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STAFF RECOMMENDATION

ON CONSISTENCY DETERMINATION

Consistency Determination	No. CD-009-06
Staff:	Diane Livia-SF
File Date	2/6/2006
60th Day:	4/7/2006
75th Day:	4/22/2006
Commission Meeting:	4/11/2006

FEDERAL AGENCY: **U.S. Army Corps of Engineers**

DEVELOPMENT LOCATION: Pillar Point Harbor, Half Moon Bay, San Mateo County (**Exhibits 1&2**)

DEVELOPMENT DESCRIPTION: East Breakwater Repair and Maintenance

SUBSTANTIVE FILE DOCUMENTS: 1. Draft Environmental Assessment Biological Assessment Essential Fish Habitat Analysis and Consistency Determination for Pillar Point Harbor Operations & Maintenance East Breakwater Repair Project Half Moon Bay, San Mateo County, California. Army Corps of Engineers, January 2006.

2. San Mateo County Countywide Transportation Plan, June, 1999.

3. Final Congestion Management Program for 2005, by the City/County Association of Governments of San Mateo County.

4. Foothill Boulevard Extension Draft EIR, for Half Moon Bay City Planning Commission, 1998, CCS Planning & Engineering, Inc.

EXECUTIVE SUMMARY

The U.S. Army Corps of Engineers (Corps) has submitted a consistency determination for repairs on two sections of the east breakwater located in Pillar Point Harbor in Half Moon Bay, San Mateo County. Two outer breakwaters (east and west) protect Pillar Point Harbor at its southern boundary. The east breakwater is the focus of this maintenance project.

The east breakwater has been damaged by wave action, and requires repair on two sections. The western-most section is referred to as the breakwater repair section, the other as the revetment repair section, and collectively they are referred to as the east breakwater. Winter storm waves, along with normal waves, have displaced larger armor stones from these two sections, lowering the crest elevation of the east breakwater, and leaving smaller stones exposed to further wave action. The smaller stones are more subject to erosion, so the core of the east breakwater continually loses material, while the degradation accelerates where the protective armor is missing. Continued damage will precipitate eventual failure of the east breakwater, leaving small craft at the mercy of large waves, and threatening the structural integrity of the breakwater. The result will be unsafe navigation conditions for recreational and commercial boaters. The Coastal Act provides high priority for coastal dependent activities, and allows shoreline structures necessary to protect coastal dependent activities, including commercial fishing. Repair of the east breakwater will protect Pillar Point Harbor from winter storms and maintain the integrity of the harbor as a whole.

Repairs would consist of rebuilding the breakwater within the original design footprint. All maintenance work would take place from the landward side without entering the water. The Corps proposes to perform the repair work beginning in June, continuing for about 90 days, which is during a peak recreational season at this popular and regionally important area. The Corps chose this time of year for three reasons: low chance of rain, long daylight hours and lowest significant wave height. Strong waves would pose serious safety and erosion hazards to the repair work.

The east breakwater is immediately adjacent to the popular El Granada beach, part of Half Moon Bay State Beach, and a heavily used surfing area with limited parking. A 23-space parking lot for this beach, on the west side of Highway 1, is regularly filled to capacity, leading to parking along Highway 1, which slows traffic and causes safety concerns. The

Corps would use about seven spaces of this parking lot for truck and crane movement. This project would minimally affect access at this lot. The remaining parking spaces and the driveway providing access to Highway 1 would remain open for public use. Visitors also use an unofficial overflow parking lot directly across the highway, on the inland side, that the Corps was initially planning to occupy to stage materials for this repair. The Corps has agreed to relocate its staging area in order to avoid using this overflow lot, and ensure minimal impact on traffic conditions on Highway 1. Also, because the existing sandy beach on the upcoast side extends beyond the areas to be repaired, the project will not adversely affect informal public access to the breakwater. The project would not cause further impact on beach access, and the impact to public access and recreation would be minor and temporary. The long-term effect of this project would be to protect the harbor and recreational and commercial fishing activities, and the project is therefore consistent with the public access and recreation policies of the Coastal Act.

