has also played a role in the depletion of this species (Green, 1990). Potential nesting habitat occurs in the riparian habitat in the project area.

White-tailed Kite

The white-tailed kite (*Elanus caeruleus*) is a California fully protected species. White-tailed kite are commonly observed in the Half Moon Bay area (City of Half Moon Bay, 2004). This raptor builds its nest in trees and breeds in riparian woodland, savanna, marshes, open grassland, and agricultural areas. The white-tailed kite is a feeding generalist and mainly feeds on the California vole (*Microtus californicus*), which is thought to occur in the coastal prairie south of the project area. Potential nesting habitat is located in numerous trees near the project.

Sharp-shinned Hawk

The sharp-shinned hawk (*Accipiter striatus*) is a California species of special concern. Sharp-shinned hawks are known to occur in the Half Moon Bay area (City of Half Moon Bay, 2004). This hawk prefers open, scattered woodlands and scrub habitats and is excellent at catching avian prey. It nests in mixed woodlands. Suitable nesting habitat occurs in numerous trees near the project area.

Cooper's Hawk

The Cooper's hawk (*Accipiter cooperii*) is a California species of special concern. This raptor has been observed in the Half Moon Bay area along riparian habitat of creeks (City of Half Moon Bay, 2004). Like the sharp-shinned hawk, the Cooper's hawk preys on birds. It will forage in riparian and open woodlands, and nests mainly in deciduous riparian forests. This species has the potential to occur in the project area, but it is not likely to nest in the area due to the lack of riparian forest.

Northern Harrier

The Northern harrier (*Circus cyaneus*) is a California species of special concern. This hawk is frequently observed in the Half Moon Bay area (City of Half Moon Bay, 2004) where it prefers open grasslands, farmlands, and mashes. It usually flies low over the land contours, gliding over brush or rises to surprise its prey, which consists mainly of rodents but also of amphibians, reptiles, insects, birds, and carrion. This raptor nests on the ground typically in ungrazed grassland. Suitable nesting habitat occurs in the open grasslands near the project area.

Short-eared Owl

The short-eared owl (*Asio flammeus*) is a California species of special concern. This owl has been observed in the Half Moon Bay area (City of Half Moon Bay, 2004) where coastal prairies

and interspersed wetlands exist. This owl inhabits brush and tree areas associated with marshland and feeds on voles and frogs among other prey. It is unlikely to nest near the project area due to the lack of marshland habitat.

4.0 DISCUSSION AND RECOMMENDATIONS

There is potential for sensitive plant and wildlife species to occur in the project area. It is likely that both CRLF and San Francisco garter snake occur in the project area. The City should contact the USFWS and the California Department of Fish and Game (CDFG) to discuss potential effects of project activities on these species. Activity in Kehoe Ditch may fall within the jurisdiction of the U.S. Army Corps of Engineers (Corps) and CDFG. The City should also contact the Corps for work that occurs below the ordinary high water mark in the ditch. A delineation to determine the relevant jurisdictional boundaries should also be undertaken. The delineation should also include the jurisdictional boundaries of wetlands as defined by the California Coastal Commission, which would likely include the extent of the riparian boundary.

Exhibit 4. Cooper's Hawk immediately NE of SAM Plant

Exhibit 5. PDP-086-07(A) Sound Pressure Levels in Vicinity of Siren

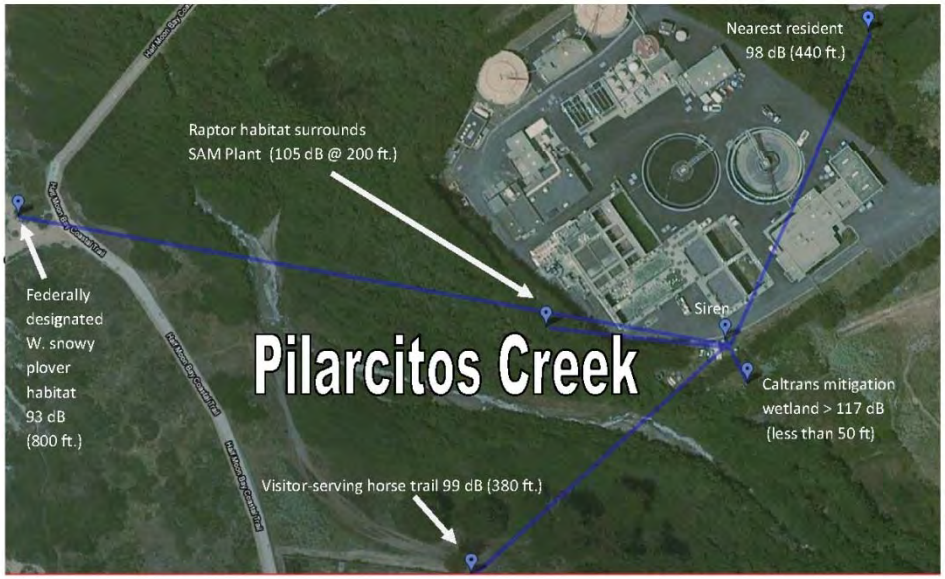

Exhibit 6. Summary of Impacts from SAM Plant Expansion FEIR

Excerpt from *Sewer Authority Mid-Coastside Wastewater Treatment Plant Expansion Final Environmental Impact Report*, SCH#87122901, SAM, January 1989, pages S-10 to S-15

ENVIRONMENTAL IMPACTS

The physical impacts of treatment plant expansion on water quality and marine environment, noise, odor, energy consumption, visual quality, traffic, public safety and land use have been analyzed. While changes would occur in the amount of effluent and the visual appearance, and there would be increases in noise and energy use, none of the physical effects of the plant expansion are significant and adverse.

a. **Water Quality and the Marine Environment**

Initial dilution calculations were made for the ocean outfall using EPA models (UMERG) along with ambient oceanographic data collected previously to design the present plant. Calculations were made for both present and expanded capacity flows. Using the resulting initial dilution values, predicted ambient concentrations of wastewater constituents were calculated and compared to Ocean Plan water quality standards. For all cases of flow and in all seasons, the increased effluent from a 4.0 MGD plant can be discharged through the existing outfall and still meet Ocean Plan water quality objectives designed to protect the marine environment.

b. **Noise**

Noise would increase due to the need for additional horsepower to operate the expanded plant. Noise sources would be enclosed, and measurements in surrounding areas indicate that ambient noise would mask plant noise most of the time. Special noise sources, such as the outdoor public address system and telephone, have already been modified in response to a request of the plant's nearest residential neighbor.

c. **Odor**

Due to plant design, odor would not be significant under normal daily operating conditions. Under upset conditions odor may be perceived in neighboring areas depending on wind direction, which is primarily from the northwest. The nearest residences are located 320 feet northeast of the plant. In order to remain in compliance with the NPDES permit and Waste Discharge Requirements, the SAM plant is constantly monitored and potential problems are remedied as soon as possible. This significantly reduces the likelihood of upset and odor problems and minimizes the length of time of such problems when they occur.

d. **Air Quality**

Plant operations may potentially release large quantities of organic gasses from the treatment process. New equipment will be designed to extract methane containing gas and use the gas to fuel an electric generator. With appropriate emissions controls, there would be a small increase in carbon monoxide and nitrogen oxides emissions and potentially a net decrease in total organic emissions.

e. **Energy**

Proposed modifications would reduce the energy consumption of treatment equipment. The expanded plant could operate at more than double the present flow yet electricity use would only increase by about 15% (an increase of 9[illegible] kilowatt-hours per average day).

f. Visual Impact

New treatment equipment would be eleven feet greater in overall ..ding height than present equipment. The change would be barely ..ceptible from the beach, 1000 feet west, and from Highway One, 1800 feet ..

..raffic

Traffic impacts of the physical expansion are associated with ..nstruction. During the two year construction period truck traffic would ..ccessing the plant via H..ghway One and Frontage Road (Figure S-2). ..ile the amount of truck traffic is not significant, restrictions in truck ..affic hours to avoid peak highway traffic and use of the southern access ..1 Frontage Road are recommended to mitigate potential traffic safety ..mpacts.

..Public Safety

The greatest risk to public safety stems from the chlorine storage ..nsite. The plant currently stores four 1-ton tanks of chlorine liquified ..y pressure. No additional storage would be required for the expansion. The tanks are stored inside a building, and small indoor leaks can be contained. However, a large leak or a tank leak outdoors during delivery ..ould result in injury or death to the exposed population downwind from the ..lant. SAM staff is now examining the feasibility of more extensive control ..quipment for the present chlorine use and alternatives to use of chlorine ..tself.

i. Land Use Compatibility

The treatment plant is an industrial facility with a potential for ..oise, odor, or public safety impacts not compatible with immediate residential or other sensitive land uses. At present the plant is buffered ..rom the more sensitive land uses in the City by varying amounts of open ..and. The 3.6 acre plant site and an adjoining 6 acres are zoned for Public Facilities. The closest residential area is 320 feet to the northeast. Open lands east and south are held as Urban Reserve lands in the City of Half Moon Bay's Land Use Plan, and are not now planned for residential development. The State Beach occupies the 1000 foot coastal strip to the west.

j. Growth Inducement

In the LCP's for the City of Half Moon Bay and San Mateo County Mid-..oastside area, three types of population-serving infrastructure have been ..ecognized as limits to growth: water supply, wastewater disposal capacity, ..d the highway system. Water supply and wastewater disposal capacity ... legal limits to growth, while road capacity imposes a less stringent ...raint that is mediated in economic terms as part of the changing ..ousing market within the greater San Francisco Bay Region.

Water supply is now limiting further growth; there is wastewater treatment capacity to support an additional several hundred non-priority ..wellings, but water service to those new dwellings is unavailable. The

water supply restriction could be lifted if either the first phase of the Crystal Springs Pipeline were constructed or if the number of well permits were to increase.

Road capacity constrains growth on the Mid-Coastside because the two principal roads connecting this area with the San Francisco Bay-side, Highways 1 and 92, are both winding two-lane roads with limited capacities. low speeds, and traffic safety problems. Expansion of the road system would be costly both fiscally and environmentally due to the steep, mountainous terrain. Evaluation of the tradeoff between the commute problems and owning a coastside home is subtle and does not result in a strict numerical limitation to growth.

The proposed plant expansion is sized to accommodate all of the residential, non-residential, and priority land uses in the City and County LCP's. The LCP's operate to minimize the adverse impact of growth by limiting the amount of growth, by determining its type and location and by coordinating provision of public services. In this sense the adopted LCP's are mitigation measures for the indirect impact of the SAM plant expansion.

7. MITIGATION MEASURES

None of the direct, physical impacts of the project would be significant and adverse if controlled by the following mitigating measures.

a. Noise

Impact: Increased noise due to additional equipment needed for expansion
Mitigation: Enclose all noise sources greater than 50 dBA at 50 feet to lessen overall increase in noise levels due to the expansion
Effect/Effectiveness: Effective in isolating noise source
Feasibility: Planned
Responsibility: SAM

b. Visual

Impact: Visual change due to increase in number and height of structures
Mitigation 1: Continue to use a neutral color for buildings
Effect/Effectiveness: Effective in reducing plant's visual contrast with surroundings.
Feasibility: Feasible
Responsibility: SAM

Mitigation 2: Increase the amount of screening vegetation by planting trees on the east side of the plant
Effect/Effectiveness: Effective in disguising plant
Feasibility: Feasible
Responsibility: SAM

Impact: Glare caused by nighttime lighting
Mitigation 1: Direct exterior lighting away from nearby residents
Effect/Effectiveness: Reduces impacts of directional lighting on sensitive receptors

Feasibility: Feasible
Responsibility: SAM

Mitigation 2: Increase the amount of screening vegetation as mentioned under visual effects, above.
Effect/Effectiveness: Will absorb plant lighting and block lighting from nearby residences
Feasibility: Feasible
Responsibility: SAM

Traffic

Impact: Residential disturbance caused by construction traffic
Mitigation: All construction truck traffic should use the south approach on Frontage Road.
Effect/Effectiveness: Avoids residential area
Feasibility: Feasible
Responsibility: SAM and Building Contractor

Impact: Increased risk to traffic safety at intersection of Frontage Road and Highway One
Mitigation: Construction traffic should be scheduled to avoid peak traffic hours in early morning, at noon and in the evening.
Effect/Effectiveness: Will reduce number of vehicles using the intersection during heavy traffic flow on Highway One and the likelihood of a traffic accident.
Feasibility: Feasible
Responsibility: SAM and Building Contractor

Public Safety

Impact: Risk of adverse effects caused by leak of liquid chlorine which evaporates to gas
Mitigation 1: Include method of handling outdoor spills caused by accidents during tank delivery in Hazardous Materials Management Plan. Such a method may include foam or chemical treatment to neutralize the chlorine
Effect/Effectiveness: Effectiveness in part depends on the quality of the plan; chemical treatments are effective in preventing serious adverse impacts; the fact that people would be present at the time of the spill means that the problem can be remedied quickly as long as the people are trained in how to handle the situation.
Feasibility: Feasible
Responsibility: SAM

Mitigation 2: Add an air scrubber to the vent on the chlorine storage building to neutralize chlorine gas resulting from indoor spills
Effect/Effectiveness: Will allow venting of spilled chlorine without adverse effects.
Feasibility: Feasible; equipment has high capital costs.
Responsibility: SAM

Mitigation 3: Use another chemical as a disinfectant.
Effect/Effectiveness: Substitutes are less hazardous, either because they are generated on site (no storage) or because they are

liquids and are easier to contain.
Feasibility:
Feasible; generally higher operating costs.
Responsibility: SAM

Exhibit 7 – Biological Resources Excerpt from IS/MND for PDP-086-07

Gallegos, S. K., *Emergency Warning Siren System Project,100 North Cabrillo Highway, Final Initial Study / Mitigated Negative Declaration*, SC #2008052058, City of Half Moon Bay, August 2008, p9-10.

IV. BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would/could the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b) Impact aquatic, wetland, or riparian habitat?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	

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1000 North Cabrillo Highway, Emergency Warning Siren
Initial Study & Mitigated Negative Declaration

BIOLOGICAL RESOURCES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

BIOLOGICAL RESOURCES: Answers to questions:

The project is located adjacent to Pilarcitos Creek, which has been identified as a perennial stream that includes riparian habitat. Section 18.38.030 of the Municipal Code requires biological, archaeological and geological reports for projects in proximity to coastal resource areas. Subsection B provides that the Planning Director may grant exceptions to the requirements of Chapter 18.38 when it is found that existing studies adequately fulfill the requirements of this chapter, providing such studies were prepared by a qualified professional as part of a previously certified EIR. In 1989, Environmental Impact Report (SCH# 1987122901) was completed and certified for the expansion of the wastewater treatment plant capacity. The EIR indicated the plant expansion was contained within a developed site and it would not have an effect on terrestrial species. Furthermore, the evaluation of the impacts to environmentally sensitive areas indicated that expansion would not disturb Pilarcitos Creek or its riparian corridor. Since the emergency warning siren system is located on the existing developed site, the impacts to biological resources will be less than significant.

Section 18.38.030 of the Half Moon Bay Municipal Code requires the completion of 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. The Planning Director exception was based upon finding that the existing EIR for the site adequately fulfills the requirements of Chapter 18.38 of the Half Moon Bay Municipal Code. The Certified Final EIR was completed by a qualified professional in accordance with Chapter 18.38 of the Half Moon Bay Municipal Code, which concluded there was not a direct impact to Coastal Resources. The installation of the utility pole, the emergency, and the cabinets will be contained within the currently developed site and will have a less than significant impact on terrestrial species and biological resources.

Source: Local Coastal Program (LCP), 1993; Sewer Authority Mid-Coastside Wastewater Treatment Plan - Final Environmental Impact Report, January 16, 1989; and Project Plans, 2007.

Exhibit 8. Noise Excerpt from IS/MND for PDP-086-07

Gallegos, S.K., op. cit. pages 23-25.

XI. NOISE	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
Would/could the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

NOISE: Answers to questions:

a and d)

An emergency warning siren system will be located at the top of a 37-foot tall utility pole. As discussed previously, the emergency warning siren system is part of a San Mateo

County notification system, which will notify residents, governmental agencies and critical facilities of impending emergencies. This would allow citizens to respond to warnings, and to evacuate or prepare for potential hazards like a Tsunami. In addition, it would allow public and private agencies to mitigate hazards and to preserve facilities that are critical to the operation of the community and economic sector. This requires that the sirens be heard throughout each of the surrounding communities. In order to be effective, the equipment must be maintained and the sirens tested for optimal audible warnings once a month.

The emergency warning siren system will create sound that will be a single steady tone with the volume rising gradually at the beginning and falling gradually at the end. The system will have an approximate one-mile radius from the subject site. According to page eight of FEMA CPG 1-17 (attachment 4), the Committee on Hearing, Bioacoustics, and Biomechanics (CHABA) of the National Academy of Sciences determined that "an audible warning device should be located and operated so that no person is likely to be subject to a sound level great enough to cause hearing damage." The CHABA has established that 123 dB is the maximum tolerable sound level before hearing damage occurs.

> At a height of 37-feet above grade, the sirens will emit a sound pressure level of 131 decibels at full power at a distance of 3-feet from the siren. Since the noise levels will attenuate in magnitude (in loudness and dB) at greater distances from its source. At the base of the siren the SPL rating at full power is 110 dB, and at a distance of 400' is will be 93 dB (approximate distance to nearest residential housing of Casa Del Mar development). The once-monthly siren testing will utilize a lower-power monthly output, which decreases the maximum SPL db by approximately 12 dB. As a result, at the base of the siren the SPL rating will be reduced to 98 dB and at a distance of 400' is 81 dB (approximate distance to nearest residential housing of Casa Del Mar development). The technical specifications of the sirens are provided as attachment 5, and technical analysis was completed by Hormann America that indicates that the SPL levels generated by the project will be within the target established by CHABA.

The activities of the proposed project will not generate levels of sound that exceed the amount allowed by the Noise Element of the General Plan. The project is likely to produce minimal levels of noise during construction. As long as the project is built during allowable hours of construction there shall be no substantial impacts to nearby residents. The project is not expected to be impacted by any nearby airports. The proposed project would be a Public Safety Facility, which is neither a residential nor a commercial use; therefore, it would not require a noise evaluation by a qualified acoustical engineer. Therefore, the proposed project would be consistent with the City of Half Moon Bay Local Coastal Program/Land Use Plan. (LCP/LUP.)

Due to the increase in ambient noise levels in the project vicinity above levels existing without the project, the following mitigation measure is proposed. As a result, the project sound outputs will be subject to mitigation measure 11-1, which reduces the impact to a less than significant level.

> **Mitigation Measure 1-1:** A low power audible testing of all sirens of no more than 98 decibels at one meter from the source shall occur no more than one time each month and shall occur midday and midweek and not exceed the duration of fifteen seconds.

The project is likely to produce minimal noise levels during construction. Section 14.40 of the Half Moon Bay Municipal Code establishes the allowable hours for construction. As long as the project is constructed during this period, there should not be a substantial impact to nearby residents.
b) The project proposal utilizes an electronic horn system, and not an electric motor horn system. Therefore, the electronic horn system does not transmit vibration to the ground.

e) The proposed project is not located within an airport land use plan. Furthermore, the project will periodically increase the level of noise in the project vicinity, but mitigation measure 11-1 is proposed to diminish the impact of the monthly testing

f) As indicated in the response to Section XI(a), the project is likely to produce increased levels of noise during construction. As long as the project is built during allowable hours of construction, there shall be no substantial impacts to nearby residents. The project is not expected to be impacted by any nearby airports.

Source: Local Coastal Program (LCP), 1993; Proposed Project Plans; Half Moon Bay Municipal Code, Hormann America, Technical Specifications of HA-400 Speaker with output measures, March 4, 2008, 4. Federal Emergency Management Agency, Outdoor Warning Systems Guide: CPG 1-17, March 1980, and Project Plans

Exhibit 9. Coastal Commission Approval of Sound Wall as Noise Mitigation

Buyers win judgment in sound wall flap

By ERIC RICE
Half Moon Bay Review

A couple who bought a home in Ocean Colony only to find it uninhabitable because of the loud rumble of trucks rolling by on adjacent Highway 1 was awarded $60,000 in damages against the home's builder last week.

basHomes Inc. and basHomes of Ocean Colony was ordered to pay Paul and Sandra Gossman $60,000 in damages because a sound wall was never built. The award was granted by a jury Sept. 23 after a two-day trial in San Mateo County Superior Court. The award may be appealed, Paul Gossman said.

Meanwhile, a planned auction of some basHomes has the Ocean Colony homeowner's association up in arms. Association board members are concerned that homes in Ocean Colony are being "devalued" by the auction's minimum $270,000 bid price.

"I was satisfied with the outcome of the jury," said Paul Gossman. "It's a shame it took so long for the wall to go up. basHomes does build a quality home."

In May 1990 the Gossmans negotiated with basHomes to purchase a single-family home on Eagle Traee Drive in Ocean Colony. The home's back yard borders Highway 1.

Before escrow was to close, however, basHomes was supposed to build a sound wall to reduce noise from passing vehicles. In September, the Half Moon Bay Planning Department sent basHomes a letter telling the builder it lacked proper permits to build the wall.

All the company could build with the permits it had obtained was a decorative fence, the Gossmans' lawsuit claimed. A substantial sound wall could not be built without approval from the California Coastal Commission.

The Gossmans closed escrow Oct. 2, 1990, without being told of the new delay, said Harold A. Justman, attorney for the Gossmans. Justman said the Gossmans were then told by basHomes representatives that the Coastal Commission approval would push back construction of the wall by seven weeks.

"It's been over two years and it's still not up," Justman complained.

Ironically, construction on the 10-foot-high, beige-colored, concrete "security and privacy" wall was finally begun this month. It is expected to be completed within about a week, said George Shoaf, president of the Ocean Colony Association, which represents homeowners in the private subdivision.

"It's been a big problem out there," Shoaf said.

Mike Ferrera, former president of the association, praised Gossman for his efforts, saying, "There probably wouldn't be a wall if it weren't for Paul."

Paul Gossman said he and his wife have not yet decided whether they will move into the home they purchased for $491,000.

"We're leaving our options open at this point until we see the wall," he said.

In a related matter, the Civichank of Commerce is scheduling a public auction Oct. 25 of the 13 basHomes it holds the deeds to.

On Oct. 15, 1991, bas of Ocean Colony deeded back 13 lots to Civicbank, its lender. The minimum selling price for the homes at the auction is $270,000. The four- and five-bedroom homes were previously offered for sale from between $505,000 and $599,000.

A "How-to-buy seminar" prior to the auction is slated for Oct. 14 at the Sheraton-Airport Hotel in San Francisco. More information on the auction is available by calling 1-800-522-6664.

Some Ocean Colony homeowners are angry with Civicbank for posting signs across the highway from the entrance to Ocean Colony and along Highway 92 advertising the auction.

"The (OCA) board members are particularly upset," Ferrera complained.

He said that the $270,000 minimum bid will "devalue" other homes up for sale in Ocean Colony and throughout Half Moon Bay and hurt home sales in the works. He is demanding that the signs, which he claims are illegally within the Highway 1 right of way, be removed.

"They're devaluing it incredibly," Ferrera said. "It will kill any sales for the time they (the signs) are up."

Ferrera threatened to bar people wanting to view the homes prior to the sale from Ocean Colony. He said entry into Ocean Colony by the general public can be barred since it is a private, gated subdivision.

Paolo Vescia / Review

A welder works on a sound wall along Highway 1 at Ocean Colony. Construction of the wall had been delayed.

HALF MOON BAY
REVIEW
AND PESCADERO PEBBLE

WEATHER & TIDES

Date	Hi	Low	Prec.
Sep 22	67	57	0
Sep 23	64	56	0
Sep 24	67	59	0
Sep 25	70	50	0
Sep 26	84	55	0
Sep 27	64	47	0
Sep 28	63	48	0

	High	Low
Sept. 30	3:38am/4.8' 2:39pm/6.1'	8:20am/2.6' 9:21pm/0.0'
Oct. 1	4:47am/4.6' 3:30pm/5.9'	9:19am/3.1' 10:20pm/0.3'
Oct. 2	6:03am/4.5' 4:23pm/5.5'	10:31am/3.3' 11:29pm/0.6'
Oct. 3	7:16am/4.6' 5:30pm/5.3'	11:54am/3.4'

Ocean Colony home builder sued

By STEVE TRACY
Half Moon Bay Review

Ocean Colony homeowners have filed a lawsuit against a homebuilder, claiming that the developer defrauded them by saying that a sound wall would shield their home from noise on Highway 1.

Paul and Sandra Gossman have filed a complaint against basHomes Inc. and bas of Ocean Colony, a division of basHomes. The complaint charges the developers with "fraudulent inducement, breach of contract and conspiracy to commit fraud."

The Gossmans bought a single-family home on Eagle Trace Drive in Ocean Colony in October 1990. Their backyard borders Highway 1. They claim that basHomes of Ocean Colony misrepresented the facts by saying the city of Half Moon Bay had authorized construction of a sound wall and that the sound wall would be constructed within two months.

However, the complaint states, basHomes did not possess proper permits to build a sound wall, and the property was worthless without one. All basHomes of Ocean Colony had was a permit to build a decorative fence, the lawsuit says.

According to the Gossmans, the City of Half Moon Bay had notified Ocean Colony in writing that it did not have proper permits to build a sound wall.

The Gossmans said they would never have bought the $491,000 home if they had known all the facts. No sound wall has been built since they owned the home. A four-foot-high earth berm running along the fence line, which basHomes contended was leftover dirt from construction and not a sound wall, has since been removed.

Mike Ferrera, president of the Ocean Colony Homeowners' Association, is working with the owners, builders and Coastal Commission to resolve the situation. The Homeowners' Association has threatened litigation in the past in an attempt to get the builders to begin construction of an approved sound wall.

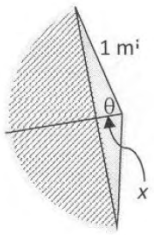
"The decibel level in those backyards is brutal," Ferrera said. "Those houses should never have been put there. But they're there now. They got past the city Planning Commission and the (California) Coastal Commission without a sound wall. Someone was asleep at the switch.

"We're working with the Gossmans, the builders and the Coastal Commission. We want something that will attenuate the noise but will be decent looking.

Ferrera said that basHomes owns 10 lots, seven of which contain homes and three of which are vacant. Two or three of those homes are occupied. According to the Harold A. Justman, the Gossman's attorney, bas of Ocean Colony deeded back its remaining property, 13 lots, to its lender Civicbank of Commerce, on Oct. 15.

Exhibit 10. Signal Lost over Ocean Due to Siting Decision

ATTACHMENT 1: CALCULATION OF WARNING SIGNAL BROADCAST OVER OCEAN



Area of ~~shaded~~ hatched region = $2\left(\frac{\cos^{-1}x}{2\pi}\pi - \frac{1}{2}x^2\tan(\cos^{-1}x)\right)$ $= \theta$

If $x = 2000$ feet $= \frac{2000}{5280}$ mile, Area of ~~shaded~~ hatched region $\doteq 0.83$ mi^2.

If $x = 1500$ feet $= \frac{1500}{5280}$ mile, Area of ~~shaded~~ hatched region $\doteq 1.01$ mi^2,

http://www.mapquest.com/maps/print.adp?mapdata=p5kqyoo6yZLhDxTlMq1J9qfLW7w... 2/11/2008

Appendices

Appendix I. Excerpts of cited LCP Policies and Maps

Coastal Act Policy 30240.

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

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

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 environmentally 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 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 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.

3-21 Designation of Habitats of Rare and Endangered Species.

(a) In the event the habitat of a rare and endangered species is found to exist within the City, revise the Habitat Areas and Water Resources Overlay to show the location of such habitat. Any habitat so designated shall be subject to Policies 3-22 through 3-31

3-23 Permit Conditions.

(a) Require prior to permit issuance, that a qualified biologist prepare a report which defines the requirements of rare and endangered organisms. At minimum, require the report to discuss: (1) animal food, water, nesting or denning sites and reproduction, predation and migration requirements, (2) plants' life histories and soils, climate, and geographic requirements, (3) a map depicting the locations of plants or animals and/or their habitats, (4) any development must not impact the functional capacity of the habitat, and (5) recommend mitigation if development is permitted within or adjacent to identified habitats.

3-24 Preservation of Critical Habitat.

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

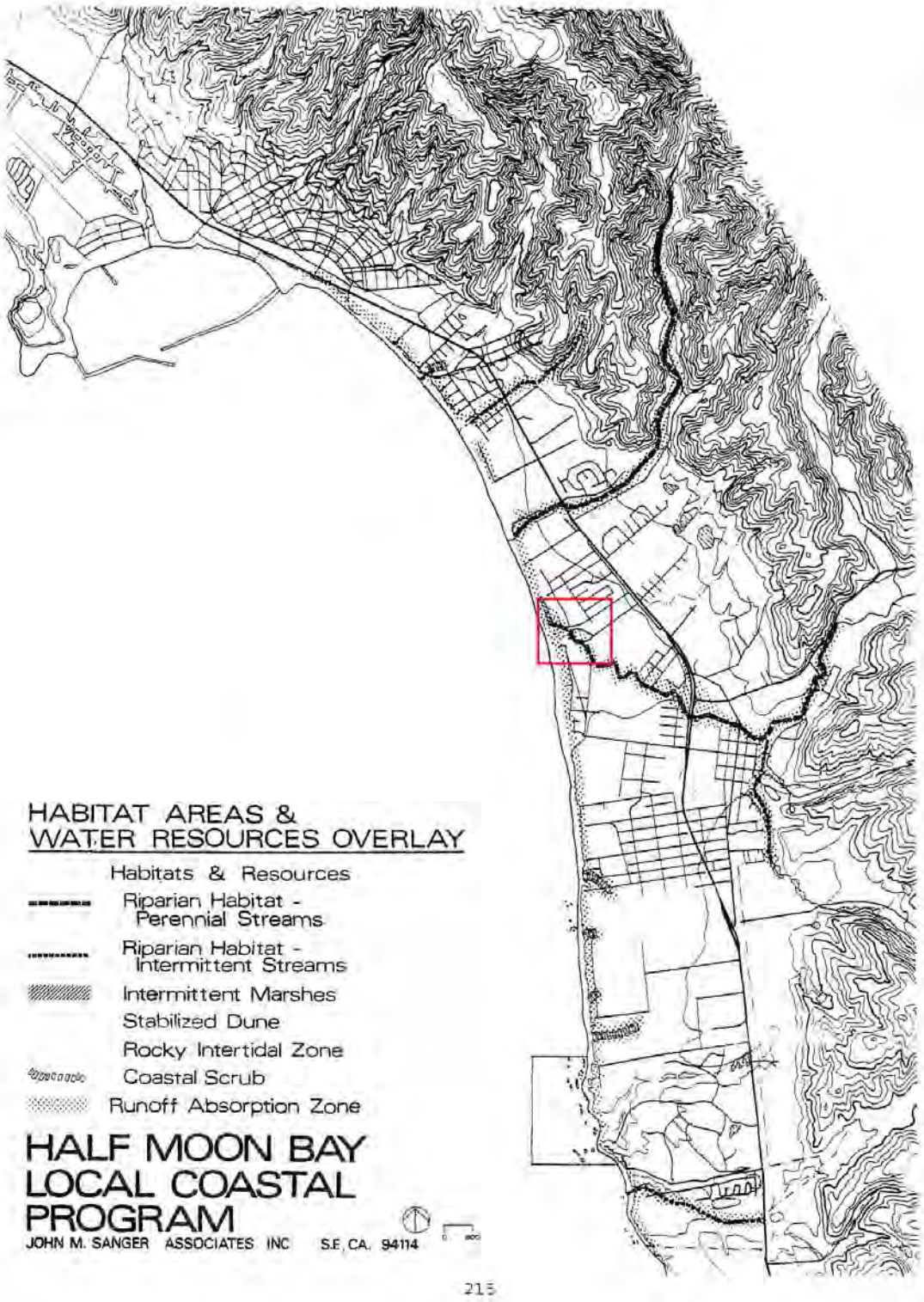
3-32 Designation of Habitats of Unique Species.

(a) In the event the habitat of a unique species is found to exist within the City, revise the Habitat Areas and Water Resources Overlay to show the location of such habitat. Any habitat so designated shall be subject to Policies 3-33 through 3-36.

3-34 Permit Conditions.

(a) Require, as a condition of permit approval, that a qualified biologist prepare a report which defines the requirements of a unique organism. At a minimum, require the report to discuss:
(1) animal food, water, nesting or denning sites and reproduction, predation, and migration requirements, and
(2) plants' life histories and soils, climate, and geographic requirements.

9-3 All new development shall comply with all other policies of the Plan. (New development means any project for which a Coastal Permit is required under Section 30106, 30250, 30252, 30600, and 30608 of the Coastal Act which has not received such permit as of the date of certification of this Plan).


HABITAT AREAS &
WATER RESOURCES OVERLAY
Habitats & Resources
Riparian Habitat - Perennial Streams
Riparian Habitat - Intermittent Streams
Intermittent Marshes
Stabilized Dune
Rocky Intertidal Zone
Coastal Scrub
Runoff Absorption Zone
HALF MOON BAY
LOCAL COASTAL
PROGRAM
JOHN M. SANGER ASSOCIATES INC S.F. CA. 94114
215

Appendix II. Excerpts from LCP/LUP Implementing Ordinances

Title 18, HMB Municipal Code

18.01.020 Compliance Required. No land shall be used and no structure shall be constructed, enlarged, altered, moved, or used in any district as shown on the Zoning District Map except in conformance with the regulations established by this Title.

18.07.030(D). Exterior Noise Limit. Sound levels measured at the property line of the lot where the lot borders an R, OS, UR or OSR district, may not exceed the following levels:

MAXIMUM NOISE LEVEL

Time of Day	More than 30 minutes/hour	More than 5 minutes/hour	At any time
7 a.m. to 10 p.m.	60 dBA	70 dBA	80 dBA
10 p.m. to 7 a.m.	55 dBA	65 dBA	75 dBA

18.10.080(A). At no point, either on the boundary of an R District or a Commercial District or at a point one hundred twenty-five feet from the nearest property line of a plant or operation, whichever distance is greater, shall the sound pressure level of an individual operation or plant (other than the operation of motor vehicles and other transportation facilities) exceed the decibel levels at the designated octave bands shown hereafter for the district indicated.

Octave Band Cycles Per Second	Sound Level Residence *	Sound Level Commercial **
0 to 75	67	73
75 to 150	62	68
150 to 300	58	64
300 to 600	54	60
600 to 1200	49	55
1200 to 2400	45	51
2400 to 4800	41	47
above 4800	35	41

* Maximum permitted sound level in decibels along R District boundaries or one hundred twenty-five feet from plant or operation property line

** Maximum permitted sound level in decibels along C District boundaries or one hundred twenty-five feet from plant or operation property line.

18.20.075(H)(1) Exhaustion of City Appeals.

1. An appellant shall be deemed to have exhausted local appeals and shall be qualified as an aggrieved person where the appellant has pursued his or her appeal to the local appellate body or bodies as required by the City's appeal procedures except that exhaustion of all local appeals shall not be required if any of the following occurs.

d. An appeal fee for the filing or processing of appeals is charged.

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

A. Sensitive Habitat Areas. Areas in which plant or animal life or their habitats are either rare or especially valuable, and/or as indicated on the Habitat Areas and Water Resources Overlay Map. Areas considered to be sensitive habitats are listed below.

Sensitive Habitat	
1.	Sand dunes.
2.	Marine habitats.
3.	Sea cliffs.
4.	Riparian areas.
5.	Wetlands, coastal tidelands and marshes, lakes and ponds and adjacent shore habitats.
6.	Coastal and off-shore areas containing breeding and/or nesting sites or used by migratory and resident water-associated birds for resting and feeding.
7.	Areas used for scientific study and research concerning fish and wildlife, and existing game or wildlife refuges and reserves.
8.	Habitats containing of supporting unique species or any rare and endangered species defined by the State Fish and Game Commission.
9.	Rocky intertidal zones.
10.	Coastal scrub community associated with coastal bluffs and gullies.

B. Riparian Area and Corridor. Any area of land bordering a perennial or intermittent stream or their tributaries, or around a lake or other body of fresh water, including its banks and land at least up to the highest point of an obvious channel or enclosure of a body of water. Riparian Corridors are the areas between the limits or

riparian vegetation, where limits are determined by the vegetative coverage, at least 50% of which is comprised of a combination of the following plant species: red alder, jaumea, pickleweed, big leaf maple, narrow-leave cattail, arroyo willow, broadleaf cattail, horsetail, creek dogwood, black cottonwood, and box elder. These areas and corridors are sensitive habitats requiring protection. Man-made irrigation ponds having over 2,300 square feet of surface area are exempt.

C. Bluff, Cliff, and Sea-Cliff.

D. Wild Strawberry Habitat. Any undeveloped areas within ½ mile of the coast.

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 the 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 one hundred feet of any sensitive habitat area, riparian corridor, bluffs and sea-cliff areas, and any wetland.

B. Report Contents. In addition to meeting the requirements of 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 two hundred 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 plants, 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 U.S. 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 affected 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 forty-five days of receiving the report.

18.38.050 Environmental evaluation standards. Projects proposed within coastal resource areas shall be evaluated in an initial study and any necessary subsequent CEQA documents according to the following general standards (in addition to those set forth in CEQA guidelines):

A. Development and Land Use:

1. Shall be prohibited when significant adverse impacts on coastal resource areas would occur as a result.

2. Shall be sited and designed to prevent impacts that could significantly degrade adjacent sensitive habitat areas or significantly degrade areas adjacent to sensitive habitat areas.

