GRAY DAVIS, Governor

CALIFORNIA COASTAL COMMISSION

South Coast Area Office 00 Oceangate, Suite 1000 bng Beach, CA 90802-4302 562) 590-5071

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12/22/2000 Filed: 49th Dav: 2/9/2001 180th Day: 6/20/2001 CP-LB Staff: 1/25/2001 Staff Report: Hearing Date: **Commission Action:**



February 13, 2001

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STAFF REPORT: REGULAR CALENDAR

APPLICATION NUMBER: 5-00-329

APPLICANT: City of Long Beach Department of Parks, Recreation & Marine

AGENT: Dennis Eschen, Superintendent of Planning & Development

- **PROJECT LOCATION:** On the beach south of Ocean Boulevard (Belmont Pier to 72nd Place), City of Long Beach, Los Angeles County
- LOCAL APPROVAL: City of Long Beach Approval in Concept
- **PROJECT DESCRIPTION:** Move approximately 120,000 cubic yards of beach sand from beach west of 55th Place to the peninsula beach between 57th Place and 72nd Place, and install four 200-foot long groins (made with high-strength fabric sandbags) perpendicular to the shoreline at 61st, 63rd, 65th and 67th Places.

SUMMARY OF STAFF RECOMMENDATION

The City is requesting Commission approval to immediately fortify the most severely eroded section of the beach before the March 15th deadline that protects the shoreline area for spawning grunion and nesting California least terns. The City states that the need for the currently proposed beach nourishment is immediate and is necessary to protect beachfront property. The installation of the four proposed groins, each made with twenty high-strength fabric sandbags, is an experimental project that the City hopes will slow the rate of beach erosion and decrease the need for future beach nourishment. The City expects to continue to move beach sand from the area of accretion (beach west of 55th Place) to the project site after the grunion spawning and least tern foraging season ends on September 1, 2001. The City intends to install the four proposed sandbag groins in the Fall of 2001.

Staff is recommending that the Commission grant a permit for the proposed project with special conditions to protect marine resources and public recreation, to ensure conformance with the requirements of the resource agencies, and to require the applicant to assume the risks of the development. The City agrees with the recommendation.

STAFF NOTE: The proposed project is located seaward of the adjudicated mean high tide line on publicly owned tidelands that the state has legislatively granted to the City of Long Beach. A coastal development permit is required from the Commission because the proposed development is located within the Commission's area of original jurisdiction. Pursuant to Section 30519 of the Coastal Act, any development located within the Commission's area of original jurisdiction requires a coastal development permit issued by the Commission. The Commission's standard of review for the proposed development is the Chapter 3 policies of the Coastal Act.

SUBSTANTIVE FILE DOCUMENTS:

- 1. City of Long Beach Certified Local Coastal Program, 7/22/80.
- 2. Technical Information in Support of Permit Application for Low-Profile Sandbag Groin Field Installation, by City of Long Beach, June 2000.
- 3. Technical Information in Support of Permit Application for Beach Sand Excavation and Nourishment, by City of Long Beach, September 30, 1999.
- 4. Peninsula Beach (East Beach) and Vicinity Reconnaissance Report, U.S. Army Corps of Engineers, February 1997.
- 5. Beach Nourishment Program Summary (February March 1996), East Beach, Alamitos Bay Peninsula Oceanfront, Prepared by Coastal Frontiers Corporation.
- 6. East Beach Stabilization Project, Final Report, by Tetra Tech, Inc., August 1991.
- 7. U.S. Army Corps of Engineers Permit No. 2000-00307-AOA (Expires 2/3/2005).
- 8. Coastal Development Permit 5-95-283 (City of Long Beach) & amendment.
- 9. Coastal Development Permit 5-94-102 (City of Long Beach).
- 10. Coastal Development Permit 5-91-695 (City of Long Beach) & amendment.
- 11. Coastal Development Permit 5-84-567 (City of Long Beach).
- 12. Coastal Development Permit 5-82-817 (City of Long Beach).
- 13. Coastal Development Permit 5-81-516 (City of Long Beach).
- 14. Coastal Development Permit P-80-7188 (City of Long Beach).
- 15. Coastal Development Permit P-79-4767 (City of Long Beach).

STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following resolution to **APPROVE** the coastal development permit application with special conditions:

MOTION

"I move that the Commission approve with special conditions Coastal Development Permit 5-00-329 per the staff recommendation as set forth below."

Staff recommends a <u>YES</u> vote which would result in the adoption of the following resolution and findings. An affirmative vote by a majority of the Commissioners present is needed to pass the motion.

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I. Resolution: Approval with Conditions

The Commission hereby <u>APPROVES</u> 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. 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

- 1. <u>Notice of Receipt and Acknowledgment.</u> 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. <u>Expiration.</u> If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. 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. <u>Interpretation.</u> Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
- 4. <u>Assignment.</u> 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. <u>Terms and Conditions Run with the Land.</u> 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.

III. Special Conditions

1. <u>Timing of Project</u>

In order to reduce impacts on the grunion and the California least tern during the grunion breeding runs and the California least terns' nesting and foraging season, no sand excavation, sand deposition, beach replenishment or installation of sandbag groins shall occur during the period commencing March 15 and ending September 1.

2. Suitability of Materials

In order to ensure compatibility between the source sand and the receiving beach, this permit does not authorize the use and deposition of any materials imported from outside of the project area. The project area is limited to the beach south of Ocean Boulevard between Belmont Pier and 72nd Place. No sand shall be excavated from any area located seaward of the high water line.

3. Beach and Recreational Facility Closures

On weekends, all beach areas and recreation facilities shall remain open and available for public use during the normal operating hours. On weekdays, beach area closures shall be minimized and limited to areas immediately involved in sand excavation, transportation or deposition. On all days, except for the portions of the beach where sand excavation, transportation or deposition is occurring, all beach areas and recreation facilities shall remain open and available for public use during the normal operating hours. On all days, the bicycle path shall remain open and available for public use during the normal operating hours.

4. Belmont Pool and Bicycle Path Buffer

No sand shall be excavated within two hundred feet of Ocean Boulevard, any parking lot, or the Belmont Pool complex. No sand shall be excavated within two hundred feet of the bicycle path except between the ends of Laverne Avenue and Granada Avenue where all sand excavation shall be set back at least one hundred feet from the bicycle path.

5. Removal of Sandbags

The City shall monitor each sandbag on a weekly basis in order to ensure that each bag is removed in its entirety and properly disposed of at the first sign of decomposition, failure or ineffectiveness. Within five years of installation, all sandbags shall be removed from the site to be disposed of or recycled in compliance with all local, state and federal regulations.

6. Monitoring

The City shall monitor the sand source and deposition areas before, during, and after the proposed movement of the beach sand in order to document any effects that the proposed project has on the shoreline. Prior to June 1, 2002, the City shall submit to the Executive Director a monitoring report containing dated and scaled airphotos of the source site taken before and after the proposed project. The monitoring report shall also contain beach width and profile measurements of the source and receiving beaches to document the rate of shoreline erosion.

7. Conformance with the Requirements of the Resource Agencies

The permittee shall comply with all permit requirements and mitigation measures of the California Department of Fish and Game, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Any change in the approved project which are required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

8. Assumption of Risk

A) By acceptance of this coastal development permit, the applicant acknowledges and agrees: (i) that the site may be subject to hazards from seismic events, liquefaction, storms, waves, floods and erosion; (ii) to assume the risks to the permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards; and (v) to agree to include a provision in any subsequent sublease or assignment of the development authorized by this permit requiring the sublessee or assignee to submit a written agreement to the Commission, for the review and approval of the Executive Director, incorporating all of the foregoing restrictions identified in (I) through (iv).

