

CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA
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**Thu 11a**

Staff: EL-SD
Staff Report: May 21, 2003
Hearing Date: June 11-13, 2003

AMENDMENT REQUEST
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-00-134-A1

Applicant: City of Del Mar

Agent: Linda Niles

Original Description: Excavation of approximately 15,000 cu.yds. of sediment from an approximately 1.5 acre area at the lagoon mouth to restore tidal action, discharge of the excavated materials over approximately .2 acres of supratidal beach, and regrading of the beach to re-establish natural contours; this is the follow-up to Emergency Permit #6-00-134-G and includes a request for additional mouth openings as needed for five years.

Proposed Amendment: Modification of Special Condition #3 to adopt parameters to allow maintenance of the open lagoon inlet channel, or excavation of 4,000-15,000 cu.yds. of material to open the lagoon inlet, at the end of each rainy season, and authorization to open the lagoon inlet when the Del Mar Fairgrounds is threatened with severe flooding.

Site: Mouth of San Dieguito Lagoon, from the shoreline to the railroad bridge, Del Mar, San Diego County. APNs 299-030-08 & 09

Substantive File Documents: Certified City of Del Mar LCP; *San Dieguito Lagoon Monitoring before and after October 2002 Inlet Excavation*, dated 11/11/02; CCC Files #6-02-042-G and 6-00-134

STAFF NOTES:

Summary of Staff's Preliminary Recommendation:

Staff recommends approval of the proposed amendment, with a special condition establishing expanded parameters for opening the lagoon inlet, that replaces Special Condition #3 of the original permit in its entirety. Currently, the permit is set up such that when certain biological criteria are met, the applicant can open the lagoon mouth.

The applicant now wants to add two new criteria for opening the lagoon mouth once at the end of each rainy season and whenever the Del Mar Fairgrounds is subjected to flooding. The applicant has demonstrated that if the lagoon mouth is opened prior to the summer, it will likely remain open most of the summer, thereby significantly reducing stress on the resources contained in the lagoon. In addition, over the past several years, the Del Mar Fairgrounds has had to obtain emergency authorization to open the lagoon mouth when facilities at the fairgrounds were subjected to flooding due to the lagoon/river water backing up into existing drainage facilities. With the newly proposed criteria for opening, biological resources within the lagoon will be further protected as well as the public facilities within the fairgrounds property.

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: *I move that the Commission approve the proposed amendment to Coastal Development Permit No. 6-00-134 pursuant to the staff recommendation.*

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a YES vote. Passage of this motion will result in approval of the amendment as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE A PERMIT AMENDMENT:

The Commission hereby approves the coastal development permit amendment on the ground that the development as amended and subject to conditions, will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit amendment complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the amended development on the environment, or 2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the amended development on the environment.

II. Special Conditions.

The permit is subject to the following conditions:

1. Initiation of Work. **The following condition shall replace Special Condition #3 of the original permit in its entirety:** The proposed channel excavation work shall be performed only:

- a. when the dissolved oxygen levels in the lagoon are less than 5 parts per million (ppm), or
- b. when the water salinity level in the lagoon is below 25 parts per thousand (ppt) and dissolved oxygen levels are determined by a qualified biologist to be likely to drop below 5 ppm within the next two-week sampling interval, or
- c. when the water salinity level in the lagoon is above 33 ppt (hypersaline), or
- d. once annually at the end of each rainy season, at least two weeks prior to Memorial Day weekend, or
- e. when the river rises to 3.0 feet NGVD at the railroad bridge monitoring station.

The sampling results, biologist's determination, or documented flood elevation which results in a decision to open the lagoon mouth shall be reported in writing, if time permits, or verbally, with written follow-up, to the nearest Commission office within one business day of any proposed opening, and shall be submitted to the Coastal Commission as part of the annual report required in Special Condition #4 of the original permit.

2. Prior Conditions of Approval. All other terms and conditions of the original approval of Coastal Development Permit #6-00-134 not specifically modified herein, shall remain in full force and effect.

III. Findings and Declarations.

The Commission finds and declares as follows:

1. Project History/Amendment Description. The original permit approval represented the follow-up permit to Emergency Permit #6-00-134-G, issued on September 14, 2000, to remove approximately 15,000 cu.yds. of sediment from an area extending from the shoreline to the railroad bridge at the mouth of the San Dieguito River. The mouth had been closed almost continuously for a year and a half, and biological conditions within the lagoon had deteriorated significantly. The emergency mouth opening was conducted in September, 2000. In addition to the excavation activities, the project approved in the emergency action included the deposition of the excavated materials on the beaches immediately north and south of the river mouth and minor grading of those beaches to re-establish natural contours. In the regular follow-up permit, the deposition of dredged materials on the beach is also proposed for any additional openings, and will be placed south of the entrance unless the property owners in that area object; in that case it will be placed to the north. In addition, the regular permit approval authorized future mouth openings, to be performed as needed over the next five year, using the same location, equipment, design, etc. as were used in the

emergency opening, and are triggered by similar biological conditions as occurred with the emergency action.

The subject amendment request would add two additional criteria for inlet opening by replacing Special Condition #3 of the original report with the attached Special Condition #1. The replacement condition adds criteria to allow opening the lagoon inlet when the river rises to 3.0 feet NGVD (National Geodetic Vertical Datum) at the railroad bridge monitoring station, threatening the Fairgrounds with severe flooding. This is an existing monitoring station used for testing and measuring in association with anticipated future restoration, and is located close enough to the storm drains to provide an accurate means of measurement. In addition, the replacement condition will allow once a year maintenance, or inlet opening, at the end of each rainy season to better prepare the lagoon for the dry summer months.

The Commission has a long history of permitting the artificial opening of lagoons in San Diego County, including Los Penasquitos, San Elijo and San Dieguito Lagoons. These openings were typically proposed based on certain criteria being met related to salinity, dissolved oxygen and other water chemistry conditions as indicators of impending fish kills, alga blooms or similar unhealthy occurrences. Although older permits typically allowed a one-time opening only, more recently the Commission has been approving permits for a set period of time (ranging from one year to five years) wherein multiple openings could occur as needed based on certain biological criteria being met.

Unlike Los Penasquitos and San Elijo Lagoons, the openings at San Dieguito have generally occurred pursuant to Coastal Development Permit #6-83-148, which implemented portions of the 1979 San Dieguito Lagoon Enhancement Plan, and included a condition that the City of Del Mar open the lagoon mouth once each year prior to the rainy season. The City, in CDP #6-00-134, sought permission to open the lagoon mouth more than once per year when specified biological or water quality criteria are triggered. The current permit, unlike CDP #6-83-148, also imposes monitoring requirements and restrictions to limit potential adverse impacts on public access and recreation and sand supply.

The City of Del Mar has a fully certified Local Coastal Program (LCP), and issues its own coastal development permits for the majority of the City. However, the lagoon, river mouth and beach areas that are the subject of this permit are all tidelands such that the Commission retains permit jurisdiction over this particular site. Therefore, the Chapter 3 policies of the Coastal Act are, and will continue to be, the standard of review, with the City's certified LCP used as guidance.

2. Sensitive Habitats. The subject site is located at the mouth of San Dieguito Lagoon, an environmentally sensitive habitat area that is one of the 19 priority wetlands listed by the State Department of Fish and Game for acquisition. At this time, the lagoon has multiple public and private ownerships; the actual project site is owned by the City of Del Mar. A Joint Powers Authority (JPA) oversees the lagoon and its watershed, acquires private lands to form a linear park, and promotes restoration. Concurrently,

Southern California Edison and its partners are planning a major restoration effort to mitigate for impacts on sensitive plant and animal communities resulting from the operation of the San Onofre Nuclear Generating Station (SONGS). A significant feature of the SONGS restoration plan will be maintaining the lagoon mouth in an open condition to maximize tidal flushing of the lagoon. Although not connected to this project in any way, the current project, including the proposed amendment, will be compatible with the anticipated SONGS restoration project.

The approved project involves the periodic removal of sediments from the mouth of San Dieguito Lagoon. The proposed amendment would add additional criteria to allow a lagoon inlet opening once a year, whether or not the originally defined biological criteria are fully met (i.e., before the lagoon is totally stressed). Thus, although there is no change in the actual work to be done, the timing of work may shift somewhat. In its initial review, the Commission made extensive findings addressing consistency of the approved development (lagoon mouth opening) with the applicable policies of the Coastal Act regarding sensitive habitat areas, including wetlands. Those findings are incorporated herein by reference (see Exhibits #2 and 3).

