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## STAFF REPORT AND RECOMMENDATION

## ON CONSISTENCY DETERMINATION

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| Consistency Determination No. | **CD-052-04** |
| Staff: | MPD-SF |
| File Date: | 07/16/2004 |
| 60th Day: | 09/14/2004 |
| 75th Day: | 09/29/2004 |
| Extended to: | 10/15/2004 |
| Commission Meeting: | 10/14/2004 |

**FEDERAL AGENCY:** **U.S. Navy**

**DEVELOPMENT LOCATION:** Fiddler's Cove, Naval Amphibious Base (NAB), Coronado, San Diego County (Exhibit 1-2).

**DEVELOPMENT DESCRIPTION:** Fiddler's Cove Marina Improvements consisting of pier, dock, Recreational Vehicle (RV) park, and wave attenuation system improvements, and replacing a seawall with a new retaining wall (Exhibit 3-4).

**SUBSTANTIVE FILE DOCUMENTS:** See page 19.

## EXECUTIVE SUMMARY

The U.S. Navy (Navy) has submitted a consistency determination for the construction of several improvements to its existing marina at Fiddler's Cove, Naval Amphibious Base (NAB), on the east side of the Silver Strand peninsula in Coronado. The proposal would consist of replacing a fixed pier with a new brow, upgrading and expanding the floating docks, repairing and expanding a boat ramp, repairing and expanding a Recreational Vehicle (RV) park, replacing a seawall with a new retaining wall, and replacing a deteriorated wave attenuation system.

The proposed activities, which include dredging and filling of estuarine coastal waters, are allowable uses under Section 30233(a)(1) and (4) of the Coastal Act as coastal dependent boating facilities. The Navy has incorporated avoidance and mitigation measures into the project, including avoiding in-water construction during the least tern and snowy plover nesting seasons, avoiding noise impacts that could affect these species, use of Best Management Practices minimize water quality impacts (including Commission staff review), and surveying for and mitigating any eelgrass impacts.

The U.S. Fish and Wildlife Service has expressed concerns over the cumulative loss of foraging space for least terns and snowy plovers and requested that the Navy provide 1:1 mitigation for any additional San Diego Bay areas being covered by piers and other Navy structures. The Navy believes no mitigation is required for this impact. Absent eelgrass impacts, the Commission has not previously required mitigation for shading/loss of foraging area from small to mid-sized Navy (or other agency) piers, either from shading/foraging loss impacts or the fill represented by new pilings. While the Commission shares the U.S. Fish and Wildlife Service's concern, which is primarily expressed in terms of cumulative impacts, in light of the fact that this Fiddler's Cove Marina project includes creation of additional intertidal habitat and in any event represents only a 1.5% increase in coverage at Fiddlers Cove, the facts in this case do not warrant imposition of additional mitigation requirements. The Commission wishes to put the Navy on notice that the concern remains valid and the issue may be revisited for future Navy pier proposals.

With the avoidance and mitigation measures agreed to by the Navy, combined with the project's overall benefits of opening up new areas to intertidal action and removing an existing shoreline structure (replacing it with a more landward retaining wall), the project meets the "least damaging feasible alternative" and mitigation tests of 30233(a), as well as the marine resources, sensitive habitat, and water quality tests of Sections 30230, 30231, 30233, and 30240 of the Coastal Act.

The project will not adversely affect visual resources or public access and recreation and is consistent with Sections 30251 and 30210-30224 of the Coastal Act.

## STAFF SUMMARY AND RECOMMENDATION

### I. STAFF SUMMARY:

**A. Project Description.** The Navy proposes to improve several marina facilities at Fiddler's Cove Marina, a Navy owned, non-public, recreational facility located at the Naval Amphibious Base (NAB) on the east side of the Silver Strand peninsula in Coronado (Exhibits 1-2). The Fiddler's Cove Marina currently contains 500 boat slips, mooring points, boat ramp, boat repair facilities, retail, and support facilities (Exhibit 3). The RV park is located just south of the marina and supports 50 camper spaces with electrical hookups and a number of no-hookup tent sites. The Navy states the proposed improvements are needed: "... to restore serviceability of deteriorated marina facilities, control erosion and stabilize shoreline, and enhance/expand existing recreational functions of the marina."