B) Prior to issuance of the coastal development permit, the applicant shall submit a copy of a written agreement by the applicant, in a form and content acceptable to the Executive Director, accepting all of the above terms of subsection A of this condition.

IV. Findings and Declarations

The Commission hereby finds and declares:

A. **Project Description**

The City of Long Beach proposes to move approximately 120,000 cubic yards of beach sand from the widest sections of the east beach area to the most severely eroded section of the City's beach (Exhibit #3). The sand source area is the City beach situated between Belmont Pier and 55th Place where sand has historically accreted. The nourishment area is

the peninsula beach between 57th Place and 72nd Place where there is a long history of coastal erosion (Exhibit #5). All proposed sand excavation and deposition would occur entirely on state tidelands that are administered by the City under the Long Beach Tidelands Trust agreement.

The City proposes to undertake the currently proposed beach nourishment project in two phases. The first phase of sand movement would be completed before March 15, 2001 when the grunion spawning and California least tern nesting seasons commence. The City states that the need for the proposed beach nourishment is immediate and necessary to protect beachfront property.

The second phase of the proposed project would commence on September 1, 2001, after the grunion spawning and least tern foraging season ends. The second phase includes additional beach nourishment (no more than 120,000 cubic yards total for both phases) between 57th and 72nd Places, and the installation of four 2-foot high groins made of high-strength fabric sandbags. The proposed sandbag groins would be placed perpendicular to the shoreline at 61st, 63rd, 65th and 67th Places (Exhibit #4).

The proposed installation of the sandbag groins is an experimental project that the City hopes will slow the rate of beach erosion and decrease the need for future beach nourishment by trapping sand in place. Prior to the installation of the four sandbag groins, the City plans to widen the beach to approximately 125 feet (vertical wooden seawall to MLLW) using sand trucked from the source area. The construction of each 200-foot long groin involves filling twenty high-strength fabric bags with sand, and laying them end-to-end until they reach a maximum depth of -5 MLLW (Exhibit #4, p.2). The bags will not be stacked upon one another for safety reasons. The landward end of each 200-foot long groin would be 125 feet from the seawall at an elevation +3 MLLW. Each groin will be separated from the next by four hundred feet of beach frontage (Exhibit #4, p.1).

Each 10' x 4.5' fabric bag has a four cubic yard capacity and a five-year life expectancy. Eighty sandbags filled with a total of 320 cubic yards of sand will be used to construct the four proposed groins. The sand used to fill the bags will be trucked from the previously identified source area situated between Belmont Pier and 55^{th} Place (Exhibit #3). The City anticipates a two-week construction period in late 2001 to install the groins.

In order to excavate and transport the beach sand from the source area to the nourishment site, the City proposes to use scrapers, bulldozers and trucks. Dry sand will be scraped from the beach surface and transported approximately one-half mile to the deposition site by trucks. The trucks will drive on the beach. The excavated sand is proposed will be placed in berms and pushed seaward of the current waterline in order to extend the peninsula beach approximately one hundred feet further seaward than it currently exists.

The primary purpose of the proposed project is to protect public and private beachfront structures from damage caused by high tides and future storms. The approval of this permit application would permit the City to immediately fortify the most severely eroded

section of the beach before the March 15th deadline that protects spawning grunion and nesting California least terns.

B. Area History

Prior to 1900, the peninsula beach between 59th and 72nd Places (east beach) was wide and stable with an abundance of littoral sand supply from the Los Angeles, San Gabriel, and Santa Ana Rivers. Historically, the sand supply rate was naturally balanced with the rate of beach erosion. However, since the early 1900's, the natural sand supply has essentially been eliminated by the construction of dams and various flood control structures on the three major rivers, the filling of the Downtown Shoreline area, and construction of the Long Beach Marina Jetties.