The project proponents believe the lagoon mouth should be maintained annually, at the end of each rainy season, and preparatory to the long dry summer months when most biological degradation occurs. If the inlet is open at the beginning of the summer season, it is more likely to remain open throughout the dry months and prevent lagoon inhabitants from being stressed to the point of crisis. This viewpoint is supported by the Commission's staff ecologist and by wetland scientists from the University of California at Santa Barbara who are under contract with the SONGS project, and have written a letter of support for the subject proposal (see Exhibit #4). A portion of that letter states:

"While useful and better than no action, the emergency openings do not address the ongoing biological degradation in the San Dieguito lagoon caused by extended inlet closures, which takes place well before the emergency trigger points are reached. These adverse effects, documented during the last several years include: 1) dramatic increases in abundance of the aquatic plant, *Ruppia maritima*, and its subsequent die-offs, which substantially reduces dissolved oxygen levels, 2) Precipitous declines in resident fish populations (top smelt and gobies), 3) Near extinction of the usual estuarine invertebrate species at all of our sampling locations, 4) Significant mortality of larger fish, including the spotted bay bass (*Paralabrax maculatofasciatus*) and the California Halibut (*Paralichthys californicus*), 5) Reduced salinity that increases the likelihood of the breeding of mosquitoes and attendant adverse animal and human health effects, 6) Dramatic increases in fecal indicator bacteria, 7) Degradation of salt marsh vegetation and reduction of associated invertebrates."

"In summary, although emergency inlet opening operations abate catastrophic effects on the biota in the San Dieguito Lagoon, they do not address significant adverse effects that occur between the infrequent opening operations. These adverse effects are manifest well before the trigger points for the current permit are met."

Thus, biologists who have been conducting research in this lagoon for at least the past ten years have long maintained that waiting until the original biological criteria are met almost always results in a significant interim loss of lagoon resources. The U.S. Fish and Wildlife Service (Service) and the California Department of Fish and Game (CDFG) have also indicated their support for maintaining the lagoon mouth in an open condition to the greatest degree possible. Finally, a letter from Dr. Hany Elwany, an oceanographer who provides technical support for the City of Del Mar in matters relating to biological and coastal issues, echoes the statements quoted above (see Exhibit #5).

In summary, as conditioned, the proposed amendment, like the original project, will have a positive impact on the natural resources of the lagoon, by maintaining an open lagoon inlet for larger portions of the year. All prior conditions of approval not modified or replaced herein remain in full force and effect. These conditions require, among other things, coordination with the Service and CDFG before each inlet opening, and submittal of regular monitoring reports to the Commission and the other identified agencies. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30231, 30233 and 30240 of the Coastal Act, as cited in the original staff report for the development.

3. Public Access/Recreation. The proposed project is located between the first public road and the sea. Sections 30210-30214 of the Coastal Act state that maximum access and recreation opportunities be provided, consistent with, among other things, public safety, the protection of coastal resources, and the need to prevent overcrowding. In particular, Section 30211 of the Act states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

The project site is the mouth of San Dieguito Lagoon, which empties into the Pacific Ocean at Del Mar. The river channel runs across the municipal beach at the northern end of the city, and can be traversed on foot during most tidal regimes. The public beach provides very popular day-use facilities for beach visitors and serves as a recreational resource of region-wide importance. As the inlet openings occur on the beach and the far-western portions of the lagoon, the potential for adverse impacts on public access and recreational opportunities exists.

As discussed in the previous section, all the various resources agencies, lagoon managers, local coastal wetland experts, and the Commission's ecologist, have agreed that opening the lagoon mouth is beneficial to the lagoon environment. However, there are a number of concerns related to public access and recreation associated with the project. Typically, for a short period after a lagoon mouth is opened, bacteria levels (fecal and total coliform counts) in the water exiting the lagoon are usually above health standards in the mouth and surfzone surrounding the mouth. As a result, County Public Health officials post the surrounding beaches with signs prohibiting any body contact with the water because of

potential health hazards caused by the high bacteria counts. Although this has always been a known concern, in permitting previous lagoon mouth openings, the Commission has not found this to be a significant impact on public recreational opportunities as the lagoon mouth openings generally occur in the non-summer months and the high bacteria levels only last a few days to a week. This also has the beneficial human health effect of a relatively long-term reduction in the levels of fecal and total coliform counts within the lagoon, at the cost of an ephemeral rise in those counts in local coastal waters.

The Commission finds that every effort should be made to avoid an opening on weekends, during holiday periods (especially spring break), and during the period between Memorial Day and Labor Day, when beach use is at its peak. A special condition of the original permit prohibits dredging within 14 days before a holiday or a scheduled beach event, or on weekends during the summer months to the degree possible, with an allowance for sudden emergency situations. The proposed annual maintenance at the end of each rainy season, typically in April or May, should minimize the potential for such occurrences, and thus prevent the need to undertake large emergency openings during the summer and early fall when the public beaches are most heavily used.

The Commission acknowledges that the project will also have a beneficial effect on public recreation. All sediments excavated from the lagoon are deposited on the beaches just north and/or south of the mouth, effectively augmenting the sandy area available for public use. The beach remains open to the public during the excavation operations, except for the actual site of dredging. Based on the monitoring report submitted with this amendment request (and cited as a substantive file document), along with numerous conversations regarding other lagoon/river mouth openings in San Diego County, the past openings do not appear to have imposed any significant hardships on the public. The applicant suggests that yearly maintenance dredging would last no more than a maximum of five days, and the work occurs primarily within, and immediately adjacent to, the narrow channel being dredged perpendicular to the beach. Health Department postings after inlet opening typically close a segment of beach both north and south of the opening covering between 50 and 200 feet, depending on the level of contamination; the closures usually only last a few days.

The overall project has been identified as being beneficial to the lagoon and its associated habitat. Some inconvenience to beach users could result if the lagoon must be opened in the summer months; however, it is the intention of the project to keep the lagoon mouth open as long as possible, which will reduce the impacts associated with individual openings. With the proposed conditions of approval, impacts to public access and recreation will be reduced to the maximum amount feasible. Thus, as conditioned, the Commission finds the proposed amendment is consistent with the public access and recreation policies of the Coastal Act.

4. Hydrology/Water Quality. The following Coastal Act policies are applicable to the proposed development amendment and state:

Section 30230

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231

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

Section 30236.

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to ... (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development ...

Section 30253.

New development shall:

- (1) Minimize risks to life and property in areas of high geologic, flood, and 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 bluffs and cliffs.
- (3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.
- (4) Minimize energy consumption and vehicle miles traveled.

(5) Where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational uses.

The second newly proposed criteria is to open the inlet whenever the river rises above the elevation of 3.0 feet NGVD at the railroad bridge monitoring station, which is just downstream from the fairgrounds storm drain outfalls. Based on information presented by the applicant, it is at this point that the fairgrounds storm drain system becomes immersed and unable to function, with runoff and river water backing up onto various parts of the Fairgrounds property. This is a gravity-based drainage system, that is not designed to withstand pressurized, backwards flows, as happens when the outlets are under water. Although most Fairgrounds structures were built to withstand inundation, some of the lowest areas on the property are where animals are housed off and on all year. Thus, Fairgrounds flooding often threatens life as well as property, and has typically resulted in an emergency opening of the inlet. On average, actual or imminent flooding results in one or more emergency openings per rainy season. These have been authorized in various ways, including using a condition of the old lagoon enhancement permit (CDP #6-83-148), obtaining an emergency permit (CDP #6-02-042-G), or informing staff by telephone and following up with an after-the-fact permit application.

There is an existing monitoring station already in place at the railroad bridge, which is just downstream from the storm drain outfalls. This facility provides an ideal location for taking elevation measurements, as that is one of the things it is already equipped to do. Moreover, adding the 3.0 feet NGTV criteria to this permit will allow all authorized inlet openings to occur under the same permit, rather than having multiple permits issued to various agencies, as has happened in the past. Finally, the proposed criteria is consistent with Section 30236, which allows some flood-control projects to protect existing development, when no other means is feasible and the existing development is in imminent danger.