Harbor seals (*Phoca vitulina*) and other marine mammals, such as sea lions (*Zalophus californianus*), forage in the harbor, and may occasionally rest on this breakwater. A pair of sea otters has recently been observed regularly in the northern part of the harbor. Sea otters (*Enhydra lutris nereis*) are typically found in near shore marine environments where they forage. Because the project area is small and involves no in-water construction, it will not affect this species. Any sea otters in the vicinity of the project area would be able to use adjacent areas. The Corps will provide a monitor to be present at the site at all times during construction, who will halt work if sea otters or harbor seals are observed to be in the immediately vicinity. If harbor seals are found, the monitor will immediately call NOAA Fisheries. The project is not located within, and will not affect, any environmentally sensitive habitat area (ESHA). Minor turbidity may result when water, containing sand-sized particles, is pumped from the trench at the breakwater repair. The Corps would pump this water only into the harbor side, where the potential impact to water quality would be temporary and insignificant. The Corps would place rocks in the breakwater from the landward side only, using earth moving equipment, without entering the water. In the future, polluted water could run off the public parking lot if the trucks and cranes used by the Corps crack or damage the parking lot during construction. The Corps has agreed to be responsible for parking lot repair, should such damage occur. The Corps would replace, in kind, intertidal and subtidal habitats in the vicinity of the repair work, as this habitat would be subject only to temporary construction effects. Truck and crane noise would not be above the normal background sound caused by wave action, boats, and vehicles on adjacent roads and highways. Any of the minor and temporary impacts to habitat of this project will be insignificant.

The repair will allow the east breakwater at Pillar Point Harbor to continue to make the harbor safe and useful for recreational and commercial boating, while having minimal and temporary impact on public access and marine life. The project is consistent with the public access and recreation (Sections 30210, 30211, 30212.5 and 30220); and marine resource, commercial fishing protection and shoreline structures (Sections 30230, 30231, 30233, 30234 and 30235) policies of the Coastal Act.

I. STAFF SUMMARY AND RECOMMENDATION:

1. Project Description/Background. The Corps proposes to repair two sections of the east breakwater at Pillar Point Harbor in Half Moon Bay, San Mateo County (**Exhibits 3 and 4**). The project is located at the northern end of Half Moon Bay, at the southern boundary of Pillar Point Harbor. The Corps constructed this 4,420 ft. long eastern rubble-mound breakwater in 1961, and has inspected it periodically since then. In 1978 the breakwater had its only major repair. The project includes:

Breakwater Repair. The work required for the breakwater repair section covers an area approximately 179 ft. long by 18 ft. wide. The Corps would begin repairs by excavating a trench on the landward side of the breakwater in order to access small rocks and finer material that must be replaced in the core of the breakwater (**Exhibit 5**). The Corps would excavate a trench approximately 190 ft. long and 12 ft. wide, and remove approximately 1,200 cubic yards of material. The Corps would remove, by pump, water collecting in the trench and discharge it into the inner harbor. The Corps would remove existing material (roughly 2,200 tons of rock) from the breakwater down to an elevation of approximately +6 ft. Mean Lower Low Water (MLLW), and add Geotextile sheeting, new rocks (roughly 3,030 tons) and sand (roughly 1,200 cu. yds). The Corps would move rocks by using a crane located on the sand on the upcoast side of the breakwater. In areas where the newly placed rocks overhang the existing slope, without existing rocks securely supporting them on the seaward side of the breakwater, the Corps will add rocks to the slope to ensure the newly placed rocks rest upon a solid base. This base would not extend beyond the original breakwater foot print. The final crest elevation would be +11 ft. MLLW. After completing the repair work, the Corps would fill the excavated trench with material obtained from a commercial source outside the project area.