In addition, the construction of the Los Angeles-Long Beach Harbor Breakwater and the Alamitos Bay entrance channel jetties has created a wave exposure window which results in the continuing erosion of the east beach (Exhibit #2). Consequently, there is a now a shortage of beach sand in this area of erosion. The sand shortage, combined with the shoreline erosion pattern which consistently erodes away the peninsula beach, has made it difficult for the City to maintain a wide beach to protect the ocean front homes from high tides and southern storm waves. The ongoing erosion of the shoreline has also reduced the size of the public recreation area on the beach.

Similarly, coastal erosion has also threatened the beach bike path, a public beach parking lot, and the City Lifeguard structures that are situated on the City's beach between 8th Place and 20th Place near downtown (Exhibit #3).

The beach erosion is caused by two distinct modes of sediment transport. First is the continual, although mild, loss of sediment due to the longshore wave energy generated by the prevailing westerly winds. The second, but more significant cause of beach erosion, is due to occasional large southerly waves. The large southerly waves are more common in the summer when tropical storms off the west coast of mainland Mexico generate a large amount of wave energy which travels north to the south facing beaches in the Long Beach area. However, winter storms from the north can occasionally move far enough south to generate southerly storm waves which can cause severe damage to the project area if the storm waves are large enough. These large southerly waves penetrate the gap between the east end of the harbor breakwater and the Alamitos Bay boating entrance jetties before directly attacking the east beach (Exhibit #2). Southerly waves also penetrate another gap in the harbor breakwater to cause beach erosion between 8th Place and 20th Place (Exhibit #3).

According to the City, much of the eroded beach sand is transported offshore and settles within the breakwater. However, large quantities of sand have also accreted on the beach areas situated between 20th and 55th Places (Exhibit #2). For example, sand accretion has increased the widths of the beaches near the Claremont and Granada

Avenue boat launch ramps by about two hundred feet in the last decade. It is the areas of documented sand accretion that will provide the sand for the proposed project. The beach west of 55th Place (sand source area) is currently six hundred feet wide.

Because of the beach erosion problems, the east beach area has suffered wave damage on several occasions. To combat the problem, the City of Long Beach has performed periodic beach nourishment projects during the last forty years, including every year since 1994. Beach nourishment is a preferred method of protecting the beachfront homes because of the reduced impacts on marine habitats and public recreation. However, beach nourishment must be a continuing process because beach erosion continues as a natural process.

The City has recently indicated its interest in submitting an application for a five-year permit which would allow it to continue to excavate and move beach sand at regular intervals over a five-year period. As part of that future application, the Commission staff has requested that the City provide an analysis of any effects an ongoing sand excavation project may have on the source site. A condition of the underlying permit requires the City to monitor the source site during the term of this permit in order to provide additional information regarding the effects of sand excavation on the source site beach.

C. Marine Resources and Shoreline Protection

Section 30230 of the Coastal Act states:

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 30233(b) of the Coastal Act states, in part:

(b) Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

Section 30235 of the Coastal Act states:

Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand

supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.

The proposed use of excavated beach sand for beach nourishment will partially mitigate the ongoing erosion of the beach and will help to protect existing structures along the beach. Section 30235 of the Coastal Act permits such activities to protect existing structures from erosion, but only if they are designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Section 30233(b) of the Coastal Act encourages beach replenishment using dredged materials. The proposed project involves moving sand from the wide section of beach, where sand has accreted, to the shoreline area where erosion is threatening structures. The source beach is six hundred feet wide. The receiving beach is a public recreation area.

The proposed project is not expected to have any adverse impacts on local sand supply. The past beach nourishment activities using the source site have not resulted in the narrowing of the source beach. In any case, the permit is conditioned to require the applicants to monitoring the source site in order to document the rate of shoreline erosion. If the required monitoring report shows that the source site is suffering shoreline erosion, the use of the area as a sand source can be discontinued. This permit allows a maximum of 120,000 cubic yards to be moved in the spring (before March 15) and fall (after September 1) of 2001. Four experimental sandbag groins will be installed in the nourished area. Additional sand moving activities will require additional Commission approvals.