3. Shall be compatible with the maintenance of biologic productivity of any adjacent sensitive habitat areas.

4. Shall be permitted within sensitive habitat areas only if they are resource-dependent uses or other uses which will not have any significant adverse environmental impacts, and if the uses comply with U.S. Fish and Wildlife Service and state Department of Fish and Game regulations.

5. Shall assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural land forms along bluffs and cliffs, and shall minimize risks to life and property in hazard areas.

6. Shall comply with the restrictions listed in this title for each coastal resource area, and with all other applicable sections of the city's local coastal program land use plan.

B. The Initial Study:

1. Shall evaluate the proposed uses and development within any coastal resource areas in terms of their dependence upon the coastal resources.

2. Shall determine whether the proposed uses are sited and designed so as to prevent impacts which would significantly degrade areas adjacent to a sensitive habitat.

3. Shall review the feasibility of partial or total restoration of damaged sensitive habitat(s).

4. Shall determine whether proposed development is sited and designed so as to avoid or minimize destruction or significant alteration of significant existing plant communities identified in the general plan, including riparian vegetation and notable tree stands.

5. Shall evaluate projects to ensure the protection of riparian corridors of streams, lakes and other bodies of fresh water as designated on the habitat areas and water resources overlay, and any other riparian areas, except for man-made irrigation ponds over two thousand five hundred square feet surface area.

6. Shall evaluate the project's conformance with the restrictions listed in this title for each coastal resource area, and with all other applicable sections of the city's local coastal program land use plan.

18.38.085 Habitats for rare and endangered species.

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 U.S. 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 fifty 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.

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

A. Unique Species. Unique species are those organisms which have scientific or historic value, few indigenous habitats, or some characteristics that draw attention or are locally uncommon.

1. Existing unique animals are: raptors (owls, hawks, eagles and vultures), the red-legged frog, sea mammals (whales, dolphins, seals, and sea lions).

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.

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

18. 38.100 Development conditions. The planning commission shall impose development conditions on proposed projects within or adjacent to designated coastal resource areas that require a coastal development permit and are subject to the provisions of this chapter. These conditions shall include the mitigation measures recommended in required reports or the environmental impact report if the planning director accepts it in lieu of required reports, as development conditions in the coastal development permit for the proposed project. The planning commission may modify or eliminate conditions where it is found that the modification is consistent with the purposes of this chapter and the California Coastal Act.

Appendix III. PDP-086-07 Planning Commission Hearing Minutes

Excerpt from minutes of 14 Feb 2008 meeting of Half Moon Bay Planning Commission:

3. PDP-085-07 – An application for a Coastal Development Permit and Conditional Use Permit to construct an outdoor emergency warning siren. The project is located in a PUD (Planned Unit Development) Zoning District. Applicant: James Asche, San Mateo County Sheriff's Office of Emergency Services. Location: 2651 N. Cabrillo Highway. APN 048-300-310.

Planning Director Flint advised that the item had not been site posted in a timely manner, and staff is therefore asking that it be continued to a date certain, that date being February 28, 2008.

Chair Roman opened the public hearing.

George Muteff
408 Redondo Beach Road

He said Chair Roman had answered his question.

Jimmy Benjamin
400 Pilarcitos Avenue

He mentioned the letter that he had provided. He said his neighbors are alarmed about the current citing of the project and that didn't occur until they understood that the address on Cabrillo Highway wasn't where the project would actually occur. He encouraged the Commission to think of this as a system that will save lives. He offered to help the Commission if they wanted his help.

Chair Roman closed the public hearing.

Discussion ensued.

Motion by Poncini/King to continue the item to a date certain, that date being February 28, 2008**. Motion carried** by unanimous, affirmative voice vote.

4. PDP-086-07 – An application for a Coastal Development Permit and Conditional Use Permit to construct an outdoor emergency warning siren. The project is located in a PS (Public Service) Zoning District. Applicant: James Asche, San Mateo County Sheriff's Office of Emergency Services. Location: 1000 N. Cabrillo Highway. APN 048-240-030.

Planning Director Flint said the same situation that affected the previous item affected this item.

Commissioner Jonsson disclosed an ex parte communication with Jimmy Benjamin.

Chair Roman opened the public hearing.

There were no speakers.

Chair Roman closed the public hearing.

Motion by Poncini/Deman to continue the item to a date certain, that date being February 28, 2008. **Motion carried** by unanimous, affirmative voice vote.

VI. PUBLIC HEARING ITEMS:

1. PDP-085-07 – An application for a Coastal Development Permit and Conditional Use Permit to construct an outdoor emergency warning siren. The project is located in a PUD (Planned Unit Development) Zoning District. Applicant: James Asche, San Mateo County Sheriff's Office of Emergency Services. Location: 2651 N. Cabrillo Highway. APN 048-300-310.

Planning Director Flint discussed the reasons for continuing the item. He also mentioned receipt of correspondence from James Benjamin and referenced certain issues raised in that correspondence. He ended by requesting continuance to a date uncertain.

Chair Roman opened the public hearing.

James Benjamin
400 Pilarcitos Avenue

He commented that he had been in contact with the applicant James Asche to offer his assistance and thanked the Commission for hearing his concerns.

Commissioner Jonsson reported an ex parte communication with James Benjamin on the project.

Motion by Poncini/King to continue PDP-085-07 to a date uncertain. **Motion carried** by unanimous, affirmative voice vote.

2. PDP-086-07 – An application for a Coastal Development Permit and Conditional Use Permit to construct an outdoor emergency warning siren. The project is located in a PS (Public Service) Zoning District. Applicant: James Asche, San Mateo County Sheriff's Office of Emergency Services. Location: 1000 N. Cabrillo Highway. APN 048-240-030.

Chair Roman introduced the item.

A question and answer period ensued.

Motion by Deman/Poncini to continue PDP-086-07 to a date uncertain. **Motion carried** by unanimous, affirmative voice vote.

Excerpt from minutes of 14 August 2008 meeting of Half Moon Bay Planning Commission

1. PDP-085-07 – An application for a Coastal Development Permit and Conditional Use Permit to allow the installation and operation of a new Emergency Warning Siren. In addition, the Planning Commission will consider the adoption of an Initial Study/Mitigated Negative Declaration and Mitigation, Monitoring and Reporting Program for the project. The project is located in a PUD (Planned Unit Development) Zoning District. Applicant: James Asche, San Mateo County Sheriff's Office of Emergency Services. Location: 2651 N. Cabrillo Highway. APN 048-300-310. (Continued from February 14, and June 26, 2008.) Planner: Sean Gallegos. Phone 650-726-8253.

Associate Planner Gallegos gave the presentation.

Commissioner Poncini advised staff of corrections that needed to be made to the agenda report and mitigated negative declaration.

Chair Roman opened the public hearing.

Jim Asche
Applicant
County of San Mateo Office of Emergency Services (OES)

He described the emergency warning siren system and answered questions from the Commission.

Daniel Levy
Service Manager
Hormann America

He responded to technical questions from the Commission.

George Muteff
408 Redondo Beach Road

He commented on the errors in the agenda report.

James Benjamin
400 Pilarcitos Avenue

He commented positively about the inaudible testing but did express concerns about the hotels that are close to the siren and what effect reflected noise may have and what effect the hotels may have to obstruct the sirens. The true threshold will be according to the FEMA document. His goal is to make this a better project without significant impacts.

William Dahl
Kehoe Avenue

He supports the sirens being put in for well being.

Dale Dunham
Ruisseau Francais

He spoke in favor of the project and said he disagrees with the philosophy of not testing at full strength.

Chair Roman closed the public hearing.

Discussion ensued.

Chair Roman summarized discussion to include the following points:

Correct the report and mitigated negative declaration and return at a future date
Low power monthly tests are ok; tests limited to 15 seconds is good
Full power testing once a year up to a minute

Suggestion for change in Condition of Approval A-20 on Page 25 in staff report:

Full power audible testing is permitted once per year for the purpose to facilitate public awareness. The applicant must notify the Planning Director of the proposed date and time for Planning Director approval. The Planning Commission will set duration and power. Once approved, the application must notify the local media in advance.

Suggestion for additional conditions:

1. If there were a large number of complaints from the public once testing starts, recourse would be through the item being returned to the Planning Commission for further review.

2. Notify the Police Department in advance of the testing. Ask if the Department could use signage on Highway 1 to notify the public in advance of the testing.

Motion by King/Poncini to continue the item to a date certain, that date being August 28th with direction to staff to return with a completely corrected staff report incorporating all editing and grammar corrections and corrections to conditions and additional conditions.

Motion carried by unanimous, affirmative voice vote.

2. PDP-086-07 – An application for a Coastal Development Permit and Conditional Use Permit to allow the installation and operation of a new Emergency Warning Siren. In addition, the Planning Commission will consider the adoption of an Initial Study/Mitigated Negative Declaration and Mitigation, Monitoring and Reporting Program for the project. The project is located in a PS (Public Service) Zoning District. Applicant: James Asche, San Mateo County Sheriff's Office of Emergency Services. Location: 1000 N. Cabrillo Highway. APN 048-240-030. (Continued from February 14, and June 26, 2008.) Planner: Sean Gallegos. Phone 650-726-8253.

Associate Planner Gallegos gave the presentation.

Commissioner Poncini advised staff of corrections that needed to be made to the agenda report and mitigated negative declaration.

Questions from the Commission were asked and answered.

Chair Roman opened the public hearing.

Jim Asche
Applicant

He said this siren is 8 horns as opposed to 4 horns going in all directions and he answered questions from the Commission. He outlined the areas where this siren is planned to cover which include the Kelly State Beach Area, the Coastal Trail as far north as the siren will reach, the neighborhood of Casa del Mar and the next neighborhood south which contains Belleville and Chesterfield.

George Muteff
408 Redondo Beach Road

He referred to information and a presentation he had provided to the Planning Commission.

Motion by King/Poncini to extend the meeting to midnight. **Motion carried** by unanimous, affirmative voice vote.

James Benjamin
400 Pilarcitos Avenue

He expressed disappointment that the questions he raised in his letters have not been responded to. Sound is perceived as being the levels above the ambient sound that already exists. He mentioned that impacts that are significant indicate the need for an EIR. He believes an EIR is necessary.

Chair Roman thanked Mr. Benjamin for his collection of sound data.

William Dahl
437 Kehoe Avenue

He disagreed with the site as a location for a siren.

Chair Roman closed the public hearing.

Discussion ensued with Chair Roman reopening the public hearing to allow the sound expert to respond to Commissioner questions.

Daniel Levy
Service Manager
Hormann America

He responded to questions from the Commissioners.

Chair Roman qualified with Mr. Levy that a full volume test should be performed at least once with sound meter checking done in the field to validate that the predictive model is accurate and that yearly testing is not done for that purpose but for training, instead. The City could do one full volume test and after that to make sure the system is working perform reduced volume tests.

Mr. Levy stated that the quiet tests are enough to validate that the electronics are operating satisfactorily and that telemetry is coming back correctly. To have the validation that the silent is working audibly, it has to be tested at some volume. If you want to validate what the computer software is responding as a result of a volume at a point of origin, it can be tested at any level.

Discussion continued.

Planning Director Flint suggested continuing the item so that staff can return with specific conditions after possibly getting feedback from the Chair. He also commented that staff has comprehensive lists compiled from the minimization

avoidance methods recommended by Fish and Wildlife and Fish and Game with suggested dates for construction. Staff would put these together with limitations on noise testing and include all notification mentioned before.

Chair Roman added that the monthly testing would go to the quiet test, not reduced volume test, so that it would not radiate any sound. The annual testing would be full volume.

Motion by King/Poncini to continue the meeting to 12:30 and not go passed that time. **Motion carried** by unanimous, affirmative voice vote.

Discussion continued.

Planning Director Flint commented regarding mitigation measures that a report by HT Harvey & Associates for mitigation for weed abatement indicated they saw no frogs or snakes. The City could also have a biological monitor on site when the pole was constructed. There could also be education as to how to recognize the frogs and snakes.

Motion by Deman/King to continue the item to a date certain, that date being August 28th with direction to staff to incorporate the corrections that were brought forward and the modified conditions. **Motion carried** by unanimous, affirmative voice vote.

3. PDP-085-07 – An application for a Coastal Development Permit and Conditional Use Permit to allow the installation and operation of a new Emergency Warning Siren. In addition, the Planning Commission will consider the adoption of an Initial Study/Mitigated Negative Declaration and Mitigation, Monitoring and Reporting Program for the project. The project is located in a PUD (Planned Unit Development) Zoning District. Applicant: James Asche, San Mateo County Sheriff's Office of Emergency Services. Location: 2651 N. Cabrillo Highway. APN 048-300-310. (Continued from August 14, 2008.) Planner: Sean Gallegos. Phone 650-726-8253.

Commissioner King reported an ex parte communication with Jimmy Benjamin.

Associate Planner Gallegos presented the item but first went through a memo that indicated corrections. [The memo indicated the address as 1000 Cabrillo Highway but should have listed 2651 N. Cabrillo Highway.]

James Asche
Applicant

He qualified the conditions of approval and said the monthly tests were to be at half volume for 15 seconds and there would be one annual test at full volume.

Efraim Petel
Technical representative

He responded to questions from the Commission.

It was determined that full volume was 131 decibels and half was 119 decibels and that the sound pressure is measured at one meter from the siren.

Chair Roman opened the public hearing.

James Benjamin
400 Pilarcitos Avenue

He suggested testing for failure of the system in the inaudible range. It was unclear to him how the planning review of a change in the testing would be different from an amendment to the coastal development permit. Doesn't understand how this would be an amendment. He feels like the changes that occurred tonight might be clear to the Commission, but he feels the public hearing aspect is being subverted by the speed of the project.

Chair Roman closed the public hearing.

Commissioner Poncini provided editing comments for corrections on the Agenda Report and Initial Study/Mitigated Negative Declaration.

Discussion ensued regarding the following:

Possible salt air or debris damage to the sirens
Suggested alterations to the conditions of approval
What the exact decibel levels are during testing
How frequently testing should be done at various levels

Motion by Deman/Poncini

Staff recommends that the Planning Commission approve PDP-085-07, an application for a Coastal Development Permit, Use Permit, Mitigated Negative Declaration and Mitigation, Monitoring and Reporting Program to allow the installation and operation of a new Emergency Warning Siren System at the existing Nurserymen's Exchange site located at 2651 North Cabrillo Highway in Half Moon Bay, APN 048-300-310, based upon the Findings and Evidence contained in Exhibit A of the Draft Resolution, and subject to the Conditions of Approval contained in Exhibit B.
Except that:

Condition 1-3, strike the last part of the last sentence which says "…and the Planning Commission shall review it."

Commissioner Poncini asked if the Motion could include that corrections be made to the decibel levels in the conditions as discussed and the typos be corrected.

Commissioner Deman accepted.

Planning Director Flint read into the record the modifications to the conditions as he understood them to have been made:

Condition A-20, Measure 1-1 we're adding to that the audible testing of each siren shall occur once upon initial installation and no more than one time each month thereafter shall occur mid day and mid week and not exceed the duration of fifteen seconds.

The once monthly siren testing will utilize a low power output which emits a maximum sound pressure level that shall not exceed 123 decibels.

Condition, Measure 1-2, one full power audible test not exceeding 135 decibels no more than one minute in duration shall be allowed per year. Strike the second sentence. Modify that to say the applicant shall notify local media with the proposed full volume emergency warning siren test.

Measure 1-3, if the emergency warning siren system testing shall exceed the specific duration, frequency of occurrences, or vary from mid-day or mid week due to maintenance purposes, the applicant shall submit a request to the Planning Director prior to the audible siren testing.

Question on Measure 1-4. Planning Director Flint asked whether this was a mitigation measure that was needed, since this is specified. Section 14.40 of the Municipal code actually specifies when construction can occur. It is a requirement. The Commission could strike this or leave it in. He also encouraged the Commission to include the modifications in the Mitigated Negative Declaration as well.

Commissioners Deman and Poncini accepted the modifications as indicated by Planning Director Flint and also accepted Measure 1-4 being stricken.

Motion carried by unanimous, affirmative voice vote.

4. PDP-086-07 – An application for a Coastal Development Permit and Conditional Use Permit to allow the installation and operation of a new Emergency Warning Siren. In addition, the Planning Commission will consider the adoption of an Initial Study/Mitigated Negative Declaration and Mitigation, Monitoring and Reporting Program for the project. The project is located in a PS (Public Service) Zoning District. Applicant: James Asche, San Mateo County Sheriff's Office of Emergency Services. Location: 1000 N. Cabrillo Highway. APN 048-240-030. (Continued from August 14, 2008.) Planner: Sean Gallegos. Phone 650-726-8253.

Commissioner Poncini reported an ex parte communication with Jimmy Benjamin.

Commissioners Jonsson and King also reported ex parte communications with Jimmy Benjamin.

Associate Planner Gallegos presented the item and went through a memo that indicated corrections. [The memo says 2651 Cabrillo Highway and should say 1000 N. Cabrillo Highway.]

He outlined the additional mitigation measures that staff prepared in response to direction at the previous meeting.

Chair Roman opened the public hearing.

Jim Asche
Applicant

He commented that there may be a need for a lower power test when the unit is initially installed. If there is an approval for an annual full power test, it should say that it is good for a one minute test. He said his office is not funded for a

biological report. He stated that his office agreed that there would be no audible monthly test. There would only be one minute of audible testing once a year.

Efraim Petel
Technical Expert

He responded to questions from the Commission and said a quiet test is a test at low volume. He will make calculations and get back to the Commission on that.

Jimmy Benjamin
400 Pilarcitos Avenue

He said he lives closest to the Sam Plant and commented on the documents he brought this evening. He commented on the effect on wildlife and birds. He said the EIR for the Sam Plant is inappropriate for this project. He disagrees regarding CEQA. He said because additional impacts and mitigations have been identified, it is necessary to recirculate the IS/MND. He read from the CEQA guidelines that indicate this. He said changes made in this document are not clear to the public, and he didn't get a chance to provide comments on the document.

Silvia Prewitt
Half Moon Bay

She spoke in favor of the project. She mentioned a disaster preparedness program created by a group of citizens.

Mr. Petel

He said he would need about 98 db at the speaker to hear it for the low monthly test.

Ozzie Monteiro
808 Monte Vista Lane

He said certain inconveniences protect us and he said we were debating this to death.

Chair Roman closed the public hearing.

Motion to continue the Planning Commission meeting at 11:00. **Motion carried** by unanimous, affirmative voice vote.

Discussion ensued regarding the following:

Concern about not having a biologist test
Land Use Plan Policy 4.7
Endangered species
What type and number of tests the applicant has actually asked for

Motion by King/Deman to continue the meeting to 11:45 PM. **Motion carried** by unanimous, affirmative voice vote.

Chair Roman reopened the public hearing.

Jimmy Benjamin

He said a lower sound level is less impact. He would rather think about this and let the Commission know his thoughts.

Jim Asche
Applicant

He believes the lower volume at the monthly tests will test the speakers and the entire system. He asked if Half Moon Bay would be satisfied with having a system in place that has never been tested.

Motion by King/Deman:

Staff recommends that the Planning Commission approve PDP-086-07, an application for a Coastal Development Permit, Use Permit, Mitigated Negative Declaration, and Mitigation, Monitoring and Reporting Program to allow the installation and operation of a new Emergency Warning Siren system at the existing Sewer Authority Mid-Coastside facility 1000 North Cabrillo Highway, APN 048-240-030, based upon the Findings and Evidence contained in Exhibit A of the Draft Resolution, and subject to the Conditions of Approval contained in Exhibit B.

Subject to the following modifications and revisions:

Condition A-20, Measure 1-3 which says, "..a low power audible testing of all sirens of no more than 98 decibels at one meter from the source shall occur no more than one time each month and shall occur midday and midweek and not exceed the duration of fifteen seconds.

Exclude subsequent Conditions [Measures], 1-1, 1-2, 1-4, 1-5 and 1-6.

And with amendments to the Mitigated Negative Declaration and Mitigation Monitoring Report in accordance with the changes made to those conditions and mitigations.

Motion carried by majority vote with Commissioner Poncini voting no.

Appendix IV. PDP-086-07 Correspondence

Mr. Sean K. Gallegos, Associate Planner
City of Half Moon Bay
501 Main Street
Half Moon Bay, CA 94019

February 13, 2008

DELIVERED BY HAND AND VIA CERTIFIED U.S. MAIL

Dear Mr. Gallegos:

Thank you for the notices that my neighbors and I received of consideration on Thursday February 14, 2008 by the Planning Commission of the City of Half Moon Bay of projects PDP-085-07 and PDP-086-07 for the construction of outdoor emergency warning sirens. The purpose of this letter is correct some errors in the staff report and to communicate the following concerns:

1. The siting of the projects' sirens needlessly compromises the effectiveness of the warning system by exposing the siren system to dam inundation and tsunami forces, and by directing significant signal energy nearly a mile out to sea, while exposing people near the siren tower to disturbingly high noise levels.
2. The condition limiting tests exposes our community to unnecessarily high noise levels, may be defeated with a stroke of the planning director's pen, and ignores the risk of community complacency caused by the duck-and-cover drills of decades past.
3. The projects do not comply with the California Environmental Quality Act (CEQA) and violate section 18.22.190(B) of the City's zoning ordinances, policies 4-7 and 9-3 of the City's Local Coastal Program (LCP), and policy 2 (page 22), 3 and 7 (page 27) of the Safety Element of the City's General Plan.

Please revise the analysis of these projects to include the EIR required by CEQA, and revise the projects as needed to mitigate the impacts and to comply with all zoning ordinances and policies of the LCP and Safety Element. In the case of PDP-086-07, please relocate the project improve its survivability and effectiveness, and to reduce the adverse impacts that it may have on its nearest neighbors. The projects' reliability goals should be explicitly defined and linked to an effective evaluation plan, particularly for tsunami or dam inundation warnings; otherwise, there is a high risk that the sirens will merely induce helpless panic. Testing should be designed to support the reliability goals. The balance of this letter explains these concerns in more detail. Page references are with respect to the staff report for PDP-086-07, unless otherwise stated.

1. *Effectiveness compromised by siting:*

   The current site is between 1500 and 2000 feet from the beach, which means that between 0.8 – 1 square mile of warning capacity is being broadcast onto open water (see computations in attachment 1). An upland location with a clear line of sight would increase the effective use of the signal circle, and result in less attenuation of warning signal due to interference with objects on the ground. By choosing a site which increases the distance from siren to first residence or work

location, the City or applicant should be able to operate a siren as loud as the ones proposed with less involuntary public exposure to very high sound pressure levels. Additional siren locations could further reduce the sound pressure levels that the nearest residents will face, and should be among the alternatives considered as part of a CEQA analysis of the project. The City's large swaths of open space and utility easements should admit a wide range of alternative locations from which optimal choices can be made.

On page 4 of the staff report dated February 14, 2007 [sic], the sirens are described as follows:

> The decibel level will vary from approximately 70 dB to > 100 dB (at the source).

The decibel level scale (A, B, or C) is not specified, and "> 100 dB" is not an upper bound. The technical specification from Hormann America, Inc. (page 36 of PDP-085-07 report, and page 4 of material sent to Chief Asche) states that at full power the sirens produce a sound pressure level of 131 dB. According to page 1 of the *Outdoor Warning Systems Guide* (FEMA CPG1-17, cited by siren manufacturer's instructions included with the report for CDP-085-07), "All outdoor warning devices are rated in terms of their sound output at 100 feet."

The documentation for sirens that was attached to PDP-085-07 (page 68 of the packet, and page 36 of the material sent to Chief Asche) warns that exposure can result in permanent loss of hearing, and that the sirens should be carefully placed to prevent damage to civilians. The importance of having the right volume of warning is clarified FEMA CPG1-17, page 2:

> [T]hese factors suggest that a warning sound must be loud: loud enough to overcome attenuation with distance, to exceed the background noise, and to attract attention. Yet it cannot be too loud, or there is a risk of injuring the hearing of some people who listen to it.

According to Figure 3 on page 15 of FEMA CPG1-17 (attachment 2), a horn producing sound pressure levels of 131 dB should be mounted a minimum of 100 feet above ground to avoid risk of hearing damage to pedestrians – and that assumes a horizontal warning range. In this case, the SAM plant is significantly lower than adjacent park and residential land, creating the need for an even taller mounting tower. I do not claim to be an expert, but technically competent and reasoned analysis of the pole height is not provided in the staff report, and therefore provides no evidence to support the required findings, let alone at the planned pole height. If required, a project with such a tall tower would certainly present a significant visual impact.

Even if the sound of the horn doesn't deafen the closest listeners, it may disturb them in excess of what is necessary to warn. Anyone who has been subjected to a false security alarm at close range knows that loud noises may hinder the listener's ability to think clearly, let alone communicate and coordinate a successful evacuation of family and companion animals.

2. *Unnecessary testing impact*. Condition 5. Part A of the Conditions of Approval for PDP-086-07 permits a full minute of siren testing every month, and additional testing without limit with the

approval of the Planning Director. According to the page 48 of the documentation provided by the manufacturer, monthly system testing will "instill public confidence in the reliability of the warning system." This throwback to the duck-and-cover nuclear blast drills of the 1960's discounts the significant disutility of generating such high sound pressure levels at workers, residents, pets and wildlife near the siren. It places no conditions on the absolute necessity of audible testing, and does not require that mufflers be used to reduce impact. It also ignores the public's propensity to become familiar with and then discount the warning siren. Permitted testing should be justified as a reliability test, not a "feel-good" measure, and audible testing should occur only when needed to achieve explicit reliability goals, which are not stated in the staff report.

3. *Failure to conform to applicable law and regulations*. The project does not conform with several of the laws design to protect public health and welfare:
    a. *CEQA.* Section IV of the staff report (page 8) offers two arguments that the project complies with CEQA. First, the report claims

        > The project is consistent with CEQA guidelines and is statutorily exempt under California Administrative Code § 21080(4) which exempts specific actions necessary to prevent or mitigate an emergency.

    However, the exempted "emergency projects" are carefully defined in CEQA Guidelines §15269:

    > The following emergency projects are exempt from the requirements of CEQA.
    >
    > (a) Projects to maintain, repair, restore, demolish, or replace property or facilities damaged or destroyed as a result of a disaster in a disaster stricken area in which a state of emergency has been proclaimed by the Governor pursuant to the California Emergency Services Act, commencing with Section 8550 of the Government Code. This includes projects that will remove, destroy, or significantly alter an historical resource when that resource represents an imminent threat to the public of bodily harm or of damage to adjacent property or when the project has received a determination by the State Office of Historic Preservation pursuant to Section 5028(b) of Public Resources Code.
    >
    > (b) Emergency repairs to publicly or privately owned service facilities necessary to maintain service essential to the public health, safety or welfare.
    >
    > (c) Specific actions necessary to prevent or mitigate an emergency. This does not include long-term projects undertaken for the purpose of preventing or mitigating a situation that has a low probability of occurrence in the short-term.
    >
    > (d) Projects undertaken, carried out, or approved by a public agency to maintain, repair, or restore an existing highway damaged by fire, flood, storm, earthquake, land subsidence, gradual earth movement, or landslide, provided that the project is within the existing right of way of that highway and is initiated within one year of the damage occurring. This exemption does not apply to highways designated as official state scenic highways, nor any project undertaken, carried out, or approved by a public agency to expand or widen a highway damaged by fire, flood, storm, earthquake, land subsidence, gradual earth movement, or landslide.
    >
    > (e) Seismic work on highways and bridges pursuant to Section 180.2 of the Streets and Highways Code, Section 180 et seq.

> **Note:** Authority: Section 21083, Public Resources Code. Reference: Sections 21080(b)(2), (3), and (4), 21080.33 and 21172, Public Resources Code; *Castaic Lake Water Agency v. City of Santa Clarita* (1995) 41 Cal.App.4th 1257; and *Western Municipal Water District of Riverside County v. Superior Court of San Bernardino County* (1987) 187 Cal.App.3d 1104.
>
> **Discussion:** This section identifies the emergency exemptions from CEQA. The exemptions for emergency repairs to existing highways and for emergency projects involving historical resources that are an imminent threat to the public reflect statutory provisions. Highway repairs are limited to those which do not expand or widen the highway.
>
> In *Western Municipal Water District of Riverside County v. Superior Court of San Bernardino County* (1987) 187 Cal. App. 3d 1104, ***the court held that an emergency is an occurrence, not a condition, and that the occurrence must involve a clear and imminent danger, demanding immediate attention.*** In this case, the water district proposed to dewater areas that could potentially be subject to liquefaction in the event of an earthquake. The excess water was to be pumped out to reduce the hazard as an emergency project. The court, however, ruled that this was not the proper use of this exemption. The imminence of an earthquake is not a condition but a potential event and no real change had yet occurred or could be incontestably foreseen as being mitigated by the proposed actions. The standard of review is there must be substantial evidence in the record to support the agency findings of an emergency, in this case, the Court found inadequate evidence of imminent danger and the subsequent need for immediate action. This holding is now codified in subsection (c). [Bold italics added]

Just as in *Western Municipal Water District of Riverside County v. Superior Court of San Bernardino County*, the applicant's proposal to install sirens that could potentially be necessary to alert the public is not itself an emergency; the probability of an event that requires public notification is small, and such abuse of the emergency exemption from CEQA explicitly prohibited in part (c) above.

The second argument that the staff report presents as evidence of CEQA compliance is

> In 1989, an Environmental Impact Report (SCH# 1987122901) was conducted for the expansion of the wastewater treatment plant capacity. The mitigation measure contained in the EIR served to mitigate any and all potentially significant environmental impacts which may have occurred from the plant expansion. Since, the emergency warning siren is located within the boundaries of the wastewater treatment site. Staff believes it does not create unusual circumstances that create a reasonable possibility that the emergency warning siren would cause significant environmental impacts, which would negate the applicability of the Categorical Exemption.

As described on pages S-1, 4 of the referenced EIR (attachment 3), the objective of the analyzed project was to expand wastewater treatment capacity. An emergency siren was not contemplated in wastewater treatment project. In the nineteen years since that EIR was completed, sensitive receptors nearer to the plant have been established and recognized, including St. John Subdivision No. 3 (including many of the homes west of the Casa del Mar subdivision), the environmentally sensitive habitat area (ESHA) south of the SAM plant known as the Caltrans mitigation pond; and the ESHA known as the unnamed stream parallel to Kehoe Avenue (and also known as the Kehoe ditch). By design, the environmental impacts of the present project include extremely loud noise which extends far beyond the confines of the SAM Plant and the referenced sensitive receptors. It is simply irrational to believe that because the impacts of a completely different project in the same location nineteen years ago were

mitigated to a less-than-significant level, that there is no possibility that the present project could have any significant environmental impact.

The loudness warnings in the manufacturer's documentation, the wide discretion given for testing, and the proximity of sensitive receptors to the proposed sirens provide substantial evidence that this project may have a significant impact on the environment, meeting the very low threshold (Guidelines, §15064) of a "fair argument." PRC §21082.2(d) therefore requires that an Environmental Impact Report shall be prepared.

b. *Zoning Ordinance.* Zoning Code §18.22.190(B) states:

In order to grant the use permit as applied for or conditioned, the findings of the Planning Commission must include that the establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, be detrimental to the public welfare or injurious to property or improvements in said neighborhood.

A reasonable person might believe being subjected to legally sanctioned bursts of very loud noise could be detrimental to the public welfare and disturb people, pets and wildlife in the adjoining areas. Scientific studies have shown fetuses to be particularly vulnerable to the loud noises (Richards, D. S., B. Frentzen, K. J. Gerhardt, M. D. McCann and R. M. Abrams, "Sound Levels in the Human Uterus," *Obstetrics and Gynecology* 1992; 80:186-199; "Lalande M. N., R. Hetu and J. Lambert, "Is Occupational Noise Exposure During Preganacy a Risk Factor of Damage to the Auditory System of the Fetus?" *American Journal of Industrial Medicine* 1986, 10:427-435; American Academy of Pediatrics, "Noise: A Hazard for the Fetus and Newborn," *Pediatrics 1997*; 100:724-727.)

The staff report states that because some trees may visually screen part of the siren pole, that "The addition [of an] emergency warning siren (Public Safety Facility) use 'will not, under the circumstances of the particular case, be detrimental to the public welfare or injurious to property or improvements to adjacent properties.'" The report turns a blind eye to the obvious detrimental impact that involuntarily and periodically imposed very loud noise will have on the welfare of residents and property values, an impact that will be disproportionately and involuntarily borne by any citizens or residents very close to the site of the sirens. Even the visual screen would be ineffective with the much taller pole needed to mount the sirens in conformance with the FEMA guidelines cited in the manufacturer's own documentation (attachment 2). The staff report does not provide evidence to support the mandatory finding, and so the use permit cannot be granted.

c. *Local Coastal Program (LCP).* Chapter 4 of the LCP includes the following policies (page 83 and 144, respectively)

Policy 4-7:

In areas of flooding due to tsunamis or dam failure, no new development shall be permitted unless the applicant or subsequent study demonstrates that the hazard no

longer exists or has been reduced or eliminated by improvements which are consistent with the policies of this [Local Coastal] Program and that the development will not contribute to flood hazards or require the expenditure of public funds for flood control works. Where not otherwise indicated, the flood hazard zone shall be considered to be a zone defined by the measured distance of 100 feet from the centerline of the creek to both sides of the creek. Non-structural agricultural uses, trails, roads, and parking lots shall be permitted, provided that such uses shall not be permitted within the area of the stream corridor. (See Policies in Section 3 on Protection of Sensitive Habitats).

and

Policy 9-3:

All new development permitted shall comply with all other policies of this Plan. (New Development means any project for which a Coastal Permit is required under Section 30106, 30250, 30252, 30600 and 30608 of the Coastal Act which has not received such permit as of the date of certification of this Plan).

The tsunami inundation map appearing as attachment 3 of the staff report, page 2 of the San Mateo County Office Emergency Services Inundation Map of Pilarcitos Dam (attachment 4 to this letter) and Map 2 of the County Geotechnical Hazards Synthesis Map for San Mateo County (Attachment 5 to this letter) show the entire SAM Plant site to be within the dam inundation, tsunami and seiche run-up zones. Since these hazards (clearly defined in Chapter 4, section 2, page 77-79 of the LCP as physical phenomena and not their consequences) have not been eliminated or reduced, development in this area is subject to the above prohibition. As a practical matter, it would seem imprudent to place a critical warning system at the starting gate of a tsunami up-rush and dam inundation zone, where the warning system is likely to be disabled, damaged or destroyed by water or collision with debris (the batteries are only ten feet above the ground), eliminating warnings of subsequent tsunami, dam inundation or other emergencies at what may well be a time of heightened public risk.

d. *Safety Element of the General Plan.* The City of Half Moon Bay's General Plan includes a Safety Element that contains the following policy concerning tsunamis and seiches (page 22):

2. New critical facilities should not be located in areas with the potential to be severely affected by tsunamis and/or seiches. If a critical facility *must* be located in a tsunami hazard zone, "tsunami-proof" design and construction principles should be incorporated so that it can resist tsunami damage and facilitate evacuation on short notice [emphasis added].

The Safety Element also includes the following policies governing development with respect to flood hazard (page 27):

3. When the Natural Hazards map does not clearly illustrate the presence or extent of flooding hazards and a development site is within a reasonable

proximity of a natural hazard, use more detailed maps and information, including but not limited to, the Flood Insurance Rate Maps (FIRM) prepared by the Federal Emergency Management Agency (FEMA) for San Mateo County and the Dam Failure Inundation maps prepared for the San Mateo Operational Area Office of Emergency Services.

and

7. Discourage the location of new critical facilities in flood hazard areas.

Because the City and other public agencies hold title to additional land outside of tsunami hazard zones, and the City holds extensive utility easement rights, the argument that the city *must* be located in a tsunami hazard zone is implausible. The San Mateo County consolidated geotechnical hazard map clearly show that the SAM plant is within the area of flooding due to dam inundation, underscoring the incompatibility of the proposed project site with the City's General Plan.

I applaud the applicant's intent to improve our community's disaster preparedness, and I urge the staff and Planning Commission to improve the project by requiring relocation of the project to increase coverage and deliver the signal more efficiently, to create a greater and more uniform distance from its closest neighbors to avoid impacting them with deafening noise during emergencies and audible test, and outside of the tsunami run-up zone, and Pilarcitos Dam inundation zone to promote the system's survivability. I also encourage the staff and Planning Commission to impose more meaningful conditions to muffle and limit audible testing to what is truly necessary to achieve explicit reliability goals; necessary changes in testing are not emergencies and should be processed as amendments to an approved CDP, not as matters of directorial discretion. Finally, I urge you to honor CEQA by requiring an environmental impact report which subjects the installation of warning sirens to a rigorous evaluation in the context of a plan to evacuate residents and visitors in the event of a tsunami or dam inundation. Such a systematic plan will focus our resources on the least impacting most effective live-saving projects, not just on checking off the warning system box on a "tsunami ready" checklist.