Revetment Repair. The work required for the revetment repair area covers an area approximately 54 ft. wide, 49 ft. long on one side, and 94 ft. long on the other side. The Corps would remove existing material (roughly 400 tons of rock) from the revetment almost to the toe stone, down to an elevation of approximately +1 ft. MLLW, leaving the toe of the existing structure in place. The Corps would add Geotextile sheeting, new rocks (roughly 305 tons) and sand (roughly 3,800 cu. yds). The Corps will move rocks by using a crane located in the parking lot adjacent to the breakwater. The final crest elevation would be +17 ft. MLLW.

Staging Areas. The Corps would set up three staging areas during maintenance (**Exhibit 6**). The primary staging area, staging area 1, would be located on Obispo Road, directly across Highway 1, on the upland side. The Corps would haul away, in trucks, existing rocks from the repair sites to staging area 1, while disposing of damaged rocks in a suitable disposal area. The Corps would store undamaged rocks in the staging area, to be reused at the contractor's discretion. The Corps would obtain new rocks from commercial sources, to be stored temporarily at staging area 1. Rock to be used would range from 0.6 to 7 ft. in diameter (24 pound to 16 ton rocks).

Staging area 2 would be located at the San Mateo County Harbor District public access parking lot adjacent to the revetment repair section, covering approximately 5,000 square ft., and using seven to eight parking spaces **(Exhibit 7)**. Staging area 3 would be located on the sand, on the landward side of the breakwater repair section to provide a space for the crane, and would cover approximately 15,000 sq. ft. The Corps would use staging areas 2 and 3 to allow crane and truck access to the repair sites, and not for rock storage.

Ingress and Egress. The Corps would transport rocks between the breakwater repair section and staging area 1, by truck, through an open path in the sand next to the breakwater. The Corps would also use the open path in the sand to bring the crane in and out of staging area 3. The Corps would move rocks between the repair area and staging area 1, as well as the crane, through the public parking lot via public roads. At the request of the Commission staff, the Corps has agreed to minimize truck impact on Highway 1 traffic during peak traffic hours. The travel distance between staging areas 1 and 2 ranges from approximately one half mile to a mile and a half, depending on the route used. Typical rock trucks carry 18 – 20 tons per load. Trucks could carry two to three loads per hour, and could operate during summer daylight hours up to 10 hours per day.

II. FEDERAL AGENCY'S CONSISTENCY DETERMINATION.

The U.S. Army Corps of Engineers has determined the project consistent to the maximum extent practicable with the California Coastal Management Program.

III. STAFF RECOMMENDATION.

The staff recommends that the Commission adopt the following motion:

MOTION: I move that the Commission **concur** with consistency determination CD-009-06 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).

Staff Recommendation:

The staff recommends a YES vote on the motion. Passage of this motion will result in a concurrence with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

Resolution to Concur with Consistency Determination:

The Commission hereby **concurs** with the consistency determination by the U.S. Army Corps of Engineers, on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

IV. FINDINGS AND DECLARATIONS:

The Commission finds and declares as follows:

1. Public Access and Recreation.

The Coastal Act provides for the maximization of public access and recreation opportunities, including protection of coastal dependent uses, recreational boating, and surfing. These sections provide:

Section 30210

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

Section 30211

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

Section 30212.5

Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of over crowding or overuse by the public of any single area.

Section 30220

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

The repair of the east breakwater is essential for the protection of Pillar Point Harbor and the many recreational and commercial boats using the harbor. Damage to the breakwater is apparent in two sections. Waves generated by winter storms, in conjunction with normal wave action over the years, have displaced larger armor stones, lowering the crest elevation. This damage has left smaller, more erosion-prone stones exposed to further wave action, resulting in loss of material from the core of the breakwater. Degradation is accelerating, and continued damage will precipitate eventual failure of this section of the breakwater. Failure will expose small vessels in the harbor to damage from large waves, threaten the structural integrity of the breakwater, and result in unsafe navigation conditions for recreational and commercial boaters. Recreational and commercial boating, as well as other coastal dependent

activities in the harbor, will benefit from the protection from large waves the breakwater provides.