The issue of water quality has been discussed previously, with regard to adverse impacts on the biological resources in the lagoon when the mouth is closed, and adverse impacts on public access and recreation immediately following a mouth opening. There is, however, a serious potential hazard to human health in situations where the lagoon mouth is closed for extended periods and the water quality therein is deteriorating. Many people, especially those with small children, recreate in the waters of the lagoon/river mouth instead of on the actual shoreline, since the waters of the lagoon/river mouth are much calmer than the open ocean, especially when the mouth is closed. Although health hazard warnings in the form of signs are generally in place during these situations, they are largely ignored, as evidenced by the large numbers of people playing in the lagoon mouth during closed situations. This further supports the argument for keeping lagoon mouths open as often as possible, since the health of human beings, as well as lagoon species, can be endangered when the mouth is closed for long periods. The Commission finds the proposed amendment, which will maintain an open lagoon mouth for longer periods of time during the summer beach season, is thus consistent with the cited sections of the Coastal Act.

5. Beach Erosion. San Dieguito Lagoon is a southern California lagoon that has had long periods of time that it is open and long periods of time that it is closed. In the past, the lagoon mouth has been mechanically breached and it has been opened by flood events. Opponents of this project maintain that opening the mouth of San Dieguito Lagoon causes a loss of sand in front of their properties. This amendment, in and of itself, does not change the methods or equipment used to open the inlet, and is unlikely to increase the amount of lagoon openings in any significant manner. This matter was discussed at length in the findings for the original permit, and those findings are incorporated herein by reference. In addition, a special condition of the original permit requires that the beach quality material dredged from the inlet will be placed on the dry beach area to the south of the inlet. If this area is not available for disposal of the dredge material, the area to the north of the inlet can be used; however, the area to the south is preferred. Nothing in the proposed amendment changes that existing condition, which remains in full force and effect.

6. Local Coastal Planning. Section 30604(a) also requires that a coastal development permit, or permit amendment, shall be issued only if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act. In this case, as conditioned, such a finding can be made.

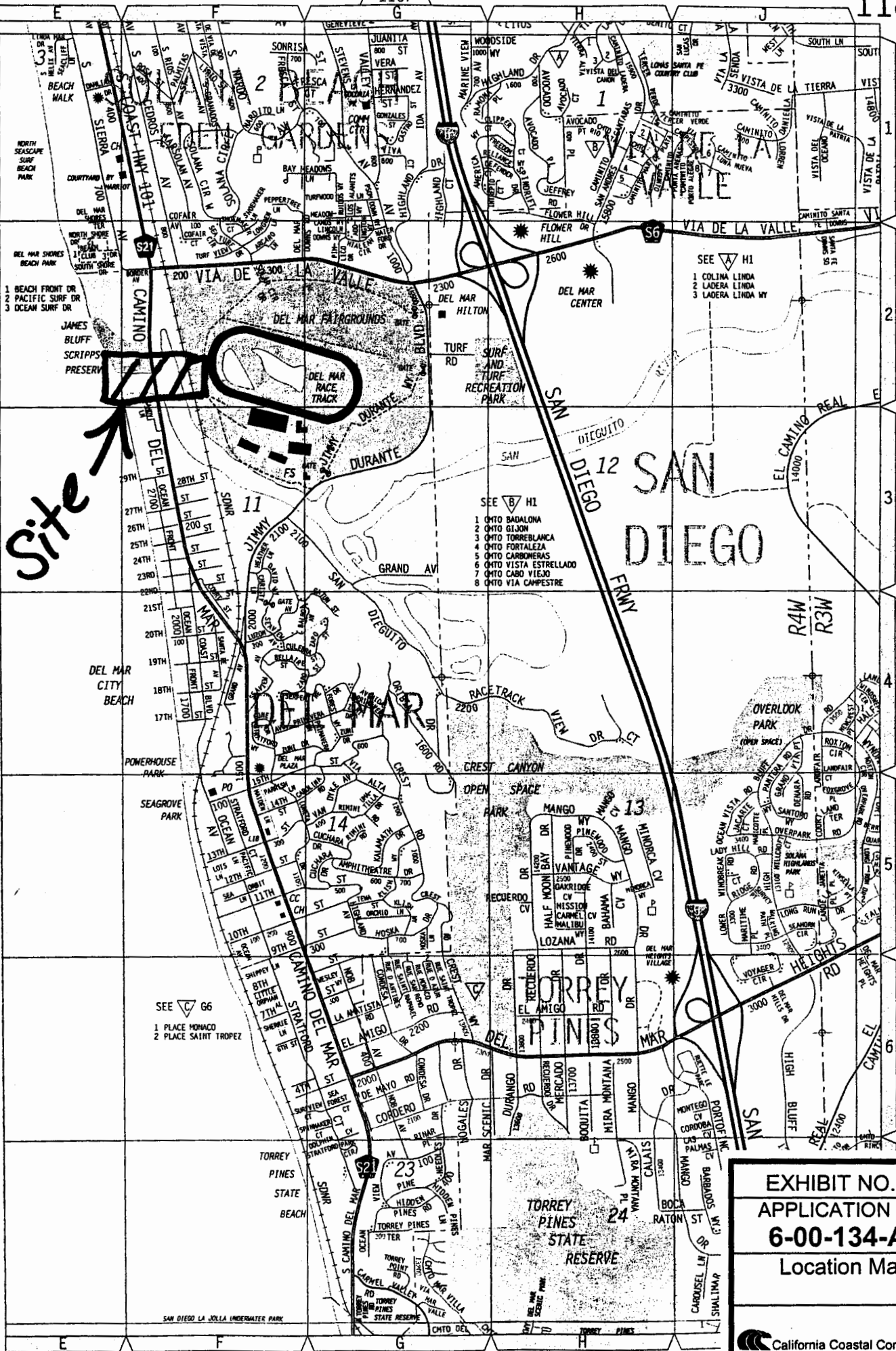
As stated, the subject site is located in the City of Del Mar, at the mouth of San Dieguito Lagoon, west of Highway 101 at the city's municipal beach. The proposed development has been reviewed and approved by the City, and is consistent with the certified LCP, which the Commission uses as guidance in the review of coastal development permit applications. As conditioned, the Commission finds the proposed amendment consistent with all applicable Chapter 3 policies of the Coastal Act, which will continue to be the standard of review in this area of original jurisdiction. Therefore, the Commission finds the proposed amendment, as conditioned, should not prejudice the ability of the City of Del Mar to continue to implement its LCP for the remainder of the City.

7. Consistency with the California Environmental Quality Act (CEQA). Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits, or permit amendments, to be supported by a finding showing the permit, or permit amendment, as conditioned, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project has been conditioned in order to be found consistent with Chapter 3 policies of the Coastal Act. Additional criteria for determining when an artificial inlet opening is appropriate have been incorporated as a new condition of approval which will minimize all adverse environmental impacts. As conditioned, there are no feasible

alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate identified impacts, is the least environmentally damaging feasible alternative and is consistent with the requirements of the Coastal Act to conform to CEQA.

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CALIFORNIA COASTAL COMMISSION

SAN DIEGO AREA

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767-2370



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 Staff: EL-SD
 Staff Report: May 24, 2001
 Hearing Date: June 12-15, 2001

REGULAR CALENDAR
STAFF REPORT AND PRELIMINARY RECOMMENDATION

Application No.: 6-00-134

Applicant: City of Del Mar

Agent: Linda Niles

Description: Excavation of approximately 15,000 cu.yds. of sediment from an approximately 1.5 acre area at the lagoon mouth to restore tidal action, discharge of the excavated materials over approximately .2 acres of supratidal beach, and regrading of the beach to re-establish natural contours; this is the follow-up to Emergency Permit #6-00-134-G and includes a request for additional mouth openings as needed for five years.

Site: Mouth of San Dieguito Lagoon, from the shoreline to the railroad bridge, Del Mar, San Diego County. APNs 299-030-08 & 09

STAFF NOTES:

Summary of Staff's Preliminary Recommendation: Staff recommends approval of a five-year permit to restore tidal action, as needed, at San Dieguito Lagoon. Issues raised by the proposal are potential impacts on wetlands, public access, water quality and beach erosion. The lagoon mouth closes periodically due to a buildup of sands and sediments washing in from the ocean with the tides and coming downstream from the significant amount of inland development that is occurring. When the mouth is closed, the lagoon ecosystem becomes distressed, which can lead to impacts on lagoon habitat (i.e., fish kills, etc.) Thus, it has been necessary to manually open the lagoon mouth from time to time to maintain the health of the ecosystem. The issues raised by this proposal are resolved with the attached special conditions which establish minimum biological criteria required to perform a mouth opening; provide seasonal restrictions on when openings may occur; and require monitoring and reporting of the effects of all openings on water quality and sediment transport in an annual report.