In addition, the public notice of the hearing of PDP-085-07 appears to be defective in the sense of zoning code 18.20.060(A)(6), in that it incorrectly states that local action is not appealable to the Coastal Commission. PRC §30603(a)(4) states that the criteria for appeals to the Coastal Commission include not only projects within the appeal zone, but also "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)." The staff report dated February 14, 2007 [sic] states that the project is on land zoned PUD. Since an outdoor emergency warning siren is not a principal permitted use in this district, this project is also appealable to the Coastal Commission, even though PDP-085-07 is not located in the appeal zone. In addition, I believe that the City's zoning ordinance defines "Appealable Zone" to include any project within 100 feet of any wetland, estuary, stream other designated Environmentally Sensitive Habitat or Coastal Resource."It may also be helpful to revise condition 20 to reflect an effective date for projects appealable to the Coastal Commission, rather than merely for those in the "the Coastal Appeal Areas." The above stated concern that the

project is not exempt from CEQA review applies to this project as well. One or more of the above arguments over consistency with zoning ordinances, the LCP and the safety element may apply to PDP-085-07, but I did not understand the precise location of the proposed siren, and I am not very familiar with the subject area. I hope these legal requirements will receive heightened scrutiny during the required CEQA analysis for that project as well.

Thank you again for the notice and opportunity to comment on these projects. Please understand that I am not opposing the creation of an effective emergency alert and response system; I just want one that minimizes adverse impacts and obeys our laws. Please distribute these comments to the members of the Planning Commission, and make them part of the public record. Please do not hesitate to contact me if you or the applicant would like to discuss these projects, or the larger emergency public safety alert and response project into which I hope they will be folded.

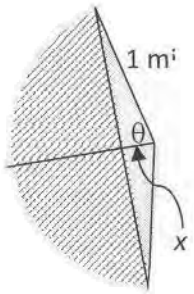
Sincerely,

James Benjamin, Ph.D.
400 Pilarcitos Avenue
Half Moon Bay, 94019-1475

Cc: Members of the Half Moon Bay Planning Commission

Attachments:
Calculations of lost warning area
Minimum Height above Ground vs. Rated Output of Warning System (from CPG 1-17)
Goals of SAM Plant Expansion from January 16, 1989 Final EIR
Pilarcitos Dam Inundation Map (page 2 with detail in area of project PDP-086-07)
Geotechnical Hazard Synthesis Map (detail from Map 2)

ATTACHMENT 1: CALCULATION OF WARNING SIGNAL BROADCAST OVER OCEAN



Area of ~~shaded~~ hatched region = $2\left(\frac{\cos^{-1}x}{2\pi}\pi - \frac{1}{2}x^2\tan(\overbrace{\cos^{-1}x}^{=\theta})\right)$

If $x = 2000$ feet $= \frac{2000}{5280}$ mile, Area of ~~shaded~~ hatched region $\doteq 0.83$ mi^2.

If $x = 1500$ feet $= \frac{1500}{5280}$ mile, Area of ~~shaded~~ hatched region $\doteq 1.01$ mi^2,

ATTACHMENT 2
MINIMUM HEIGHT ABOVE GROUND VS. RATED OUTPUT OF WARNING DEVICE

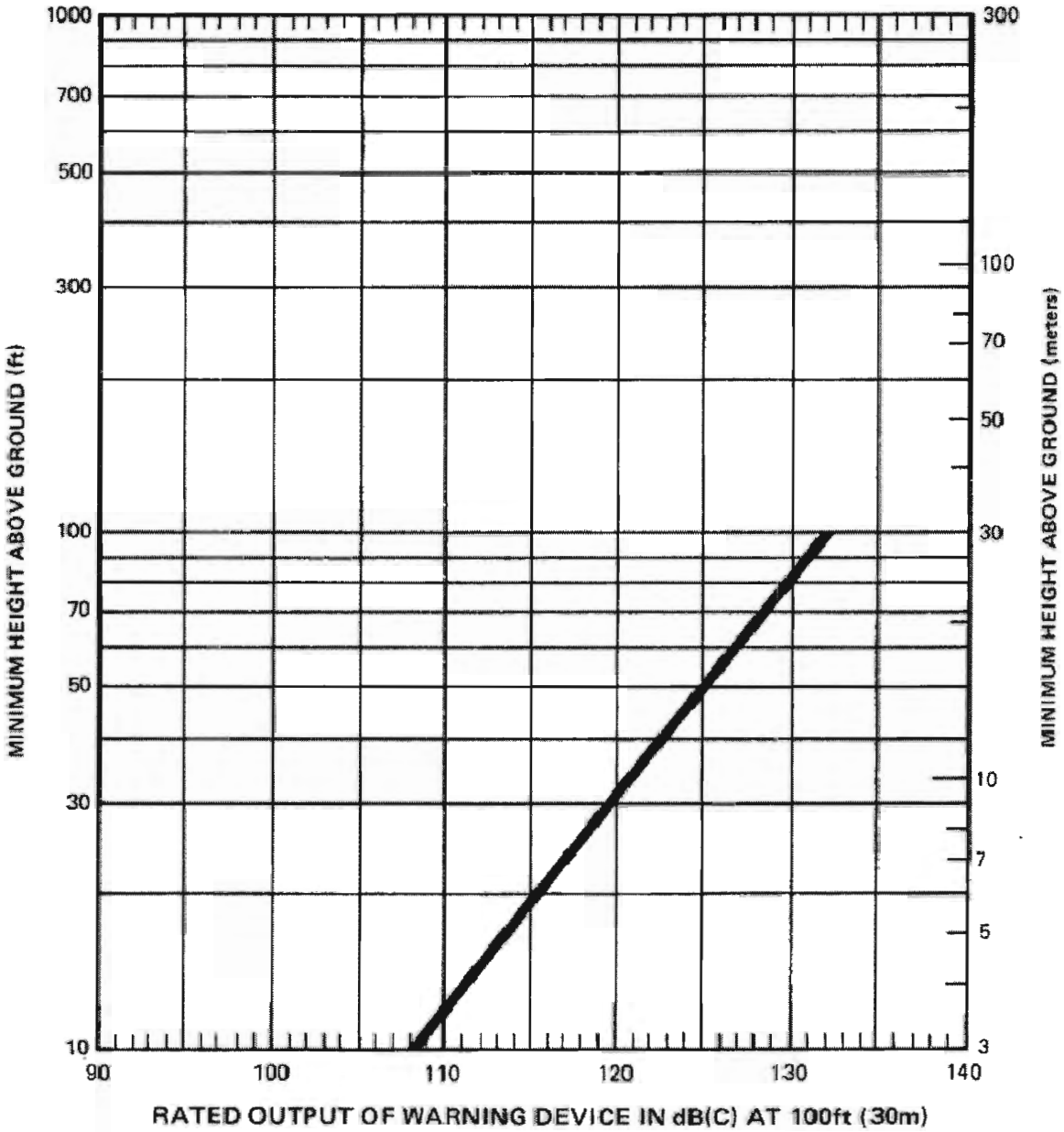


Figure 3

Minimum Mounting Height of a Typical Warning Device to Avoid Risk of Hearing Damage to Pedestrians (for horizontal beam)

Source: *Outdoor Warning Systems Guide*, CPG 1-17, Federal Emergency Management Agency (cited in siren warning literature attached to staff report for PDP-085-07)

ATTACHMENT 3
SUMMARY OF SAM PLANT EXPANSION PROJECT

SUMMARY

1. PROJECT DESCRIPTION

The Mid-Coastside of San Mateo County, California has an urban population of about 18,000 people in five contiguous communities: unincorporated Montara, Moss Beach, Princeton, and El Granada on the north and the City of Half Moon Bay on the south (Figure S-1). All of the wastewater from the urban area is conveyed to the wastewater treatment plant owned and operated by th Sewer Authority Mid-Coastside (SAM), located in Half Moon Bay (Figure S-2). SAM is a Joint Powers Authority serving three entities: the City of Half Moon Bay, the Granada Sanitary District, and the Montara Sanitary District (Figure S-3).

The present design plant capacity is rated at 2.0 million gallons per day (MGD) average daily dry weather flow (ADDWF). The proposed project would expand treatment capacity to 4.0 MGD in order to handle the increased wastewater flows expected from population growth permitted under existing land use plans. The expansion would be accomplished within the confines of the existing 3.6 acre treatment plant parcel. Some old equipment would be replaced or repaired and new equipment would be installed to accommodate the additional wastewater flows. Plant expansion would take approximately two years for design and construction. As now scheduled, the increased capacity would be available in 1992.

2. PROJECT OBJECTIVES

Expansion of wastewater treatment capacity has been proposed in order to meet the demand anticipated from urban growth under approved land use plans while continuing to meet wastewater discharge requirements. The primary land use plans are the Local Coastal Programs (LCP's) of the County f San Mateo and the City of Half Moon Bay.

The need for additional capacity will increase as growth continues within the SAM service area. Recently, water supply has been the greatest limiting factor to growth on the coastside. With the addition of the Crystal Springs pipeline, scheduled for 1990, current constraints to growth caused by water supply limitations would be eased, and a concurrent rise in wastewater generation is expected. Apart from the new pipeline supply, a recent study of groundwater resources on the Mid-Coastside (Geoconsultants 1985, 1987) suggests that groundwater capacity may be greater than previously estimated. Residences served by individual wells or by community groundwater supplies may be another source of residential growth which would increase wastewater flows.

The Clean Water Act, as implemented through the National Pollutant Discharge Elimination System (NPDES) permit for the SAM treatment plant, prohibits the discharge of treated wastewater in excess of its rated

Source: *Sewer Authority Mid-Coastside Wastewater Treatment Plant Expansion and Collection System Final Environmental Impact Report*, January 16, 1989, Sewer Authority Mid-Coastside (SAM), Half Moon Bay, California (SCH#87122901), pages S-1,4

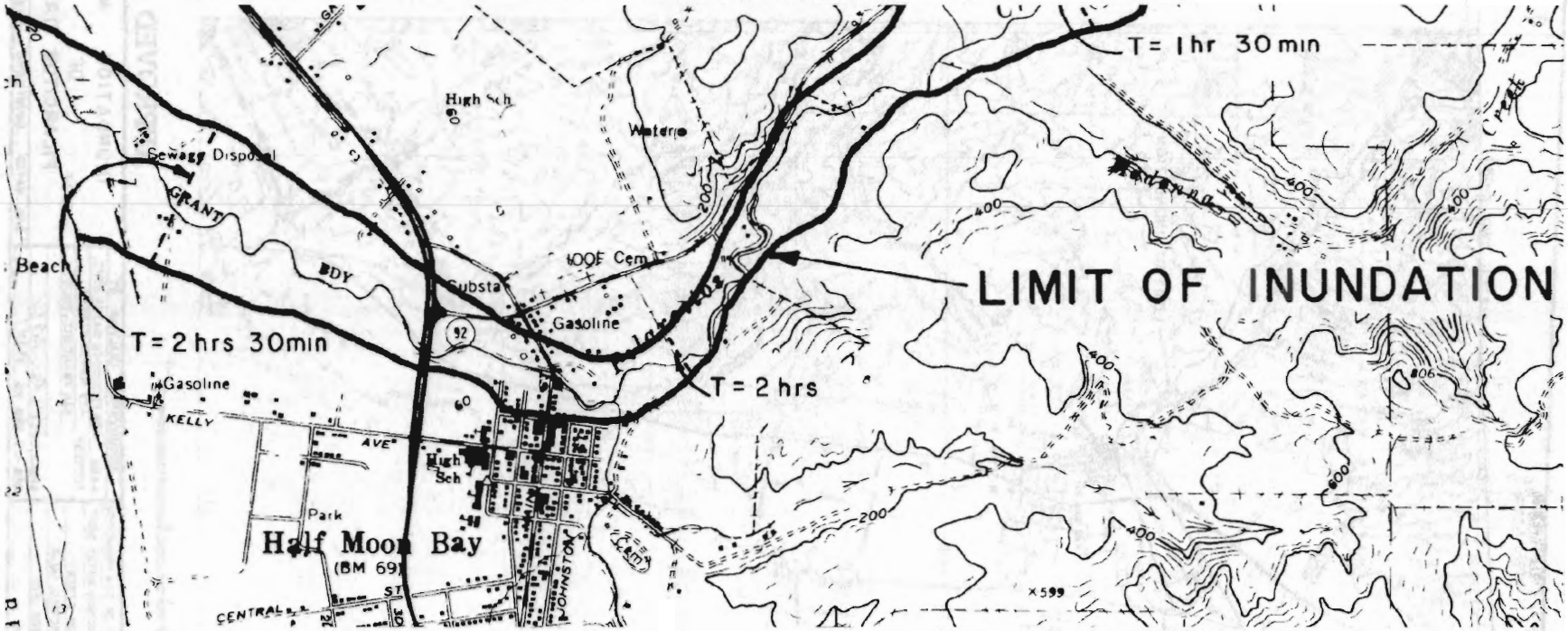
capacity, since excess discharge could result in inadequate treatment. Permits for sewer connections cannot be issued once the capacity of the wastewater treatment system is reached.

The SAM plant is now rated at a capacity of 2.0 MGD; current demand is 1.5 MGD (KJC, 1987; SAM, 10/87). Growth allowed under the County and City Local Coastal Programs will soon exceed treatment capacity. Although the remaining 0.5 MGD capacity in the present 2.0 MGD plant could serve the equivalent of some 2200 additional dwelling units (at a planning factor of 221 gallons per dwelling per day), much of the remaining capacity is being held in reserve for priority land uses specified in the LCP's. Thus the present plant could support new development of such priority uses as visitor serving commercial and low income housing, but it could not serve the full measure of traditional residential and commercial growth permitted by the LCP's. The first phase of the Local Coastal Plans, intended to be served by the present 2.0 MGD plant, consists of almost 3,000 dwelling units over present. Complete development under the LCP's allows for 8300 dwelling units over present - an increase of 130%. Hence without expansion, the treatment capacity would fall short of demand permitted by adopted land use plans.

The proposed 4.0 MGD expansion reflects the extent of population growth and non-residential development set forth in the LCP's. Taking City and County LCP's together, the Mid-Coastside would add 8300 new residences over the next twenty years. According to the range of wastewater generation factors in the LCP's, that extent of growth, along with expanded non-residential land use, would bring total Mid-Coastside wastewater treatment needs to 3.1 to 4.0 MGD (Appendix B). The SAM expansion is planned to provide capacity at the high end of the range in order to ensure adequate treatment under conditions of high wastewater generation.

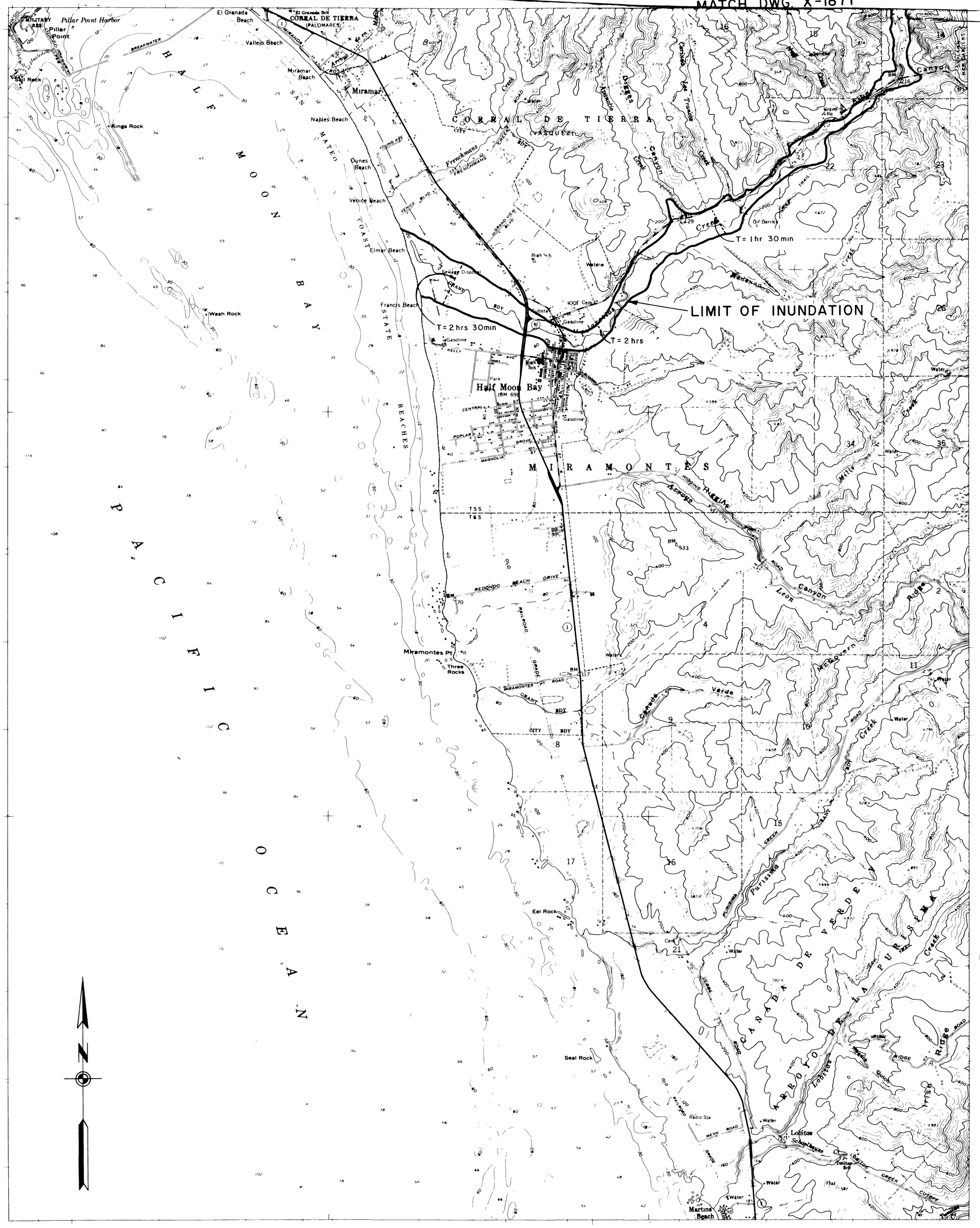
ATTACHMENT 4

POSITION OF SAM PLANT WITHIN DAM INUNDATION ZONE



Source: ***Inundation Map of Pilarcitos Dam*****, San Mateo County Drawing X-1872, page 2 (see reverse)**

MATCH DWG. X-1871



APPROVED

REVISIONS		ACCEPTANCE BY	DATE
BY	DATE		
TIME OF TRAVE MN	3-5-74		

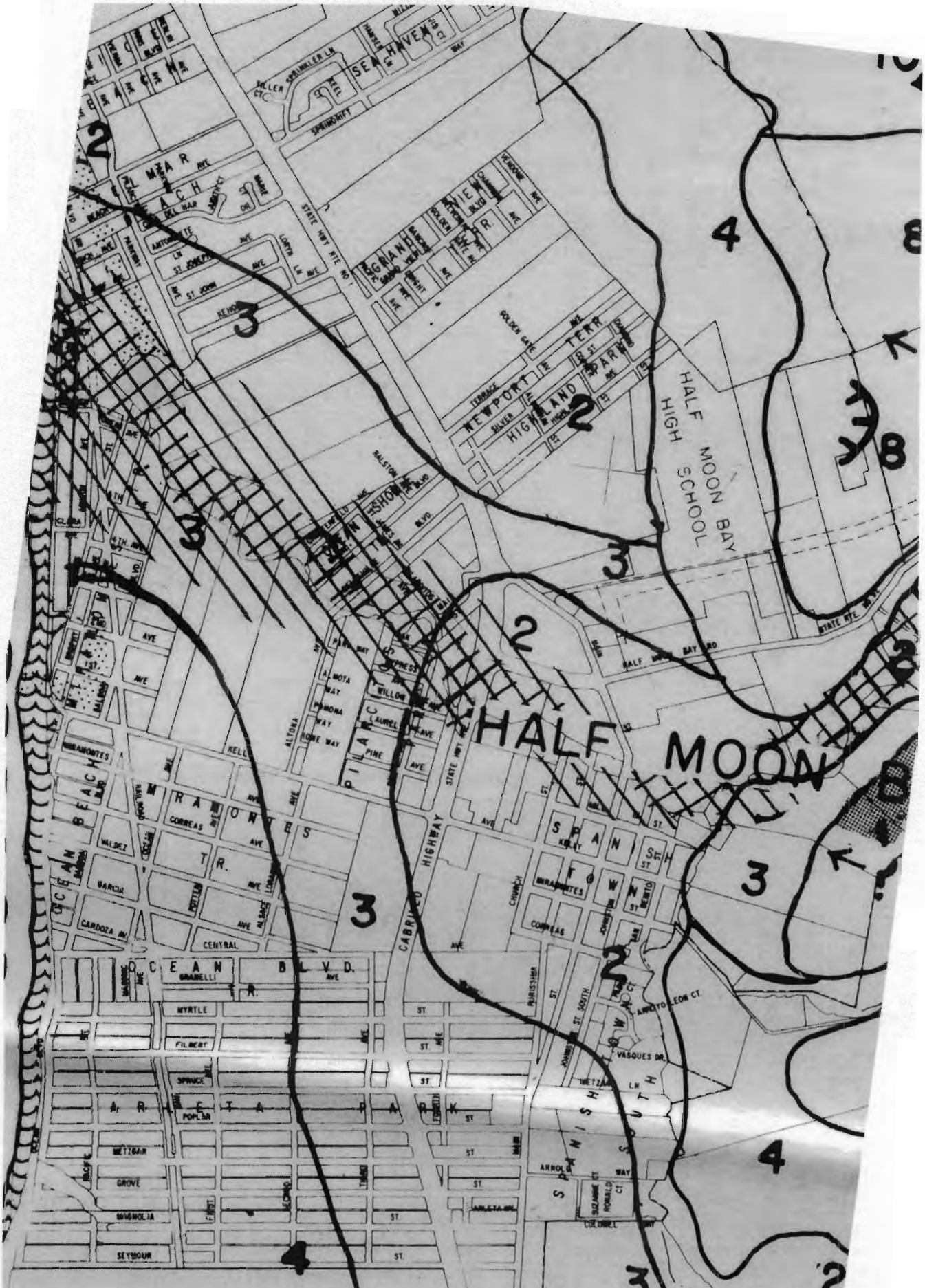
OWNER CITY & CO. OF SAN FRANCISCO
ADDRESS SAN FRANCISCO WATER DEPT.
425 MASON STREET
SAN FRANCISCO, CALIF.
DATE SEPTEMBER 1973
NEXT REVIEW DATE

ENGINEERING ANALYSIS BY
NAME SAN FRANCISCO WATER DEPT.
ADDRESS 425 MASON STREET
SAN FRANCISCO, CALIF.
SIGNATURE
REG. CIV. ENG. NO. 6532

INUNDATION MAP OF PILARCITOS DAM

1044

SAN MATEO COUNTY | DWG. X-1872 | SHEET 2 OF 2



ATTACHMENT 5

Mr. Sean K. Gallegos, Associate Planner
City of Half Moon Bay
501 Main Street
Half Moon Bay, CA 94019

June 13, 2008

DELIVERED BY HAND AND VIA CERTIFIED U.S. MAIL

Dear Mr. Gallegos:

Thank you for the preparation and opportunity to comment on the draft initial study and mitigated negative declarations for projects PDP-085-07 and PDP-086-07 for the construction of outdoor emergency warning sirens. While I support the project in principle, I am concerned that the documents do not satisfy the cited CEQA requirements (PRC 21177), are not complete because projects are not adequately described, their impacts not adequately disclosed, and the proposed mitigations are not feasible to achieve the project objectives. I am also concerned about the process by which the proposed project sites were chosen, but that is not the subject of this letter.

The difficulty of being both the author and reviewer of a CEQA document must be acknowledged, and I hope that these comments will be seen as constructive rather than merely critical. To avoid being redundant, I will confine my document references to the project PDP-086-07, but ask that my comments be considered to refer to both projects with appropriate adjustments for location, distance, etc.

CEQA Guidelines 15378(a) and PRC 21065 define a project as the whole of an action which has the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. From page 1:

> The project is located on one 5.43-acre site, Assessor Parcel Number 048-240-030, at 1000 North Cabrillo Highway. The parcel is developed with numerous buildings, and wastewater treatment structures. Construction will consist of an emergency warning siren system on top of a 37-foot utility pole, 2 solar panels mounted at 20 feet above the ground, and control and batter cabinets mounted 10 feet above the ground. The unit is self-contained, not requiring power or telephone line connections. The proposed utility pole is located approximately 1800 feet west from Highway 1 (Cabrillo Highway) and is along the west side of the subject property.

The project is defined as a physical structure, rather than the intended combination of physical structure and an operation to warn people in a 1-mile radius who are outside that they should immediately obtain additional information through the emergency broadcast system and take appropriate action to protect their lives and to a lesser extent, property. In describing the project, the initial study must look at all phases including planning, implementation and operation (Guidelines 15063(d)). This definition is required in order to determine the feasibility of the proposed (or a revised) project, together with the feasibility of any proposed mitigations. Failing to consider them together would constitute a segmentation CEQA which is not permitted (*Bozung v. Local Agency Formation Commission* (1975) 13 Cal. 3d 263). Moreover, not describing the project's operational details reduces

the public's ability to participate in the CEQA process, particularly in assessing the feasibility of the mitigations proposed in the mitigated negative declaration portion of the documents. Public participation is an essential part of CEQA (Guidelines 15201).

Please extend the project description to incorporate both testing objectives and operational objectives. The goal mentioned in the staff report for the project some months ago was to warn people within a one-mile radius and in a zone designated by height above sea level, causing them to immediately seek additional information from the emergency broadcast system and learn what actions they should take to respond to the impending disaster. I understand that warnings to people indoors is NOT a project objective, and that should also be stated.

In addition, if one of the project's operational objectives is audible monthly testing to instill confidence public confidence in the quality of the warning system, and to train the public to respond properly in the event of an actual tsunami warning, this should be documented.

On page 2, the report states the project area is a significant visitor destination. These visitors constitute a significant portion the lives which might be jeopardized by a tsunami, but the feasibility of achieving the project objective of warning them and training them to respond as desired is not discussed.

The entries on the checklist must be explained to indicate that evidence exists to support the entries, including the page or pages where the information is found (Guidelines 15063(d)(3)). The checklist does not contain this information. In addition, there are several concerns about the completeness of the checklist:

- On page 13 "VII Hazards and Hazardous Materials," the checklist asks the question, "Would/could the project …(g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation?"

  To the extent that the county has adopted an emergency response or evacuation plan which depends on the successful notification by siren, the questionable feasibility of the proposed project achieving its objectives could indeed impair the emergency response and evacuation plan. For details about feasibility questions, please see noise, below.

- On page 14, the checklist asks, "Would/Could the project [expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of]… (j)Inundation by seiche, tsunami, or mudflow?" The siren system itself would be disabled by 10-foot wave reaching control box. Once disabled by an initial wave, the siren would no longer be able to warn of impending tsunami. These impacts could be easily eliminated by siting the siren outside of the tsunami run-up zone.

- On page 15, the checklist asks, "Would/could the project
  (b) Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal

program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?" The initial study has the "no impact" box checked and identifies some policies to which the analysis claims the project conforms. As described in my letter of February 13, 2008 (which should be part of the whole record on which the analysis is performed), I outlined several general plan (safety), local coastal program and zoning ordinances with which the proposed project conflicts. That letter is included as an attachment to this letter. While the analysis certainly can identify some policies with which the project does not conflict, the analysis cannot choose which policies will be satisfied; all of them must be satisfied. The explanatory text attempts to redefine "critical infrastructure" so that a warning communication system is excluded, and "hazard" as something other than the physical events. The safety element does not support these changes, and the explanatory text reference to a changed definition is not accompanied by a meaningful citation to a document that has been adopted to change the definition used in the safety element. "Field Inspections" and "Project Plans" do not provide specificity or public availability, and should not be considered substantial evidence until they do. The above discussion is substantive evidence that the CEQA requirement for considering general plan consistency has not been satisfied for these projects (Guidelines 15126.6(f)).

- Achieving citizen freedom from excessive noise is a fundamental goal of CEQA (PRC 21001(b)). On pages 19-20, the checklist concludes there is no potentially significant noise impact, and on pages 20-21 it proposes as mitigations the limits on the duration and power of siren testing. Because the proposed mitigations and be changed or eliminated by a stroke of the planning director's pen without limitation or subsequent CEQA review, the proposed mitigations are meaningless. Moreover, the lack of information about operation objectives in the project description makes it impossible to determine if the proposed mitigation were feasible, even if were not removable without additional CEQA review.

  To analyze the impacts under the operational and testing objectives omitted from the IS/MND but mentioned above, I used the following references:

  - Data from siren manufacturer: Sound Pressure Level at 3 feet
  - Data from Draft IS/MND: closest nearest home in Casa del Mar is c. 400ft
  - Data from FEMA: 9 dB increase above background noise needed to achieve awareness
  - Data from MapQuest: furthest home in Casa del Mar from proposed site is c. 2200 ft
  - Data from prior staff report: warning area around siren has 1-mile radius
  - For computations, *Harris, C., Handbook of Acoustical Measurements and Noise Control, 3rd Ed., McGraw-Hill, Inc. 1991, page 3.2.*

Harris explains that attenuation of noise over distance is given by

$$A_{div} = 20\log_{10} r + 10.9 - C \quad \text{dB}$$

with constant C = 0.6.

Siren sound power level is reduced to sound pressure level (SPL) by attenuation. Using SPL @ 3 feet provided by manufacturer,

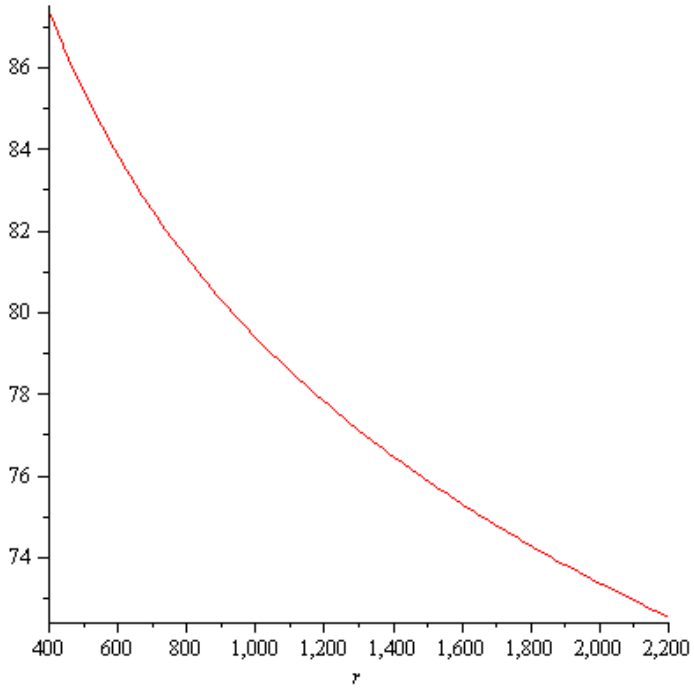
$$\begin{aligned}\text{Siren Sound Power Level} &= \text{SPL} + 20\log_{10} r - 0.6\Big|_{r=3\,ft} \\ &= 131 + 8.9 = 139.9 \approx 140.\end{aligned}$$

This allows derivation of Sound Pressure level as a function of distance from the siren (using formula on p2 of FEMA document:

$$\begin{aligned}\text{SPL} &= \text{Siren Sound Power Level} - \left(20\log_{10} r - 0.6\right) \\ &\approx 140 - 20\log_{10} r + 0.6\end{aligned}$$

Plotting that as function of distance from the siren (using Maple) :

> $plot\left(140 - 20\cdot\log_{10}(r) - 0.6, r = 400..2200\right);$



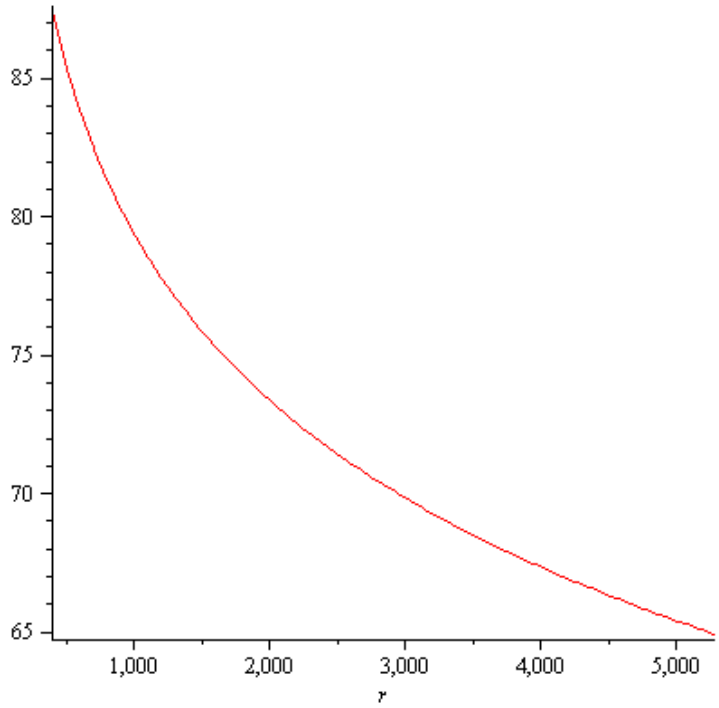
This plot proposed siren's signal is below the background noise level, which is consistent with citizen inquiries posted to web sites concerning the tests of sirens that have already been installed in other areas.

In particular, note that the sound pressure level at 400 feet is $140. - \left(20. \cdot \log_{10}(400.) - 0.6\right)$
Or c. 88.5 dB, not 93 dB as stated on page 20. A similar error propogates through much of the quantitative analysis, making it unsuitable as substantive evidence of the initial study/mitigated negative declaration (PRC 21080(c), 21082.2(c); Guidelines 15384).

At c. 2200 ft away from proposed siren location in opposite corner of Casa del Mar, noise levels are dominated by near Hwy 1. I know of no direct measurements of sound at that location, but it is instructive to compare it to the level of noise near Highway 1 at Roosevelt, which was measured in 1990 and appears in Appendix A of the City's Noise Element. It is also reasonable to assume that neighbors are more likely to be in their yards during the day on weekends when regional visitors increase traffic volumes and in the morning and evenings when commuters increase traffic volumes. But even if an artificially low median noise level L(50) of 69.3 were used, the FEMA threshold of awareness would be a siren SPL of 78.3; at that distance from the proposed location, however, the SPL is slightly more than 72, far less than a safe margin for a signal that needs to be noticed. To achieve this, $69.3 + 9. + 20 \cdot \log_{10}(2200.) - 0.6$ or approximately 144.54 dB siren power level is required. This would result in an SPL of $144.5 - \left(20. \cdot \log_{10}(400.) + 0.6\right)$ or 91.9 dB at the home nearest the siren.

To achieve a noticeable 9 dB increase over existing noise at a more conservative noise L(10) level of 73.3 dB, an SPL of 81.3 would be required at Wave and Highway 1, a distance of c. 2200 ft from the proposed siren location. To accomplish this, the sound power level of the siren would need to be $73.3 + 9. + 20 \cdot \log_{10}(2200.) - 0.6$, or approximately 148.5 dB. This would result in an SPL 400 feet from the siren of $148.5 - \left(20. \cdot \log_{10}(400.) + 0.6\right)$, or approximately 95.9 dB.

At the extremes of the siren service area, the SPL attenuates to nearly 65 dB, as shown in the following graph. Information about ambient noise levels during period of heavy beach use are not available, but a similar analysis to the one conducted above is needed to determine the sound power level needed for the project to be feasible with respect to its objectives, and the resulting SPL at closer receptors.



This analysis constitutes substantive evidence that for a feasible project at this site, a significant noise impact will occur. It also raises questions about the feasibility of the proposed mitigations, even if they were not able to be defeated by a stroke of the current or future planning director's pen without additional CEQA review. However, meaningful analysis must consider other factors including siren failure, siren stuck on, additional attenuation due to wind velocity and direction, humidity, and attenuation by interposed houses, all of which that could result in a feasible project at this site requiring an even stronger siren, with even greater impacts.

As a result of the above concerns, the checklist on page 4 "Environmental Factors Potentially Affected" should at a minimum show significant unmitigated impacts for "noise" and "public service" or "utilities / service system" (or all three). CEQA defines a feasible project as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors" (Guidelines 15364). Based on the above substantial evidence, the proposed project will not be feasible with respect to the intended (or reasonably foreseeable intended) warning and testing operations. Using the same substantive evidence, a feasible project at the proposed site will have significant unmitigated impacts.

In addition, the appendices at the back of the IS/MND are incomplete, making them unreadable and unsuitable evidence in this form.

- In Appendix D, all odd-numbered pages are missing. From the table of contents (page iii), this includes FEMA discussion of sirens (p3), attenuation with distance (p5) and absorption of sound in the atmosphere (p7), and hearing (p7).

- Appendix E: all even-numbered pages are missing, including important specifications

Notwithstanding the above concerns, I remain a supporter of this project, and appreciate both the applicant and staff response to SMC Grand Jury call the for a tsunami warning system. But system must be accompanied by systems analysis to show that it is effective; an inadequate warning system that instills a false sense of confidence is worse than no warning system at all. A system must be designed to achieve the objectives without the above-described impacts. I ask that these comments be made part of the public record, and that I be informed of any future activities pertaining to these or similar projects.

A negative declaration may only be prepared when no substantial evidence exists, in light of the whole record, that the project may have a significant environmental effect. (PRC 21080(c)). If, after preparing the initial study, the lead agency determines that there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, it must either prepare an EIR, use a previously prepared EIR that adequately analyzes the project at hand, or use one of CEQA's allowable tiering methods to determine which of the project's effects have been adequately examined in an earlier EIR or negative declaration. (Guidelines 15063(b)(1)). Should the City decide to require an EIR, I would be glad to assist the City in the development and analysis of alternative project sites and designs, and to meet with the applicant to identify effective mitigations where needed. I may be reached at jamben@pacbell.net.