For truck and crane movement, the Corps will use approximately seven of the 23 spaces in the public parking lot adjacent to the revetment repair section. The Corps has agreed to change the original location of staging area 1, leaving the overflow parking lot on the landward side of Highway 1 available to the public, thereby minimizing the impact on public parking. The beaches up coast and down coast of the east breakwater will remain open. In addition, the sections of the breakwater not undergoing repair will not be blocked to public access in any way. This impact on direct access would be minimal, and temporary. However, the project could also cause indirect access impacts through increased traffic congestion during the busy summer months.

The "San Mateo County Countywide Transportation Plan" of June, 1999, indicates that Highway 1, from Highway 92 northward, has high priority in the county, and a high rate of congestion as expressed in vehicle hours of delay (VHD). Weekday PM is the most congested period. This section of Highway 1, passing by Pillar Point Harbor, is the third-most congested road in the entire county, after Highways 101 and 280.

The "Final Congestion Management Program for 2005" by the City/County Association of Governments of San Mateo County, indicates Highway 1, from the San Francisco County Line to just south of Pillar Point Harbor at Linda Mar Boulevard, operates at "D" and "E" levels of service (LOS). LOS D is a zone that approaches unstable flow; passing demand is high, while passing capacity approaches zero. LOS E is a zone with unstable operations where passing becomes virtually impossible.

The "Foothill Boulevard Extension Draft EIR" done for Half Moon Bay City Planning Commission in 1998 by CCS Planning & Engineering, Inc., shows the existing weekday AM and PM peak hour traffic counts in terms of hours of vehicle delay (HVD) at the intersection of North Main Street and Highway 1, approximately four miles south of Pillar Point Harbor:

Existing Weekday AM Peak Hour – HVD = 16.8
Existing Weekday PM Peak Hour – HVD = 40.2

The issue is not so much the number of truck trips (the proposal would include only 2-3 truck trips per hour, and 20-30 per day), but during peak periods, slow moving trucks or trucks making left turns off of or onto Highway 1 could disrupt traffic flow and disrupt recreational traffic. Thus, if the project needs to be constructed during the peak summer season, the traffic needs to be timed and managed to minimize recreational impacts, similar to what the Commission required for Caltrans' Devil's Slide Tunnel project (Consistency Certification CC-094-00). While that was a far larger project (involving 50-100 trips/day), the projects would occur concurrently, generating cumulative concerns, and underscoring the need to manage truck traffic. For Caltrans' project, the Commission required Caltrans to commit that off-site disposal would be restricted to non-peak hours, that non-peak hours include not only rush hour, but recreational peak periods, and that Caltrans prepare a plan that would assure that construction activities (primarily truck traffic) are scheduled in a manner minimizing

adverse impacts during peak recreational periods. Similarly, at the request of the Commission staff, the Corps has stated it will include in its contract the minimization of left hand turns made by construction vehicles on Highway 1 during peak traffic times of Monday through Friday AM and PM rush hours. Furthermore, no work will take place on weekends or holidays. The proposed repair of the east breakwater will have minimal impact on public access and recreational opportunities. The Commission, therefore, concludes that the project is consistent with the public access and recreation policies of the Coastal Act (Sections 30210, 30211, 30212.5 and 30220).

2. Marine Resources, Fill of Coastal Waters, Shoreline Structures.

The Coastal Act provides:

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 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:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

Section 30233 (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 longshore current systems.

Section 30234

Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational boating facilities shall, where feasible, be designed and located in such a fashion as not to interfere with the needs of the commercial fishing industry.

Section 30235

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 fishkills should be phased out or upgraded where feasible.

The repair of the east breakwater is essential for the protection of Pillar Point Harbor and the many recreational and commercial boats using the harbor. As noted previously, the damage to the east breakwater is accelerating, and would eventually cause failure, exposing Pillar Point Harbor to damage from very large waves. By repairing the existing east breakwater, the Corps will protect the commercial fishing and recreational boating facilities, and provide for safer navigation for all water craft.