This item was originally scheduled for the March Commission meeting, but was postponed to address concerns raised in materials received shortly before the day hearing. Project opponents are concerned that inlet openings may have adverse effects on the beaches south of the inlet, resulting in a threat to their beachfront homes. The

EXHIBIT NO. 2

APPLICATION NO.

6-00-134-A1

Original Staff Report

18 pages

submitted a technical report which has been reviewed by both the Commission's and City's technical staffs. The City's technical consultants have concluded that artificial inlet openings will not contribute to downshore beach erosion and have submitted a report supporting their position. Staff is in general agreement with the City's technical consultants. However, staff has included a shoreline monitoring condition to further examine beach erosion relating to the inlet breaching activities.

Substantive File Documents: Certified City of Del Mar LCP Land Use Plan and draft Implementing Ordinances; San Dieguito Lagoon Enhancement Plan; Review and Analysis of the Impacts of Maintaining the Mouth of the San Dieguito Lagoon Open on the Adjacent Beach, Sandy Lane, Del Mar, California, (Stone); Review of "The Stone Report" Regarding the Sandy Lane Homeowners Litigation Against the San Dieguito Lagoon Restoration Project (Jenkins/Elwany); Relationship between San Dieguito Lagoon and Del Mar Beach (Elwany/Hamilton); CCC Files: 6-83-148; 6-97-36; 6-99-12

I. PRELIMINARY STAFF RECOMMENDATION:

The staff recommends the Commission adopt the following resolution:

MOTION: *I move that the Commission approve Coastal Development Permit No. 6-00-134 pursuant to the staff recommendation.*

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a YES vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. Standard Conditions.

See attached page.

III. Special Conditions.

The permit is subject to the following conditions:

1. Term of Permit. This permit is valid for a period of five years from the date of Commission action. Future lagoon mouth openings beyond this date will require a coastal development permit from the California Coastal Commission or its successor in interest. Any modification of the project within the five year period, such as changes in channel size or location, timing of work, staging areas, or biological criteria used to determine the need for lagoon mouth openings, will require an amendment to this permit unless the Executive Director determines that no amendment is required.

2. Timing of Work. Lagoon openings shall only occur with the authorization of the California Department of Fish and Game that the dredging, on the date proposed, will not cause adverse impacts on sensitive, threatened, or endangered species or the biological productivity of the area, and shall adhere to the following criteria:

- a. No dredging may occur within 14 days before a holiday or scheduled beach event (ex. marathon; surfing contest., etc.).
- b. No equipment shall be stored on the beach or in public parking areas overnight.
- c. No work shall occur during the two-week period spanning Easter of any year.
- d. Commission staff shall be notified prior to commencement of any dredging.

Openings during the summer months shall be avoided if possible; however, if openings are necessary during the summer, the following additional requirement will be met:

- e. No work shall occur on Fridays, weekends or holidays between Memorial Day weekend and Labor Day .

3. Initiation of Work. The proposed channel excavation work shall be performed only:

- a. when the dissolved oxygen levels in the lagoon are less than 5 parts per million (ppm), or
- b. when the water salinity level in the lagoon is below 25 parts per thousand (ppt) and dissolved oxygen levels are determined by a qualified biologist to be likely to drop below 5 ppm within the next two-week sampling interval, or

- c. when the water salinity level in the lagoon is above 33 ppt (hypersaline).

The sampling results or biologist's determination which results in a decision to open the lagoon mouth shall be reported in writing, if time permits, or verbally, with written follow-up, to the nearest Commission office within one business day of any proposed opening, and shall be submitted to the Coastal Commission as part of the annual report required in Special Condition #4.

4. Monitoring Report. On an annual basis by April 1 of each year, the applicant shall submit for the review and written approval of the Executive Director, a monitoring report for the project. The report shall summarize the impacts of the multiple openings, including the project's impacts on public access and recreation, and the biological productivity of the lagoon, any changes in the tidal prism caused by external factors (such as upstream development impacts, extreme storm conditions or unusual tides) which may have contributed to the need for the lagoon mouth openings, and shall include recommendations for any necessary changes or modifications to the project. In addition, the annual report shall include the following information for each of the openings that occur over the subsequent years:

a. The date of the opening(s) which occurred, along with the date of each subsequent closure.

b. The specific biological criteria (described in Special Condition #3) which authorized each opening, along with a site map indicating the location where the determining samples were taken.

c. Sand level measurements taken before and after each opening wherein 3,500 cu.yds. or more of excavation occurs. The surveys will occur at SI01, SI02, SI05 and SI06, from the back of the beach to a depth of -6 ft. NGVD. Beach profile surveys before the inlet opening shall be measured within 1 month of the opening; beach profile surveys after the inlet opening shall be measured within 1 month and within 3 to 4 months of the opening.

d. Any noted adverse impacts on lagoon resources or adjacent public beach or park and recreation areas resulting from each mouth opening, and recommendations to avoid or mitigate these impacts with future openings.

The report shall be submitted annually beginning the first year after Commission approval of the permit. The permittee shall undertake development in accordance with the approved plan. Any proposed changes to the approved plan shall be reported to the Executive Director. No changes to the approved plan shall occur without an amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

5. Staging/Storage Area(s). PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit a site plan and/or area map

delineating all areas, both on- and off-site, which are proposed to be used for staging and storing equipment. Staging/storage areas shall be subject to review and approval by the Executive Director, shall not involve the use of any environmentally sensitive lands, and shall minimize disturbance to public access and recreation to the maximum degree possible by avoiding the use of public parking areas and sandy beach.

The permittee shall undertake development in accordance with the approved staging/storage area plan. Any proposed changes to the approved plan shall be reported to the Executive Director. No changes to the approved plan shall occur without an amendment to this coastal development permit unless the Executive Director determines that no amendment is required.

6. Deposition of Dredge Material. Material removed from the inlet channel shall be placed on the beach adjacent to the inlet, above the mean high elevation or at the back beach. The preferred placement location is the area south of the inlet. If material cannot be placed on the beach south of the inlet, the dredge material can be placed on the beach area just north of the inlet.

IV. Findings and Declarations.

The Commission finds and declares as follows:

1. Detailed Project Description and History. The subject permit application has been submitted to achieve two goals. First, this represents the follow-up permit to Emergency Permit #6-00-134-G, issued on September 14, 2000. That activity involved the removal of approximately 15,000 cu.yds. of sediment from an area extending from the shoreline to the railroad bridge at the mouth of the San Dieguito River. The mouth had been closed almost continuously for about a year and a half, and biological conditions within the lagoon were rapidly deteriorating. The emergency mouth opening occurred shortly thereafter, with excavation beginning on September 18th and tidal action restored on September 23rd. In addition to the excavation activities, the project approved in the emergency action included the deposition of the excavated materials on the beaches immediately north and south of the river mouth and minor grading of those beaches to re-establish natural contours; the deposition of dredged materials on the beach is also proposed for any additional openings.

The second purpose of the application is to request authorization for future mouth openings, to be performed as needed over the next five years. These potential future openings are proposed to use the same location, equipment, design, etc. as were used in the emergency opening last year, and would be triggered by similar biological conditions as occurred with the emergency action. The Commission's ecologist has reviewed the biological criteria historically applied and has modified the salinity criteria (20 ppt to 25 ppt) to allow dredging to occur before the lagoon resources are imminently or actively distressed.

The Commission has a long history of permitting the artificial opening of lagoons in San Diego County, including Los Penasquitos, San Elijo and San Dieguito Lagoons. These openings were typically proposed based on certain criteria being met related to salinity, dissolved oxygen and other water chemistry conditions as indicators of impending fish kills, alga blooms or similar unhealthy occurrences. At Los Penasquitos and San Elijo Lagoons, the Commission has also approved a number of permits and amendments for opening the lagoon mouth as experiments to allow the lagoon mouth to remain open for a longer period of time; these involved the removal of a more substantial amount of material (sediments and cobble) than would occur with the intermittent emergency openings designed only to prevent serious biological degradation. Although older permits typically allowed a one-time opening only, more recently the Commission has been approving permits for a set period of time (ranging from one year to five years) wherein multiple openings could occur as needed based on certain biological criteria being met.