Section 30230 of the Coastal Act requires that marine resources be protected and that the use of the marine environment be carried out in a manner that will sustain the biological productivity of coastal waters. The proposed excavation of sand will not impact the marine environment because special condition two prohibits sand removal from any area seaward of the high water line.

The deposition of the excavated beach sand, although occurring in an area which was formerly a beach, may impact the existing marine habitat. As the beach is restored to a width of approximately 125 feet, and the proposed sandbags are placed below the high tide line, bottom habitat will be covered with sand and the surrounding area could be impacted by turbidity caused by suspended sediments. Therefore, mitigation measures are necessary to minimize adverse impacts and to protect the biological productivity of the coastal waters.

The proposed project may result in the marine habitat around the deposition area being adversely impacted by suspended sediments and turbid waters. In 1994, there was some debate about the necessity and effectiveness of silt curtains or other barriers for containing any suspended sediments and turbid waters which may have resulted from a previously approved project [Coastal Development Permit 5-94-102 (City of Long Beach)]. Silt curtains or other barriers are often used to contain suspended sediments and turbid

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waters. However, the City's engineer, Peter Gadd, stated that silt curtains cannot be effectively used in the surf zone because waves break them up. Furthermore, the engineer stated that the proposed project will not increase turbidity over natural levels because the transported sand material will contain less than two- percent fine-grained material. Fine-grained materials are usually responsible for turbid waters. Using on this information, the Commission previously found that silt curtains are not required for depositing sand in the proposed location [Coastal Development Permits 5-94-102 & 5-95-283 (City of Long Beach)]. Therefore, silt curtains are not required as a condition of this permit.

However, mitigation measures are necessary because the deposition site is a grunion spawning area. The waters in the area are also used as a feeding area for the endangered California least tern. In order to reduce the proposed development's impacts on spawning grunions and the least tern's feeding area during the birds' nesting season, the permit is conditioned so that development is not permitted during the period between March 15 and September 1. The annual period between March 15 and September 1 is the primary grunion spawning season as well as the least tern's nesting season. The California Department of Fish and Game and the U.S. Army Corps of Engineers Permit have also prohibited beach replenishment activities during these times. In any case, the City has proposed to avoid the restricted time period that commences on March 15, 2001 and ends on September 1, 2001. The proposed project will be completed prior to the 2002 spawning and nesting season.

The marine environment will also be protected by conditioning the permit to ensure that all excavated sand is compatible with the existing beach sand at the deposition site. In this case, the City asserts that all of the sand is compatible for the City's beach because the City's beach is the sand source. In order to ensure compatibility between the source sand and the receiving beach, this permit does not authorize the use and deposition of any materials imported from outside of the project area. The project area is limited to the beach south of Ocean Boulevard between Belmont Pier and 72nd Place. Because the source site and the deposition site are located within one-half mile of one another on the same beach, compatibility of the sand materials will be achieved. No sand shall be excavated from any area located seaward of the high water line.

In regards to the proposed experimental sandbag groin project, the effect on marine resources is expected to be minimal. A small amount of sand (320 cubic yards) will be used to fill the bags. The four sandbag groins will cover approximately 0.18 acres of sandy bottom habitat for up to five years. Ultimately, they will be sliced open and removed from the site to be properly disposed. The City will monitor the four proposed sandbag groins to determine their effectiveness in slowing shoreline erosion and to ensure that they are removed from the site at the first sign of decomposition, failure or ineffectiveness.