The project is an allowable use under Section 30235 of the Coastal Act. The project is required to protect the coastal-dependent facility, Pillar Point Harbor, and constitutes repair to an existing shoreline protective device. The repair will not expand beyond the original breakwater footprint. Therefore, because the breakwater is not being materially expanded or extended it will not "alter… natural shoreline processes." The Commission finds that the proposed repairs will not exacerbate erosion or adversely affect shoreline sand supply. The Commission therefore concludes that the project is consistent with all the tests of Section 30235 of the Coastal Act.

The project is consistent with Section 30233, which allows fill in open coastal waters for coastal dependent and commercial fishing facilities. The project is also consistent with the alternatives and mitigation tests of Section 30233. The Commission typically finds

replacement-in-kind of existing structures to be the least damaging alternative, and as discussed below, the Corps has included avoidance or mitigation for any impacts.

The Corps plans on performing all work from the landward side, and will have a monitor present at all times to observe marine mammals. Should harbor seals or otters enter the construction area, the monitor will be instructed to immediately contact NOAA Fisheries (for harbor seals) or the U.S. Fish and Wildlife Service (for otters).

The Corps will implement extensive best management practices (BMPs) for the purpose of protecting the environment and minimizing pollution and damage that could occur as the result of the construction operations. Water that collects in the trench in the breakwater repair section would be removed by pump, and discharged into the inner harbor, avoiding any possible impact on the down coast beaches. Sediment size in this discharge water would be 90% or greater sand size, thereby reducing the impact of increased turbidity to an insignificant level. Should the parking lot being used as staging area 2 and for truck and craned egress be damaged or cracked in the course of construction, such that oil, gas or other contaminants running off, or leaking from cars can make its way into the water, the Corps has agreed to repair it, thereby preventing adverse effects of pollutants on marine organisms. All rocks, sand or other material removed from the existing breakwater, if not reusable, will be taken off site and properly disposed of. The Corps acknowledges that if it were to seek to dispose of rocks in the coastal zone, it will coordinate with the commission staff on whether further consistency review is needed. If the rock is reusable, it will be placed back in the breakwater. Use of petroleum or other polluting substances will be carefully controlled to prevent spills or evaporation, and the Corps has agreed that it will not park trucks overnight on the sand in staging area 3. The Corps will use best management practices with regard to all water quality issues.

The Commission therefore concludes that the proposed Pillar Point east breakwater repair project is consistent with the marine resources, fill of coastal waters, shoreline structures and water quality policies (Sections 30230, 30231, 30233, 30234 and 30235) of the Coastal Act.