Unlike Los Penasquitos and San Elijo Lagoons, the openings at San Dieguito have generally been done pursuant to Coastal Development Permit #6-83-148. That permit was for implementation of portions of the 1979 San Dieguito Lagoon Enhancement Plan, and included a condition assigning the City of Del Mar the responsibility of opening the lagoon mouth once each year prior to the rainy season. The City now seeks permission to open the lagoon mouth more than once per year when specified biological or water quality criteria are triggered. The new permit, unlike CDP #6-83-148, would also impose monitoring requirements and restrictions to limit potential adverse impacts on public access and recreation and sand supply.

The City of Del Mar has a certified Land Use Plan, and the implementation plan was recently certified with suggested modifications; however, the City Council has not formally accepted the modifications as yet, and the City therefore has not assumed coastal development permit authority. As such, the Commission retains permit jurisdiction for the entire city at this time. Moreover, the lagoon, river mouth and beach areas that are the subject of this permit are all tidelands such that the Commission will retain permit jurisdiction over this particular site in perpetuity. Therefore, the Chapter 3 policies of the Coastal Act are, and will continue to be, the standard of review, with the City's certified LCP used as guidance.

2. Sensitive Habitats. The following Coastal Act policies are most applicable to this application, and state, in part:

Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored...

Section 30233

- (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

[...]

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

- (b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.
- (c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division....

Section 30240 (b)

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

The subject site is located at the mouth of San Dieguito Lagoon, an environmentally sensitive habitat area that is one of the 19 priority wetlands listed by the State Department of Fish and Game for acquisition. At this time, the lagoon has multiple public and private ownerships; the actual project site is owned by the City of Del Mar. A Joint Powers Authority (JPA) was created several years ago to oversee the lagoon and its watershed, acquire private lands to form a linear park, and investigate restoration potentials throughout the lagoon. Concurrently, a major restoration effort is being planned by Southern California Edison and its partners to mitigate for impacts on sensitive plant and animal communities resulting from the operation of the San Onofre Nuclear Generating Station (SONGS). A significant feature of the SONGS restoration

plan will be maintaining the lagoon mouth in an open condition to maximize tidal flushing of the lagoon. In addition to these ongoing planning efforts, the Commission certified the San Dieguito Lagoon Enhancement Plan in the early 1980's, and Coastal Development Permit #6-83-148, which implemented portions of that plan. Both the enhancement plan and the subsequent permit stressed the importance of keeping the lagoon mouth open. The proposed development is not part of the SONGS restoration project and is not mitigation for impacts resulting from the operation of SONGS. It has been designed, however, to be compatible with the anticipated SONGS restoration project.

The proposed development involves the removal of sediments from the mouth of San Dieguito Lagoon. Under the Coastal Act, dredging of lagoons and/or open coastal waters is severely constrained. To be allowable under Section 30233, the proposed development must be one of the listed permitted uses. In this case, the proposal is for restoration purposes. In addition, the development must be found to be the least environmentally damaging feasible alternative, incorporate feasible mitigation measures for any associated adverse impacts and either maintain or enhance the functional capacity of the wetland system.

Information received from the various resource agencies (U.S. Department of Fish and Wildlife and State Department of Fish and Game) regarding past proposals to open this and other Southern California lagoon systems indicate that the biological resources of these lagoons have been significantly stressed due to the frequent closures of the lagoon mouths. Lack of tidal action has a number of adverse effects on a lagoon environment. The lagoon water becomes stagnant, reducing the oxygen levels in the water. Reduced oxygen can lead to eutrophication, the condition where a closed body of water can "turn over," where large amounts of methane and hydrogen sulfide gas are released at the bottom and absorbed into the water, leading to fish and benthic invertebrate kills. Another problem facing the lagoon environment is the salinity levels of the water. Together, lack of tidal influence and low levels of freshwater inflow increase the salinity and temperature of the water, creating a hypersaline situation which is stressful, if not deadly, to many forms of plant and animal life in the lagoon. Conversely, decreased salinity caused by the combination of high levels of freshwater inflow and lack of tidal action allows for the establishment and growth of freshwater vegetation such as willows, cattails and tules in areas formerly entirely covered by salt marsh vegetation.

Both the old Enhancement Plan and the plan currently being developed identify dredging to maintain a tidal flow into the lagoon as an important part of an overall management strategy to enhance the biological productivity of the lagoon. The proposed sediment removal will allow the mouth to remain open longer to flush out stagnant water, replace low-salinity water and allow for the reestablishment of estuarine and marine invertebrates, fish and plant species. As proposed, the project does not involve any alteration or impact to existing habitat. The subject development will restore and enhance the functional capacity of the lagoon, and thus, is a permitted use under Section 30233 of the Act.

Dredging the lagoon mouth is a relatively inexpensive means of increasing tidal flushing and improving the biological productivity of the lagoon in a manner that has the least impact on the lagoon and surrounding environment. The U.S. Department of Fish and Wildlife Service and the California Department of Fish and Game were actively involved last August/September when it was determined that an emergency mouth opening was warranted; these agencies have also indicated their support for maintaining the lagoon mouth in an open condition to the greatest degree possible.

The Commission's ecologist has also reviewed both the emergency action that occurred and the proposed request for future mouth openings and determined that the biological criteria required in Special Condition #3 are appropriate to assess the need to open the lagoon. Briefly, the criteria allow the mouth to be opened in three situations: 1) when dissolved oxygen levels are less than 5 ppm; 2) when the salinity level is below 25 ppt and oxygen levels are expected to drop below 5 ppm within two weeks; or 3) when the salinity level is above 33 ppt. The biological parameters addressing minimum salinity levels have been modified slightly such that an opening can occur under less stressful conditions than those dictated by the previously applied criteria. Thus, the proposed project would carry out the goals of the resource protection policies of the Coastal Act. However, to ensure the work continues to be reviewed by the appropriate resource agencies, Special Condition #2 requires that the proposed work be coordinated with the State Department of Fish and Game, and that the Commission be notified of the dredging operations.

In addition, Special Condition #4 requires an annual monitoring report to document all openings performed pursuant to this permit. The report must address the number and dates of each opening, the particular biological reason which prompted each opening, beach profiles before and after each opening, weather and tide conditions which may have contributed to the described criteria and any adverse impacts on the lagoon and the adjacent beach resulting from the opening(s). The report must document the openings over the year, summarizing what, if any, impacts on the lagoon resources occurred as a result of the project, and provide recommendations on how such impacts could be avoided or mitigated in the future should such a project be contemplated again.

In summary, and as conditioned, the project will have a positive impact on the natural resources of the lagoon. A closed lagoon mouth stresses the ecosystem beyond the point where it can recover on its own. The proposed development is an allowed use pursuant to Section 30233 of the Coastal Act, and the project is designed to minimize any potential adverse impacts on the environment. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30231, 30233 and 30240 of the Coastal Act.

3. Public Access/Recreation. The proposed project is located between the first public road and the sea. Sections 30210-30214 of the Coastal Act state that maximum access and recreation opportunities be provided, consistent with, among other things, public safety, the protection of coastal resources, and the need to prevent overcrowding. In particular, Section 30211 of the Act states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

As discussed in the previous section, all the various resources agencies, lagoon managers, local coastal wetland experts, and the Commission's ecologist, have agreed that opening the lagoon mouth is beneficial to the lagoon environment. However, there are a number of concerns related to public access and recreation associated with the project.

The project site is the mouth of San Dieguito Lagoon, which empties into the Pacific Ocean at Del Mar. The river channel runs across the municipal beach at the northern end of the city, and can be traversed on foot during most tidal regimes. The public beach provides very popular day-use facilities for beach visitors and serves as an important recreational resource of region-wide importance. As the proposed development will occur on the beach and the far-western portions of the lagoon, the potential for adverse impacts on public access and recreational opportunities exists.

Based on the experience of previous lagoon mouth openings, for a short period after the lagoon mouth is opened, bacteria levels (fecal and total coliform counts) in the water exiting the lagoon are usually above health standards in the mouth and surfzone surrounding the mouth. As a result, County Public Health officials have had to post the surrounding beaches with signs prohibiting any body contact with the water because of potential health hazards caused by the high bacteria counts. Although this has always been a known concern, in permitting previous lagoon mouth openings, the Commission has not found this to be a significant impact on public recreational opportunities as the lagoon mouth openings generally occur in the non-summer months and the high bacteria levels only last a few days to a week.