The permit is conditioned to require the City to monitor each sandbag on a weekly basis and to remove all bags within five years to be disposed of or recycled in compliance with

all local, state and federal regulations. In addition, the City shall submit a monitoring report to the Executive Director prior to June 1, 2002 in order to document the rate of shoreline erosion. The sandbags can be removed if any adverse effects on the shoreline are identified by the City's monitoring report. Only as conditioned does the Commission find the proposed project to be consistent with the marine resource and shoreline protection policies of the Coastal Act.

D. Recreation and Public Access

The proposed project is consistent with the following Coastal Act policies which encourage public access and recreational use of coastal areas.

Section 30210 of the Coastal Act states:

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

Section 30213 of the Coastal Act states:

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

Section 30221 of the Coastal Act states:

Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.

The proposed project will partially mitigate beach erosion and provide for the continuing and increased recreational use of the eroding beach areas by the public. The size of the beach in the deposition areas will be increased and will provide a larger area for public recreational use. The beach area where the sand will be excavated from will not be substantially reduced because the sand will be scraped from the surface. No excavation will occur below the high water line.

The project will temporarily impact the use of some portions of the beach during the excavation, transportation and deposition of the sand. The City states that it is necessary to close some parts of the beach during the hours that heavy equipment is being used to excavate, transport and deposit sand (7:00 AM to 4:00 PM weekdays). The beach will

be open before and after the work hours and during the weekends. In order to reduce such impacts on public access and recreation the permit is conditioned as follows:

On all days: Except for the portions of the beach where sand excavation, transportation or deposition is occurring, all beach areas and recreation facilities shall remain open and available for public use during the normal operating hours.
The bicycle path shall remain open and available for public use during the normal operating hours.
On weekends: All beach areas and recreation facilities shall remain open and available for public use during the normal operating hours.
On weekends: Beach areas and recreation facilities shall remain open and available for public use during the normal operating hours.

The permit is also conditioned to prohibit development during the least tern nesting season and grunion spawning season: March 15 to September 1. These times correspond with the peak summer recreation season. Therefore, public access and recreation will not be impacted during the peak summer season.

deposition.

The facilities that support public recreation will be protected by the condition which prohibits sand from being excavated within two hundred feet of Ocean Boulevard, any parking lot, or the Belmont Pool complex. No sand shall be excavated within two hundred feet of the bicycle path except between the ends of Laverne Avenue and Granada Avenue where all sand excavation shall be set back at least one hundred feet from the bicycle path.

In regards to the experimental sandbag groin project, the impact on public access and recreation is expected to be minimal. Construction of the sandbag groins is expected to last two weeks and will occur in September and/or and October after the peak summer beach use period. The sand bags will be located below the high tide line near the shoreline and will not extend higher than two feet above the surface of the sand. The City proposes to post signs to inform the public of the groins. Ultimately, the sandbags will be removed from the site.

The long-term benefits of beach nourishment offset the temporary reduction in beach use by providing a larger, more stable beach for public recreation. Further, as conditioned, the impacts of the proposed development on access and recreation have been mitigated. Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30210, 30213 and 30221 of the Coastal Act.

E. Hazards

Section 30253(1) of the Coastal Act states:

New development shall:

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

The proposed development involves the nourishment of eroding beach areas. The purpose of the project is to widen the beach so that it provides more protection to existing structures from high tides and storm waves. On the peninsula, the east beach has recently eroded at a rate of six to sixty feet per year because of its exposure to southern waves (Exhibit #2). The City routinely renourishes the east beach with dredge spoils and builds berms to protect the adjacent structures from flooding due to high tides and storm waves.

In the area of proposed excavation there is a bike path and a public swimming pool complex. Ocean Boulevard and several public beach parking lots are also located in the vicinity. In order to ensure that the excavation does not reduce the width of the beach which protects these developments from high tides and storms, the approval of the permit is conditioned to prohibit the excavation of any sand within two hundred feet of Ocean Boulevard, any parking lot, or the Belmont Pool complex. Also, no sand shall be excavated within two hundred feet of the bicycle path except between the ends of Laverne Avenue and Granada Avenue where all sand excavation shall be set back at least one hundred feet from the bicycle path. Although the City has not proposed to move the waterline any closer to these developments, the buffers are necessary to protect the developments from possible erosion of the beach in the future.