Project location

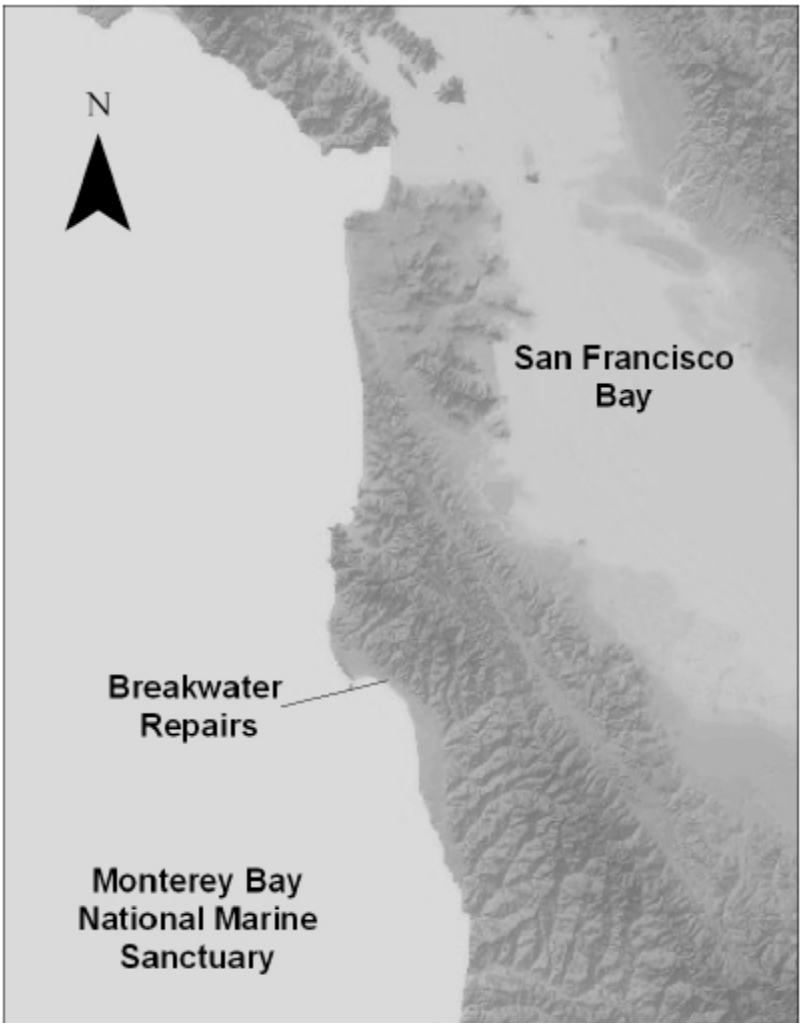

EXHIBIT NO. 1
APPLICATION NO.
CD-009-06
USACE

East Breakwater Location

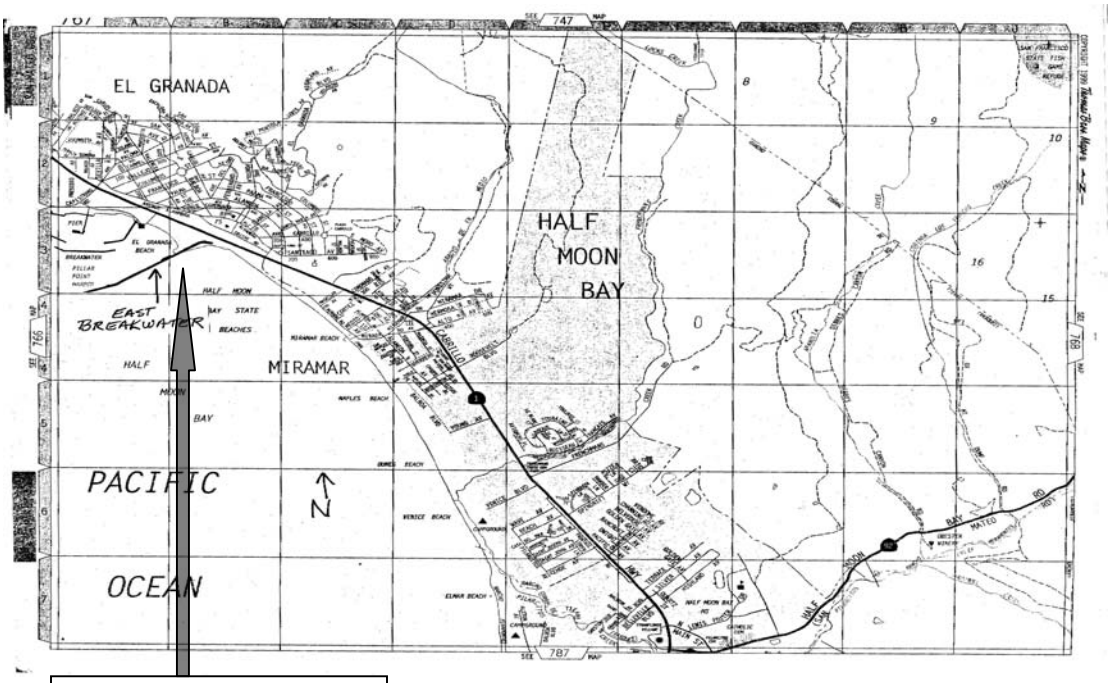

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EXHIBIT NO. 2
APPLICATION NO.
CD-009-06
USACE