Again, thank you for opportunity to comment on these IS/MND drafts.

Sincerely,

James Benjamin, Ph.D.
400 Pilarcitos Avenue
Half Moon Bay, CA 94019

Attachment: letter of 13 February 2008

City of Half Moon Bay
Attn: Sean K. Gallegos
501 Main Street
Half Moon Bay, CA 94019

August 4, 2008

DELIVERED BY HAND

Dear Mr. Gallegos:

Thank you for sending a copy of and providing an opportunity to comment on the revised and recirculated draft initial studies and mitigated negative declarations (subsequently referred to as "recirculated draft IS/MNDs") for projects PDP-085-07 and PDP-086-07 for the construction of outdoor emergency warning sirens dated July 2008. While I continue to support the project in principle, I remain concerned that the documents do not satisfy the cited CEQA requirements (PRC 21177), are not complete because projects are not adequately described, their impacts are not adequately disclosed, and the proposed mitigations cannot reduce the impacts to a less-than-significant level while achieving the project objectives.

As with my earlier letters, I will for brevity confine my document references to the project PDP-086-07, but where applicable I ask that my comments be considered to refer to both projects with appropriate adjustments for location, distance, etc.

Unfortunately, the recirculated draft IS/MNDs do not sufficiently disclose the public record for this project, making it difficult for decision makers and interested parties to assess impacts in light of the entire record. I was troubled by the deletion of Appendices D (FEMA CG 1-17) and E (UltraVoice Siren Manual) from the revised document. If the documents can be found on-line, this should have been stated.

In response to the State Clearinghouse submission for PDP-085-07, a letter dated May 29, 2008 was received from Ms. Pilas-Treadway of the Native American Heritage Commission (Exhibit 1) which recommends conditions to mitigate potential cultural heritage impacts. Of course these comments were not available for distribution with the original IS/MND, and so they were attached instead to the agenda report for this project dated June 26, 2008. This letter is not included or acknowledged in the recirculated draft IS/MND, however. Even if the requested measures are rejected, the decision-makers, relevant agencies and interested members of the public are entitled to timely knowledge of the comments of public agencies. I trust that the Native American Heritage Commission has been notified in writing of the date of the public hearing for this project (PRC 21092.5(b); Guidelines 15073).

In addition, the determination section of the recirculated draft IS/MNDs (page 5) are not signed and dated.

PROJECT DESCRIPTION ISSUES

CEQA Guidelines 15378(a) and PRC 21065 define a project as the whole of an action which has the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. From page 2 of the recirculated draft IS/MND:

> The project is located on one 5.43-acre site, Assessor Parcel Number 048-240-030, at 1000 North Cabrillo Highway. The parcel is developed with numerous buildings, and wastewater treatment structures. Construction will consist of the installation and operation of an emergency warning siren system. The siren system will be installed on top of a 37-foot utility pole, 2 solar panels mounted at 20 feet above the ground, and control and battery cabinets mounted 10 feet above the ground. The unit is self-contained, not requiring power or telephone line connections. The proposed utility pole is located approximately 1800 feet west from Highway 1 (Cabrillo Highway) and is along the west side of the subject property. The emergency warning system will be part of the San Mateo County emergency notification system, which will notify residents, government agencies and critical facilities of impending emergencies. In the event of an impending emergency, the emergency sirens will create sound that will be a single steady tone with the volume rising gradually at the beginning and falling gradually at the end. The system will have an approximate one-mile radius from the subject site.

Thank you for enhancing the project description to reflect the activation of the warning siren during actual emergencies.

Please verify the location on subject property at which siren is proposed; I believe it is on the south side.

Please extend the project description to incorporate operational objectives. The goal mentioned in staff discussions some months ago was to warn people to immediately seek additional information from the emergency broadcast system and learn what location-specific actions they should take to respond to the impending tsunami, rather than indiscriminately evacuating and saturating City arterials. The inclusion of this objective is important to analyzing potential feasibility and impacts of the proposed project.

Please extend the project description to incorporate any objective pertaining to warning and/or training visitors to respond as specified in applicable city and county emergency operations plans. The recirculated draft IS/MND states on page 3 that the City of Half Moon Bay is a significant visitor destination. These visitors may or may not constitute a significant portion of the lives which might be jeopardized by a tsunami, but the behavior of a relatively small number of panicked visitors on roadways may impact the feasibility of the emergency operations plan.

Please extend the project description to clarify that the notification objective applies only to people who are outside, which defines the kind of evidence which is relevant for assessing feasibility.

Please extend the project description to incorporate any siren maintenance activities and objectives. The periodic nature of maintenance activities forms an important basis for analyzing project impacts. In particular, please extend the project description to incorporate testing objectives, if any.

Mitigation 11-1 of the recirculated draft IS/MND (page 24), indicates that audible testing siren may occur monthly. If one of the project's operational objectives is audible monthly testing to confirm operational status of the siren and/or instill public confidence in the quality of the warning system, this should be documented in the operational objectives so that related impacts may be acknowledged and assessed. If monthly audible testing is no longer a part of the project, it should be specifically excluded, and the CEQA and coastal development permit documents should not include language which authorizes monthly audible testing, let alone language authorizing the planning director to raise the power and/or extend the duration of testing without limits or further CEQA review.

In describing the project, the initial study must look at all phases including planning, implementation and operation (Guidelines 15063(d)). This definition is required in order to determine the feasibility of the proposed (or a revised) project, together with the feasibility of any proposed mitigations. Failing to consider them together would constitute segmentation which is not permitted under CEQA (*Bozung v. Local Agency Formation Commission* (1975) 13 Cal. 3d 263). Moreover, not describing the project's very audible operation during maintenance reduces the public's ability to participate in the CEQA process, particularly in assessing the feasibility of the project and the effectiveness of the mitigations proposed to reduce the impacts to a less-than-significant level. Public participation is an essential part of CEQA (Guidelines 15201).

CHECKLIST ISSUES

The revised IS/MND includes on pages 5-29 a checklist titled "Environmental Factors Potentially Affected" to be considered in reviewing the completeness of the revised IS/MND. The entries on the checklist must be explained to indicate that evidence exists to support the entries, including the page or pages where the information is found (Guidelines 15063(d)(3)). Like the original draft IS/MND, the recirculated checklist does not contain this information.

In addition, there are several continuing concerns about the accuracy of several items on the checklist.

Noise Impacts

Achieving citizen freedom from excessive noise is a fundamental goal of CEQA (PRC 21001(b)). On pages 22-23 the checklist concludes there is no potentially significant noise impact, and on pages 24-25 mitigations are proposed with respect to the duration and power of siren testing. Because the power and duration of the tests may be changed by the City Planning Director without further CEQA review, the proposed mitigations are meaningless. Moreover, the lack of information about operation objectives in the project description makes it impossible to determine if the proposed mitigations are feasible, even if they could not be altered by the Planning Director without further CEQA review.

The recirculated draft IS/MND states (page 24)

> The activities of the proposed project will not generate levels of sound that exceed the amount allowed by the Noise Element of the General Plan…The proposed project would be a Public Safety Facility, which is neither a residential nor a commercial use; therefore it would not require a noise evaluation by a qualified acoustical engineer.

While subsequent comments call out specific policies of the City's General Plan with which the project does not comply, even "conformity with a general plan does not insulate a project from EIR review where it can be argued that the project will generate significant environmental effects" (*Oro Fino Gold Mining Corp. v. County of El* Dorado (1990) 225 Cal.App.3d 872; *City of Antioch v. City Council* (1986) 187 Cal.App.3d 1325).

The recirculated draft IS/MND states (page 24)

> CHABA [The Committee on Hearing Bioacoustics, and Biomechanics of the National Academy of Sciences] has established that 123 dB is the maximum tolerable sound level before hearing damage occurs.

This seems to suggest, and the description of impact for mitigation measure 11-1 in the Mitigation, Monitoring and Reporting Plan (Appendix B of both recirculated IS/MNDs) confirms that the threshold of significance used for analyzing noise impacts for these projects was the sound pressure level at which hearing damage occurs. The adopted *Noise Element of the General Plan for the City of Half Moon Bay* (page 17) suggests adopting +3 dB(A) increase as a threshold of significance for noise impacts (Guidelines 15064.7). Such a standard is consistent with other agencies (e.g. +5 db(A) in Placer County's *DEIR The Northside* (SCH #2004112009, page 4.5-8) or +3 dB(A) in North Fork Village Project (page 5.11-4)). According to FEMA's *Outdoor Warning Systems Guide* (CPG 1-17, page 7), warning signals should be 9 dB above ambient noise levels. Thus a successfully implemented warning system will produce noise increases that are significant by design, and should not be mitigated to less than +9 dB(A). The beneficial purpose of these noises does not excuse them from being acknowledged as significant (Guidelines 15063(b)(1)), or excuse project proponents from identifying mitigations that minimize unnecessary impacts, once they are recognized as significant (Guidelines 15126.4).

To analyze the impacts under the operational and testing objectives the siren located at the SAM Plant as proposed in the recirculated draft IS/MND for PDP-086-07, I used the following data references:

- Data from siren manufacturer:
  - Frequency of siren tone(s): 282 – 3000 Hz
  - Sound Pressure Level @ 1m: 131 dB (warning) or 119 dB (test)

- Data from FEMA: 9 dB increase above background noise needed to achieve awareness

- Data from Google Earth: Distances from siren tower to receptors in Exhibit 2

- Data from prior staff report:
  - Radius of planned warning area around siren: one mile
  - Height of pole on which siren is to be mounted: 37 feet

- For distance attenuation computations, *Harris, C., Handbook of Acoustical Measurements and Noise Control, 3rd Ed., McGraw-Hill, Inc. 1991, page 3.2.*

- Measurements of ambient noise were made on Saturday July 12, Wednesday July 30 and Thursday July 31 between 9am and 2pm using an ExTech Model 407730 Sound Level Meter, S/N 9621438 using the "A" weighted scale and slow refresh rates. Winds were calm; temperatures were between 60° F and 75° F. The top and bottom 5% of sampled measurements were discarded to obtain the range of ambient noise levels in the leftmost columns of Exhibit 2.

- Distances between sound sources and receptors were measured using Google Earth.

In the referenced text, sound expert Harris explains that attenuation of noise over distance is given by $A_{div} = 20\log_{10} r + 10.9 - C \text{ dB}$ for a constant C, so the sound pressure level @ 1m from a siren with sound power level SWR is $SWR - A_{div} = SWR - \left(20\log_{10} 1 + 10.9 - C\right) = SWR - 10.9 + C \text{ dB}.$ (Additional important sources of attenuation include wind and humidity are beyond the scope of this comment, but should be considered in any professional sound analysis.) This value is given by the siren manufacturer Hormann to be $131 \text{ dB}.$ Since the effect of conversion of sound pressure levels (SPLs) of tones in the 282-3000Hz range from unweighted to "A" weighted scales (the scale appropriate for assessing sound as perceived by humans) is negligible, $SWR = 131 + 10.9 - C \text{ dB(A)},$ and the sound pressure level at a distance r from the siren is given by

$$\begin{aligned} SWR - A_{div} &= \left(131 + 10.9 - C\right) - \left(20\log_{10} r + 10.9 - C\right) \\ &= 131 - 20\log_{10} r \text{ dB(A)} \end{aligned}$$

Repeating the computation with a low-power test siren of 119 dB(A) yields a sound pressure level of $119 - 20\log_{10} r \text{ dB(A)}.$

Using the above expressions, the distances provided by Google Earth and the observed ambient noise levels, I computed the difference between siren SPL and the ambient noise SPL at various locations below or near the 40-foot contour. The distance from siren to receptor takes into account the base elevation of receptor and both base elevation and height of the siren's 37-foot tower. The results are shown in Exhibit 2 in columns marked "Δ SPL – IS/MND proposal (SAM)" for both Testing and Warning signals. It will be noted that the monthly test at 119 dB produces sound pressure level increase far in excess of 9 dB(A) for some areas within the 40-foot contour. As indicated in Exhibit 2, the test siren will increase pressure levels by more than 25 dB(A) and 30 dB(A) for some homes in Casa del Mar and St. John Subdivision No. 3 neighborhoods. This simple distance attenuation model suggests that some areas at or below the 40-foot contour and far closer than one mile will not receive a test signal 9 dB(A) above ambient noise levels. At-risk areas not receiving the test signal could include Strawflower Plaza, and

deep penetration of tsunami bores up Pilarcitos and Frenchmen's Creeks and other drainages could expose areas otherwise not thought to be at risk. From the frequency range provided by the manufacturer, the wavelength range may be computed as

$$\text{Wavelength} = \frac{\text{speed of sound at sea level}}{\text{frequency}}$$
$$= \frac{340.29 \text{ m/s}}{3000 \text{ Hz}} = 11.3 \text{ cm (minimum wavelength) or}$$
$$= \frac{340.29 \text{ m/s}}{282 \text{ Hz}} = 1.207 \text{ m (maximum wavelength)}$$

The siren's wavelengths are small enough to be further attenuated due to obstruction by houses, shopping centers and other structures that are much larger than these wavelengths. Wind, reflection and scatter by fog and structures, and other humidity effects should be incorporated in a professional sound analysis to support any claim of audibility behind structures and over large distances.

A similar analysis of the siren proposed in PDP-085-07 would raise similar concerns. The siren would be located within 70 meters of a hotel, creating training siren sound pressure levels of 79.9 – 82.1 db(A) before considering reflection in the "U" shaped area in front of the hotel. The "sound shadow" created by the hotel could cause a warning signal to become inaudible at homes near the bluff top directly behind the hotel, where distance alone will have attenuated the warning siren's sound pressure level to approximately 77 db(A) before considering building interference, wind, humidity or other effects.

The analysis above constitutes substantive evidence that for a feasible project at these sites, a significant noise impact will occur. It also raises questions about the appropriateness and feasibility of the proposed mitigations, even if they could not be defeated by a stroke of the current or future planning director's pen with no additional CEQA review. Meaningful analysis must consider other factors such as siren failure (including siren stuck on), additional attenuation due to wind velocity and direction, humidity, and attenuation by interposed houses, all of which that could result in a feasible project at these sites requiring an even stronger siren, with even greater impacts. Increasing the power of the sirens to achieve warnings throughout the target area are reasonably foreseeable future projects, and CEQA analyses that do not take these extensions into account would constitute prohibited segmentations of the projects (*Bozung v. Local Agency Formation Commission* (1975) 13 Cal. 3d 263).

The monthly impacts shown in Exhibit 2 are much too large to be ignored or attributed to measurement error. The check list section XI (Noise), part (d) question

> Would/could the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

cannot be answered "less than significant with mitigation incorporation." The correct response is clearly "potentially significant impact."

Emergency Response Plan Interference

In Section VII, Hazards and Hazardous Materials, part g (page 16), the checklist in the recirculated draft IS/MND asks

> Would/could the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation?

The abstract goal of a well-intended outdoor warning system would not interfere with such a plan or evacuation. Just as well-intended but improperly designed armor in a creek could aggravate erosion in the drainage adjacent to Kehoe Avenue, an incompletely-designed warning system could impair the execution of emergency plans.

Although the warning signal would likely not be audible for distant homes in the target area, for a very small number of homes the indoor sound pressure levels produced by a warning siren will likely exceed 70 dB(A). The residents of these homes could have difficulty hearing emergency broadcast and automated telephone call evacuation instructions, and then orchestrating a timely evacuation of their children, pets and seniors with special needs, let alone their neighbors. Lowering the power of the warning siren does not appear to be a feasible mitigation, as some locations at or below 42 feet may not hear it. Relocation is a feasible mitigation, as further discussed in "Mitigation and Monitoring Plan" section of this comment letter.

The failure of test signals to reach citizens prevents those citizens from developing the reflexes needed to act quickly and calmly when a warning signal is sounded. Members of the community at risk but who cannot discern this signal above ambient noise will almost certainly be impaired in their ability to learn to follow emergency instructions.

The likelihood that some people below the 40-foot contour will not be reached even by the warning siren raises fundamental questions about the feasibility of planning the warning system with so few sirens to acquaint the public with the siren and train and warn them to respond appropriately. Citizens to be served sirens elsewhere in the county have posted comments on local web sites concerned that they have not heard the test sirens.

The only way the recirculated draft IS/MND can be modified to mitigate the latter two impacts would be (1) increasing the power of the siren, which will produce its own new significant impacts, or (2) relocating the siren, which would require assessment the impacts on the new site. Therefore the "No Impact" assessment needs to be changed to "Potentially Significant Impact."

Exposure to Flood Risk

In Section VIII, Hydrology and Water Quality, parts, (i) and (j) (page 18) the checklist in the recirculated draft IS/MND asks

> Would/could the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

and

> Would/could the project [expose people or structures to] inundation by seiche, tsunami, or mudflow?

The recirculated draft IS/MND discussion still ignores the dam inundation and tsunami uprush risk, asserting that placement within an existing development somehow eliminates the risk associated with the site. The discussion also argues that the beneficial goal of the erecting siren reduces to less than significant the risk that the siren will be unavailable when it is needed the most. No specific evidence is cited to support these claims (Guidelines 15063(d)).

Since PDP-086-07 proposes to locate a siren in an area of both dam inundation and tsunami uprush, the CEQA analysis must include the possibility that a large earthquake (a significant contributor to dam inundation) would be followed within hours or days by a tsunami, and the possibility that damaging tsunamis occur that are separated by days. Because of the proposed current location, either of these events could needlessly disable or destroy the siren, exposing the public to a second event. Large earthquakes can occur in clusters, so the probability of such a sequence is higher than the square of the probability of a single damaging event occurring. If the probability of a damaging tsunami is large enough to justify the proposed outdoors warning system, then the risk of needing it for subsequent events should not be dismissed out of hand when the risk could be eliminated by relocating the project.

Violations of General Plan and Local Coastal Program Policies

In section IX, Land Use and Planning, part (b) (page 19), the checklist asks

> Would/could the project conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The initial study has the “no impact” box checked and identifies some policies to which the analysis claims the project conforms. While the analysis certainly can identify some policies with which the project does not conflict, the analysis cannot choose which policies will be satisfied; all of them must be satisfied. The recirculated draft IS/MND for PDP-086-07 contains no changes that acknowledge or reduce the conflict with policies mentioned in comment letters of February 13, 2008 and June 13, 2008.

LCP Policy 4-6.

> In areas of flooding due to tsunamis or dam failure, no new development shall be permitted unless the applicant or subsequent study demonstrates that the hazard no longer exists or has been reduced or eliminated by improvements which are consistent with the policies of this Plan and that the development will not contribute to flood hazards or require the expenditure of

> public funds for flood control works. Where not otherwise indicated, the flood hazard zone shall be considered to be a zone defined by the measured distance of 100 feet from the centerline of the creek to both sides of the creek. Non-structural agricultural uses, trails, roads, and parking lots shall be permitted, provided that such uses shall not be permitted within the area of stream corridor. (See Policies in Section 3 on Protection of Sensitive Habitats.) [1] [emphasis added]
>
> The LCP specifically observes "The Half Moon Bay Sewage Treatment Plant and portions of the proposed SAM pipeline are located within zones of inundation from dam failure and tsunami."[2] The LCP defines development "on land, in or under water, the placement or erection of any solid material or structure."[3] There are no studies showing that the hazard no long exists or has been reduced or eliminated; in fact, studies have shown that the hazard of inundation by tsunami is greater than previously thought.[4] The policy specifically identifies permitted uses which do not include the proposed project; consequently, the project violates this policy.

The discussion of this checklist item includes the comments that the project does not increase the risk of tsunami inundation, which is not material to conformance with this policy. It also mentions the beneficial intent of warning residents, which is acknowledged but not material to conformance with this policy. The same benefits may be achieved without policy violation by carefully locating the emergency outdoor warning system outside of the tsunami runup and dam inundation zones.

Flood Hazard Policy 2.

> New critical facilities should not be located in areas with the potential to be adversely affected by tsunamis and/or seiches. If a critical facility must be located in a tsunami hazard zone, "tsunami-proof" design and construction principles should be incorporated so that it can resist tsunami damage and facilitate evacuation on short notice.[5]

The full definition of "critical facility" in the *Safety Element* is found on page 6:

> CRITICAL FACILITY – includes facilities housing or serving many people or otherwise posing unusual hazards in case of damage from or malfunction during an earthquake, such as hospitals, fire, police, and emergency services facilities, hotels, restaurants,

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[1] *Half Moon Bay Local Coastal Program - Land Use Plan*, amended 1993, Policy 4-6, page 83
[2] Ibid., page 79.
[3] Ibid., page 233.
[4] Page 21 of the *Safety Element, City of Half Moon Bay* adopted October 15, 1991 states "The United States Geological Survey (USGS) has produced a map delineating areas subject to tsunami inundation based on a 20 foot runup along coastal areas and also at the Golden Gate Bridge. Such a runup is estimated to occur an average of once every 200 years." More recently, the Association of Bay Area Governments released a study for planning purposes that reflects a credible tsunami runup of 42 feet above sea level. The study uses a new method discussed in Titov and Synolakis, "Numerical modeling of tidal wave run-up," *Journal of Waterways, Port, Coastal and Ocean Engineering*, ASCE, pp. 157-171. Additional information was last accessed on August 2, 2008 at http://www.abag.ca.gov/bayarea/eqmaps/tsunami/moreinfo.html .
[5] *Safety Element, City of Half Moon Bay* adopted October 15, 1991, pages 22 and 47. The policy appears to be incorrectly identified in the recirculated draft IS/MND as being part of the Land Use Plan (LUP).

> utility "lifeline" facilities, such as water, electricity, and gas supply, sewage disposal, and communication and transportation facilities.

An outdoor emergency warning system serves many people, its malfunction could prevent visitors from receiving a life-saving warning in the event of a damaging tsunami caused by an earthquake, and is a type of communication facility. The discussion in the recirculated draft IS/MND specifically acknowledges the proposed emergency outdoor warning siren as part of the San Mateo County notification system.

Notwithstanding the above, the recirculated draft IS/MND argues

> While, an emergency warning siren system may preserve or mitigate hazards to a "critical facility" from an emergency, it does not provide a critical service after the emergency event, which would return the community to its original state. Therefore, the emergency warning system is not a *critical facility*. [emphasis in draft IS/MND].

The *Safety Element* definition does not distinguish services in terms of whether the service assists the community in returning to its original state, and so this argument is specious. The proposed project locates critical infrastructure in the tsunami hazard zone, offering no argument that it is necessary (as a pipeline to an existing sewer treatment facility in the tsunami hazard zone might be). Other locations for the project could fully conform to this policy, and so the project conflicts with the policy.

Flood Hazard Policy 3.

> When the Natural Hazard map does not clearly illustrate the presence or extent of flooding hazards and a development site is within a reasonable proximity to a natural hazard, use a more detailed map and information, including but not limited to, the Flood Insurance Rate Maps (FIRM) prepared by the Federal Emergency Management Agency (FEMA) for San Mateo County and the Dam Failure Inundation maps prepared for the San Mateo County Office of Emergency Services.[6]

Flood Hazard Policy 7.

> Discourage the location of new critical facilities in flood hazard areas.[7]

Flood Hazard Policy 3 clearly shows that Flood Hazards include flood by dam inundation. Although the Safety Element indicates that Pilarcitos Creek was not in a 1973 USGS revision to a map it had prepared in 1971, the Dam Failure Inundation map for Pilarcitos Dam (Exhibit 3 and close up in Exhibit 4) clearly shows the site in the zone at risk of flooding due to dam inundation. The county geotechnical hazard map (Exhibit 5) shows SAM Plant project site is

[6] Ibid., page 27 and 47.
[7] Ibid., page 27 and 48.

clearly within the flood hazard area.[8] The 1986 Flood Insurance Rate Map does not show the site in its 100-year flood plain. All of these maps are among the sources of information to which planners are directed by Flood Hazard Policy 3 to use in clarifying flood hazards. As noted above, the emergency outdoor warning siren is a critical facility. The recirculated draft IS/MND offers no explanation of why the project site must be located in a flood hazard area, and in silence it conflicts with the policy.

Coastal Act §30253.

New development shall: (a) minimize risks to life and property in areas of high geologic, flood or fire hazard; (2) assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along the bluffs and cliffs. [emphasis added][9]

The recirculated draft IS/MND discussion of conformance with this item centers on compliance with the IBC as a basis for arguing that risk of damage to property is reduced to a level of less than significant. However, any development located in the path of tsunami is very likely to be destroyed. By relocating the project outside of the tsunami zone, damage to the siren system, which is the public's property, can be further reduced. Therefore the project conflicts with this policy.

LCP Policy 9-3.

All new development permitted shall comply with all other policies of this Plan. (New Development means any project for which a Coastal Permit is required under Section 30106, 30250, 30252, 30600 and 30608 of the Coastal Act which has not received such permit as of the date of certification of this Plan).[10] [emphasis added]

This policy codifies that evaluation of a project for conformance with the Half Moon Bay LCP must be based on whether or not the project conforms to all its policies. The project does not comply with the LCP policies cited above, so the project does not comply with this policy, either.

It is unclear why the discussion of section IX, Land Use and Planning cites "Coast Range Biological Report September 2007." It is unclear what "Field Inspection" report is referenced. While "Plan Submittal" apparently refers to Attachment 3 to the Planning Commission agenda reports dated June 26, 2008, the contents and relevant portion of this document is unclear. These citations do not provide specificity or public availability, and there is insufficient evidence for the public to assess whether they may contain arguments, speculation, unsubstantiated opinion or narrative, or other elements which are not substantial evidence (Guidelines 15384; PRC 20180(e)(2), 21082.2). In contrast, the last two and a half pages of substantial evidence identify and discuss general plan, land use and local coastal program

[8] *Geotechnical Hazard Synthesis Map* prepared by Leighton & Associates, Geotechnical Engineers and the San Mateo County Planning Department, 1975, sheet 2.

[9] Coastal Act Policy 30253, incorporated into the *Half Moon Bay Local Coastal Program – Land Use Plan*, amended 1993, page 77.

[10] Policy 9-3, *Half Moon Bay Local Coastal Program – Land Use Plan*, amended 1993, page 144.

policies adopted for the purpose of avoiding or mitigating an environmental effect, and with which the proposed project conflicts. The selection of the "No Impact" box in the checklist is indefensible and should be changed to "Potentially Significant Impact."

MITIGATION MONITORING AND REPORTING

Mitigation Measure 11-1 addresses the concern that noise levels may exceed the CHABA maximum noise level standards of 123 dB. To mitigate this impact, Measure 11-1 requires testing in excess of one-minute monthly tests at sound pressure levels in excess of 119 dB to be reviewed and approved by the planning director. Since the director may waive these limitations, there is no mitigation, and certification would prevent victims of the easily foreseeable impacts from seeking relief in the future under CEQA.

More significantly, no mitigation is provided to address the impact of "a substantial periodic increase in ambient noise levels in the project vicinity above levels existing without the project" as the potential impact is worded in the checklist. The first mitigation would be to relocate the project to a site that would not experience such dramatic increases over ambient noise levels. For illustrative purposes, Exhibit 2 shows the increases in ambient sound levels at three alternative sites.

- The first and second locations, approximately 78m and 89m, respectively west of the Evangelical Lutheran Church, reduce the maximum increase in ambient noise level from 33.9 – 34.9 dB(A) to 25 – 27 dB(A). The increase in noise in the church's parking lot would be between 17.9 – 26.3 dB(A). Some members of the community would likely consider this to be a significant impact – I would be one of them – but it is less than impacts imposed by these alternatives on some citizens residing on Chesterfield, Kehoe and Pilarcitos Avenues. These locations are illustrative but not feasible, since they are also within 42-foot tsunami inundation contour, thereby violating previously cited Safety Element and Local Coastal Program policies.

- The most effective locations for a siren match the attenuation of the siren's signal to the attenuation of ambient noise from dominant noise generators. This is illustrated using the third alternate location for PDP-086-07, approximately 170m east of the end of Casa del Mar Drive at Highway 1, on the south edge of a parcel for which a coastal development permit and use permit will be soon considered by the Planning Commission. It appears to be a feasible location for the project, but would require an easement. Additional mitigation might be achieved by locating the warning siren further east, raising the tower higher and orienting the horns so that nearest residents are in the "shadow" beneath the horns. Even after mitigation, the greatly reduced impacts would still be significant, because the noise impacts of a siren are designed to be significant; however the completion of a certified EIR that considers a range of alternatives and adopted meaningful mitigations that minimize noise impacts could justify a measure of overriding concern.

A useful additional partial mitigation of noise impacts would be to replace the monthly 119 dB(A) tests with non-annoying test,[11] oscilloscope/digital multimeter test,[12] and quiet test[13] capabilities built into these the warning system controller. The controller may also be designed to perform very quick (tens of millisecond) bursts of siren activity that can be measured to verify correct operation without being perceived by most people. These mitigations are not consistent with the training function, however.

The other impacts in this comment were not acknowledged in the recirculated draft IS/MNDs, but appropriate mitigations should be included in revised CEQA documents once they are recognized. With respect to facilitating emergency operations, alternatives that consider additional equipment to warn beach visitors should be considered.

CONCLUSION

A negative declaration may only be prepared when no substantial evidence exists, in light of the whole record, that the project may have a significant environmental effect. (PRC 21080(c)). If, after preparing the initial study, the lead agency determines that there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, it must either prepare an EIR, use a previously prepared EIR that adequately analyzes the project at hand, or use one of CEQA's allowable tiering methods to determine which of the project's effects have been adequately examined in an earlier EIR or negative declaration. (Guidelines 15063(b)(1)).

Although the project descriptions are not complete enough to fully assess impacts, the preceding analysis shows that the project will have a significant effect on the environment, and the "fair argument" standard for requiring EIR preparation is more than exceeded. The summary of "Environmental Factors Potentially Affected" on page 5 of the recirculated draft IS/MNDs should be corrected to show potentially significant impacts pertaining to Hazards & Hazardous Materials, Noise and Land Use / Planning for PDP-086-07, and potentially significant impacts pertaining to Hazards & Hazardous Materials and Noise for PDP-085-07. The Determination section on the same pages should be corrected to show that the project may have a potentially significant impact on the environment, and that an environmental impact report is required to address the noted effects. Since the effectiveness and impacts of the two projects are interdependent, an EIR addressing both projects is preferable to independent EIRs that treat each project in isolation.

Notwithstanding the above concerns, I remain a supporter of this project, and appreciate both the applicant and staff response to the San Mateo County Grand Jury call the for a tsunami warning system. However, a system of this importance must be accompanied by systems analysis to show that it is

[11] *Federal Signal UltraVoice Electronic Siren Controllers Control Unit/Battery Box Installation and Operation Instructions*, Maintenance Instructions, page 51.
[12] Ibid., page 56.
[13] Ibid., pages 65-66.

effective; an inadequate warning system that instills a false sense of confidence is worse than no warning system at all.

Should the City decide to require an EIR for these warning system, I would be glad to assist the City in the development and analysis of alternative project sites and designs, and to meet with the applicant to assist with the development of effective mitigations where needed. I ask that these comments be made part of the public record.

Again, thank you for opportunity to comment on these recirculated draft IS/MNDs. Please add me to your mailing list and keep me informed of any future CEQA-related or permit-related activities pertaining to these or other projects to implement emergency warning systems. I may be reached at jamben@pacbell.net or by phone at (650) 712-0543.

Sincerely,

James Benjamin, Ph.D.
400 Pilarcitos Avenue
Half Moon Bay, CA 94019

Attachments:

Exhibit 1: Letter from Debbie Pilas-Tready, Native American Heritage Commission, State of California

Exhibit 2: Impact of PDP-086-07 Emergency Warning Siren System on Ambient Noise Levels at Selected Locations (2 pages)

Exhibit 3: *Inundation Map of Pilarcitos Dam*, San Mateo County Dwg. X-1872, Sheet 2 of 2

Exhibit 4: Proposed Project Location within Dam Inundation (inset from Exhibit 3)

Exhibit 5: *Geotechnical Hazard Synthesis Map* prepared by Leighton & Associates, Geotechnical Engineers and the San Mateo County Planning Department, 1975, sheet 2.

STATE OF CALIFORNIA Gray Davis, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 – Fax

PLANNING DEPT.

JUN 2 2008

RECEIVED

May 29, 2008

Sean Gallegos
City of Half Moon Bay
501 Main Street
Half Moon Bay, CA 94019

RE: SCH# 2008052057 – Emergency Warning Siren System project, 2651 North Cabrillo Highway, San Mateo County

Dear Mr. Gallegos:

After reviewing the above mentioned mitigated negative declaration, I was unable to determine if the cultural resources in the project area have been adequately assessed based on the information provided in the environmental document. To adequately assess the project-related impact on archaeological resources, the Commission recommends the following action be required:

1. Contact the appropriate Information Center for a records search. The record search will determine:
   - Whether a part or all of the project area has been previously surveyed for cultural resources.
   - Whether any known cultural resources have already been recorded on or adjacent to the project area.
   - Whether the probability is low, moderate, or high that cultural resources are located within the project area.
   - Whether a survey is required to determine whether previously unrecorded cultural resources are present.

2. The final stage of the archaeological inventory survey is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
   - Required the report containing site significance and mitigation be submitted immediately to the planning department.
   - Required site forms and final written report be submitted within 3 months after work has been completed to the Information Center

3. Contact the Native American Heritage Commission for:
   - A Sacred Lands File Check.
   - A list of appropriate Native American Contacts for consultation concerning the project site and assist in the mitigation measures.

Lack of surface evidence of archeological resources does not preclude the existence of archeological resources. Lead agencies should include provisions for accidentally discovered archeological resources during construction per California Environmental Quality Act (CEQA) §15064.5 (f). Health and Safety Code §7050.5 and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery and should be included in all environmental documents. If you have any questions, please contact me at (916) 653-4038.