Based on data collected from monitoring previous lagoon mouth openings (at several different regional lagoons), it can be anticipated that after an initial opening, bacterial counts will exceed water quality standards and body contact with the water in the general area of the lagoon mouth will be prohibited. However, these reports indicate that within a short period of time, "bacterial water quality in the surfzone should meet the recreational standard as seawater dilution of the Lagoon occurs and after contaminated water in the Lagoon has flowed out." In addition, because bacteria levels deteriorate quickly once tidal flow is established, the longer the lagoon stays open, the less often the area surrounding the mouth has to be closed. However, if the lagoon does close and is then reopened, resulting in high enough bacterial counts that the beach must be closed, the proposed development could significantly impact public recreational opportunities during high use periods such as weekends or holidays during the summer months.

The Commission finds that every effort should be made to avoid an opening on weekends, during holiday periods (especially spring break), and during the period between Memorial Day and Labor Day, when beach use is at its peak. Under the terms of the attached special conditions, no dredging can occur 14 days before a holiday or a

scheduled beach event, no operations would occur on weekends during the summer months, and on weekends in the winter only if necessary. Moreover, the conditions require that no equipment be stored on the beach or in public parking areas overnight. Although the conditions will not assure that the beach is never closed during weekends and holidays, it will help ensure that the highest levels of contaminants which are present immediately after the mouth is opened, have time to dissipate before the weekend and that no equipment will physically block the beach.

As discussed in greater detail in the section of this staff report regarding beach erosion, the dredged lagoon mouth should not adversely affect the public's ability to pass along the beach in front of the lagoon mouth. The dredged opening should result in a shallow flow of water that can easily be crossed by foot.

The Commission acknowledges that the project will also have a beneficial effect on public recreation. All sediments excavated from the lagoon are deposited on the beaches just north and/or south of the mouth, effectively augmenting the sandy area available for public use. The emergency opening in September, 2000 resulted in sands being deposited on the beach north of the inlet only. The beach remains open to the public during the excavation operations, except for the actual site of dredging. Following the September emergency action, the beach was posted as unsafe for water contact for a distance of 200 feet on either side of the inlet; this temporary condition lasted only a few days. Based on the monitoring reports of numerous lagoon/river mouth openings in San Diego County, the past openings do not appear to have imposed any significant hardships on the public. To ensure that this remains the case, Special Condition #3 requires the submittal of a monitoring report by the applicant which documents any noted adverse impacts on public access and recreation opportunities should the lagoon mouth require an opening in the summer. The report should also identify potential ways to mitigate any identified impacts should multiple openings of the lagoon be proposed again in the future.

The proposed project has been identified as being beneficial to the lagoon and its associated habitat. Some inconvenience to beach users could result if the lagoon must be opened in the summer months; however, it is the intention of the project to keep the lagoon mouth open as long as possible, which will reduce the impacts associated with individual openings. With the proposed conditions of approval, impacts to public access and recreation will be reduced to the maximum amount feasible. The applicant will be required to monitor and record any impacts and propose a means of mitigating any identified impacts for future similar projects. Thus, as conditioned, the Commission finds the proposed development can be found consistent with the public access and recreation policies of the Coastal Act.

4. Water Quality. The following Coastal Act policies are applicable to the proposed development and state:

Section 30230

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231

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

The issue of water quality has been discussed in the two previous findings, with regard to adverse impacts on the biological resources in the lagoon when the mouth is closed, and adverse impacts on public access and recreation immediately following a mouth opening. There is, however, a serious potential hazard to human health in situations where the lagoon mouth is closed for extended periods and the water quality therein is deteriorating. Many people, especially those with small children, recreate in the waters of the lagoon/river mouth instead of on the actual shoreline, since the waters of the lagoon/river mouth are much calmer than the open ocean, especially when the mouth is closed. Although health hazard warnings in the form of signs are generally in place during these situations, they are largely ignored, as evidenced by the large numbers of people playing in the lagoon mouth during closed situations. This further supports the argument for keeping lagoon mouths open as often as possible, since the health of human beings, as well as lagoon species, is endangered when the mouth is closed. The Commission finds the proposed development, which will maintain an open lagoon mouth for longer periods of time, is thus consistent with the cited sections of the Coastal Act.

5. Beach Erosion. San Dieguito Lagoon is a southern California lagoon that has had long periods of time that it is open and long periods of time that it is closed. In the past, the lagoon mouth has been mechanically breached and it has been opened by flood events. Opponents of this project maintain that opening the mouth of San Dieguito Lagoon adversely affects their properties, which are located immediately south of the inlet. They are attributing a current loss of sand in front of their homes, which was first noted shortly after the emergency mouth opening in September, to that action. In support of their contention, a report titled *Review and Analysis of the Impacts of Maintaining the Mouth of the San Dieguito Lagoon Open on the Adjacent Beach, Sandy Lane, Del Mar, California*, by Dr. Gregory Stone, was submitted to Commission and City staff for

consideration. As seen in the title of this report, the objections raised by opponents to the City's inlet opening are also directed at the larger San Dieguito Lagoon Restoration Project, which is currently in the planning stages. The larger project will provide for a permanently open lagoon inlet to maintain better tidal flushing to support the restoration effort over the long term. The City is requesting that the subject permit be valid for five years, on the assumption that by then the larger project will have been implemented and this permit will no longer be necessary.

The report concludes that the inlet opening causes downshore beach erosion and that a closed inlet results in sand accretion on the beach south of the inlet. These conclusions are drawn from the author's review of existing data, field observations, discussions with the Sandy Lane homeowners and beach profiles taken just north and south of the inlet in December, 2000 and January, 2001.

The Stone Report provides a number of findings and several recommendations. It finds that: (1) while the Del Mar beaches are among the last of the slightly more stable in San Diego, any action that would potentially interfere with a longer-term equilibrium should be avoided where possible; (2) there has been a net deficiency of sand on the beach that can be attributed to the opening of the lagoon; (3) some sand is lost offshore due to flows out of the inlet; (4) although the applicant's expert, Jenkins, suggested that downcoast by-passing of sand will occur through an ebb tidal bar, there is no evidence that the ebb shoal actually exists; (5) sand by-passing to the south does not occur when the lagoon mouth is open; and (6) the two beach surveys (December 19, 2000 and January 16, 2001) indicate higher erosion rates south of the channel that could conceivably be related to maintaining the channel open throughout the survey duration. Dr Stone further finds that this is a complex system. He recommends: "Observe the system after it is modified by way of restoration, and make changes to the design/management if and when it becomes necessary to do so;" use the dredge material to renourish the downdrift beaches immediately south of the channel; and develop and implement a detailed sand management plan to protect the downdrift properties. In addition, he concludes that "a departure from the conventional, widely used riprap structures [to vertical walls] may actually lead to higher erosion near the toe of the structures due to increased reflection."

Julie Hamilton added to Dr. Stone's recommendations in a March 7, 2001 letter to Peter Douglas. In this she requests that the Commission consider conditions on inlet breaching that:

1. The inlet cannot be opened unless the beach volume in front of the Sandy Lane properties is equal to 150 cubic meters per meter of beach.

OR

Prior to opening the inlet, the applicant shall place enough sand of appropriate quality and grain size on the beach in front of the Sandy Lane properties to assure that a beach volume of 150 cubic meters per meter of beach will be maintained while the inlet is open.

2. Prior to issuance of the coastal development permit, the applicant shall submit revised plans for the review and approval of the Executive Director showing that the northerly bank of the opening shall coincide with the northerly abutment of the Camino Del Mar Bridge as it crosses the San Dieguito River. The opening shall then extend to the ocean at a 45° angle to the north.
3. All beach quality material excavated from the opening of the inlet shall be placed and spread on the beach in front of the Sandy Lane properties.

The City's consultants have prepared a response titled *Review of "The Stone Report" Regarding the Sandy Lane Homeowners Litigation Against the San Dieguito Lagoon Restoration Project* by Scott A. Jenkins, Ph. D. and M. Hany S. Elwany, Ph. D. The consultants also prepared *Relationship between San Dieguito Lagoon and Del Mar Beach* by Hany Elwany, Ph. D. and Magan Hamilton.