Repair location

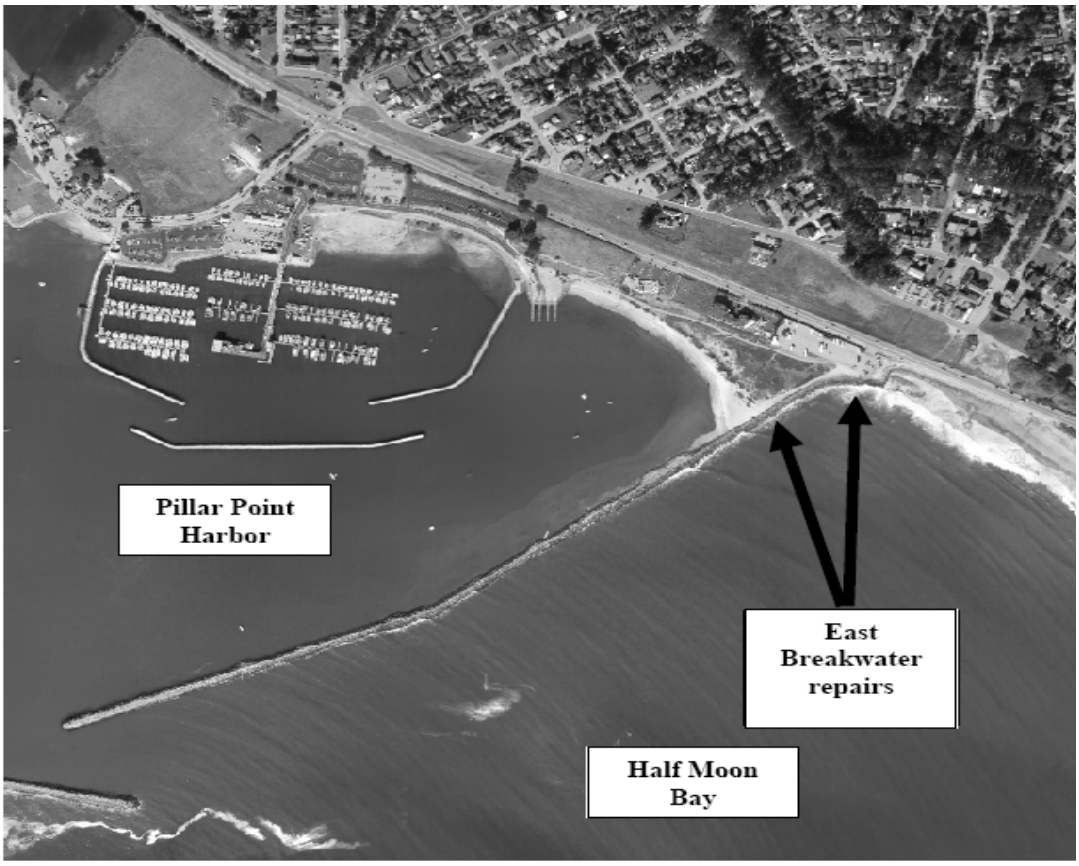

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EXHIBIT NO. 3
APPLICATION NO.
CD-009-06
USACE