Sincerely,

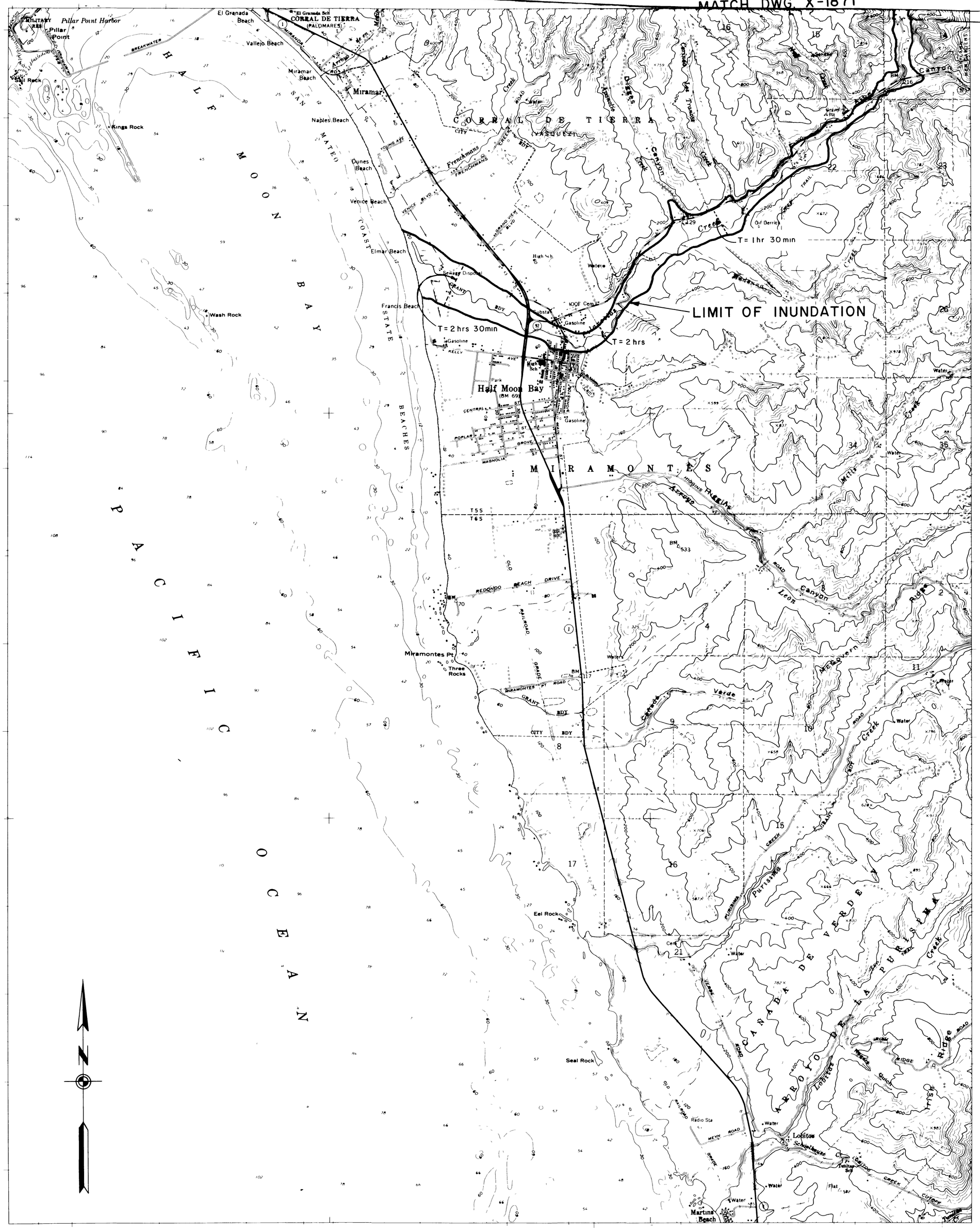
Debbie Pilas-Treadway
Environmental Specialist III

cc: State Clearinghouse

90/10 BG SPL			Δ SPL - IS/MND proposal (SAM)		Δ SPL - Alt. 1		Δ SPL - Alt. 2		Δ SPL - Alt. 3 (E of CdMar)	
low	high	Location	Testing	Warning	Testing	Warning	Testing	Warning	Testing	Warning
		Casa del Mar								
		400 Pilarcitos								
40	42	- front	32.9 - 34.9	44.9 - 46.9	25.0 - 27.0	37.0 - 39.0	25.0 - 27.0	37.0 - 39.0	21.2 - 23.2	33.2 - 35.2
43	45	- back	32.1 - 34.1	44.1 - 46.1	21.4 - 23.4	33.4 - 35.4	21.3 - 23.3	33.3 - 35.3	17.8 - 19.8	29.8 - 31.8
		421 Kehoe								
42	46	- front	21.4 - 25.4	33.4 - 37.4	24.0 - 28.0	36.0 - 40.0	24.2 - 28.2	36.2 - 40.2	21.2 - 25.2	33.2 - 37.2
43	47	- back	20.5 - 24.5	32.5 - 36.5	24.0 - 28.0	36.0 - 40.0	0.0 - 0.0	36.0 - 40.0	20.0 - 24.0	32.0 - 36.0
		431 Kehoe								
43	47	- front	18.8 - 22.8	30.8 - 34.8	24.0 - 28.0	36.0 - 40.0	23.8 - 27.8	35.8 - 39.8	21.7 - 25.7	33.7 - 37.7
47	50	- back	15.9 - 18.9	27.9 - 30.9	22.1 - 25.1	34.1 - 37.1	0.0 - 0.0	34.0 - 37.0	18.3 - 21.3	30.3 - 33.3
		437 Kehoe								
52	58	- front	6.8 - 12.8	18.8 - 24.8	13.0 - 19.0	25.0 - 31.0	12.7 - 18.7	24.7 - 30.7	12.1 - 18.1	24.1 - 30.1
53	56	- back			16.1 - 19.1	28.1 - 31.1	0.0 - 0.0	28.0 - 31.0	13.4 - 16.4	25.4 - 28.4
40	45	CdM NW corner	18.3 - 23.3	30.3 - 35.3	15.8 - 20.8	27.8 - 32.8	15.7 - 20.7	27.7 - 32.7	17.7 - 22.7	29.7 - 34.7
40	43	midway on Wave	19.9 - 22.9	31.9 - 34.9	18.6 - 21.6	30.6 - 33.6	18.6 - 21.6	30.6 - 33.6	22.5 - 25.5	34.5 - 37.5
56	67	CdM NE corner	-5.8 - 5.2	6.2 - 17.2	-5.0 - 6.0	7.0 - 18.0	-5.2 - 5.8	6.8 - 17.8	1.7 - 12.7	13.7 - 24.7
62	66	Svc Rd x Casa dl Mar			-0.5 - 3.5	11.5 - 15.5	-0.6 - 3.4	11.4 - 15.4	8.4 - 12.4	20.4 - 24.4
62	68	E end of Kehoe	-4.1 - 1.9	7.9 - 13.9	2.5 - 8.5	14.5 - 20.5	2.4 - 8.4	14.4 - 20.4	3.1 - 9.1	15.1 - 21.1
		Lutheran Church								
58	62	- front	1.9 - 5.9	13.9 - 17.9	19.1 - 23.1	31.1 - 35.1	17.9 - 21.9	29.9 - 33.9	3.6 - 7.6	15.6 - 19.6
57	61	- back	3.1 - 7.1	15.1 - 19.1	22.3 - 26.3	34.3 - 38.3	20.7 - 24.7	32.7 - 36.7	4.7 - 8.7	16.7 - 20.7
		Farmhouse								
66	70	- front	-7.3 - -3.3	4.7 - 8.7	4.6 - 8.6	16.6 - 20.6	4.2 - 8.2	16.2 - 20.2	-6.5 - -2.5	5.5 - 9.5
58	63	- back	0.0 - 5.0	12.0 - 17.0	12.5 - 17.5	24.5 - 29.5	12.0 - 17.0	24.0 - 29.0	0.5 - 5.5	12.5 - 17.5
		At Fence								
57	60	e of 448 Grand	1.9 - 4.9	13.9 - 16.9	9.5 - 12.5	21.5 - 24.5	9.4 - 12.4	21.4 - 24.4	1.5 - 4.5	13.5 - 16.5
50	54	at Ralston ROW	8.8 - 12.8	20.8 - 24.8	15.7 - 19.7	27.7 - 31.7	15.7 - 19.7	27.7 - 31.7	7.2 - 11.2	19.2 - 23.2
46	50	at Chesterfield	13.8 - 17.8	25.8 - 29.8	19.1 - 23.1	31.1 - 35.1	19.2 - 23.2	31.2 - 35.2	10.8 - 14.8	22.8 - 26.8
40	42	Chesterfield W end	21.9 - 23.9	33.9 - 35.9	24.4 - 26.4	36.4 - 38.4	24.9 - 26.9	36.9 - 38.9	17.8 - 19.8	29.8 - 31.8
52	56	Safeway parking	4.2 - 8.2	16.2 - 20.2	7.6 - 11.6	19.6 - 23.6	7.5 - 11.5	19.5 - 23.5	2.7 - 6.7	14.7 - 18.7
		Francis State Beach								
		Buildings								
40	42	- Ranger Office (e)	19.4 - 21.4	31.4 - 33.4	16.3 - 18.3	28.3 - 30.3	16.4 - 18.4	28.4 - 30.4	13.5 - 15.5	25.5 - 27.5
40	48	- natural hist. kiosk	13.9 - 21.9	25.9 - 33.9	10.8 - 18.8	22.8 - 30.8	10.8 - 18.8	22.8 - 30.8	7.7 - 15.7	19.7 - 27.7
		Motor Camper Area								
47	50	- north end	17.7 - 20.7	29.7 - 32.7	10.9 - 13.9	22.9 - 25.9	11.1 - 14.1	23.1 - 26.1	7.9 - 10.9	19.9 - 22.9
48	52	- middle	14.2 - 18.2	26.2 - 30.2	8.4 - 12.4	20.4 - 24.4	8.6 - 12.6	20.6 - 24.6	5.4 - 9.4	17.4 - 21.4
40	45	- south end	18.8 - 23.8	30.8 - 35.8	14.7 - 19.7	26.7 - 31.7	14.8 - 19.8	26.8 - 31.8	11.7 - 16.7	23.7 - 28.7
		Day Use Areas								
54	58	- parking lot NE end	5.6 - 9.6	17.6 - 21.6	1.7 - 5.7	13.7 - 17.7	1.8 - 5.8	13.8 - 17.8	-1.6 - 2.4	10.4 - 14.4
54	60	- parking lot W end	3.1 - 9.1	15.1 - 21.1	-0.8 - 5.2	11.2 - 17.2	-0.7 - 5.3	11.3 - 17.3	-3.8 - 2.2	8.2 - 14.2
48	52	- parking lot center	10.8 - 14.8	22.8 - 26.8	7.1 - 11.1	19.1 - 23.1	7.2 - 11.2	19.2 - 23.2	4.1 - 8.1	16.1 - 20.1
62	68	- Top of stairs	-5.3 - 0.7	6.7 - 12.7	-9.2 - -3.2	2.8 - 8.8	-9.0 - -3.0	3.0 - 9.0	-12.0 - -6.0	0.0 - 6.0
69	70	20' to surf w of stairs	-7.5 - -6.5	4.5 - 5.5	-11.4 - -10.4	0.6 - 1.6	-11.3 - -10.3	0.7 - 1.7	-14.7 - -13.7	-2.7 - -1.7
		Coastside Trail								
48	55	SweetWd N Bench	4.8 - 11.8	16.8 - 23.8	1.4 - 8.4	13.4 - 20.4	-3.7 - -0.7	8.3 - 11.3	3.4 - 10.4	15.4 - 22.4
42	45	FrnchMnsCrkBridge	12.8 - 15.8	24.8 - 27.8	11.8 - 14.8	23.8 - 26.8	11.8 - 14.8	23.8 - 26.8	14.3 - 17.3	26.3 - 29.3
40	45	off Beach	19.7 - 24.7	31.7 - 36.7	16.1 - 21.1	28.1 - 33.1	16.2 - 21.2	28.2 - 33.2	17.1 - 22.1	29.1 - 34.1
40	40	off Antoinette	27.7 - 27.7	39.7 - 39.7	22.4 - 22.4	34.4 - 34.4	22.5 - 22.5	34.5 - 34.5	22.2 - 22.2	34.2 - 34.2
40	43	off St John	26.6 - 29.6	38.6 - 41.6	19.9 - 22.9	31.9 - 34.9	20.0 - 23.0	32.0 - 35.0	19.1 - 22.1	31.1 - 34.1
40	40	N end of bridge	32.3 - 32.3	44.3 - 44.3	23.2 - 23.2	35.2 - 35.2	23.3 - 23.3	35.3 - 35.3	21.5 - 21.5	33.5 - 33.5
42	47	S end of bridge	24.6 - 29.6	36.6 - 41.6	15.0 - 20.0	27.0 - 32.0	15.1 - 20.1	27.1 - 32.1	13.2 - 18.2	25.2 - 30.2
40	42	Maintenance yard	30.7 - 32.7	42.7 - 44.7	20.4 - 22.4	32.4 - 34.4	17.3 - 19.3	29.3 - 31.3	17.1 - 19.1	29.1 - 31.1
40	50	Entrance kiosk	12.7 - 22.7	24.7 - 34.7	9.5 - 19.5	21.5 - 31.5	9.6 - 19.6	21.6 - 31.6	6.2 - 16.2	18.2 - 28.2
		Venice Beach / Sweetwood Campgrnd								
45	50	north parking lot	9.3 - 14.3	21.3 - 26.3	7.6 - 12.6	19.6 - 24.6	7.7 - 12.7	19.7 - 24.7	9.7 - 14.7	21.7 - 26.7
48	55	northeast pkng lot	3.8 - 10.8	15.8 - 22.8	2.4 - 9.4	14.4 - 21.4	2.5 - 9.5	14.5 - 21.5	4.8 - 11.8	16.8 - 23.8
57	60	SweetWd BluffTop	-2.2 - 0.8	9.8 - 12.8	-3.7 - -0.7	8.3 - 11.3	-3.7 - -0.7	8.3 - 11.3	-1.7 - 1.3	10.3 - 13.3
45	50	SweetWood Camp	7.6 - 12.6	19.6 - 24.6	6.4 - 11.4	18.4 - 23.4	6.4 - 11.4	18.4 - 23.4	8.6 - 13.6	20.6 - 25.6
66	73	20' to surf, w of lot	-13.8 - -6.8	-1.8 - 5.2	-15.8 - -8.8	-3.8 - 3.2	-15.8 - -8.8	-3.8 - 3.2	-14.0 - -7.0	-2.0 - 5.0

90/10 BG SPL		Elev.		Δ SPL - IS/MND proposal (SAM)				IS/MND proposal (SAM)		el. (m) 6	Δ SPL - Alternative 1			Alternative Site 1		el. (m) 11	Δ SPL - Alternative 2			Alternative Site 2		el. 12	Δ SPL - Alt. 3 (E of CdMar)			Alternative Site 3		el. 15
low	high	(m)	Location	Testing			Warning			Dist.(m)	119 db(A)	131 db(A) @ 1m	Testing		Warning			Dist.(m)	119 db(A)	131 db(A) @ 1m	Testing		Warning			Distance(m)	119 db(A)	131 db(A) @ 1m	Testing		Warning			Distance(m)	119 db(A)	131 db(A) @ 1m
Casa del Mar																												
			400 Pilarcitos																									
40	42	8	- front	32.9	-	34.9	44.9	-	46.9	160.34	74.9	86.9	25.0	-	27.0	37.0	-	39.0	400	67.0	79.0	25.0	-	27.0	37.0	-	39.0	397	67.0	79.0	21.2	-	23.2	33.2	-	35.2	614	63.2	75.2
43	45	8	- back	32.1	-	34.1	44.1	-	46.1	123.87	77.1	89.1	21.4	-	23.4	33.4	-	35.4	425	66.4	78.4	21.3	-	23.3	33.3	-	35.3	430	66.3	78.3	17.8	-	19.8	29.8	-	31.8	647	62.8	74.8
			421 Kehoe																									
42	46	11	- front	21.4	-	25.4	33.4	-	37.4	382.29	67.4	79.4	24.0	-	28.0	36.0	-	40.0	282	70.0	82.0	24.2	-	28.2	36.2	-	40.2	275	70.2	82.2	21.2	-	25.2	33.2	-	37.2	388	67.2	79.2
43	47	11	- back	20.5	-	24.5	32.5	-	36.5	375	67.5	79.5	24.0	-	28.0	36.0	-	40.0	251	71.0	83.0		-		36.0	-	40.0	251	71.0	83.0	20.0	-	24.0	32.0	-	36.0	400	67.0	79.0
			431 Kehoe																									
43	47	12	- front	18.8	-	22.8	30.8	-	34.8	456	65.8	77.8	24.0	-	28.0	36.0	-	40.0	252	71.0	83.0	23.8	-	27.8	35.8	-	39.8	258	70.8	82.8	21.7	-	25.7	33.7	-	37.7	326	68.7	80.7
47	50	12	- back	15.9	-	18.9	27.9	-	30.9	451	65.9	77.9	22.1	-	25.1	34.1	-	37.1	221	72.1	84.1		-		34.0	-	37.0	224	72.0	84.0	18.3	-	21.3	30.3	-	33.3	341	68.3	80.3
			437 Kehoe																									
52	58	12	- front	6.8	-	12.8	18.8	-	24.8	512	64.8	76.8	13.0	-	19.0	25.0	-	31.0	252	71.0	83.0	12.7	-	18.7	24.7	-	30.7	260	70.7	82.7	12.1	-	18.1	24.1	-	30.1	279	70.1	82.1
53	56	12	- back	8.9	-	11.9	20.9	-	23.9	506	64.9	76.9	16.1	-	19.1	28.1	-	31.1	221	72.1	84.1		-		28.0	-	31.0	223	72.0	84.0	13.4	-	16.4	25.4	-	28.4	301	69.4	81.4
40	45	9	CdM NW corner	18.3	-	23.3	30.3	-	35.3	610	63.3	75.3	15.8	-	20.8	27.8	-	32.8	812	60.8	72.8	15.7	-	20.7	27.7	-	32.7	825	60.7	72.7	17.7	-	22.7	29.7	-	34.7	654	62.7	74.7
40	43	12	midway on Wave	19.9	-	22.9	31.9	-	34.9	637	62.9	74.9	18.6	-	21.6	30.6	-	33.6	740	61.6	73.6	18.6	-	21.6	30.6	-	33.6	740	61.6	73.6	22.5	-	25.5	34.5	-	37.5	475	65.5	77.5
56	67	15	CdM NE corner	-5.8	-	5.2	6.2	-	17.2	774	61.2	73.2	-5.0	-	6.0	7.0	-	18.0	708	62.0	74.0	-5.2	-	5.8	6.8	-	17.8	727	61.8	73.8	1.7	-	12.7	13.7	-	24.7	329	68.7	80.7
62	66	13	Svc Rd x Casa dl Mar	0.3	-	4.3	12.3	-	16.3	432	66.3	78.3	-0.5	-	3.5	11.5	-	15.5	471	65.5	77.5	-0.6	-	3.4	11.4	-	15.4	476	65.4	77.4	8.4	-	12.4	20.4	-	24.4	170	74.4	86.4
62	68	13	E end of Kehoe	-4.1	-	1.9	7.9	-	13.9	570	63.9	75.9	2.5	-	8.5	14.5	-	20.5	266	70.5	82.5	2.4	-	8.4	14.4	-	20.4	269	70.4	82.4	3.1	-	9.1	15.1	-	21.1	248	71.1	83.1
			Lutheran Church																									
58	62	12	- front	1.9	-	5.9	13.9	-	17.9	569	63.9	75.9	19.1	-	23.1	31.1	-	35.1	78	81.1	93.1	17.9	-	21.9	29.9	-	33.9	89	79.9	91.9	3.6	-	7.6	15.6	-	19.6	465	65.6	77.6
57	61	12	- back	3.1	-	7.1	15.1	-	19.1	555	64.1	76.1	22.3	-	26.3	34.3	-	38.3	60	83.3	95.3	20.7	-	24.7	32.7	-	36.7	72	81.7	93.7	4.7	-	8.7	16.7	-	20.7	460	65.7	77.7
			Farmhouse																									
66	70	13	- front	-7.3	-	-3.3	4.7	-	8.7	650	62.7	74.7	4.6	-	8.6	16.6	-	20.6	166	74.6	86.6	4.2	-	8.2	16.2	-	20.2	174	74.2	86.2	-6.5	-	-2.5	5.5	-	9.5	593	63.5	75.5
58	63	13	- back	0.0	-	5.0	12.0	-	17.0	628	63.0	75.0	12.5	-	17.5	24.5	-	29.5	150	75.5	87.5	12.0	-	17.0	24.0	-	29.0	158	75.0	87.0	0.5	-	5.5	12.5	-	17.5	594	63.5	75.5
			At Fence																									
57	60	12	e of 448 Grand	1.9	-	4.9	13.9	-	16.9	713	61.9	73.9	9.5	-	12.5	21.5	-	24.5	300	69.5	81.5	9.4	-	12.4	21.4	-	24.4	301	69.4	81.4	1.5	-	4.5	13.5	-	16.5	752	61.5	73.5
50	54	11	at Ralston ROW	8.8	-	12.8	20.8	-	24.8	643	62.8	74.8	15.7	-	19.7	27.7	-	31.7	291	69.7	81.7	15.7	-	19.7	27.7	-	31.7	292	69.7	81.7	7.2	-	11.2	19.2	-	23.2	779	61.2	73.2
46	50	9	at Chesterfield	13.8	-	17.8	25.8	-	29.8	578	63.8	75.8	19.1	-	23.1	31.1	-	35.1	313	69.1	81.1	19.2	-	23.2	31.2	-	35.2	307	69.2	81.2	10.8	-	14.8	22.8	-	26.8	811	60.8	72.8
40	42	7	Chesterfield W end	21.9	-	23.9	33.9	-	35.9	567	63.9	75.9	24.4	-	26.4	36.4	-	38.4	425	66.4	78.4	24.9	-	26.9	36.9	-	38.9	404	66.9	78.9	17.8	-	19.8	29.8	-	31.8	908	59.8	71.8
52	56	11	Safeway parking	4.2	-	8.2	16.2	-	20.2	872	60.2	72.2	7.6	-	11.6	19.6	-	23.6	589	63.6	75.6	7.5	-	11.5	19.5	-	23.5	595	63.5	75.5	2.7	-	6.7	14.7	-	18.7	1035	58.7	70.7
Francis State Beach																												
			Buildings																									
40	42	9	- Ranger Office (e)	19.4	-	21.4	31.4	-	33.4	759	61.4	73.4	16.3	-	18.3	28.3	-	30.3	1084	58.3	70.3	16.4	-	18.4	28.4	-	30.4	1077	58.4	70.4	13.5	-	15.5	25.5	-	27.5	1504	55.5	67.5
40	48	10	- natural hist. kiosk	13.9	-	21.9	25.9	-	33.9	716	61.9	73.9	10.8	-	18.8	22.8	-	30.8	1027	58.8	70.8	10.8	-	18.8	22.8	-	30.8	1024	58.8	70.8	7.7	-	15.7	19.7	-	27.7	1455	55.7	67.7
			Motor Camper Area																									
47	50	8	- north end	17.7	-	20.7	29.7	-	32.7	366	67.7	79.7	10.9	-	13.9	22.9	-	25.9	801	60.9	72.9	11.1	-	14.1	23.1	-	26.1	787	61.1	73.1	7.9	-	10.9	19.9	-	22.9	1138	57.9	69.9
48	52	8	- middle	14.2	-	18.2	26.2	-	30.2	437	66.2	78.2	8.4	-	12.4	20.4	-	24.4	850	60.4	72.4	8.6	-	12.6	20.6	-	24.6	833	60.6	72.6	5.4	-	9.4	17.4	-	21.4	1199	57.4	69.4
40	45	7	- south end	18.8	-	23.8	30.8	-	35.8	576	63.8	75.8	14.7	-	19.7	26.7	-	31.7	918	59.7	71.7	14.8	-	19.8	26.8	-	31.8	907	59.8	71.8	11.7	-	16.7	23.7	-	28.7	1310	56.7	68.7
			Day Use Areas																									
54	58	10	- parking lot NE end	5.6	-	9.6	17.6	-	21.6	587	63.6	75.6	1.7	-	5.7	13.7	-	17.7	923	59.7	71.7	1.8	-	5.8	13.8	-	17.8	914	59.8	71.8	-1.6	-	2.4	10.4	-	14.4	1351	56.4	68.4
54	60	8	- parking lot W end	3.1	-	9.1	15.1	-	21.1	622	63.1	75.1	-0.8	-	5.2	11.2	-	17.2	976	59.2	71.2	-0.7	-	5.3	11.3	-	17.3	970	59.3	71.3	-3.8	-	2.2	8.2	-	14.2	1380	56.2	68.2
48	52	8	- parking lot center	10.8	-	14.8	22.8	-	26.8	647	62.8	74.8	7.1	-	11.1	19.1	-	23.1	984	59.1	71.1	7.2	-	11.2	19.2	-	23.2	975	59.2	71.2	4.1	-	8.1	16.1	-	20.1	1389	56.1	68.1
62	68	7	- Top of stairs	-5.3	-	0.7	6.7	-	12.7	652	62.7	74.7	-9.2	-	-3.2	2.8	-	8.8	1022	58.8	70.8	-9.0	-	-3.0	3.0	-	9.0	1002	59.0	71.0	-12.0	-	-6.0	0.0	-	6.0	1405	56.0	68.0
69	70	6	20' to surf w of stairs	-7.5	-	-6.5	4.5	-	5.5	670	62.5	74.5	-11.4	-	-10.4	0.6	-	1.6	1043	58.6	70.6	-11.3	-	-10.3	0.7	-	1.7	1030	58.7	70.7	-14.7	-	-13.7	-2.7	-	-1.7	1527	55.3	67.3
Coastside Trail																												
48	55	7	SweetWd N Bench	4.8	-	11.8	16.8	-	23.8	914	59.8	71.8	1.4	-	8.4	13.4	-	20.4	1354	56.4	68.4	-3.7	-	-0.7	8.3	-	11.3	1369	56.3	68.3	3.4	-	10.4	15.4	-	22.4	1072	58.4	70.4
42	45	11	FrnchMnsCrkBridge	12.8	-	15.8	24.8	-	27.8	1147	57.8	69.8	11.8	-	14.8	23.8	-	26.8	1291	56.8	68.8	11.8	-	14.8	23.8	-	26.8	1284	56.8	68.8	14.3	-	17.3	26.3	-	29.3	967	59.3	71.3
40	45	7	off Beach	19.7	-	24.7	31.7	-	36.7	520	64.7	76.7	16.1	-	21.1	28.1	-	33.1	787	61.1	73.1	16.2	-	21.2	28.2	-	33.2	780	61.2	73.2	17.1	-	22.1	29.1	-	34.1	697	62.1	74.1
40	40	6	off Antoinette	27.7	-	27.7	39.7	-	39.7	365	67.7	79.7	22.4	-	22.4	34.4	-	34.4	677	62.4	74.4	22.5	-	22.5	34.5	-	34.5	671	62.5	74.5	22.2	-	22.2	34.2	-	34.2	688	62.2	74.2
40	43	6	off St John	26.6	-	29.6	38.6	-	41.6	296	69.6	81.6	19.9	-	22.9	31.9	-	34.9	640	62.9	74.9	20.0	-	23.0	32.0	-	35.0	634	63.0	75.0	19.1	-	22.1	31.1	-	34.1	703	62.1	74.1
40	40	5	N end of bridge	32.3	-	32.3	44.3	-	44.3	215	72.3	84.3	23.2	-	23.2	35.2	-	35.2	615	63.2	75.2	23.3	-	23.3	35.3	-	35.3	608	63.3	75.3	21.5	-	21.5	33.5	-	33.5	750	61.5	73.5
42	47	6	S end of bridge	24.6	-	29.6	36.6	-	41.6	234	71.6	83.6	15.0	-	20.0	27.0	-	32.0	706	62.0	74.0	15.1	-	20.1	27.1	-	32.1	697	62.1	74.1	13.2	-	18.2	25.2	-	30.2	875	60.2	72.2
40	42	8	Maintenance yard	30.7	-	32.7	42.7	-	44.7	207	72.7	84.7	20.4	-	22.4	32.4	-	34.4	678	62.4	74.4	17.3	-	19.3	29.3	-	31.3	965	59.3	71.3	17.1	-	19.1	29.1	-	31.1	992	59.1	71.1
40	50	11	Entrance kiosk	12.7	-	22.7	24.7	-	34.7	653	62.7	74.7	9.5	-	19.5	21.5	-	31.5	940	59.5	71.5	9.6	-	19.6	21.6	-	31.6	937	59.6	71.6	6.2	-	16.2	18.2	-	28.2	1376	56.2	68.2
Venice Beach / Sweetwood Campgrnd																												
45	50	8	north parking lot	9.3	-	14.3	21.3	-	26.3	966	59.3	71.3	7.6	-	12.6	19.6	-	24.6	1170	57.6	69.6	7.7	-	12.7	19.7	-	24.7	1168	57.7	69.7	9.7	-	14.7	21.7	-	26.7	922	59.7	71.7
48	55	10	northeast pkng lot	3.8	-	10.8	15.8	-	22.8	1022	58.8	70.8	2.4	-	9.4	14.4	-	21.4	1197	57.4	69.4	2.5	-	9.5	14.5	-	21.5	1193	57.5	69.5	4.8	-	11.8	16.8	-	23.8	915	59.8	71.8
57	60	7	SweetWd BluffTop	-2.2	-	0.8	9.8	-	12.8	1152	57.8	69.8	-3.7	-	-0.7	8.3	-	11.3	1361	56.3	68.3	-3.7	-	-0.7	8.3	-	11.3	1358	56.3	68.3	-1.7	-	1.3	10.3	-	13.3	1086	58.3	70.3
45	50	10	SweetWood Camp	7.6	-	12.6	19.6	-	24.6	1180	57.6	69.6	6.4	-	11.4	18.4	-	23.4	1344	56.4	68.4	6.4	-	11.4	18.4	-	23.4	1342	56.4	68.4	8.6	-	13.6	20.6	-	25.6	1044	58.6	70.6
66	73	5	20' to surf, w of lot	-13.8	-	-6.8	-1.8	-	5.2	972	59.2	71.2	-15.8	-	-8.8	-3.8	-	3.2	1226	57.2	69.2	-15.8	-	-8.8	-3.8	-	3.2	1232	57.2	69.2	-14.0	-	-7.0	-2.0	-	5.0	1004	59.0	71.0

MATCH DWG. X-1871



APPROVED

REVISIONS		ACCEPTANCE BY	DATE
BY	DATE		
TIME OF TRAVE M N	3-5-74		

OWNER CITY & CO. OF SAN FRANCISCO
ADDRESS SAN FRANCISCO WATER DEPT.
425 MASON STREET
SAN FRANCISCO, CALIF.
DATE SEPTEMBER 1973
NEXT REVIEW DATE

ENGINEERING ANALYSIS BY
NAME SAN FRANCISCO WATER DEPT.
ADDRESS 425 MASON STREET
SAN FRANCISCO, CALIF.
SIGNATURE
REG. CIV. ENG. NO. 6532

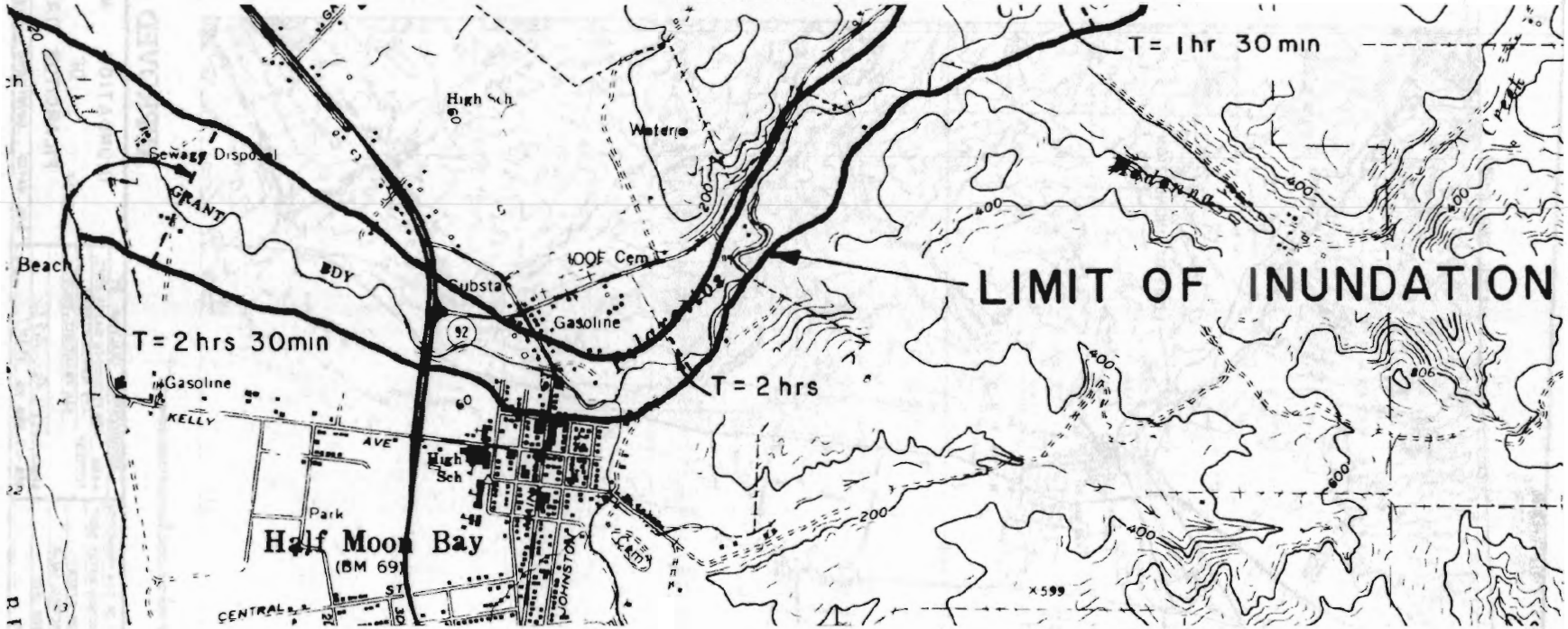
INUNDATION MAP OF PILARCITOS DAM

1044

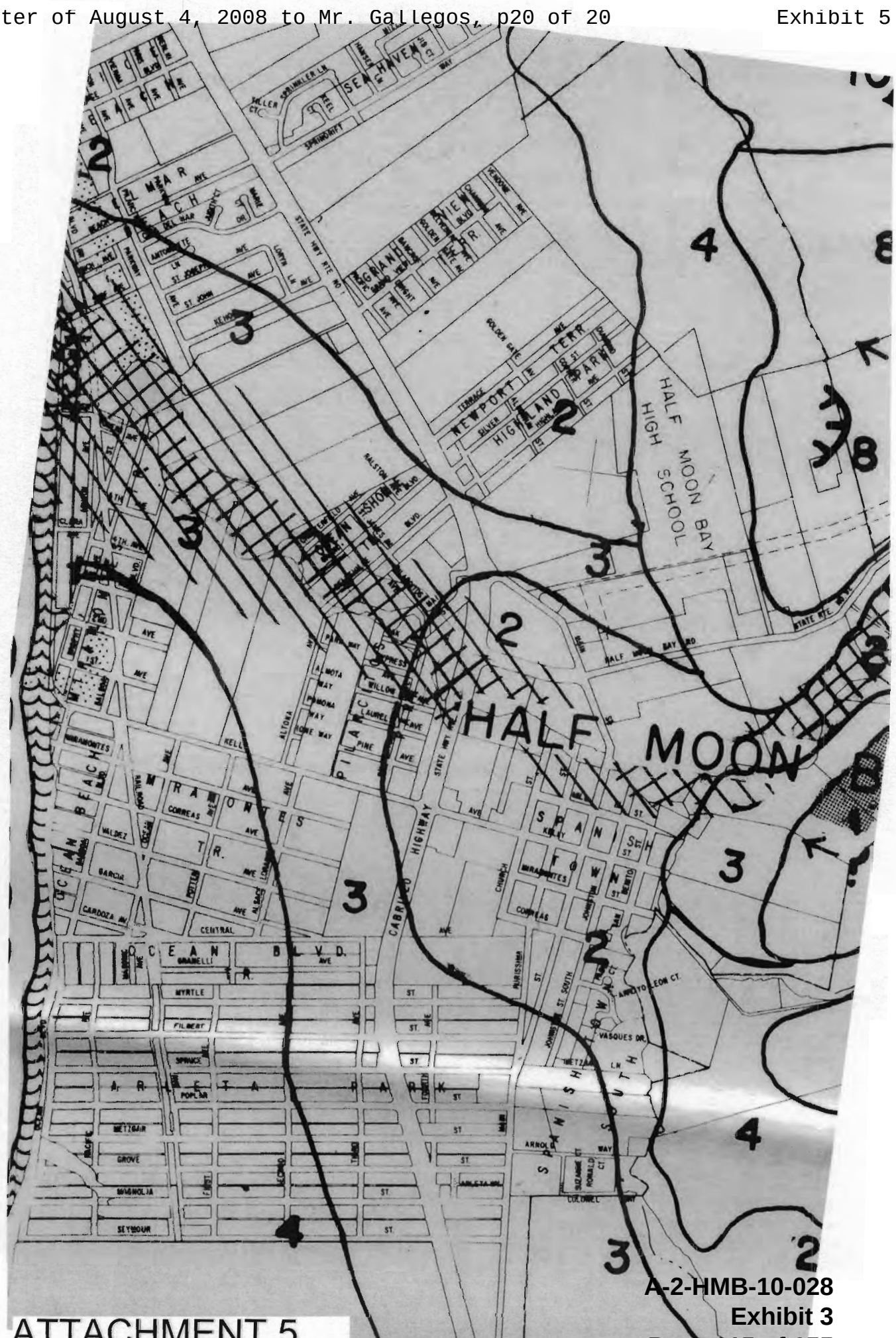
SAN MATEO COUNTY | DWG. X-1872 | SHEET 2 OF 2

ATTACHMENT 4

POSITION OF SAM PLANT WITHIN DAM INUNDATION ZONE



Source: ***Inundation Map of Pilarcitos Dam*****, San Mateo County Drawing X-1872, page 2 (see reverse)**



ATTACHMENT 5

Planning Department
Sean K. Gallegos, Associate Planner
501 Main Street
Half Moon Bay, CA 94019

PLANNING DEPT.
AUG 04 2008
RECEIVED

PDP-086-07, PDP-085-07-CEQA Comments

Monday, August 4, 2008

Dear Mr. Gallegos:

The purpose of this letter is to address the lack of information provided in the CEQA document circulated during the comment period of July 3, 2008 to August 4, 2008 and to discuss how this document is inadequate for the Planning Commission to approve as proposed. This project and the other related project have been continued many times by the Planning Commission due to lack of information from planning staff since the February 14th meeting.

Chronology:

February 14, 2008: Scheduled for Planning Commission hearing, but due to a letter received by James Benjamin, Ph.D. questioning planning staff's CEQA exemption continued to the next hearing date. City attorney agrees with Mr. Benjamin that the 1989 certified EIR for the expansion of the wastewater treatment plant could not grant a statutory exemption from the CEQA requirements.

February 28, 2008: Planning Commission continues the item to date uncertain so planning staff can prepare a Mitigated Negative Declaration.

May 13-June 12: Mitigated Negative Declaration circulated, but project could not move forward because planning staff did not duplicate the attachments and appendices on both sides leaving many pages left out.

June 26, 2008: Planning Commission meeting scheduled but continued so that planning staff could make photo copies correctly and recirculate all missing information previously required. This postpones project for another 30 day comment period to August 4, 2008. Some of the differences noted that causes concern for the public should include: "clarification of the project description for the emergency warning siren system" Q: Why would the project description need clarification if it had been submitted on July 3, 2007, continued multiple times with two CEQA documents? "expanded discussion of cultural resources section: Why was this required? "revision to appendices: What revisions? "removal of attachments section: Why? "inclusion of a mitigation, monitoring and reporting plan" Q: Why was this not included before? These errors do not fall under revisions or clarifications to a MND but more simply omissions of needed analysis.

The project is located adjacent to Pilarcitos Creek, which has been identified, as a perennial stream that includes riparian habitat. Section 18.38.030 of the Municipal Code requires biological, archaeological and geological reports for project in proximity to coastal resource areas. Subsection B provides that the Planning Director may grant exceptions to the requirements of Chapter 18.38 when it is found that existing studies adequately fulfill the requirements of this chapter provide such studies were prepared by a qualified professional as part of a previously certified EIR. In 1989, Environmental Impact Report (SCH# 1987122901) was completed and

certified for the expansion of the wastewater treatment plant. **This poses a problem when it has already been determined by the City Attorney that the Planning Director could not use a statutory exemption "to exempt specific actions necessary to prevent or mitigate an emergency"**-therefore a MND was required to be prepared.