The City's response reaffirms some of the findings regarding dynamics of San Dieguito Lagoon from previous studies undertaken either for the City or for Southern California Edison Co. Major conclusions of these studies are that: (1) the effects to the adjacent beaches from lagoon flooding are different from the effects from sustained tidal action into the lagoon; (2) that Dr. Stone's analysis relating beach erosion to inlet openings disregards the history of inlet opening that has been reconstructed by scientists from both the Edison Company and the Commission; (3) that ebb tidal bars or shoals can be clearly identified on many of the aerial photographs of San Dieguito Lagoon and that a bar could be identified on some of the exhibits provided by Dr. Stone; and (4) that the beach changes that Dr. Stone identified between his December survey and his January survey could be part of a larger regional, seasonal trend, that could not be detected since Dr. Stone did not provide any surveys of control points that were outside the area influenced by the inlet. The City also provided historic surveys of the beach area north and south of the lagoon, showing that the beaches near the lagoon have large seasonal variability in beach width; beach widths, except for the areas immediately adjacent to the lagoon, are not significantly affected by the lagoon mouth; and that dredging and opening the lagoon mouth is returning material to the sand budget. Further, the City proposes to survey SIO5, SIO1 and SIO2 from the back of the beach to -6 ft NGVD, prior to excavation and after the opening of the inlet is complete. A report on these surveys will be prepared and submitted to the executive director.

Staff has reviewed each of these reports and believes that all the researchers have provided valid observations and information on the site. San Dieguito Lagoon has been opening on its own as a result of high flood events. These events quickly open the lagoon mouth and scour a fairly deep flood channel. These events can rapidly alter the adjacent beach area and cause localized beach erosion. The homes at Sandy Lane are built on the lagoon spit and the lagoon is restricted from migrating further to the south by the revetment and armoring that the property owners at Sandy Lane have erected to prevent flooding. The homes immediately adjacent to the lagoon at Sandy Lane can experience significant beach erosion from both the lagoon and from ocean waves. The armoring that has been installed was placed in response to this erosion.

There is a difference between a flood channel and a sustainable channel open for tidal flushing. Flood openings occur when upstream water flows are high enough to break through the lagoon spit. Flood channels are established by the upstream water flows and not by the presence or absence of a tidal exchange channel through the lagoon mouth. The flood channel inlet will be narrow and deep, with fast flowing water. Following a flood event, the inlet channel will quickly fill in with sediment and establish a rather wide, shallow channel. Non-flood water flows tend to be slower and normally people can walk or wade through these flows without risk. As noted by the City's consultants, it is the flood events that had the greatest erosion potential; however the lagoon breaching for tidal exchange is a separate event. Floods will continue regardless of the lagoon breaching for tidal exchange.

Regular longshore transport of sand will continue while the inlet is open for tidal exchange. During the initial mechanical breach, there could be high flows if the lagoon level is higher than the ocean level. There could be a small diversion of sand offshore, into the nearshore littoral transport zone and some beach quality material could be diverted past the beach areas immediately adjacent to the inlet. To account for this possible, but small impact, Special Condition #6 requires that the beach quality material dredged from the inlet will be placed on the dry beach area to the south of the inlet. If this area is not available for disposal of the dredge material, the area to the north of the inlet can be used; however, the area to the south is preferred. This material will expand the protective beach that fronts Sandy Lane and offset any possible erosion from the higher flows that could occur immediately after the opening.

Dr. Stone provided profiles and beach surveys for the area immediately adjacent to Sandy Lane in December 2000 and January 2001. These surveys do not provide a vertical datum, but seem to go only to wading depth. The surveys were not taken to closure depth and no control sites were surveyed. Dr. Stone's profile information could show some small beach changes effected by the lagoon mouth opening, however, the data provided were not adequate to separate these possible effects from the recognized seasonal changes, reshaping of the dry beach, development of offshore bars, and longshore transport. This beach does exhibit seasonal changes and there is often a seasonal change in longshore transport from north to south, reflecting changes in storm tracks. The City's consultants provided plots of historic profiles for these locations and the two profiles surveyed by Dr. Stone fit within the historic range of shoreline change. When Dr. Stone's survey data are compared with historic shoreline change and put into context with on-going regional and seasonal shoreline change, it does not appear reasonable to attribute all these changes to the inlet opening. However, there could be some small localized changes that might be attributable to the inlet opening. Therefore, Special Condition #4 requires that the applicant undertake wading depth surveys before and after each mechanical opening. These surveys will be provided to the executive director in a report, and examination of the data may provide some indication that the inlet is affecting the local beach adjacent to the inlet. Since all material dredged from the inlet will be used as beach nourishment, this will provide a benefit to the beach that is expected to exceed any impact from the inlet opening itself.

Ms. Hamilton has provided a condition that established a beach volume of 150 cubic meters per meter as being adequate to protect Sandy Lane from the added impacts that could occur due to opening the inlet to tidal action. She provides no support for this value; neither that this amount of sand would be adequate to protect the back beach, nor that the inlet would cause anything comparable to 150 cubic meters per meter of beach loss. The calculation of total sediment volume prior to each inlet opening would require detailed and expensive surveys to closure. While some survey information would be required prior to opening the inlet, these surveys would not go to closure and it would not be possible to determine whether there were 150 cubic meters per meter of beach, or if additional sand would be needed. For a fully nourished profile, 150 cubic meters per meter of beach would compare with a dry beach width between 60 and 75 feet. This would be a more readily measurable "trigger" for concern about erosion of the downcoast properties. Nevertheless, the erosion impacts from the inlet opening are expected to be insignificant and so no additional nourishment would be necessary. The property owners at Sandy Lane may wish to develop a sand management plan and may wish to use the 60 or 75 feet dry beach width as a trigger for concern. However, there is no reason to tie this sand management plan to the inlet opening program.

Dr. Stone's findings concerning the benefits of riprap over vertical seawalls has no bearing on this project and will not be covered in detail here. However, Dr. Stone's brief coverage of this issue does not provide data to support his conclusions. His conclusions do not provide any time period for the supposed erosion difference, and his analysis does not consider any of the other differences between riprap revetments and vertical seawalls which have been of concern to the Commission. While this shoreline armoring analysis by Dr. Stone has no bearing on the current project, its inclusion in a report addressing the impacts of the inlet must be considered as a pre-emptive effort to establish support for maintaining the current seawall system at this property.

Therefore, the Commission finds that the conclusions in the Stone report are not supported by the facts, and concludes that mechanical opening of the San Dieguito Lagoon inlet should not result in increased erosion to the beach in front of the Sandy Lane properties. However, since both reports accurately state that information on shoreline processes in general is incomplete, Special Condition #4 (monitoring) also requires that sand levels be measured north and south of the inlet, and offshore, both before and after each opening to help determine whether inlet opening affects the movement and distribution of sand along the shoreline. Special Condition #6 will put the dredged material on the beach south of the inlet and will more than address any possible losses that could result from the inlet opening. Therefore, as conditioned, the Commission finds the proposed development consistent with Coastal Act policies addressing erosion.

6. Local Coastal Planning. Section 30604(a) also requires that a coastal development permit shall be issued only if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare a Local

Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act. In this case, as conditioned, such a finding can be made.

As stated, the subject site is located in the City of Del Mar, at the mouth of San Dieguito Lagoon, west of Highway 101 at the city's municipal beach. The proposed development has been reviewed and approved by the City, and is consistent with the certified LUP, which the Commission uses as guidance in the review of coastal development permit applications. As conditioned, the Commission finds the proposed development consistent with all applicable Chapter 3 policies of the Coastal Act, which will continue to be the standard of review in this area of original jurisdiction. Therefore, the Commission finds the proposed development, as conditioned, should not prejudice the ability of the City of Del Mar to complete and implement a certifiable local coastal program for the remainder of the City.

7. Consistency with the California Environmental Quality Act (CEQA).

Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment.