Location of revetment and breakwater repair sections

N

EXHIBIT NO. 4
APPLICATION NO.
CD-009-06
USACE

Breakwater repair section showing trench

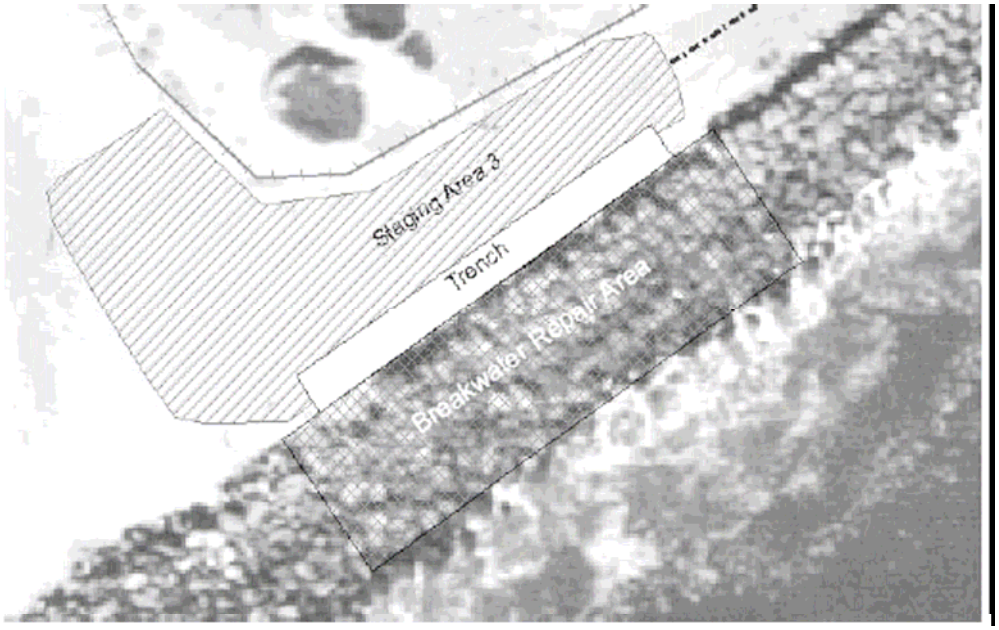

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EXHIBIT NO. 5
APPLICATION NO.
CD-009-06
USACE

Staging Areas 1, 2, and 3

N

EXHIBIT NO. 6
APPLICATION NO.
CD-009-06
USACE

Public Parking Lot

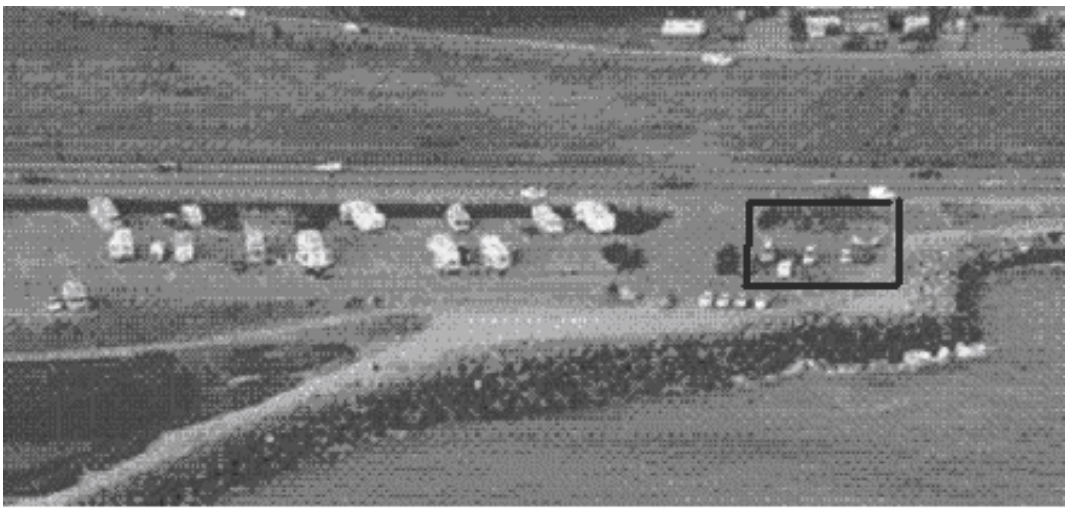

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EXHIBIT NO. 7
APPLICATION NO.
CD-009-06
USACE