Also, in order to document any effects that the proposed project may have on the shoreline, the permit is conditioned to require that the City monitor the sand source and deposition areas before and after the proposed movement of the beach sand. The monitoring report shall also contain beach width and profile measurements of the source and receiving beaches to document the rate of shoreline erosion. The information provided by the monitoring report will be used by Commission staff to determine the possible effects of any future sand movement projects near the site.

Finally, the Commission has routinely placed "assumption of risk" conditions on coastal development permit for projects in areas of erosion and/or flood hazards. The underlying permit has an "assumption of risk" condition because the site may be subject to extraordinary hazard from storms, waves and erosion. Therefore, the Commission required the applicant to waive any future claims of liability against the Commission or its successors in interest for damage from such hazards. As conditioned, the proposed project is consistent with Section 30253 of the Coastal Act.

F. Local Coastal Program

The City of Long Beach LCP was certified by the Commission on July 22, 1980. The certified LCP requires the City to repair beach erosion and develop a sand management plan (LCP, p. 63). The City has prepared a sand management plan which includes the movement of sand from one section of the beach to another. The proposed project complies with the policies of the certified LCP. However, because the project is located seaward of the former mean high tide line, in the Commission's area of original jurisdiction, the LCP is advisory in nature and may provide guidance. The standard of review for this project is the Coastal Act. The proposed project, as conditioned, is consistent with the policies of Chapter 3 of the Coastal Act.

G. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires Commission approval of coastal development permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits 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.

Several alternative solutions to the City's beach erosion problem have been considered. The alternative projects include the construction of "hard" solutions such as T-shaped groins, permanent rock reefs, and an Alamitos Bay entrance jetty extension. These alternatives would likely have significant adverse impacts on the environment.

The proposed project is a "soft" solution which, as conditioned, does not have significant impacts on the environment. Therefore, the Commission finds the proposed project, as conditioned, has been found consistent with the Chapter 3 policies of the Coastal Act. All adverse impacts have been minimized and there are no feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project can be found consistent with the requirements of the Coastal Act to conform to CEQA.

End/cp













COASTAL COMMISSION 5-00-329 EXHIBIT #_____ PAGE 2_OF 2 EX. 4



Figure 2: Peninsula Beach Width History, 1994-2000



EXHIBIT # ______ PAGE _____ OF ____

Supplemental Information for Coastal Development Permit Application #5-00-329 (City of Long Beach)

Prepared by Coastal Frontiers Corporation September 29, 2000

Request 1. Technical Engineering Report addressing the proposed development.

Response: A descriptive report addressing the proposed project was submitted in July 2000. An accurate technical analysis of the coastal process response to the project is not within the existing state of engineering science. Use of the low-profile sand bag groins must be considered experimental. For this reason, the construction elements utilized will be removeable should detrimental effects result. For this reason, the City of Long Beach and the Alamitos Bay Peninsula Beach Preservation Association commit to a monitoring program that will describe the effects of the project on the shores of the City's beaches. The monitoring program will include weekly measurements of the beach berm location adjacent to each groin, in addition to the continuation of the beach width measurements that are collected routinely by City personnel. Periodic diving inspection of the groins will be performed to determine the extent of sand deposition or scour adjacent to the sand bags below water.

Request 2: Provide the most recent engineering studies for proposed project site (Beach Sand Excavation and Nourishment, Long Beach, Coastal Frontiers Corporation, April 1996; Reconnaissance Study of Peninsula Beach Erosion, U.S. Army Corps of Engineers, 1997) Response: Copies enclosed.

Request 3: Address type of biological resources in the area and potential impacts. If there are impacts, what are the possible mitigation measures?