The EIR could not take the place of project-specific studies because the project descriptions are not related. Furthermore, the certified EIR that was completed for the sewer plant expansion in 1989 concluded there was no direct impact to Coastal Resources althouth the project issues analyzed within the EIR were isolated to only Air quality, Aesthetic/Visual, noise, public services, traffic/circulation, water quality, water supply, and land use. There is no mention of a biological assessment that would fulfill the requirement of Chapter 18.38 of the Half Moon Bay Municipal Code therefore a conclusion can not be made that the installation of the utility pole with cabinets on this site will not have an impact to terrestrial species or that the noise or vibration of the sirens will not affect endangered species such as the red-legged frog or san Francisco garter snake.

I ask that alternative locations be proposed and considered due to the lack of information and the omission in the existing CEQA documentation. A biological report should be prepared as required by Chapter 18.38 and a complete MND should be circulated again with all documents including appendices, attachments and reports. It might be a good idea if a separate agency, other than the City, double-checks the document since there is lack of competency within the planning department. This is to be understood as a criticism to all the mistakes made that have resulted in countless and needless continuances of this item. This item can not be approved based on the MND prepared and circulated.

Sincerely,

Terry Webster
Half Moon Bay Resident

cc: James Benjamin Ph.D.,400 Pilarcitos Avenue

Planning Commission
City of Half Moon Bay
501 Main Street
Half Moon Bay, CA 94019

August 14, 2008

DELIVERED BY HAND AND BY EMAIL

Honorable members of the Planning Commission:

Three days ago I obtained from City Hall the staff reports for projects PDP-085-07 and PDP-086-07 for your meeting tonight. I sincerely apologize for providing additional material so late, but four work days is hardly excessive for a citizen to carefully review these staff reports. I respectfully suggest that the Planning Commission might request that staff leave more than 10 days between the close of a CEQA comment period and Planning Commission consideration of the same item, and to publish large reports well before agendized discussion to provide adequate time for all interested parties to digest and prepare responses to the report.

I am sorry to report that the latest IS/MND for these projects cannot be certified as complete to comply with the California Environmental Quality Act (CEQA). Moreover, PDP-086-07 does not complying with the zoning ordinances and policies of the Local Coastal Program (LCP), and with policies of the Safety Element of the City of Half Moon Bay. Therefore neither project as proposed may receive a Coastal Development Permit and Conditional Use Permit. The purpose of this letter is to call the violated policies and ordinances, and some additional environmental impacts to your attention, and to request the Planning Commission to adopt a resolution finding that there is substantial evidence in the record that the projects with proposed mitigations may have significant environmental effect with respect to biological resources, hazards, hydrology and water quality, land use planning and noise, and therefore an environmental impact report is required. I further request that the items be continued to a date uncertain to avoid the preparation of a rushed EIR.

Organization of this letter

This letter is structured to respond to items in the August 14, 2008 staff report. This staff report contains a letter from Terry Webster dated 4 August 2008 which raises important potential biological impacts discussed in the Section 1 immediately following this introduction. The staff report also contains letters from the applicant dated 17 June and 11 August 2008 that include statements for which a responses are given in Sections 2 and 3.

This staff report is the first formal opportunity to respond directly to the staff's claim that project PDP-086-07 complies with the City's zoning ordinances and general plan policies. Although the discussion of Terry Webster's letter, the CEQA-related comments in this letter and my letter of 4 August 2008 detail ways in which project PDP-086-07 fails to comply with these policies and

ordinances, the violated policies and ordinances are collected in the Section 4. This section also contains a rebuttal of comments in staff report that pertain to the noise element.

No changes have been made to address the several significant and unmitigated impacts raised during the period of public comment on the recirculated revised Initial Study and Mitigated Negative Declaration (IS/MND), and so the concerns expressed in my letter of 4 August 2008 stand.

Section 1: Terry Webster's concern about potential biological impacts

The 10 December 2007 letter to which Terry Webster referred (Exhibit 1) is from the City's Associate Planner Mr. Gallegos to applicant, Mr. Asche. The letter states that the proposed location is within one hundred feet of a biological resource, but that under Section 18.38.030 of the zoning ordinance, the Planning Director granted an exception because a biological report was completed for the January 16, 1989 Final EIR for the SAM Wastewater Treatment Plant Expansion Project. This exemption 18.38.030(B) required the Planning Director to find that SAM expansion study adequately fulfilled the requirements of Coastal Resource Conservation Chapter 18.38, including ensuring that the siting and design of development does not significantly degrade sensitive habitat areas and protects the habitat of rare, endangered or unique species (18.38.010(A) and (E)) The biological components of the SAM expansion FEIR focused on the impacts of outflow from the pipes 1850 feet offshore and 40 feet below mean sea level, and could not possibly fulfill these requirements because the Caltrans wetland, an important biological resource immediately adjacent to the siren site, was created in 1996, seven years after the completion of the SAM FEIR.[1] Therefore the SAM FEIR could not have considered impacts related to it, and the findings required for the Planning Director to grant the exemption cannot be made.

Despite the missing biological report for this project, previous biological reports confirm a colony of California red-legged frog (CRLF) in the Caltrans wetland.[2] It is also quite possible that the San Francisco garter snake (SFGS) is close to the proposed siren site.[3] The project contains no conditions that require all construction, maintenance and other siren-related activities to stay within the confines of the SAM Plant. This exposes the referenced species to substantial adverse effect though harassment and habitat modification (e.g., crushing of aestivation areas for CRLF and of foraging, sunning and refuges for SFGS. These potential adverse impacts should be identified in the biological resources portion of the IS/MND (page 9), and mitigated to a less than significant level by including the mitigation (and project condition) requiring all construction to remain in the SAM Plant. Without such a mitigation, the impact must be

[1] City of Half Moon Bay, Staff Report to the Planning Commission for CDP-01-96 dated May 23, 1996.
[2] For example, the biological assessment in the letter of October 13, 2005 from H.T. Harvey and Associates to John Foley, Sewer Authority Mid-Coastside (Exhibit 2), page 5.
[3] Idid., page 6.

documented in the IS/MND as potentially significant and a mandatory finding of significance (PRC 21083, Guidelines 15065).

The confirmed presence of CRLF and adjacent habitat has additional implication for the Land Use Planning impacts. Permitted uses are limited to those in 18.38.090(B), which does not include siren-related activities. The Local Coastal Program provides protection for habitat of certain plants and animals identified in the LCP as unique, including the CRLF. No evidence has been or can be presented to support the claim that the project is consistent with these LCP Policies. On the contrary, the project in its current form clearly conflicts with LCP policies 3-32 through 3-34 protecting the habitat of unique species:

3-32 Designation of Habitats of Unique Species

(a) In the event the habitat of a unique species is found to exist within the City, revise the Habitat Areas and Water Resources Overlay to show the location of such habitat. Any habitat so designated shall be subject to Policies 3-33 through 3-36.

3-33 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 the degree specified by existing governmental regulations.

3-34 Permit Conditions

(a) Require, as a condition of permit approval, that a qualified biologist prepare a report which defines the requirements of a unique organism. At a minimum, require the report to discuss:
(1) animal food, water, nesting or denning sites and reproduction, predation, and migration requirements, and (2) plants' life histories and soils, climate, and geographic requirements.

The LCP contains no provision for exemption from the biological report required by policy 3-34. These LCP policies take precedence of any policy or zoning ordinance offering less protection, as stated in LCP policies 1-2, 1-3 and 1-4.

These conflicts with policies controlling development in environmentally sensitive habitat areas are in addition to the policy conflicts cited in my letter of August 4, and constitute additional incompatibilities with Land Use Planning.

Section 2: Applicant's Letter of 17 June 2008

I appreciate the letter of Mr. Asche's dated 17 June 2008. Apparently, the Planning Department received the letter on August 7, and forwarded it to me August 11. Mr. Asche wrote (page 1)

> First of all, [Mr. Benjamin] states that the feasibility of the proposed system is questionable and thus could impair emergency response. While we do not agree with this assumption, we realize that no warning system is completely infallible. We need, and have, multiple warning systems in place for tsunami warnings…

My concern about the feasibility of warning in vulnerable areas in areas separated from the siren by distance is not an assumption. It was a simple analysis of sound pressure levels relative to the ambient noise levels within the area of warning, based on assumptions about the proposed project locations, the siren manufacturer's specifications and an expert author's recitation of the physics of sound attenuation. The draft IS/MND concerns this warning system, not the complementary ones, and the question asked in the CEQA checklist is whether there is a significant effect caused by <u>this</u> project. Substantial evidence in the record shows that the sound pressure level of the warning signal will fall to less than 9 dB(A) above the sound pressure level of ambient noise at distances much shorter than one mile from the siren, and the FEMA document cited in the manufacturer's documentation indicates that this is not a sufficient warning. My concern about further attenuation due to acoustically significant obstructions is not an assumption, but an invitation to explore and better understand why the project may not achieve its goal of a one mile warning radius. Substantial evidence may yet be presented that this is not the case, but in the case of conflicting evidence, the "fair argument" standard would once again compel the preparation of an EIR (*Laurel Heights Improvement Assoc. v. U.C. Regents* (1993) 47 Cal. 4th 376, Guidelines 15064(h)).

I have written the City about this project four times in the last six months, each time raising concerns about the area in which the warning signals would be effective. I look forward to the manufacturer's analysis of effective range, but delaying these arguments to the planning commission and public at the eleventh hour before seeking CEQA certification impairs public participation in reviewing the claimed conformance with CEQA, and diminishes essential public participation in the CEQA process (Guidelines 15201).

I agree with Mr. Asche that multiple warning systems are desirable. That does not excuse this system from being designed to be feasible and to minimize impact.

In his June 17 letter Mr. Ashe also wrote (page 2)

> We trust in the expertise of Hormann America, a national leader in warning systems, in their recommendation on the size and general location of the outdoor warning system.

I have no reason to question the expertise of the engineers of Hormann America. Those engineers would be the first to state that respect is no substitute for effective site and design to achieve project goals, [4] which by law requires mitigation (or, if unavoidable, minimization) of

[4] For example, the decision variables might be the location and configuration of a warning system that optimizes the number of people who are out of doors in the inundation area who are warned, subject to constraints on environmental impacts associated with warning system construction, maintenance and testing. An engineering

any significant adverse impacts. The applicants' trust is not substantial evidence that significant environmental impacts have been recognized and mitigated.

City staff has chosen to pursue a mitigated negative declaration, and so the CEQA objectives for this hearing are constrained to determining whether (1) the initial study has identified potentially significant effects and, prior to public release of a proposed negative declaration, the applicant has made or agrees to make project revisions that clearly mitigate the effects; and (2) whether there is any substantial evidence in the whole record indicating that revised project with mitigations may still have a significant environmental effect. (PRC 21064.5). While a presentation of the siren vendor's model of system operation warrants careful consideration and is welcome input for an EIR, it should not prevent an EIR from being required.

Mr. Asche continues

> Secondly, Mr. Benjamin states that a 10 foot wave could disable the siren system. We do not dispute this claim. However, under the most probably scenario the siren system should have sounded long before it was struck by a tsunami wave. The utilization of a siren system is designed for a distant tsunami, which we have been told is the most likely tsunami event to strike the coast.

I thank Mr. Asche for acknowledging the claim, and do not dispute his claim of how the tsunami siren would most likely be used, either. It is possible that a second tsunami could between the "all clear" (with telecommunications restored) and the erection of a replacement siren; it is also possible that a dam inundation could produce a wave that disables the siren. It is difficult to assess the risk these combinations of events, but seismic events on our tectonic plate boundary are not independent of one another. Since damaging tsunami at Half Moon Bay are themselves extremely rare yet worthy of the effort to plan the warning and evacuation of affected areas, the probability of a sequence of dependent events may be on the same scale and therefore significant.

On the last page of his letter, Mr. Asche states

> Finally, and at the risk of venturing into Hormann America's territory, Mr. Benjamin uses the location of Highway 1 and Wave Street to dispute the effectiveness of the siren based on background traffic noise. Had he reviewed the potential inundation area maps that were included in our application and are available on-line at multiple websites, including

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presentation supporting this choice of decision variables would include a model of the siren performance that explicitly states simplifying assumptions made in the model, key engineering principles incorporated in the model, engineering principles left out of the model, a summary of the alternatives considered in the engineering analysis, the results of the analysis of alternatives, and the impact that uncertainties in the model assumptions have on confidence in system performance for critical decision variables, and an analysis of the sensitivity of the decision variables and system performance to modeling uncertainties.

> the interactive maps on the Association of Bay Area Government's [sic] site, he would see that that location is well outside the potential inundation area.

I thank Mr. Asche for his close reading, and can assure him that I did view the relevant maps. I used the diagonal between the northern and southern corners of Casa del Mar (2145 ft = 654 m) to approximate the distance from the tsunami siren to the 42-foot contour of Wave (2230 ft = 680 m). The more conservative distance of 637m was used in my 4 August 2008 letter, and measured ambient noise levels make me confident that Wave Ave. residents below 42 ft would hear the proposed 119 dB test siren. Mr. Asche continues

> Of more concern to us is the volume of the siren along the beach, Coastal Trail, and streets closest to the ocean. Hormann's sound coverage maps show that we have good coverage in most of these areas based on the proposed siren locations.

Hormann's sound coverage maps should be backed up by a model that explains why the signal will not attenuate to below ambient noise levels within the one-mile radius to be covered by the proposed siren. This model should also be applied to determine sound pressure levels nearer to the siren.

Section 3: Applicant's Letter of 7 August 2008

On page 2 of his 7 August 2008 letter, Mr. Asche writes

> It is the Operational Area's plan to activate EAS, SMC Alert and TENS with specific information ***prior*** to siren activation. [Emphasis in original].

This is an excellent example of a constraint which, if included as a mitigation and condition of the permit, would contribute to reducing the potentially significant effect on hazards to a less than significant level. I thank Mr. Asche for explaining it, and hope that its inclusion as a mitigation and condition will put this aspect of interference with emergency response plans to rest.

Mr. Asche assigns a high probability to the event that a siren could not be activated in the event of internet and phone disruption. Since such interruptions can occur for reasons quite unrelated to earthquakes or natural disasters, this may be an important failure mode that deserves attention.

At the bottom of the same page, Mr. Asche writes

> The sirens do provide telemetry on their operating status that is monitored by Hormann America and can be checked at the county OES office, but this is not fool proof. On one occasion the telemetry for what appeared to be an operational siren indicated that it had sounded during a routine monthly test when it had not.

Many physical systems have failure rates that follow a "bath tub" model of starting high and then staying low until they approach the end of their service life, when they are replaced. The failure rate as a function of system age is another potentially significant factor in assuring the system will play its role in emergency operations. I hope that Hormann will include failure rate statistics in tonight's or some subsequent communication.

In my letter of 4 August 2008, I suggested that noise impacts might be mitigated using the nonannoying, oscilloscope/digital multimeter, and quiet test capabilities built into the proposed warning system.[5] The documentation confirms that the quiet test monitors amplifier voltage and current directly, and so there would be no need to test all the sirens at the same time, or audibly more frequently than once per year during Tsunami Awareness Week. This suggests an important noise mitigation opportunity which has not been considered. In the unlikely event that telemetry from the false pass test reflected the amplifier's actual current and voltage, the OES and the City of Half Moon Bay should be concerned, because system errors often display a locality of reference – that is, errors are more likely in subsystems which have recently been found to contain errors.

On page 3 of his 7 August 2008 letter, Mr. Asche writes

> An additional benefit of the monthly testing is to allow the public to hear the sirens so they recognize them in a true emergency. However, the 15 second audible test only allows the sirens to come up to half volume. While this proves that the speakers are operational, some residents have expressed disappointment at not hearing the sirens at full volume.

During the August 6 test of the siren next to the San Mateo County Road Maintenance Yard, the sound pressure levels quickly climbed and stabilized at 85-87 dB(A) at a distance of c. 110m from the siren. Since under the attenuation model this would correspond to a SPL of c. 127 dB(A) at 1m, I must have been exposed to reflections. The signal appeared to stabilize within a few seconds. If both the 119 dB and 131 dB signals only rise to half volume in 15 seconds, then the sound pressure levels at sensitive receptors may be even higher than described, and the environmental effects of the monthly tests may be even more significant.

Mr. Asche indicates that 15 seconds are sufficient to prove the speakers are operational, and so there is no reason for the project to call for monthly activity of a minute, as proposed in the IS/MND. In fact, this raises the question of how short an activation is truly necessary – I believe the quiet test is proof that it can be shorter than the length of time that humans need to perceive sound. The staff reports refers to the principal purpose of testing without disclaiming the potential ancillary purpose of training and/or instilling confidence in citizens within the warning

[5] A full copy of the UltraVoice manual was unavailable at the Half Moon Bay Library, so my citations were based on the UltraVoice 255354P manual at Hormann America's website. The older manual 255354D distributed with the staff report describes only the quiet test and oscilloscope multimeter test (page 52).

area. Unless this changes, the CEQA analysis should recognize and analyze the reasonably foreseeable increases in test power and duration associated with these uses.

Staff report of 14 August 2008

The staff report contains reflects much of the language from the recirculated IS/MND, and therefore exhibits similar legal problems. The claim that the project is consistent with Coastal Act 30253, which calls for minimization of risk to property in areas of high geologic and flood hazard, rests on the shaky assumption that the 1986 FIRM map trumps the 1993 edition of the local coastal program, which flatly states that the SAM Plant project site is within the zones on inundation from dam failure and tsunami. The exemption proposed using zoning ordinance 18.38.030 is cited without recognition of the subsequently-created Caltrans wetland which supports a CRLF colony, making earlier biological reports irrelevant and the findings for exemption impossible to make. More relevant 18.38.010(A) and (E), and 18.38.090(B) that do not permit any exemption, are not considered. LCP policies 3-32 through 3-34 are not considered, either.

The argument for consistency with LCP Policy 4-7 states that the site of the proposed SAM Plant tsunami siren "may or may not be in the flood inundation zone because it is above the 20-foot contour," which is contradicted by the LCP which plainly states on page 79 that "The Half Moon Bay Sewage Treatment Plant and portions of the proposed SAM pipeline are located within zones of inundation from dam failure and tsunami." The discussion in LCP Policy 4-7 also states and that "Run-up is not known and is only assumted[sic]; therefore, non-compliance cannot be assured." Although the staff report has the onus reversed (the evidence must support findings for compliance, or the findings cannot be made), the policy does not require the run-up to be known; applicability of the policy is determined by the site being located in the SAM Plant, which is identified in the LCP as being in the zones of dam and tsunami inundation.

LCP Policy 9-3, which requires compliance with all LCP policies, and zoning ordinance 18.01.020 which requires compliance with all relevant zoning ordinances, are also violated. The argument for consistency with Tsunami and Seiches Hazard policy 2 from the Safety Element of the General Plan hijacks the Safety Element's definition of a critical facility, as discussed in the CEQA analysis in my letter of 4 August 2008. Consistency with Flood Hazard policies 3 and 7 is not discussed at all.

The discussion of noise issues in the staff report is not adequate to support the findings related to noise. on page 10, the staff report states

> The City of Half Moon Bay recommends the adoption of thresholds for noise impacts, but these recommendations are only related to noise created from transportation related sources.

A review of the Noise Element shows that this is not the case. The discussion of thresholds of significance appear in Section 2 (Existing Conditions / Issues Analysis), subsection 4 (Future Acoustic Environment), sub-subsection 1 (Noise Sources and Levels). The text in this sub-subsection includes discussion of both transportation and non-transportation sources. The threshold discussion, in its entirety, is

> In community noise assessment changes, noise levels greater than 3 dBA are often identified as significant, while changes less than 1 dBA will not be discernible to local residents. In the range of 1 to 3 dBA residents who are very sensitive to noise may perceive a slight change. No scientific evidence is available to support the use of 3 dBA as the significance threshold. In laboratory testing situations humans are able to detect noise level changes slightly less than 1 dBA. However, in a community situation the noise exposure is over a long time period, and changes in noise levels occur over years, rather than the immediate comparison made in a laboratory situation. Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dBA, and 3 dBA appears to be appropriate for most people.

Resolution 3-91 of the City Council of the City of Half Moon Bay adopts not just the policies but the entire Noise Element, including the above noise threshold discussion. The City did not have to include this statement in its Noise Element, but it did. The City could have said, "…3 dBA appears to be appropriate for most projects" but it didn't. Any project in Half Moon Bay which departs from this standard, particularly one which periodically exceeds background noise levels by 33-35 db(A) in residential areas[6] with ambient noise levels below 45 db(A) should therefore be considered have a significant environmental impact with respect to noise. This finding does not close the door to any such projects; it merely requires that it be studied in an environmental impact report that publicly and earnestly analyzes alternative projects and mitigation measures, and minimizes noise impacts.

The judgment by staff that the Noise Element's threshold of significance is irrelevant does not even appear in the discussion of noise impacts in the CEQA checklist.

In the discussion of CEQA requirements (page 14 of the 14 August 2008 staff report) states that the documents were available for review at the public library. Although the May 2008 draft IS/MND of these documents were accessible, neither I nor the librarian were able to find the July 2008 draft IS/MND.

In addition, the last paragraph on page 14 states

> The Planning Commission shall determine that the MND is adequate and complete only if it finds on the basis of the whole record including both initial study and any public

[6] "The most noise sensitive land use in Half Moon Bay is residential development." *Noise Element of the General Plan for the City of Half Moon Bay*, adopted 2 January 1991, page 12.

comments received that all significant impacts on the environment have been mitigated to less than significant.

The actual requirements are given PRC 21064.5, which require that the mitigations must have been agreed to prior to the release of the proposed negative declaration.

> "Mitigated negative declaration" means a negative declaration prepared for a project when the initial study has identified potentially significant effects on the environment, but
>
> (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and
>
> (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment. [Emphasis added]

The findings for conformance in Exhibit A of the staff report (page 17ff) sidestep the inconsistency with policies and ordinances raised above and those in my letter of 4 August 2008. The proposed CEQA finding on page 22 of the staff report contains no discussion at all. Findings cannot be made without evidence.

SUMMARY

For the reasons given above as well as those in my letter of 4 August 2008, it is difficult to imagine these projects avoiding additional legal scrutiny without the completion of an environmental impact report to address the problem areas. To avoid a continuation of the "whack-a-mole" activities reflected by my four letters, I respectfully ask that the Planning Commission adopt a resolution tonight making the following findings:

1. There is substantial evidence in the record that project PDP-085-07 with proposed mitigations may have a significant environmental effect with respect to noise (periodic increases in sound pressure level of greater than 3 dBA in sound-sensitive areas; duration and loudness increases without further CEQA review).

2. There is substantial evidence in the record that project PDP-086-07 with proposed mitigations may have a significant environmental effect with respect to:
    a. biological resources (potential degradation of habitat for unique species),
    b. hazards (interference with emergency response plan),
    c. hydrology and water quality (exposure of tsunami siren structure to significant risk of loss involving flooding, including flooding as a result of the failure of a dam; and exposure of tsunami siren structure to inundation by seiche or tsunami),
    d. land use/planning (placement does not comply with LCP Policies 1-2, 1-3, 1-4, 3-32, 3-33. 3-34. 4-7, and 9-3; Safety Element Tsunami and Seiche Policy 2 and Flood Hazard Policies 3 and 7; Coastal Act policy 30253 (unnecessary exposure of public property in area of high geologic or flood hazard), zoning ordinances 18.01.020, 18.38.010 and 18.38.090; and
    e. noise (periodic increases in sound pressure level of greater than 3 dBA in sound-sensitive areas; duration and loudness increases without further CEQA review).

3. Because the above significant environmental effects are not mitigated to a less than significant level, mitigated negative declarations may not be used for PDP-085-07 and PDP-086-07. An environmental impact report is instead required for these projects. To reduce costs and improve the warning siren system's effectiveness, the EIR these projects should be combined.

In each of the four letters I have written concerning this project, I have supported the concept of a tsunami siren; my problem is with insufficient effort expended to complete project site selection and design analysis to insure compliance with CEQA, with the Coastal Act, and with our local policies and ordinances as well as feasibility. I earnestly hope that you will continue PDP-085-07 and PDP-086-07 to a date uncertain to permit the needed draft EIR to be developed. As I have said in each of my previous letters, I would be glad to meet with staff and/or the applicant, and I will do my best to answer any questions that you might have.

Thank you for your consideration of these remarks. I ask that this letter be made part of the public record for these projects.

Sincerely,

James Benjamin
400 Pilarcitos Avenue
Half Moon Bay, CA 94019

cc: Mr. Sean K. Gallegos, City of Half Moon Bay

Attachments
Exhibit 1: Letter of December 10, 2007 from City of Half Moon Bay to James Asche
Exhibit 2: letter of October 13, 2005 from H.T. Harvey and Associates to John Foley

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

October 13, 2005

John Foley
Sewer Authority Mid-Coastside
1000 North Cabrillo Highway
PO Box 3100
Half Moon Bay, CA 94109

Subject: Sewer Authority Mid-Coastside Biotic Constraints Assessment for A.P.N. 048-240-040, J.P.N. 048-024-240-04 (H. T. Harvey & Associates Project # 2573-01)

Dear Mr. Foley:

In accordance with our contract scope, H. T. Harvey & Associates biologists have completed an assessment of biotic constraints for a parcel owned by the Sewer Authority Mid-Coastside (SAM; A.P.N. 048-240-040). This letter report presents our field observations and findings.

INTRODUCTION

The SAM parcel (hereafter referred to as "site') is located in the City of Half Moon Bay, in San Mateo County, California (Figure 1). The parcel is bounded by SAM's water pollution control and treatment plant to the west, Cabrillo Highway to the east, Kehoe Ditch and Kehoe Estates to the north, and the Ferita Vasques Tract to the south. The property is located just inland from the mouth of Pilarcitos Creek and the extensive willow riparian and wetland habitat that the creek supports. The 9.6-acre site comprises non-native herbaceous habitat, disturbed coastal terrace prairie and scrub, and Central Coast riparian scrub associated with Kehoe Ditch, which runs along the entire northern border of the site. The ditch is a steeply-incised artificial channel of approximately 10-15 feet in width which carries storm and nuisance water flows in a westerly directly to its confluence with Pilarcitos Creek, just inland of its outlet at the Pacific Ocean.

H. T. Harvey and Associates biologists conducted a brief, reconnaissance-level survey of the property to identify the potential biotic constraints that may need to be addressed during the planning, permitting, and implementation of various activities by SAM. These activities could include mowing and vegetation trimming, ground-disturbing activities such as trenching and disking, and site development. Constraints to these activities could include the presence of biotic resources regulated by the California Department of Fish and Game (CDFG), the U.S. Army Corps of Engineers (USACE), and/or the California Coastal Commission (CCC), as well as special-status species that are protected by state or federal law.

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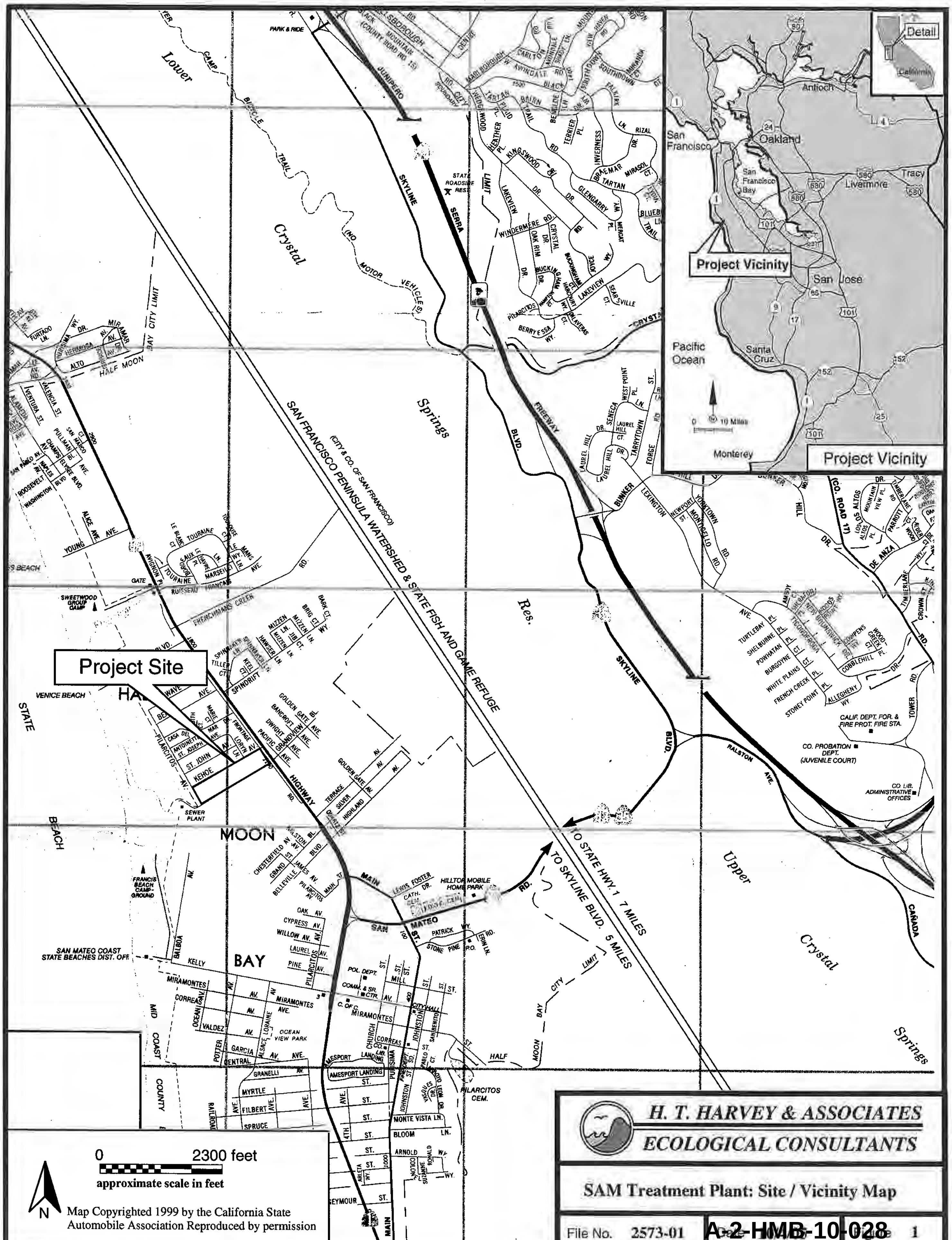

H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

SAM Treatment Plant: Site / Vicinity Map

File No. 2573-01 | Date | Figure 1

A-2-HMB-10-028
Exhibit 3

METHODS

Wildlife ecologist Laird Henkel, M.S., and botanist Lisa Infante, M.S., visited the site on September 27, 2005. The entire project area was covered on foot. The site was assessed for its potential to support special-status flora and fauna, and for other potential biotic constraints, including habitats regulated by state and federal agencies. Prior to the site visit, the California Natural Diversity Database (CNDDB 2005) was queried for information on the local distribution of special-status species.

BIOTIC HABITAT OVERVIEW

VEGETATION

The highest quality habitat on site occurs in the vicinity of Kehoe Ditch, where mature arroyo willow forms a continuous riparian canopy with an impenetrable understory of California blackberry. However, the riparian zone is also degraded by noxious weeds; cape ivy (*Delarea odorata*), an invasive vine with bright green leaves, occurs throughout the riparian and aquatic habitat. Fennel and bristly ox-tongue are also common here. Riparian habitat also extends to the south from the east-west running ditch in a distinct, narrow band. No watercourse appears to be currently associated with this extension.

Disturbance-oriented emergent aquatic vegetation occurs within the bed of Kehoe Ditch, including watercress (*Rorippa nasturtium-aquaticum*) and beggarticks (*Bidens pilosa* var. *pilosa*). Wetland vegetation also occurs within a second, smaller drainage ditch along the frontage road at the eastern site boundary. This vegetation is ruderal in nature and is dominated by umbrella nut-sedge (*Cyperus eragrostis*), with bristly ox-tongue and curly dock (*Rumex crispus*). No evidence of seasonal wetlands (i.e. basin or channel topography, facultative wetland plants) or natural perennial wetlands was observed on the site outside of Kehoe Ditch.

The remainder of the site is characterized by a disturbed vegetation community typical of infill parcels near the coast, which often receive some disturbance from adjacent land uses. Non-native annual grasses and ruderal (disturbance-loving) forbs form a nearly continuous ground cover throughout the site, becoming more sparse in areas where herbaceous habitat intergrades with coastal scrub. Wild oat (*Avena fatua*) and soft chess brome (*Bromus hordeaceus*) are the dominant species on the western portion of the site, while Italian ryegrass (*Lolium multiflorum*) forms dense stands closer to Cabrillo Highway. No native grasses typical of intact coastal terrace prairie were observed, and grasslands on site are not expected to support the diverse annual flora associated with this habitat. Instead, robust introduced forbs such as fennel (*Foeniculum vulgare*), spring vetch (*Vicia sativa*), bristly ox-tongue (*Picris echioides*), black mustard (*Brassica nigra*), and wild radish (*Raphanus sativa*) occur throughout the grassland and form dense thickets in some areas. Small infestations of iceplant (*Carpobrotus edulis*), and Pampas grass (*Cortaderia selloana*), both highly invasive non-native species, further degrade the habitat quality of grassland on site.

Coastal scrub has recolonized approximately 50 percent of the site. This scrub is dominated by coyote brush (*Baccharis pilularis*), with scattered individuals of California sage (*Artemisia californica*) and yellow bush lupine (*Lupinus arboreus*). Heavy growth of native California blackberry (*Rubus ursinus*) is also present in some areas.

WILDLIFE

Riparian habitats, such as the willow riparian habitat on-site, are an important resource for resident and migratory wildlife. The presence of year-round water and abundant invertebrate fauna provide foraging opportunities, and the diverse habitat structure provides cover and nesting opportunities. Riparian vegetation provides habitat for a high diversity of wintering and migrating birds, such as Ruby-crowned Kinglets (*Regulus calendula*) and Yellow-rumped Warblers (*Dendroica coronata*), and breeding habitat for Neotropical migrants that breed in the region, including Warbling Vireos (*Vireo glivus*), Orange-crowned Warblers (*Vermivora celata*), and Wilson's Warblers (*Wilsonia pusilla*). The dense understory of blackberry found here likely supports a variety of small mammals, reptiles, and amphibians, including deer mice, garter snakes (*Thamnophis* spp.), and Pacific treefrogs (*Hyla regilla*).

The grasslands on the project site are of relatively little value to wildlife. Some bird species, such as Savannah Sparrows (*Passerculus sandwichensis*), Western Meadowlarks (*Sturnella neglecta*), American Pipits (*Anthus rubescens*), White-crowned Sparrows (*Zonotrichia leucophrys*) and Barn Swallows (*Hirundo rustica*) may occasionally forage here, but it is unlikely that any birds nest in this habitat on-site. Small mammals such as deer mice (*Peromyscus maniculatus*) and Botta's pocket gophers (*Thomomys bottae*) are likely to occur here, providing a prey base for foraging raptors, such as Red-tailed Hawks (*Buteo jamaicensis*). Western fence lizards (*Sceloporus occidentalis*), gopher snakes (*Pituophis melanoleucus*), garter snakes (*Thamnophis* spp.), and other reptiles are also likely to occur in this habitat.

Adjacent coastal scrub habitat provides greater structural diversity than grasslands, and greater foraging opportunities. Birds such as California Towhees (*Pipilo crissalis*), Wrentits (*Chamaea fasciata*), and Bewick's Wrens (*Thryomanes bewickii*) may nest in this habitat. The dense scrub likely provides cover for brush rabbits (*Sylvilagus bachmani*), and potentially for San Francisco dusky-footed woodrats (*Neotoma fuscipes annectens*). Several species of reptile may occur here, including fence lizards, northern alligator lizards (*Elgaria coeruleus*), and gopher snakes.

SPECIAL-STATUS SPECIES

Based on background information, locations of known occurrences, and habitat on-site, several special-status species may occur on the project site. Two federally-listed wildlife species, the California red-legged frog (*Rana aurora draytonii*) and the San Francisco garter snake (*Thamnophis sirtalis tetrataenia*) may occur on the site, posing considerable constraints to alternative uses of the site. The presence of these species on the site would qualify the site as environmentally sensitive habitat area (ESHA) under the City's Local Coastal Program (LCP). In addition, several California Species of Special Concern

(CSSC) may occur on the project site. Impacts to these CSSC species would not be likely to be considered significant under the California Environmental Quality Act (CEQA), but their presence on the site, would also qualify the site as an EHSA habitat. Special-status species are discussed below, followed by a discussion of regulatory issues.

Kehoe Ditch flows into Pilarcitos Creek downstream of and off the project site. In addition to the species discussed below, Pilarcitos Creek supports several fish species, including steelhead (*Oncorhynchus mykiss*). The Central California Coast ESU (evolutionary significant unit) of this anadromous salmonid is federally listed as threatened. Adult steelhead migrate upstream in winter months, when adequate flows allow passage to upstream areas. This typically occurs between December and March. Juvenile steelhead remain in the creek system for one to three years before migrating to the ocean. Although steelhead can occur in Pilarcitos Creek year-round, it is extremely unlikely that any individual would venture up Kehoe Ditch. The flow in Kehoe Ditch is seasonal and ephemeral, there is no suitable spawning habitat here, and there is no access to better habitat upstream via Kehoe Ditch. Steelhead are therefore considered absent from the project site.