The proposed project has been conditioned in order to be found consistent with Chapter 3 policies of the Coastal Act. Mitigation measures, including measuring biological criteria to determine when an opening is warranted, measuring sand levels before and after an opening to determine if there are any changes in erosion rates, restrictions on timing of the work and submittal of monitoring reports, have been incorporated as conditions of approval which will minimize all adverse environmental impacts. As conditioned, there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate identified impacts, is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

STANDARD CONDITIONS:

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
4. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

CALIFORNIA COASTAL COMMISSION

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(619) 767-2370



Tue 7b

Addendum

June 11, 2001

To: Commissioners and Interested Persons

From: California Coastal Commission
San Diego Staff

Subject: Addendum to **Item 7b**, Coastal Commission Permit Application
#6-00-134 (Del Mar), for the Commission Meeting of June 12, 2001

Further review of the comments received from project opponents indicates that a couple points were raised that were not fully analyzed in the circulated staff report. In addition, Special Condition #6 should be further clarified. Thus, staff recommends the following changes and additional findings be made to the above-referenced staff report:

1. On Page 5 of the staff report, Special Condition #6 should be clarified as follows:

6. Deposition of Dredge Material. Material removed from the inlet channel shall be placed on the beach adjacent to the inlet, above the mean high elevation or at the back beach. The preferred placement location is the area immediately south of the inlet. If material cannot be placed on the beach south of the inlet due to objections by the affected property owners, the dredge material can be placed on the beach area just north of the inlet.

2. On Page 16 of the staff report, the following finding should be added after the third complete paragraph, as Finding #6, with currently numbered Findings 6 and 7 renumbered accordingly:

6. Additional Response to Letters of Opposition. In addition to the concepts discussed in the staff report, project opponents have also raised two other issues concerning the impacts they attribute to the lagoon mouth opening. First, a suggestion has been made to utilize pipes to move water in and out of the lagoon without actually having the mouth open to tidal action. This appears to go more towards the larger SONGS restoration project which would provide for a permanently open mouth, than to this interim action to allow flushing when biologically critical situations arise. The application is not a component of the larger planned restoration project. The suggestion will certainly be discussed in greater detail at the time the Commission reviews the restoration project.

EXHIBIT NO. 3

APPLICATION NO.

6-00-134A1

Original Addendum

2 pages

California Coastal Commission

The Commission is concerned that such a system would preclude the natural flow of sand downstream to nourish the beaches and could lead to further loss of public beach. In any case, this alternative is more appropriately reviewed as part of the much-larger restoration project; piping or its impacts were already considered earlier in the EIR process for that project. Due to a number of engineering and biological reasons, the alternative was dropped from further consideration as project planning progressed. Some of those reasons include the following: the pipes would need to be buried deep enough to protect them from floods, and would thus be subject to frequent infilling; tidal muting would be significantly greater, reducing the amount of tidally influenced habitat resulting from the restoration efforts; and the system would be subject to bio-fouling and thus require heavy maintenance.

Second, the opponents have raised the issue that sensitive and endangered species occupy the lagoon and may be adversely impacted by mouth opening activities. While it is not believed that least terns, snowy plovers or clapper rails are resident in the lagoon, due to the current lack of suitable habitats, transient birds of these species are sighted in the area from time to time. There are resident Belding's Savannah sparrows within the areas of the lagoon vegetated with salicornia (pickleweed); however, this species does not utilize open sand areas, and thus would not be impacted by the specific activities proposed herein. Moreover, all the resource agencies support maintaining maximum tidal flushing in the lagoon to keep water quality at the level necessary to sustain, and hopefully increase and attract, populations of these, and other, sensitive species. In addition, Special Condition #2 requires that CDFG give approval prior to any dredging to further assure that endangered species will not be affected by the project.

In summary, the Commission finds that the proposed project is compatible with the continuance of fish and avian species in San Dieguito Lagoon, and will not result in adverse impacts to sensitive species. Maintaining good water quality is also critical for the health of humans recreating in the relatively calm waters of the lagoon/river mouth area. Therefore, although it has considered the issues raised by project opponents, it finds that the proposed project produces the greatest biological benefits, particularly in an emergency situation such as existed in September, 2000.

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27 March 2003

Ms. Linda Niles
Planning and Community Development Director
City of Del Mar
1050 Camino Del Mar
Del Mar, California 92014-2698
Fax: (858) 755-2794

Subject: Necessity for a Non-emergency Permit to Open the San Dieguito Lagoon Inlet

Dear Ms. Niles:

We are writing in support of an ongoing, non-emergency permit to open and maintain the San Dieguito Lagoon inlet. As you know, the opening of the San Dieguito Lagoon inlet by the City of Del Mar on 23 September 2000 and 4 October 2002 resulted in immediate improvement in water quality and relieved stresses on fish and invertebrate communities in the lagoon. Immediately prior to both openings the lagoon experienced dramatic degradation of the physical environment caused by low salinity and dissolved oxygen levels. Both conditions were likely factors in dramatic fish kills that occurred prior to both openings.

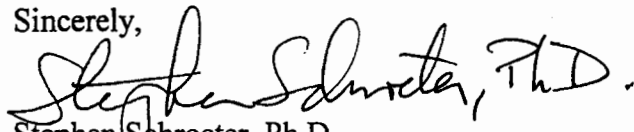
While useful and better than no action, the emergency openings do not address the ongoing biological degradation in the San Dieguito lagoon caused by extended inlet closures, which takes place well before the emergency trigger points are reached. These adverse effects, documented during the last several years include: 1) dramatic increases in abundance of the aquatic plant, *Ruppia maritima*, and its subsequent die-offs, which substantially reduces dissolved oxygen levels, 2) Precipitous declines in resident fish populations (top smelt and gobies), 3) Near extinction of the usual estuarine invertebrate species at all of our study locations, 4) Significant mortality of larger fish, including the spotted bay bass (*Paralichthys oblongus*).

EXHIBIT NO. 4
APPLICATION NO.
6-00-134-A1
Letter from Wetland Scientists
2 pages
California Coastal Commission

maculatofasciatus) and the California Halibut (*Paralichthys californicus*), 5) Reduced salinity that increases the likelihood of the breeding of mosquitos and attendant adverse animal and human health effects, 6) Dramatic increases in fecal indicator bacteria, 7) Degradation of salt marsh vegetation and reduction of associated invertebrates.

In summary, although emergency inlet opening operations abate catastrophic effects on the biota in the San Dieguito Lagoon, they do not address significant adverse effects that occur between the infrequent opening operations. These adverse effects are manifest well before the trigger points for the current permit are met. We therefore strongly endorse the City of Del Mar's for a permit that will allow the city to undertake inlet maintenance well before the "emergency" conditions are present.

Sincerely,


Stephen Schroeter, Ph.D.

Research Ecologist
Marine Science Institute
University of California Santa Barbara

Mark Page, Ph.D.
Research Biologist
Marine Science Institute
University of California Santa Barbara

cc: Dr. Hany Elwany, President, Coastal Environments, Oceanographic and Coastal Services

27 March 2003

Ms. Linda Niles
Planning and Community Development Director
City of Del Mar
1050 Camino Del Mar
Del Mar, California 92014-2698

Fax: (858) 755-2794

Subject: Advantage of undertaking taking inlet maintenance of San Dieguito Lagoon prior to 2002 Summer Season.

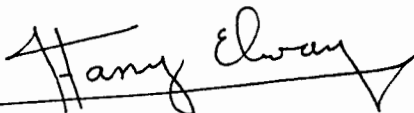
Dear Ms. Niles:

The two openings of the San Dieguito Lagoon inlet to the ocean by City of Del Mar on 23 September 2000 and 4 October 2002 were successful in protecting the lagoons resources from a disaster. However, there is no doubt, that prior to these openings serious damage to the benthos, invertebrates, fish and saltmarsh within the lagoon occurred. We have learned from these two openings, and based on our findings conclude that conducting a maintenance opening of the inlet by removing a small quantity of sand from the inlet channel (4000-6000 yd³) prior to the summer season will undoubtedly protect lagoon resources. There will be many additional benefits to a such maintenance effort (reduced algae and excess nutrients within the lagoon system, reduced odor, and reductions in breeding mosquito's, etc.). Also, such an early effort will likely reduce the need for an extensive and costly excavation at the end of the summer season.

My observations indicate that the lagoon inlet is marginally open and is likely to close shortly. I strongly recommend the city undertake inlet maintenance where a small volume of sand is removed prior to the summer season to prevent any unforeseen degradation of the lagoon this summer.

Sincerely,

COASTAL ENVIRONMENTS



Hany Elwany, Ph.D.
President

HE:sra

cc: Dr. Steve Schroeter, Research Ecologist, University of California Santa Barbara

EXHIBIT NO. 5
APPLICATION NO.
6-00-134-A1
Letter from Oceanographer