Response: The enclosed U.S. Army Corps of Engineers Reconnaissance Report (1997) includes a description of the biological resources in the area (Appendix D). Reviewers are directed to that document for further information. No significant biological impacts are believed to be associated with the project. None have been identified in the Corps Reconnaissance Study. Conversely, beneficial impacts of stabilizing Peninsula Beach include improvements in grunion spawning habitat. Increased safety to the beachgoing public will result by stabilizing the seabed which now suffers from significant and dramatic changes in water depth in the nearshore zone.

Request 4: Provide normal and maximum tidal ranges. Response: Normal Tide Range, Mean Low Water to Mean High Water = 3.8 ft Maximum Tide Range, Mean Lower Low Water to Mean Higher High Water = 5.5 ft

Request 5: What is the beach erosion rate with and without the protective device?

Response: The beach erosion rate presently varies with incoming wave energy. As noted in Figure 1, the erosion rates of the beach following beach nourishment episodes vary from – 0.3 ft/day (1998) to –3.76 ft/day during a stormy period in late 1996. Since 1994, annual beach renourishment has been required. Beach build-out of 100 feet during the late winter is eroded to its pre-nourishment position within 12 months. Following installation of the sand bag groins, it is believed that the erosion rate will decrease, but the ultimate result is not

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considered to be quantifiable at this time. It is expected that the groins will trap sand, thereby compensating in part for past seabed elevation decreases related to subsidence caused by long-term regional oil extraction.

Request 6: Effect of structure upcoast and downcoast of proposed groins?

Response: As indicated in the U.S. Army Corps of Engineers Reconnaissance Report (1997), the majority of the eroded beach sand moves alongshore to the west. A smaller portion (10%) moves east to the West Jetty of the Alamitos Bay Entrance. A smaller amount moves offshore. Should Peninsula Beach be stabilized, the adjacent shores would receive less sand from the source. To the east, the sand arriving at the jetty would diminish. This loss of sand will not threaten the integrity of the jetty. To the west, the diminished sand flow from Peninsula Beach would not threaten upland properties in this area. The beach to the west of 55th Place is about 600 feet and is protected from ocean wave energy by the Long Beach Breakwater.

Request 7: What are the potential turbidity impacts on water clarity due to the filling of bags insitu? Address possible mitigation measures.

Response: The sand that will fill the bags will be taken directly from the beach. This sand has been sorted by wave and wind action and does contains insignificant amounts of fine-grained sediments. As a result, turbidity is not expected to result from the hydraulic pumping of this sand into the bags.

Request 8: What impacts will groins have on lateral public beach access after installation?

Response: During periods following nourishment when the beach is wide, the bags will be buried by the sand and will not impede access along the beach. During narrow beach periods, the sand bags will be exposed on the beach surface. The exposed bags could create a 1.5 ft high barrier along the nearshore zone for walkers, joggers, and waders. The beach will be unimpeded along the upper beach where bags are not placed or where they are buried in sand. The spacing of the sand bag groins will be about 400 ft along the coast. Signs will be posted at each groin location to warn beach visitors of the presence of the groins.

Request 9: Location (elevation) of timber seawall and distance from proposed groins.

Response: The elevation of the timber seawall is about +14 ft (MLLW). The beach surface at the seawall has an elevation of about +12.5 ft. The landward end of each sand bag groin will be about 125 ft seaward of the seawall.

Request 10: Provide width measurement of bags. *Response: The filled bag width is 4.5 ft.*

Request 11: Provide location of any staging areas.

Response: As with other beach maintenance operations within the City of Long Beach, the equipment yard is near the Belmont Plaza complex. For the brief period when the sand bag groins will be installed, equipment will be marshalled on the wide beach surface near 55th Place, at the west end of Peninsula Beach. The beach width at this location is approximately 600 ft. In addition, some equipment may be stored during non-work hours at the public parking lot located at 72nd Place.

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