SPECIAL-STATUS ANIMAL SPECIES

California Red-legged Frog

The California red-legged frog is federally-listed as threatened, and is listed by the state as a Species of Special Concern. California red-legged frogs occur primarily in and near aquatic habitats. They breed in ponds or still pools within streams (typically more than 2 feet deep), and disperse to forage in a variety of aquatic habitats. California red-legged frogs can regularly occur in upland habitats up to 300 feet from aquatic habitats, and can occasionally disperse through upland habitats up to 1.25 miles or more between aquatic habitats (USFWS 2004).

Red-legged frogs have been found at the Caltrans mitigation wetland adjacent to Pilarcitos Creek, about 100 feet south of the wastewater treatment plant, and at other sites on Pilarcitos Creek (CNDDB 2005). Habitat in Kehoe Ditch is marginal for breeding; the largest pools observed during the September 2005 site visit were less than 1 foot deep. However, these pools could provide breeding habitat during the breeding season, in early spring, and frogs from Pilarcitos Creek could disperse into Kehoe Ditch for foraging at any time of year.

California red-legged frog use of the site would not necessarily be restricted to the Kehoe Ditch and associated riparian habitat. It is possible that California red-legged frogs could disperse throughout the entire site. California red-legged frogs should be considered to be present within Kehoe Ditch, and potentially present in upland habitats on the site. Protocol-level surveys could be conducted in Kehoe Ditch, which may result in a finding that they do not breed there. However, due to the proximity of the breeding population adjacent to Pilarcitos Creek, it would not be possible to rule out presence of dispersing individuals on the site. Impacts to red-legged frog dispersal habitat would likely be considered significant under CEQA, and would require mitigation in consultation with

the USFWS. However, under the City's LCP, no impacts (even those mitigated for and approved by the USFWS) are allowed to habitat for this species, except for management activities to enhance habitat for the species.

San Francisco Garter Snake

The San Francisco garter snake is federally-listed and state-listed as endangered. This species occurs in and near aquatic habitats, almost exclusively in San Mateo County. San Francisco garter snakes prey primarily on amphibians, including California newts (Taricha torosa), and ranid frogs, such as the California red-legged frog. They have never been found at or near sites that do not also support ranid frogs. Exact CNDDB locations of San Francisco garter snakes are suppressed, due to concern about illegal collection of the species. However, there are two CNDDB records for the Half Moon Bay USGS quadrangle, both associated with Pilarcitos Creek. The presence of red-legged frogs at the Caltrans mitigation wetland near the wastewater treatment plant makes it likely that San Francisco garter snakes could occur along this portion of Pilarcitos Creek. If desired, the project location can be provided to the CDFG, and the CDFG will provide information on the proximity of CNDDB sightings.

San Francisco garter snakes can move into upland habitats during summer, to prey on amphibians aestivating in small mammal burrows. They could potentially forage on amphibians in Kehoe Ditch, and disperse and/or aestivate anywhere on the site. San Francisco garter snakes should be considered to be potentially present throughout the project site. Protocol-level surveys could be conducted, which could potentially result in a finding that the species is absent from the site. No official protocol is available in written form, but the USFWS approves qualified biologists to conduct standardized daily trapping surveys for several months during the spring. Impacts to San Francisco garter snake habitat would likely be considered significant under CEQA, and would require mitigation in consultation with the U.S. Fish and Wildlife Service (USFWS). However, as with the California red-legged frog, under the City's LCP, no impacts (even those mitigated for and approved by the USFWS) are allowed to habitat for this species, except for management activities to enhance habitat for the species.

Other Special-status Wildlife

Three wildlife species listed as CSSC by CDFG could potentially occur on the project site. These are species that may be uncommon or declining in California, or for which suitable habitat has been dramatically reduced, but which do not warrant immediate listing under the Federal or California Endangered Species Acts. CSSC species that could occur on the project site are the Saltmarsh Common Yellowthroat (*Geothlypis thrichas sinuosa*), the California Yellow Warbler (*Dendroica petechia brewsteri*), and the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). Saltmarsh Common Yellowthroats nest in salt marshes, in emergent freshwater vegetation, and in riparian habitats. There is a CNDDB record of singing male Common Yellowthroats along Pilarcitos Creek near the wastewater treatment plant in 1988 and 1989, and this species is likely to nest in the dense riparian vegetation along Pilarcitos Creek. Saltmarsh Common Yellowthroats could also potentially nest in riparian habitat on the site. California Yellow

Warblers nest in well-developed riparian habitats. There is a remote possibility that Yellow Warblers could nest in the limited willow riparian habitat on the site. San Francisco dusky-footed woodrats occur in wooded habitats, including riparian woodlands and coastal scrub with large woody shrubs. The dense coastal scrub habitat on the project site could provide suitable habitat for this species. It should be noted that no special-status bird species were observed on the site during the field visit in September 2005, and no woodrat nests, which are large conspicuous piles of sticks, were observed.

In addition, the White-tailed Kite (*Elanus leucurus*) could potentially occur on-site. This raptor species nests in trees and large shrubs and forages over grasslands and other similar habitats. There are no local records of breeding White-tailed Kites, and none were observed during the September 2005 reconnaissance survey, but this species may forage on the site and could potentially nest on-site. This species is listed as "Fully Protected" by the CDFG.

The City of Half Moon Bay LCP also identifies all nesting raptors as "unique" species. There is a remote possibility that other raptor species, such as Red-tailed Hawks, could nest in the larger trees on or immediately adjacent to the project site.

Although impacts to all Saltmarsh Common Yellowthroats, Yellow Warblers, San Francisco dusky-footed woodrats, and White-tailed Kites may not be considered significant under CEQA, their presence on the site would qualify the habitat in which they occur as an EHSA under the City's LCP. Thus, under the LCP, even presence of Red-tailed Hawks (a raptor, and thus a "unique species") nesting on the site would limit development of that nesting habitat, regardless of any mitigation or minimization measures.

SPECIAL-STATUS PLANT SPECIES

A number of special-status plant species occur in coastal grassland and scrub habitats in the vicinity of the project area. These include coastal marsh milk-vetch (*Astragalus pycnostachyus* var. *pycnostachyus*), Blasdale's bentgrass (*Agrostis blasdalei*), fragrant fritillary (*Fritillaria liliaceae*), San Francisco gumplant (*Grindelia hirsutula* var. *maritime*), San Francisco campion (*Silene verecunda* ssp. *verecunda*), San Francisco owl's clover (*Tryphysaria floribunda*), Santa Cruz microseris (*Stebbinsoseris decipiens*), and Choris's popcorn-flower (*Plagiobothrys chorisianus* var. *chorisianus*). However, none of these species occur on the site. Due to the highly disturbed nature of the vegetation on the site, only the most robust native species are expected to occur, and species associated with intact coastal terrace prairie and scrub are judged to be absent from the site. Furthermore, specific microhabitat variables which favor the occurrence of the above special-status plants do not occur on the property. Coastal marsh milk-vetch and choris's popcornflower are associated with naturally mesic habitats which do not occur within the artificial Kehoe ditch; San Francisco gumplant, fragrant fritillary and Blasdale's bentgrass are associated with sparsely-vegetated, rocky or sandy areas; and San Francisco campion and Santa Cruz microseris are associated with the loose soils of mudstone or shale slopes. Special-status plants are therefore considered to be absent from the site and no further surveys are recommended.

REGULATED HABITATS

U.S. ARMY CORPS OF ENGINEERS JURISDICTIONAL AREA

"Waters of the United States" (*i.e.*, jurisdictional waters) are subject to the jurisdiction of the USACE. These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as "Waters of the U.S.," tributaries of waters otherwise defined as "Waters of the U.S.," the territorial seas, and wetlands adjacent to "Waters of the U.S." (33 CFR, Part 328, Section 328.3). Activities affecting these areas may require permits from the USACE and the Regional Water Quality Control Board under Sections 404 and 401 of the Clean Water Act.

Kehoe Ditch is potentially under the jurisdiction of the USACE. Although the ditch appears to be an artificial feature excavated in upland, it functions as a tributary to Pilarcitos Creek (jurisdictional waters of the U.S.) and may be supplemented by groundwater flows. Furthermore, the ditch outfall is located near the mouth of Pilarcitos Creek and the ditch itself may be subject to tidal action. Water was observed within the ditch during surveys, although dry-season flows likely originate from irrigation runoff from adjacent properties rather than the large outfalls at the eastern site boundary. Wetland vegetation has established where sediments have deposited on the bed of the ditch. No wetlands were observed beyond the ordinary high water mark of the ditch. The shallow ditch running along the eastern property boundary likely flows into Kehoe ditch during ordinary high flow events and therefore may also be subject to USACE jurisdiction. Further investigation in the form of a wetland assessment would be required to determine if the hydrology of both ditches is strictly man-induced (non-jurisdictional) or supported by natural hydrology (USACE jurisdiction).

CALIFORNIA DEPARTMENT OF FISH AND GAME JURISDICTIONAL AREA

Streams, ditches, and drainages that contain a defined bed, bank, and channel are under the regulatory jurisdiction of the CDFG. The CDFG definition of stream includes "intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams mapped on USGS quadrangles, and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife" (CDFG 1994). Activities that result in the diversion or obstruction of the natural flow of a stream, or substantially change its bed, channel or bank, or utilize any materials (including vegetation) from the streambed require that the project applicant enter into a Streambed Alteration Agreement with CDFG, under sections 1601-1603 of the California Fish and Game Code.

Kehoe ditch and its associated riparian habitat, described above, are likely to be subject to the regulatory jurisdiction of the CDFG. The limit of CDFG jurisdiction is typically defined by the topographic top of bank, and is some cases by the edge of riparian canopy.

On the subject property, CDFG may interpret their jurisdiction to extend to the edge of the dripline of willows.

COASTAL RESOURCES

The site is within the Coastal Zone of San Mateo County, and thus within the jurisdiction of the CCC. The CCC has approved a LCP Land Use Plan for the City of Half Moon Bay. Through this plan, potential impacts to coastal resources are regulated by the City through issuance of Coastal Development Permits. The LCP defines Sensitive Habitats using several criteria, among which are areas containing or supporting rare and endangered species as defined by the State Fish and Game Commission, and presence of riparian vegetation. The potential presence of California red-legged frogs and San Francisco garter snakes qualify the site as potential habitat for rare and endangered species. Per the LCP, riparian habitats include all riparian vegetation associated with perennial and intermittent bodies of water, natural or man-made. Kehoe ditch and the adjacent willow habitat thus meet the LCP's definition of riparian habitat.

The LCP (Chapter 3) dictates that only limited, specific activities will be permitted in riparian corridors and in habitat for rare and endangered species, such as that which occurs on this site. Restrictions are similar for both riparian and rare and endangered species wildlife habitat, but are more stringent for rare and endangered species habitat. Activities allowed in habitats for rare and endangered species, and for unique species are (also listed in the City of Half Moon Bay Zoning Code Title 18.38.085 and 18.38.090):

- Education and research,
- Hunting, fishing, pedestrian and equestrian trails that have no adverse impact on the species or its habitat, and
- Fish and wildlife management to restore damaged habitats and to protect and encourage the survival of rare and endangered species.

Activities that violate the conditions of the LCP may be permitted only through amendments to the LCP, which must be approved by the CCC. The City of Half Moon Bay is currently revising its LCP, but a new LCP is not expected to be ratified by the CCC for several years.

OTHER CONSTRAINTS

CALIFORNIA ENVIRONMENTAL QUALITY ACT

For potential projects planned on the SAM property, the City of Half Moon Bay is likely to request compliance with CEQA. Mitigation measures to avoid impacts to regulated habitats and special-status species under CEQA would likely be less stringent than those required by the CCC, under the City's LCP. However, compliance with CEQA would likely require the preparation and certification of an Environmental Impact Report or a Mitigated Negative Declaration.

NESTING BIRDS

In addition to the species described above, all native non-game birds are protected under the federal Migratory Bird Treaty Act (MBTA; 16 U.S.C., Sec 703, Supp. I, 1989), which prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Disturbance during the breeding season (February through August) could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. The California Fish and Game Code similarly protects native birds.

In addition, birds of prey (raptors) are protected in California under state Fish and Game Code section 3503.5 (1992). This section states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.

A variety of common birds could potentially nest on the project site. Although take of these relatively common species would not be considered a significant impact under the California Environmental Quality Act (CEQA), it would be in violation of federal and state laws. To avoid violation of the MBTA and state Fish and Game Code, construction activities that could disrupt nests should be conducted from September to January, outside of the breeding season for local native birds. If this is not possible, pre-construction surveys could be conducted. If nests are detected, appropriate take-avoidance measures (e.g., disturbance-free buffers around active nests) can be developed by a qualified ornithologist.

HALF MOON BAY FIRE PROTECTION DISTRICT

The Half Moon Bay Fire Protection District insures that areas with a high risk of wildfire are maintained to minimize the risk of fire. The site is not in a Very High Fire Severity Zone. However, the Fire Protection District did find, as stated in a letter of August 9, 2005, that the property was in violation of State fire regulations, due to "overgrown weeds and vegetation," and that the site should be mowed. As stated in this letter, the possibility of sensitive habitat on the property necessitates contacting the City of Half Moon Bay regarding potential permits required for vegetation clearing. As stated above, this property is likely to be considered as environmentally sensitive by the CCC. The potential conflict of the City's LCP and Fire Protection District regulations is a regulatory issue beyond the scope of this assessment.

CONCLUSIONS

Based on the presence of riparian habitat, and the potential presence of California red-legged frogs and San Francisco garter snakes, there are considerable constraints to any development of the site or to any actions other than those allowed under the City's LCP in environmentally sensitive habitats. Permits that would be required for various activities on the site are discussed below. However, as noted above, most potential uses of the site would be precluded by the site's status as environmentally sensitive habitat under the City's LCP. Thus, without a Coastal Development Permit from the City, all other permits are irrelevant.

POTENTIAL PERMITS REQUIRED

Various existing Federal and State environmental regulations require the acquisition of permits prior to implementation of projects that could affect regulated habitats, as discussed above. The types of activities for which permits are required include, but are not limited to, the following:

- grading, excavation, placement of fill
- placement of materials (erosion control blankets, rip rap, boulders, logs, drain outfalls, fences, etc.)
- removal, mowing or planting of vegetation
- use of herbicides or pesticides
- diversion, dewatering, or damming of stream flow
- disturbance of wildlife

Information regarding these permits is summarized below. Note that the durations of the application processes (time from application submittal to receipt of permit) are approximate and may vary. In addition the preparation of application materials may take considerable time, especially for formal Federal Endangered Species Act consultations.

Agency	Jurisdiction	Type of Activity Requiring Permit	Permit Type	Duration of Application Process
California Coastal Commission	Coastal Zone (entire site)	Activities that could affect environmentally sensitive habitats (entire site)	Coastal Development Permit, through the City of Half Moon Bay	3-4 months
U.S. Army Corps of Engineers	Wetland and streambeds below ordinary high water	Fill of jurisdictional habitat	Clean Water Act Section 404 (Nationwide or Individual Permit)	Nationwide: 3-6 months; Individual: 6-9 months
Regional Water Quality Control Board	Streambed below ordinary high water and wetlands	Actions that could affect water quality	Clean Water Act Section 401 Water Quality Certification/Water Discharge Requirement	3-4 months
U.S. Fish and Wildlife Service	Federally Threatened or Endangered plants or animals and their habitat	Take (loss of habitat for, killing, or harassment)	HCP (if no Federal nexus); Endangered Species Act Section 7 consultation (if Federal nexus)	HCP: 12 months or more; Informal Section 7: 2-4 months; Formal Section 7: 6-12 months
California Department of Fish and Game	Stream bed and banks	Alteration of bed or banks of Kehoe Ditch, including riparian vegetation	Streambed Alteration Agreement (Sections 1600-1603)	2-3 months

As discussed above, the City of Half Moon Bay LCP, approved by the CCC, dictates permissible activities in environmentally sensitive habitats. Project proponents in the City of Half Moon Bay must apply for a Coastal Development Permit with the City, which would assure that the proposed project is in compliance with the LCP. According to the LCP, since the entire site is environmentally sensitive habitat (based on the presumed presence of the California red-legged frog and San Francisco garter snake), a Coastal Development Permit could likely only be issued for: education and research; hunting, fishing, pedestrian and equestrian trails that have no adverse impact on the

species or its habitat; or fish and wildlife management to restore damaged habitats and to protect and encourage the survival of rare and endangered species.

A USACE Section 404 permit application would be necessary for any project that disturbs the creek bed below ordinary high water (approximately the 2.3-year flood water level) or any area designated as wetlands. Depending on the nature of the project either a Nationwide or Individual permit application would need to be submitted. Nationwide permits are more streamlined and for projects that result in minimal impacts while individual permits are more elaborate and address more complex impacts. For example, USACE Nationwide permit #13 is for bank stabilization projects, however, these projects must meet a number of limiting conditions to qualify.
The guidelines for a RWQCB Section 401 Water Quality Certification are the same as for the USACE Section 404 permit. In addition, for any work above the ordinary high water mark or in a wetland a Water Discharge Requirement (WDR) may be needed.

Consultation with the USFWS may be necessary if a project has the potential to impact a federally-listed species. If there is a Federal nexus, such as a USACE permit being filed, consultation would occur per Section 7 of the Federal Endangered Species Acts. If there is no Federal nexus for a Section 7 consultation, but there is likely to be an effect on a federally-listed species, the project proponent must prepare a Habitat Conservation Plan (HCP). This document provides the same information as a Biological Assessment, and provides minimization and mitigation measures to avoid and reduce impacts.

The CDFG Streambed Alteration Agreement would be necessary for any project that affects the ditch. These agreements include measures to avoid impacts to wildlife, and mitigation requirements for impacts to regulated habitats. A 1601 permit application would be filed by a public agency while private individuals would file a 1603 application.

VALUE FOR BIOLOGICAL MITIGATION

Due to the potential presence of two federally-listed wildlife species, the California red-legged frog and the San Francisco garter snake, the SAM property has substantial potential as a mitigation site for impacts from other projects. In addition, the potential presence of these species on the site makes it unlikely that the site could be used for any purpose other than education, restoration, or scientific research, given the City's LCP requirements. Setting aside the site in its current state would likely benefit these species, and there is potential for habitat enhancement on the site as well (e.g., creation of deeper pools in Kehoe Ditch). However, alteration of the site, including restoration, would have to be carefully designed to avoid conflict with the City's LCP. We recommend consultation with the City of Half Moon Bay, and the various regulatory agencies, if you are considering restoration of the site.

Thank your for contacting H. T. Harvey & Associates regarding this project. Please contact me if we can be of further assistance.

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Thank your for contacting H. T. Harvey & Associates regarding this project. Please contact me if we can be of further assistance.

Sincerely,

Max Busnardo
Project Manager

Cc: Laird Henkel, H.T. Harvey & Assocaites File 2573-01

LITERATURE CITED

[CDFG] California Department of Fish and Game. 1994. A field guide to Lake and Streambed Alteration Agreements. Section 1600-1607. Environmental Services Division.

[CNDDB] California Natural Diversity Data Base. 2005. Rarefind. California Department of Fish and Game.

[USFWS] U.S. Fish and Wildlife Service. 2004. Endangered and Threatened wildlife and plants; Proposed Designation of Critical Habitat for the California red-legged frog (*Rana aurora draytonii*); Proposed Rule. Federal Register 69(71):19620-19642.

Mr. Sean K. Gallegos
City of Half Moon Bay
501 Main Street
Half Moon Bay, CA 94019

August 26, 2008

DELIVERED BY HAND

Dear Mr. Gallegos:

Thank you for providing copies of the 28 August 2008 staff reports for dated for PDP-085-07 and PDP-086-07. I appreciate the large number of error corrections that have been made in this document, although some of the revisions in the IS/MND do not appear to follow the direction given by the Planning Commission at their 14 August 2008 meeting.

The staff report for the 14 August 2008 Planning Commission meeting indicated that staff would be prepared to respond to the concerns I have raised over many months, but very few responses to my concerns were presented. The significant unmitigated impacts and violations of zoning ordinances, the Local Coastal Program and safety element of the City's General Plan were laid out in previous letters, and I will not waste your time repeating them. Neither of the 28 August 2008 staff reports for PDP-085-07 and PDP-086-07 incorporate in body or by reference my letter of 14 August 2008. I have attached a copy to ensure that the public and commissioners' record for these projects is complete.

This letter responds to testimony and Planning Commission discussion at their 14 August 2008 meeting, and addresses problems in the 28 August 2008 staff reports for these items.

The noise impacts of PDP-085-07 and PDP-086-07 must be acknowledged as significant, be addressed by an EIR, and be reduced to unavoidable levels before any Statement of Overriding Considerations is considered.

Tables 1 and 2 reflect the fact that twice as many sirens are proposed for PDP-086-07 as was assumed in the analysis of Exhibit 2 of my 4 August 2008 letter. The revised analysis shows that operating the siren as proposed at the SAM plant would result in sound pressure level increases of over 50 dB(A) in some locations, and over 40 dB(A) increase in many more.

The Noise Element of City of Half Moon Bay's General Plan notes that 3 dB(A) is an appropriate threshold for significance for any noise source (page 17). It is indefensible to regard these impacts as not significant while regarding far smaller construction noise impacts as significant unless mitigated. It is indefensible to fabricate a claim that this threshold applies only

to traffic noise sources when the limit applies to all noise sources. It is indefensible to treat a noise source intended to produce more than 111 dB(A) at 50 feet as less than significant because it is not certain to damage hearing when the 1989 SAM Plant Expansion FEIR in the same area was required to mitigate all noise sources greater than 50 dB(A) at 50 feet,[1] and which only notes non-transportation noise increases of at most 3 dB(A) to be less than significant,[2] just as called for in the Noise Element.

The objective of the siren project is to produce signals 6-9 dB(A) above background noise levels, which is by design greater than the 3dB(A) threshold discussed in the Noise Element. The fact that these are significant increases does not absolve the City from recognizing the impact as significant and addressing the noise impact in an EIR that considers alternative locations, configurations of sirens, and other feasible steps to reduce siren impact before seeking a defensible Statement of Overriding Considerations for the chosen alternative.

While the discussion of noise impacts on PDP-085-07 now refers to the proper neighborhood, the noise analysis does not appear to have been based on the characteristics. For example, the nearest sensitive receptor is not a residence, but commercial property less than 250 feet away from the siren, and subject to echo reflection. The report also states that the sound pressure levels at 400 feet will be identical to those of the siren proposed for the SAM Plant, which has twice as many horns.

At the 14 August 2008 Planning Commission hearings for these projects, the warning system manufacturer's expert testified that the complete end-to-end functioning of both projects' warning system can be tested with inaudible 20 kHz frequencies, and that no additional reliability information is gained by audible testing. IS/MND uses the vague term "'quiet' audible testing" instead of the 20 kHz Local Quiet Test described on page 52 of the siren manual. Please specify the test more precisely in future versions of this mitigation. In addition, the quantitative limits on audible testing have been removed, and instead of removing the authority of the Planning Director to waive any limits on testing, this power now quietly resides in the IS/MND as the third noise mitigation measure, and limits the planning commissions role to "review" as opposed to the commission's proper role of considering amendments to this or other coastal development permits. Far from being mitigations, these clauses force the analysis to consider arbitrary operation of any power or duration for testing or training as reasonably foreseeable, and therefore they present new significant and unmitigated impact, rather than mitigations.

Training is not included in section 8 (the project description) of the IS/MND. As the applicant indicated in his letter of 7 August 2008, alternative training is underway. Pre-recorded low-volume siren sounds can be played over the web, at a beach kiosk, and at civic functions to provide residents and visitors with the familiarity they seek. The significant impacts of periodic audible tests and/or training are avoidable and cannot be justified.

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[1] *Sewer Authority Mid-Coastside Wastewater Treatment Plant Expansion Amended EIR*, page S-13 (attached)
[2] *Ibid*., page III-21 and III-33 (attached).

PDP-086-07 does not comply with Policy 4-7 of Half Moon Bay's Local Coastal Program

LCP Policy 4-7 states

> In areas of flooding due to tsunamis or dam failure, no new development shall be permitted unless the applicant or subsequent study demonstrates that the hazard no longer exists or has been reduced or eliminated by improvements which are consistent with the policies of this Plan and that the development will not contribute to flood hazards or require the expenditure of public funds for flood control works. Where not otherwise indicated, the flood hazard zone shall be considered to be a zone defined by the measured distance of 100 feet from the centerline of the creek to both sides of the creek. Non-structural agricultural uses, trails, roads, and parking lots shall be permitted, provided that such uses shall not be permitted within the area of stream corridor. (See Policies in Section 3 on Protection of Sensitive Habitats.) [underline added]

Staff's argument that PDP-086-07 conforms to this policy appears on pages 8 and 20 of the 28 August 2008 agenda report, and on pages 20-21 of the latest proposed final IS/MND.

Staff's argument for compliance fails in at least two important respects. First, the staff report offers the canard that the SAM Plant location of PDP-086-87 might not be "in areas of flooding due to tsunamis or dam failure" addressed by LCP Policy 4-7. The staff report (page 8) and IS/MND (page 21) state

> Under the Seismic and Geologic Hazards section of the LCP, tsunami hazard is present in the low-lying coastal areas, particularly at the mouth of drainages. The inland extent of runup is not known, but has been mapped to the 20-foot contour. Therefore, the site may or may not be in the flood inundation zone because it is above the 20-foot contour. As a result, the "run-up" is not known and only assumed; therefore, non-compliance cannot be assured.

Staff offers no justification at all of how PDP-086-87 could possibly be located outside the dam inundation zone (documented in the OES map submitted as exhibits 3 and 4 of my letter of 4 August 2008 and confirmed in the above excerpt from the LCP). While the twenty year-old EIR for the SAM Plant may not have considered the plant to be in the tsunami run-up zone, the more recent 1993 certified LCP unequivocally states on page 79

> The Half Moon Bay Sewage Treatment Plant and portions of the proposed SAM pipeline are located within zones of inundation from dam failure and tsunami.

Second, staff analysis and commission discussion for PDP-86-07 confuses *hazard* with *risk resulting from the hazard.* This makes it easy to confuse r*eduction or elimination of the hazard* with *mitigation of the damage resulting from the hazard*. The USGS identifies earthquakes, floods, hurricanes, landslides, tsunamis, volcanoes and wildfires as hazards.. FEMA specifically includes tsunamis in its definition of flooding and dam failure hazards (*Guidelines for All-Hazard Emergency Operations Planning*, State and Local Guide (SLG) 101, page 6-B-1).

LCP Policy 4-7 recognizes that improvement projects may be undertaken to reduce or eliminate some hazards. One example of such an improvement project is the lawful raising the banks of rivers prone to overflow. Another might be the lawful removal of exotic vegetation which could serve as the fuel load to sustain a wildfire. These illustrative improvements address the *hazard*, while PDP-086-07 seeks to reduce *risk resulting from the hazard*, as would a fire alarm system for developments in fire-prone areas or high building pads do in flood-prone areas.

If there is no distinction between these notions then LCP Policy 4-7 is vacuous and easily circumvented by including, say, a NOAA emergency condition radio in any structure in a tsunami inundation zone, or a telephone that someone can call in the event of dam inundation.

LCP Policy 4-7 also recognizes that development may be permitted in areas identified as dam inundation or tsunami uprush hazard zones if the hazard no longer exists. However, the recent study by Dr. Utku Kanoglu of USC discussed on the ABAG web site has shown the contrary (that a 42-foot contour may be more appropriate), so this justification for development in the tsunami hazard zone is not applicable either.

For the above reasons, PDP-086-07 does not conform to Policy 4-7 of the Half Moon Bay Local Coastal Program.

PDP-086-07 does not comply with Section 30253 of the California Coastal Act (adopted as policy in Half Moon Bay's Local Coastal Program)

Coastal Act 30253 states that new development will minimize risks to life and property in areas of high geologic, flood and fire hazard. The circle maps offered by the sound expert at the last meeting confirm that risk to lives and property risk can also be minimized by using siren locations outside the tsunami uprush and dam inundation zone. Coastal Act 30253 makes no distinction between public and private property, and placing the siren in the tsunami and dam needlessly increases the risk to (public) property. That is why the project does not comply with 30253, and may be remedied by moving the sirens outside of these zones of high geologic hazard.

Discounting of habitat for listed species and exemption from the biological report requirement is unjustified

In discussion during the Planning Commission's 14 August 2008 consideration of PDP-086-07, staff suggested that the project was not subject to policies 3-32, 3-33 and 3-34 of the LCP (which requires the preparation of a biological report) because the habitat survey was completed in 2005, and that the species may no longer be present. This argument is indefensible because (1) it attempts to relieve the applicant of the burden of producing evidence to support findings, and (2) it seeks without evidence to discount an established CNDDB record of California red-legged frog CRLF at the site, despite Caltrans and the City's commitment to maintain a sustainable

wetland at this location. The 1989 biological impact analysis predated nearby sensitive habitat and the presence of CRLF, was limited to marine impacts and did not consider the operations contemplated in the siren project which could have impacts on other protected species. It cannot be considered as a basis for a report exemption.

I thank staff for acknowledging of some of the biological impacts of PDP-086-07 in the project's IS/MND (parts IV(a), (d) and (e) on pages 9-10). I do not recall the commission indicating that construction mitigations would only apply if they were feasible, however.

The less-than-significant impact dam inundation hazard for PDP-086-07 is not justified

No justification is provided for the list-than-significant Hydrology and Water Quality (part VII.(i) page 18 of the latest IS/MND) impact which appears in the latest version of the checklist. The Local Coastal Program / Land Use Plan policy 4-7 reflects the established determination that development located in the zone of dam inundation is subjected to a sufficiently large risk of loss that such development is prohibited.

Recirculation of the proposed IS/MND for PDP-086-07 is required

The latest revision of the IS/MND for PDP-086-07 includes previously unidentified significant biological resource impacts, together with mitigations which claim to reduce the impacts to a less than significant level. CEQA Guidelines section 15073.5 require that the Lead Agency recirculate a revised MND which contains new mitigations which were added to a project to satisfy CEQA for significant effects that were not identified in the previously circulated version of the MND. I note that in spite of the fact that the document has been changed several times, the date and signature on the IS/MND have not.

Conclusion

Because of the inherent impact discussed above and in previous letters, the IS/MND for these projects still cannot be certified as complete to comply with the California Environmental Quality Act (CEQA). Moreover, PDP-086-07 remains out of compliance with the zoning ordinances and policies of the Local Coastal Program (LCP), and with policies of the Safety Element of the City of Half Moon Bay. Therefore neither project may yet receive a Coastal Development Permit and Conditional Use Permit.

As with my letters of 13 February, 13 June, 2 August and 14 August, I support the concept of a tsunami siren warning system; my problem is with insufficient effort expended to complete project site selection and design analysis to insure compliance with CEQA, with the Coastal Act, and with our local policies and ordinances. I earnestly hope that staff will abandon the mitigated

negative declaration approach to the project, and instead recommend that the Planning Commission find that (1) both projects have significant unmitigated impacts and that EIRs are therefore required, and (2) continue PDP-085-07 and PDP-086-07 to a date uncertain to permit the draft EIR to be developed. I will do my best to be available to work with you and the project applicant to design an effective emergency outdoor warning system with no avoidable and minimal unavoidable significant environment impacts, and which otherwise conforms with the law. Please make this letter part of the public record for these projects.

Sincerely,

James Benjamin
400 Pilarcitos Avenue
Half Moon Bay, CA 94019

cc: Members of the Half Moon Bay Planning Commission

Attachments:

- Table 1 Impact of PDP-086-0 Emergency Warning Siren System on Ambient Noise Levels at Selected Locations (revised)
- Table 2 Impact of PDP-086-0 Emergency Warning Siren System on Ambient Noise Levels at Selected Locations (raw data, revised)
- Pages S-13, III-21 and III-33 from *Sewer Authority Mid-Coastside Wastewater Treatment Plant Expansion Amended EIR*, (SCH #87122901)
- Letter dated 14 August 2008 to the Planning Commission from James Benjamin

90/10 BG SPL			Δ SPL - IS/MND proposal (SAM)		Δ SPL - Alt. 1		Δ SPL - Alt. 2		Δ SPL - Alt. 3 (E of CdMar)	
low	high	Location	Testing	Warning	Testing	Warning	Testing	Warning	Testing	Warning
		Casa del Mar								
		400 Pilarcitos								
40	42	- front	36.9 - 38.9	48.9 - 50.9	29.0 - 31.0	41.0 - 43.0	29.0 - 31.0	41.0 - 43.0	25.2 - 27.2	37.2 - 39.2
43	45	- back	36.1 - 38.1	48.1 - 50.1	25.4 - 27.4	37.4 - 39.4	25.3 - 27.3	37.3 - 39.3	21.8 - 23.8	33.8 - 35.8
		421 Kehoe								
42	46	- front	25.4 - 29.4	37.4 - 41.4	28.0 - 32.0	40.0 - 44.0	28.2 - 32.2	40.2 - 44.2	25.2 - 29.2	37.2 - 41.2
43	47	- back	24.5 - 28.5	36.5 - 40.5	28.0 - 32.0	40.0 - 44.0	0.0 - 0.0	40.0 - 44.0	24.0 - 28.0	36.0 - 40.0
		431 Kehoe								
43	47	- front	22.8 - 26.8	34.8 - 38.8	28.0 - 32.0	40.0 - 44.0	27.8 - 31.8	39.8 - 43.8	25.7 - 29.7	37.7 - 41.7
47	50	- back	19.9 - 22.9	31.9 - 34.9	26.1 - 29.1	38.1 - 41.1	0.0 - 0.0	38.0 - 41.0	22.3 - 25.3	34.3 - 37.3
		437 Kehoe								
52	58	- front	10.8 - 16.8	22.8 - 28.8	17.0 - 23.0	29.0 - 35.0	16.7 - 22.7	28.7 - 34.7	16.1 - 22.1	28.1 - 34.1
53	56	- back			20.1 - 23.1	32.1 - 35.1	0.0 - 0.0	32.0 - 35.0	17.4 - 20.4	29.4 - 32.4
40	45	CdM NW corner	22.3 - 27.3	34.3 - 39.3	19.8 - 24.8	31.8 - 36.8	19.7 - 24.7	31.7 - 36.7	21.7 - 26.7	33.7 - 38.7
40	43	midway on Wave	23.9 - 26.9	35.9 - 38.9	22.6 - 25.6	34.6 - 37.6	22.6 - 25.6	34.6 - 37.6	26.5 - 29.5	38.5 - 41.5
56	67	CdM NE corner	-1.8 - 9.2	10.2 - 21.2	-1.0 - 10.0	11.0 - 22.0	-1.2 - 9.8	10.8 - 21.8	5.7 - 16.7	17.7 - 28.7
62	66	Svc Rd x Casa dl Mar			3.5 - 7.5	15.5 - 19.5	3.4 - 7.4	15.4 - 19.4	12.4 - 16.4	24.4 - 28.4
62	68	E end of Kehoe	-0.1 - 5.9	11.9 - 17.9	6.5 - 12.5	18.5 - 24.5	6.4 - 12.4	18.4 - 24.4	7.1 - 13.1	19.1 - 25.1
		Lutheran Church								
58	62	- front	5.9 - 9.9	17.9 - 21.9	23.2 - 27.2	35.2 - 39.2	22.0 - 26.0	34.0 - 38.0	7.7 - 11.7	19.7 - 23.7
57	61	- back	7.1 - 11.1	19.1 - 23.1	26.4 - 30.4	38.4 - 42.4	24.9 - 28.9	36.9 - 40.9	8.7 - 12.7	20.7 - 24.7
		Farmhouse								
66	70	- front	-3.3 - 0.7	8.7 - 12.7	8.6 - 12.6	20.6 - 24.6	8.2 - 12.2	20.2 - 24.2	-2.5 - 1.5	9.5 - 13.5
58	63	- back	4.0 - 9.0	16.0 - 21.0	16.5 - 21.5	28.5 - 33.5	16.0 - 21.0	28.0 - 33.0	4.5 - 9.5	16.5 - 21.5
		At Fence								
57	60	e of 448 Grand	5.9 - 8.9	17.9 - 20.9	13.5 - 16.5	25.5 - 28.5	13.4 - 16.4	25.4 - 28.4	5.5 - 8.5	17.5 - 20.5
50	54	at Ralston ROW	12.8 - 16.8	24.8 - 28.8	19.7 - 23.7	31.7 - 35.7	19.7 - 23.7	31.7 - 35.7	11.2 - 15.2	23.2 - 27.2
46	50	at Chesterfield	17.8 - 21.8	29.8 - 33.8	23.1 - 27.1	35.1 - 39.1	23.3 - 27.3	35.3 - 39.3	14.8 - 18.8	26.8 - 30.8
40	42	Chesterfield W end	25.9 - 27.9	37.9 - 39.9	28.4 - 30.4	40.4 - 42.4	28.9 - 30.9	40.9 - 42.9	21.8 - 23.8	33.8 - 35.8
52	56	Safeway parking	8.2 - 12.2	20.2 - 24.2	11.6 - 15.6	23.6 - 27.6	11.5 - 15.5	23.5 - 27.5	6.7 - 10.7	18.7 - 22.7
		Francis State Beach								
		Buildings								
40	42	- Ranger Office (e)	23.4 - 25.4	35.4 - 37.4	20.3 - 22.3	32.3 - 34.3	20.4 - 22.4	32.4 - 34.4	17.5 - 19.5	29.5 - 31.5
40	48	- natural hist. kiosk	17.9 - 25.9	29.9 - 37.9	14.8 - 22.8	26.8 - 34.8	14.8 - 22.8	26.8 - 34.8	11.7 - 19.7	23.7 - 31.7
		Motor Camper Area								
47	50	- north end	21.7 - 24.7	33.7 - 36.7	14.9 - 17.9	26.9 - 29.9	15.1 - 18.1	27.1 - 30.1	11.9 - 14.9	23.9 - 26.9
48	52	- middle	18.2 - 22.2	30.2 - 34.2	12.4 - 16.4	24.4 - 28.4	12.6 - 16.6	24.6 - 28.6	9.4 - 13.4	21.4 - 25.4
40	45	- south end	22.8 - 27.8	34.8 - 39.8	18.7 - 23.7	30.7 - 35.7	18.8 - 23.8	30.8 - 35.8	15.7 - 20.7	27.7 - 32.7
		Day Use Areas								
54	58	- parking lot NE end	9.6 - 13.6	21.6 - 25.6	5.7 - 9.7	17.7 - 21.7	5.8 - 9.8	17.8 - 21.8	2.4 - 6.4	14.4 - 18.4
54	60	- parking lot W end	7.1 - 13.1	19.1 - 25.1	3.2 - 9.2	15.2 - 21.2	3.3 - 9.3	15.3 - 21.3	0.2 - 6.2	12.2 - 18.2
48	52	- parking lot center	14.8 - 18.8	26.8 - 30.8	11.1 - 15.1	23.1 - 27.1	11.2 - 15.2	23.2 - 27.2	8.1 - 12.1	20.1 - 24.1
62	68	- Top of stairs	-1.3 - 4.7	10.7 - 16.7	-5.2 - 0.8	6.8 - 12.8	-5.0 - 1.0	7.0 - 13.0	-8.0 - -2.0	4.0 - 10.0
69	70	20' to surf w of stairs	-3.5 - -2.5	8.5 - 9.5	-7.4 - -6.4	4.6 - 5.6	-7.3 - -6.3	4.7 - 5.7	-10.7 - -9.7	1.3 - 2.3
		Coastside Trail								
48	55	SweetWd N Bench	8.8 - 15.8	20.8 - 27.8	5.4 - 12.4	17.4 - 24.4	0.3 - 3.3	12.3 - 15.3	7.4 - 14.4	19.4 - 26.4
42	45	FrnchMnsCrkBridge	16.8 - 19.8	28.8 - 31.8	15.8 - 18.8	27.8 - 30.8	15.8 - 18.8	27.8 - 30.8	18.3 - 21.3	30.3 - 33.3
40	45	off Beach	23.7 - 28.7	35.7 - 40.7	20.1 - 25.1	32.1 - 37.1	20.2 - 25.2	32.2 - 37.2	21.1 - 26.1	33.1 - 38.1
40	40	off Antoinette	31.8 - 31.8	43.8 - 43.8	26.4 - 26.4	38.4 - 38.4	26.5 - 26.5	38.5 - 38.5	26.2 - 26.2	38.2 - 38.2
40	43	off St John	30.6 - 33.6	42.6 - 45.6	23.9 - 26.9	35.9 - 38.9	24.0 - 27.0	36.0 - 39.0	23.1 - 26.1	35.1 - 38.1
40	40	N end of bridge	36.4 - 36.4	48.4 - 48.4	27.2 - 27.2	39.2 - 39.2	27.3 - 27.3	39.3 - 39.3	25.5 - 25.5	37.5 - 37.5
42	47	S end of bridge	28.6 - 33.6	40.6 - 45.6	19.0 - 24.0	31.0 - 36.0	19.1 - 24.1	31.1 - 36.1	17.2 - 22.2	29.2 - 34.2
40	42	Maintenance yard	34.7 - 36.7	46.7 - 48.7	24.4 - 26.4	36.4 - 38.4	21.3 - 23.3	33.3 - 35.3	21.1 - 23.1	33.1 - 35.1
40	50	Entrance kiosk	16.7 - 26.7	28.7 - 38.7	13.5 - 23.5	25.5 - 35.5	13.6 - 23.6	25.6 - 35.6	10.2 - 20.2	22.2 - 32.2
		Venice Beach / Sweetwood Campgrnd								
45	50	north parking lot	13.3 - 18.3	25.3 - 30.3	11.6 - 16.6	23.6 - 28.6	11.7 - 16.7	23.7 - 28.7	13.7 - 18.7	25.7 - 30.7
48	55	northeast pkng lot	7.8 - 14.8	19.8 - 26.8	6.4 - 13.4	18.4 - 25.4	6.5 - 13.5	18.5 - 25.5	8.8 - 15.8	20.8 - 27.8
57	60	SweetWd BluffTop	1.8 - 4.8	13.8 - 16.8	0.3 - 3.3	12.3 - 15.3	0.3 - 3.3	12.3 - 15.3	2.3 - 5.3	14.3 - 17.3
45	50	SweetWood Camp	11.6 - 16.6	23.6 - 28.6	10.4 - 15.4	22.4 - 27.4	10.4 - 15.4	22.4 - 27.4	12.6 - 17.6	24.6 - 29.6
66	73	20' to surf, w of lot	-9.8 - -2.8	2.2 - 9.2	-11.8 - -4.8	0.2 - 7.2	-11.8 - -4.8	0.2 - 7.2	-10.0 - -3.0	2.0 - 9.0

90/10 BG SPL			Δ SPL - IS/MND proposal (SAM)				IS/MND proposal (SAM)			Δ SPL - Alternative 1			Alternative Site 1			Δ SPL - Alternative 2			Alternative Site 2			Δ SPL - Alt. 3 (E of CdMar)			Alternative Site 3		
low	high	Location	Testing		Warning		Distance(m)	123 db(A)	135 db(A) @ 1m	Testing	Warning	Distance(m)	123 db(A) @ 1m	135 db(A) @ 1m	Testing	Warning	Distance(m)	123 db(A) @ 1m	135 db(A) @ 1m	Testing	Warning	Distance(m)	123 db(A) @ 1m	135 db(A) @ 1m					
		Casa del Mar										feet																
		400 Pilarcitos																										
40	42	- front	36.9	- 38.9	48.9	- 50.9	160.34	78.9	90.9	29.0	- 31.0	41.0	- 43.0	400	71.0	83.0	29.0	- 31.0	41.0	- 43.0	397	71.0	83.0	25.2	- 27.2	37.2	- 39.2	614	67.2	79.2
43	45	- back	36.1	- 38.1	48.1	- 50.1	123.87	81.1	93.1	25.4	- 27.4	37.4	- 39.4	425	70.4	82.4	25.3	- 27.3	37.3	- 39.3	430	70.3	82.3	21.8	- 23.8	33.8	- 35.8	647	66.8	78.8
		421 Kehoe																										
42	46	- front	25.4	- 29.4	37.4	- 41.4	382.29	71.4	83.4	28.0	- 32.0	40.0	- 44.0	282	74.0	86.0	28.2	- 32.2	40.2	- 44.2	275	74.2	86.2	25.2	- 29.2	37.2	- 41.2	388	71.2	83.2
43	47	- back	24.5	- 28.5	36.5	- 40.5	375	71.5	83.5	28.0	- 32.0	40.0	- 44.0	251	75.0	87.0	-		40.0	- 44.0	251	75.0	87.0	24.0	- 28.0	36.0	- 40.0	400	71.0	83.0
		431 Kehoe																										
43	47	- front	22.8	- 26.8	34.8	- 38.8	456	69.8	81.8	28.0	- 32.0	40.0	- 44.0	252	75.0	87.0	27.8	- 31.8	39.8	- 43.8	258	74.8	86.8	25.7	- 29.7	37.7	- 41.7	326	72.7	84.7
47	50	- back	19.9	- 22.9	31.9	- 34.9	451	69.9	81.9	26.1	- 29.1	38.1	- 41.1	221	76.1	88.1	-		38.0	- 41.0	224	76.0	88.0	22.3	- 25.3	34.3	- 37.3	341	72.3	84.3
		437 Kehoe																										
52	58	- front	10.8	- 16.8	22.8	- 28.8	512	68.8	80.8	17.0	- 23.0	29.0	- 35.0	252	75.0	87.0	16.7	- 22.7	28.7	- 34.7	260	74.7	86.7	16.1	- 22.1	28.1	- 34.1	279	74.1	86.1
53	56	- back	12.9	- 15.9	24.9	- 27.9	506	68.9	80.9	20.1	- 23.1	32.1	- 35.1	221	76.1	88.1	-		32.0	- 35.0	223	76.0	88.0	17.4	- 20.4	29.4	- 32.4	301	73.4	85.4
40	45	CdM NW corner	22.3	- 27.3	34.3	- 39.3	610	67.3	79.3	19.8	- 24.8	31.8	- 36.8	812	64.8	76.8	19.7	- 24.7	31.7	- 36.7	825	64.7	76.7	21.7	- 26.7	33.7	- 38.7	654	66.7	78.7
40	43	midway on Wave	23.9	- 26.9	35.9	- 38.9	637	66.9	78.9	22.6	- 25.6	34.6	- 37.6	740	65.6	77.6	22.6	- 25.6	34.6	- 37.6	740	65.6	77.6	26.5	- 29.5	38.5	- 41.5	475	69.5	81.5
56	67	CdM NE corner	-1.8	- 9.2	10.2	- 21.2	774	65.2	77.2	-1.0	- 10.0	11.0	- 22.0	708	66.0	78.0	-1.2	- 9.8	10.8	- 21.8	727	65.8	77.8	5.7	- 16.7	17.7	- 28.7	329	72.7	84.7
62	66	Svc Rd x Casa dl Mar								3.5	- 7.5	15.5	- 19.5	471	69.5	81.5	3.4	- 7.4	15.4	- 19.4	476	69.4	81.4	12.4	- 16.4	24.4	- 28.4	170	78.4	90.4
62	68	E end of Kehoe	-0.1	- 5.9	11.9	- 17.9	570	67.9	79.9	6.5	- 12.5	18.5	- 24.5	266	74.5	86.5	6.4	- 12.4	18.4	- 24.4	269	74.4	86.4	7.1	- 13.1	19.1	- 25.1	248	75.1	87.1
		Lutheran Church																										
58	62	- front	5.9	- 9.9	17.9	- 21.9	569	67.9	79.9	23.2	- 27.2	35.2	- 39.2	78	85.2	97.2	22.0	- 26.0	34.0	- 38.0	89	84.0	96.0	7.7	- 11.7	19.7	- 23.7	465	69.7	81.7
57	61	- back	7.1	- 11.1	19.1	- 23.1	555	68.1	80.1	26.4	- 30.4	38.4	- 42.4	60	87.4	99.4	24.9	- 28.9	36.9	- 40.9	72	85.9	97.9	8.7	- 12.7	20.7	- 24.7	460	69.7	81.7
		Farmhouse																										
66	70	- front	-3.3	- 0.7	8.7	- 12.7	650	66.7	78.7	8.6	- 12.6	20.6	- 24.6	166	78.6	90.6	8.2	- 12.2	20.2	- 24.2	174	78.2	90.2	-2.5	- 1.5	9.5	- 13.5	593	67.5	79.5
58	63	- back	4.0	- 9.0	16.0	- 21.0	628	67.0	79.0	16.5	- 21.5	28.5	- 33.5	150	79.5	91.5	16.0	- 21.0	28.0	- 33.0	158	79.0	91.0	4.5	- 9.5	16.5	- 21.5	594	67.5	79.5
		At Fence																										
57	60	e of 448 Grand	5.9	- 8.9	17.9	- 20.9	713	65.9	77.9	13.5	- 16.5	25.5	- 28.5	300	73.5	85.5	13.4	- 16.4	25.4	- 28.4	301	73.4	85.4	5.5	- 8.5	17.5	- 20.5	752	65.5	77.5
50	54	at Ralston ROW	12.8	- 16.8	24.8	- 28.8	643	66.8	78.8	19.7	- 23.7	31.7	- 35.7	291	73.7	85.7	19.7	- 23.7	31.7	- 35.7	292	73.7	85.7	11.2	- 15.2	23.2	- 27.2	779	65.2	77.2
46	50	at Chesterfield	17.8	- 21.8	29.8	- 33.8	578	67.8	79.8	23.1	- 27.1	35.1	- 39.1	313	73.1	85.1	23.3	- 27.3	35.3	- 39.3	307	73.3	85.3	14.8	- 18.8	26.8	- 30.8	811	64.8	76.8
40	42	Chesterfield W end	25.9	- 27.9	37.9	- 39.9	567	67.9	79.9	28.4	- 30.4	40.4	- 42.4	425	70.4	82.4	28.9	- 30.9	40.9	- 42.9	404	70.9	82.9	21.8	- 23.8	33.8	- 35.8	908	63.8	75.8
52	56	Safeway parking	8.2	- 12.2	20.2	- 24.2	872	64.2	76.2	11.6	- 15.6	23.6	- 27.6	589	67.6	79.6	11.5	- 15.5	23.5	- 27.5	595	67.5	79.5	6.7	- 10.7	18.7	- 22.7	1035	62.7	74.7
		Francis State Beach																										
		Buildings																										
40	42	- Ranger Office (e)	23.4	- 25.4	35.4	- 37.4	759	65.4	77.4	20.3	- 22.3	32.3	- 34.3	1084	62.3	74.3	20.4	- 22.4	32.4	- 34.4	1077	62.4	74.4	17.5	- 19.5	29.5	- 31.5	1504	59.5	71.5
40	48	- natural hist. kiosk	17.9	- 25.9	29.9	- 37.9	716	65.9	77.9	14.8	- 22.8	26.8	- 34.8	1027	62.8	74.8	14.8	- 22.8	26.8	- 34.8	1024	62.8	74.8	11.7	- 19.7	23.7	- 31.7	1455	59.7	71.7
		Motor Camper Area																										
47	50	- north end	21.7	- 24.7	33.7	- 36.7	366	71.7	83.7	14.9	- 17.9	26.9	- 29.9	801	64.9	76.9	15.1	- 18.1	27.1	- 30.1	787	65.1	77.1	11.9	- 14.9	23.9	- 26.9	1138	61.9	73.9
48	52	- middle	18.2	- 22.2	30.2	- 34.2	437	70.2	82.2	12.4	- 16.4	24.4	- 28.4	850	64.4	76.4	12.6	- 16.6	24.6	- 28.6	833	64.6	76.6	9.4	- 13.4	21.4	- 25.4	1199	61.4	73.4
40	45	- south end	22.8	- 27.8	34.8	- 39.8	576	67.8	79.8	18.7	- 23.7	30.7	- 35.7	918	63.7	75.7	18.8	- 23.8	30.8	- 35.8	907	63.8	75.8	15.7	- 20.7	27.7	- 32.7	1310	60.7	72.7
		Day Use Areas																										
54	58	- parking lot NE end	9.6	- 13.6	21.6	- 25.6	587	67.6	79.6	5.7	- 9.7	17.7	- 21.7	923	63.7	75.7	5.8	- 9.8	17.8	- 21.8	914	63.8	75.8	2.4	- 6.4	14.4	- 18.4	1351	60.4	72.4
54	60	- parking lot W end	7.1	- 13.1	19.1	- 25.1	622	67.1	79.1	3.2	- 9.2	15.2	- 21.2	976	63.2	75.2	3.3	- 9.3	15.3	- 21.3	970	63.3	75.3	0.2	- 6.2	12.2	- 18.2	1380	60.2	72.2
48	52	- parking lot center	14.8	- 18.8	26.8	- 30.8	647	66.8	78.8	11.1	- 15.1	23.1	- 27.1	984	63.1	75.1	11.2	- 15.2	23.2	- 27.2	975	63.2	75.2	8.1	- 12.1	20.1	- 24.1	1389	60.1	72.1
62	68	- Top of stairs	-1.3	- 4.7	10.7	- 16.7	652	66.7	78.7	-5.2	- 0.8	6.8	- 12.8	1022	62.8	74.8	-5.0	- 1.0	7.0	- 13.0	1002	63.0	75.0	-8.0	- -2.0	4.0	- 10.0	1405	60.0	72.0
69	70	20' to surf w of stairs	-3.5	- -2.5	8.5	- 9.5	670	66.5	78.5	-7.4	- -6.4	4.6	- 5.6	1043	62.6	74.6	-7.3	- -6.3	4.7	- 5.7	1030	62.7	74.7	-10.7	- -9.7	1.3	- 2.3	1527	59.3	71.3
		Coastside Trail																										
48	55	SweetWd N Bench	8.8	- 15.8	20.8	- 27.8	914	63.8	75.8	5.4	- 12.4	17.4	- 24.4	1354	60.4	72.4	0.3	- 3.3	12.3	- 15.3	1369	60.3	72.3	7.4	- 14.4	19.4	- 26.4	1072	62.4	74.4
42	45	FrnchMnsCrkBridge	16.8	- 19.8	28.8	- 31.8	1147	61.8	73.8	15.8	- 18.8	27.8	- 30.8	1291	60.8	72.8	15.8	- 18.8	27.8	- 30.8	1284	60.8	72.8	18.3	- 21.3	30.3	- 33.3	967	63.3	75.3
40	45	off Beach	23.7	- 28.7	35.7	- 40.7	520	68.7	80.7	20.1	- 25.1	32.1	- 37.1	787	65.1	77.1	20.2	- 25.2	32.2	- 37.2	780	65.2	77.2	21.1	- 26.1	33.1	- 38.1	697	66.1	78.1
40	40	off Antoinette	31.8	- 31.8	43.8	- 43.8	365	71.8	83.8	26.4	- 26.4	38.4	- 38.4	677	66.4	78.4	26.5	- 26.5	38.5	- 38.5	671	66.5	78.5	26.2	- 26.2	38.2	- 38.2	688	66.2	78.2
40	43	off St John	30.6	- 33.6	42.6	- 45.6	296	73.6	85.6	23.9	- 26.9	35.9	- 38.9	640	66.9	78.9	24.0	- 27.0	36.0	- 39.0	634	67.0	79.0	23.1	- 26.1	35.1	- 38.1	703	66.1	78.1
40	40	N end of bridge	36.4	- 36.4	48.4	- 48.4	215	76.4	88.4	27.2	- 27.2	39.2	- 39.2	615	67.2	79.2	27.3	- 27.3	39.3	- 39.3	608	67.3	79.3	25.5	- 25.5	37.5	- 37.5	750	65.5	77.5
42	47	S end of bridge	28.6	- 33.6	40.6	- 45.6	234	75.6	87.6	19.0	- 24.0	31.0	- 36.0	706	66.0	78.0	19.1	- 24.1	31.1	- 36.1	697	66.1	78.1	17.2	- 22.2	29.2	- 34.2	875	64.2	76.2
40	42	Maintenance yard	34.7	- 36.7	46.7	- 48.7	207	76.7	88.7	24.4	- 26.4	36.4	- 38.4	678	66.4	78.4	21.3	- 23.3	33.3	- 35.3	965	63.3	75.3	21.1	- 23.1	33.1	- 35.1	992	63.1	75.1
40	50	Entrance kiosk	16.7	- 26.7	28.7	- 38.7	653	66.7	78.7	13.5	- 23.5	25.5	- 35.5	940	63.5	75.5	13.6	- 23.6	25.6	- 35.6	937	63.6	75.6	10.2	- 20.2	22.2	- 32.2	1376	60.2	72.2
		Venice Beach / Sweetwood Campgrnd																										
45	50	north parking lot	13.3	- 18.3	25.3	- 30.3	966	63.3	75.3	11.6	- 16.6	23.6	- 28.6	1170	61.6	73.6	11.7	- 16.7	23.7	- 28.7	1168	61.7	73.7	13.7	- 18.7	25.7	- 30.7	922	63.7	75.7
48	55	northeast pkng lot	7.8	- 14.8	19.8	- 26.8	1022	62.8	74.8	6.4	- 13.4	18.4	- 25.4	1197	61.4	73.4	6.5	- 13.5	18.5	- 25.5	1193	61.5	73.5	8.8	- 15.8	20.8	- 27.8	915	63.8	75.8
57	60	SweetWd BluffTop	1.8	- 4.8	13.8	- 16.8	1152	61.8	73.8	0.3	- 3.3	12.3	- 15.3	1361	60.3	72.3	0.3	- 3.3	12.3	- 15.3	1358	60.3	72.3	2.3	- 5.3	14.3	- 17.3	1086	62.3	74.3
45	50	SweetWood Camp	11.6	- 16.6	23.6	- 28.6	1180	61.6	73.6	10.4	- 15.4	22.4	- 27.4	1344	60.4	72.4	10.4	- 15.4	22.4	- 27.4	1342	60.4	72.4	12.6	- 17.6	24.6	- 29.6	1044	62.6	74.6
66	73	20' to surf, w of lot	-9.8	- -2.8	2.2	- 9.2	972	63.2	75.2	-11.8	- -4.8	0.2	- 7.2	1226	61.2	73.2	-11.8	- -4.8	0.2	- 7.2	1232	61.2	73.2	-10.0	- -3.0	2.0	- 9.0	1004	63.0	75.0

water supply restriction could be lifted if either the first phase of the Crystal Springs Pipeline were constructed or if the number of well permits were to increase.

Road capacity constrains growth on the Mid-Coastside because the two principal roads connecting this area with the San Francisco Bay-side, Highways 1 and 92, are both winding two-lane roads with limited capacities. low speeds, and traffic safety problems. Expansion of the road system would be costly both fiscally and environmentally due to the steep, mountainous terrain. Evaluation of the tradeoff between the commute problems and owning a coastside home is subtle and does not result in a strict numerical limitation to growth.

The proposed plant expansion is sized to accommodate all of the residential, non-residential, and priority land uses in the City and County LCP's. The LCP's operate to minimize the adverse impact of growth by limiting the amount of growth, by determining its type and location and by coordinating provision of public services. In this sense the adopted LCP's are mitigation measures for the indirect impact of the SAM plant expansion.

7. MITIGATION MEASURES

None of the direct, physical impacts of the project would be significant and adverse if controlled by the following mitigating measures.

a. Noise

Impact: Increased noise due to additional equipment needed for expansion
Mitigation: Enclose all noise sources greater than 50 dBA at 50 feet to lessen overall increase in noise levels due to the expansion
Effect/Effectiveness: Effective in isolating noise source
Feasibility: Planned
Responsibility: SAM

b. Visual

Impact: Visual change due to increase in number and height of structures
Mitigation 1: Continue to use a neutral color for buildings
Effect/Effectiveness: Effective in reducing plant's visual contrast with surroundings.
Feasibility: Feasible
Responsibility: SAM

Mitigation 2: Increase the amount of screening vegetation by planting trees on the east side of the plant
Effect/Effectiveness: Effective in disguising plant
Feasibility: Feasible
Responsibility: SAM

Impact: Glare caused by nighttime lighting
Mitigation 1: Direct exterior lighting away from nearby residents
Effect/Effectiveness: Reduces impacts of directional lighting on sensitive receptors

anaerobic digestion will be used as a fuel for electrical generators in the plant designed for this purpose. Fixed film reactors will be used to supplement biological treatment of the wastewater. Rather than doubling the size of the activated sludge treatment, the more energy efficient fixed film reactors are used. In addition, existing activated sludge aeration will be made more energy efficient by replacing the existing coarse air diffusers with fine air diffusers. Increased amounts of power will be necessary for the effluent pumps as the flow increases and requires more constant pumping as well as a larger pump.

The new wastewater processing system will be more energy efficient than the current system, so that doubling the amount of wastewater processed will only increase the energy consumed a small percentage over the current energy consumption. Overall the electricity usage as calculated by KJC Engineers will be increased from the current daily average use of 6400 kilowatt hours (kwh) to a new average of 7359 kwh, a difference of 959 kwh.

2. Impacts

Plant expansion includes both an increase in capacity and a change in the processing system. The major changes include the adding two fixed film reactors to treat the wastewater and changing the sludge digestors from an aerobic to an anaerobic system (See Chapter I.).

a. Noise

Currently the major sources of noise at the SAM facility are the aeration tank blowers, floating aerators and effluent pumps. The effluent pumps are used only a few instances during the year during the higher flows in winter months. New effluent pumps and fixed film reactor pumps will be added for the expansion. The floating aerators will be eliminated but the aeration tank blowers will remain the same. The horsepower needed to operate the expanded facility will increase by 15% This will result in a maximum increase of less than 3 dB(A) over the current noise levels caused by plant operation. As SAM is now heard only during the lulls in the traffic or ocean breakers and is not the loudest noise source, the increase is not significant. The City of Half Moon Bay does not have regulations for outdoor residential noise levels.

Other potential sources of noise on-site are the outdoor phone and the public address system. The ringing for the outdoor phone has been changed from a bell system to a subdued chime to eliminate off-site noise impacts. Additionally, the outdoor phone is shut off from 10:00 pm until 8:00 am. The public address system is used sparingly, use is not expected to increase after the expansion.

Noise levels for workers are regulated by the Occupational Safety and Health Administration (OSHA). OSHA's Occupational Noise Exposure Code prohibits exposure to the noise levels above 90 dB(A) at a distance of three feet. Sound attenuation equipment will be included as necessary to comply with the OSHA standard.

F. LAND USE COMPATIBILITY

The wastewater treatment plant is essentially an industrial operation. The physical impacts and public safety risk affect compatibility of the plant with surrounding land uses.

1. Setting

The land use adjacent to SAM is currently open space and parkland with a residential subdivision to the north. A second residential development is located southeast of the facility and the adjoining open space. The land use south of Pilarcitos Creek consists of scattered residential use and open space. Half Moon Bay State Beach is southwest of the site (Figure III-6).

The zoning for the area is consistent with the current land use except for the undeveloped area southeast of SAM, between the Casa del Mar subdivision and Pilarcitos Creek. The zoning for the area is medium density residential. The Half Moon Bay Land Use Plan (LUP) designates the area as urban reserve. Under the LUP, the category of urban reserve is used for areas which are a "logical reserve for infill development after substantial development has been accommodated on lands designated for new development on the Land Use Plan map." Conversion of these lands to urban uses is prohibited until substantial development has occurred in areas designated for development on the LUP map and a period of at least ten years from the effective date of the LUP has passed. The LUP shows no new dwelling units in this area through the year 2000.

B. Impacts

The plant expansion is confined to the present property boundary. The zoning for the site is appropriate for the use and is consistent with the adjacent land uses. The SAM facility expansion has the potential to impact the surrounding land uses in the areas of noise, odor, visual and public safety. The topics discussed in Chapter 3, Sections B, C, and E are summarized below.

a. Noise

As the amount of wastewater treated increases, the noise levels created by the facility will also increase. The increase in noise due to the expansion will be a maximum of 3 dB(A) over current noise levels created by SAM. At the nearest residence the measured noise level of SAM was 47 dB(A) (roughly equivalent to the noise level of a typical office environment). The facility is not the dominant source of daytime noise in the area but is for the most part overwhelmed by traffic noises from Highway 1. The facility may be heard more clearly in the quiet nighttime hours.

b. Odor

SAM is not expected to create odor under normal operating conditions. Under upset conditions when the facility is not functioning correctly, odor may be created. The greatest impact would occur if the residential development to the north of the facility were downwind at the time of upset. Winds are from a southerly direction only 11% of the year and upset conditions are not expected to occur.

Applicable LCP policies

Coastal Act Policy 30240.

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

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

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.

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.

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 environmentally 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 and StateDepartment 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 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.

3-21 Designation of Habitats of Rare and Endangered Species.

(a) In the event the habitat of a rare and endangered species is found to exist within the City, revise the Habitat Areas and Water Resources Overlay to show the location of such habitat. Any habitat so designated shall be subject to Policies 3-22 through 3-31

3-23 Permit Conditions.

(a) Require prior to permit issuance, that a qualified biologist prepare a report which defines the requirements of rare and endangered organisms. At minimum, require the report to discuss: (1) animal food, water, nesting or denning sites and reproduction, predation and migration requirements, (2) plants' life histories and soils, climate, and geographic requirements, (3) a map depicting the locations of plants or animals and/or their habitats, (4) any development must not impact the functional capacity of the habitat, and (5) recommend mitigation if development is permitted within or adjacent to identified habitats.

3-24 Preservation of Critical Habitat.

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

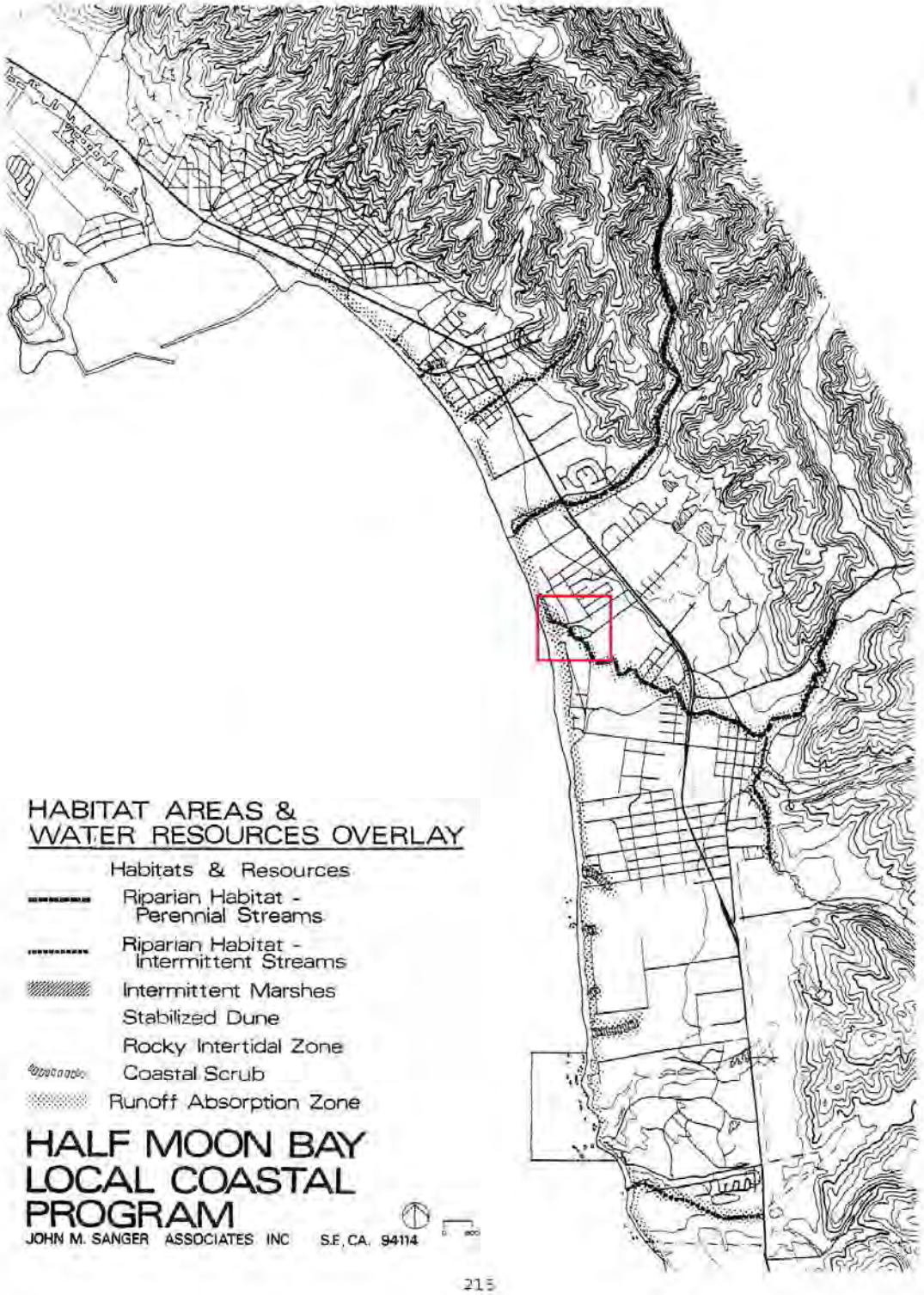
3-32 Designation of Habitats of Unique Species.

(a) In the event the habitat of a unique species is found to exist within the City, revise the Habitat Areas and Water Resources Overlay to show the location of such habitat. Any habitat so designated shall be subject to Policies 3-33 through 3-36.

3-34 Permit Conditions.

(a) Require, as a condition of permit approval, that a qualified biologist prepare a report which defines the requirements of a unique organism. At a minimum, require the report to discuss:
(1) animal food, water, nesting or denning sites and reproduction, predation, and migration requirements, and
(2) plants' life histories and soils, climate, and geographic requirements.

9-3 All new development shall comply with all other policies of the Plan. (New development means any project for which a Coastal Permit is required under Section 30106, 30250, 30252, 30600, and 30608 of the Coastal Act which has not received such permit as of the date of certification of this Plan).


HABITAT AREAS &
WATER RESOURCES OVERLAY
Habitats & Resources
Riparian Habitat - Perennial Streams
Riparian Habitat - Intermittent Streams
Intermittent Marshes
Stabilized Dune
Rocky Intertidal Zone
Coastal Scrub
Runoff Absorption Zone
HALF MOON BAY
LOCAL COASTAL
PROGRAM
JOHN M. SANGER ASSOCIATES INC S.F. CA. 94114
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Title 18, HMB Municipal Code

Chapter 18.07 Commerical Land Use (C-D,C-R)

18.07.030(D). Exterior Noise Limit. Sound levels measured at the property line of the lot where the lot borders an R, OS, UR or OSR district, may not exceed the following levels:

MAXIMUM NOISE LEVEL

Time of Day	More than 30 minutes/hour	More than 5 minutes/hour	At any time
7 a.m. to 10 p.m.	60 dBA	70 dBA	80 dBA
10 p.m. to 7 a.m.	55 dBA	65 dBA	75 dBA

Chapter 18.10 Industrial Land Use (IND)

18.10.080(A). At no point, either on the boundary of an R District or a Commercial District or at a point one hundred twenty-five feet from the nearest property line of a plant or operation, whichever distance is greater, shall the sound pressure level of an individual operation or plant (other than the operation of motor vehicles and other transportation facilities) exceed the decibel levels at the designated octave bands shown hereafter for the district indicated.

Octave Band Cycles Per Second	Sound Level Residence *	Sound Level Commercial **
0 to 75	67	73
75 to 150	62	68
150 to 300	58	64
300 to 600	54	60
600 to 1200	49	55
1200 to 2400	45	51
2400 to 4800	41	47
above 4800	35	41

* Maximum permitted sound level in decibels along R District boundaries or one hundred twenty-five feet from plant or operation property line

** Maximum permitted sound level in decibels along C District boundaries or one hundred twenty-five feet from plant or operation property line.

Chapter 18.38 Coastal Resource Conservation Standards

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

A. Sensitive Habitat Areas. Areas in which plant or animal life or their habitats are either rare or especially valuable, and/or as indicated on the Habitat Areas and Water Resources Overlay Map. Areas considered to be sensitive habitats are listed below.

Sensitive Habitat	
1.	Sand dunes.
2.	Marine habitats.
3.	Sea cliffs.
4.	Riparian areas.
5.	Wetlands, coastal tidelands and marshes, lakes and ponds and adjacent shore habitats.
6.	Coastal and off-shore areas containing breeding and/or nesting sites or used by migratory and resident water-associated birds for resting and feeding.
7.	Areas used for scientific study and research concerning fish and wildlife, and existing game or wildlife refuges and reserves.
8.	Habitats containing of supporting unique species or any rare and endangered species defined by the State Fish and Game Commission.
9.	Rocky intertidal zones.
10.	Coastal scrub community associated with coastal bluffs and gullies.

B. Riparian Area and Corridor. Any area of land bordering a perennial or intermittent stream or their tributaries, or around a lake or other body of fresh water, including its banks and land at least up to the highest point of an obvious channel or enclosure of a body of water. Riparian corridors are the areas between the limits of riparian vegetation, where limits are determined by vegetative coverage, at least fifty percent of which is comprised of a combination of the following plant species: red alder, jaumea, pickleweed, big leaf maple, narrow-leaf cattail, arroyo willow, broadleaf cattail, horsetail, creek dogwood, black cottonwood, and box elder. These areas and corridors are sensitive habitats requiring protection. Man-made irrigation ponds having over two thousand five hundred square feet of surface area are exempt.

C. Bluff, Cliff, and Sea-Cliff. Bluff, cliff and sea-cliff definitions:

1. A bluff or cliff is a scarp or a steep face of rock, decomposed rock, sediment or soil resulting from erosion, faulting, or folding of the land mass with a vertical relief of ten feet or more.

2. Seacliff is defined as a cliff whose toe is subject to marine erosion.

3. Bluff-edge or cliff-edge is defined as the upper termination of a bluff, cliff, or sea-cliff.

a. Where the top edge of the cliff is rounded away from the face of the cliff as a result of erosional processes related to the presence of the steep cliff face, the edge shall be defined as that point nearest the cliff beyond which the downward gradient of the land surface increases more or less continuously until it reaches the general gradient of the cliff.

b. Where the top edge of the cliff is a step-like feature, the landward edge of the topmost riser shall be considered the cliff edge.

D. Wild Strawberry Habitat. Any undeveloped areas within ½ mile of the coast.

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 the 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 one hundred feet of any sensitive habitat area, riparian corridor, bluffs and sea-cliff areas, and any wetland.

B. Report Contents. In addition to meeting the requirements of 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 two hundred 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 plants, 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 U.S. 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 affected 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 forty-five days of receiving the report.

18.38.100 Development conditions. The planning commission shall impose development conditions on proposed projects within or adjacent to designated coastal resource areas that require a coastal development permit and are subject to the provisions of this chapter. These conditions shall include the mitigation measures recommended in required reports or the environmental impact report if the planning director accepts it in lieu of required reports, as development conditions in the coastal development permit for the proposed project. The planning commission may modify or eliminate conditions where it is found that the modification is consistent with the purposes of this chapter and the California Coastal Act.