The proposal would consist of six components, including replacing a fixed pier with a new brow; upgrading and expanding the floating docks; repairing and expanding a boat ramp; repairing and expanding a Recreational Vehicle (RV) park; replacing a seawall with a new retaining wall; and replacing a deteriorated wave attenuation system. The Navy elaborates:

> ***Fixed Pier Replacement***
>
> *The proposed action would demolish an existing fixed pier and construct a new aluminum brow capable of providing pedestrian access and utility services to the marina ...* [Exhibits 3-4]. *The existing pier structure, which is currently closed due to unsafe conditions, would be removed in its entirety and all debris would be transported for appropriate disposal. No dredging would be required for either removal of the existing pier or for construction of the new brow.*
>
> *The proposed action would construct a new aluminum brow approximately 85 feet (26 meters [m]) long and about 5 feet (1.5 m) wide that meets Americans with Disabilities Act (ADA) requirements for pedestrian access. The brow would be placed directly north of the existing pier for ease of hook-up to existing landside and marina-side utilities. The brow would be supported on the marina end by a float extension (see ...* [Exhibit 4]*) added to an existing floating dock at the end of Headwalk B. A new concrete foundation and timber pile bulkhead would support the brow on the landside, which would replace a small portion of existing riprap.*
>
> ***Floating Dock Utilities Upgrade and Expansion***
>
> *The proposed action would expand the dock capacity of the existing marina by constructing a new headwalk and associated finger piers that can house up to 30 boat slips. The new headwalk (Headwalk G) would extend east from existing Headwalk F, in an area currently containing about 10 boat moorings ...*[Exhibit 3]. *These improvements would result in space for about 20 additional boats over existing conditions. The existing mooring blocks would be removed prior to construction of the new headwalk, and all debris would be transported for appropriate disposal. No dredging would be required for either removing the mooring blocks or constructing the new headwalk. The proposed action would also upgrade existing utilities to the marina to provide utility service to the new boat slips and to fix inadequacies in the existing systems.*
>
> ***Boat Ramp Repair and Extension***
>
> *The proposed action would demolish the existing boat ramp and replace this with a new concrete slab ...* [Exhibit 4]. *The ramp would be extended an additional 40 feet (12 m) in length to reach an elevation of –3.0 feet (-0.9 m) mean lower low water (MLLW) so that vessels can be launched at low tides. The ramp would be 16 feet (4.9*

*m) wide to meet current State of California guidelines for minimum width. The demolished portions of the existing ramp would be transported for appropriate disposal. A concrete pedestal would also be installed for a future pole and light.*

*Proposed improvements to the boat ramp would require dredging of an estimated 50 to 55 cubic yards (38 to 42 cubic meters) of bottom sediments. Sediments likely would be dredged from the foot of the boat ramp using a land-based excavator and a temporary cofferdam for dewatering. Sediments proposed for removal would be tested prior to dredging using standard United States Environmental Protection Agency (USEPA) and United States Army Corps of Engineers (USACE) testing protocols to determine suitable disposal options.*

***RV Park Expansion and Repair***

*The proposed action would redevelop the existing RV park to provide enlarged parking pads and utility upgrades. The park also would be expanded eastward to provide additional campsites with utility hook-ups, a comfort station/washroom facility, and a picnic area ...* [Exhibit 3]. *The existing RV park has 48 campsites, a group pavilion area, and barbeque pits. The redesigned RV park would provide 40 upgraded campsites, and the expansion of the park eastward would provide an additional 25 campsites (for a total of 65 campsites). These improvements, therefore, would result in about 17 additional campsites over existing conditions. In addition, the footprint of the existing campsites would be moved approximately 10 feet (3 m) southward (away from the water) to allow for the construction of a small retaining wall for erosion control.*

*All campsites would be designed to accommodate RVs with tow vehicles measuring up to 60 feet (18 m) in length. A modular service hook-up would be installed behind each parking space to provide electrical service (30-amp and 50-amp, 110v outlets), potable water, sewer dump drains, telephone service, and cable television outlets. The expansion area would also include a paved driveway, a pump-out station, a picnic area, and a comfort station with men's and women's washroom and toilets, shower stalls, and coin-operated washer and dryer.*

***Seawall Replacement***

*The proposed action would remove an existing 330-foot (100-m) deteriorated seawall and replace it with a sheet vinyl retaining wall constructed above the +7.8 feet (2.4 m) MLLW line. The retaining wall ...*[Exhibit 3] *would be designed to provide improved erosion protection to the RV park by extending an additional 280 feet (85 m) westward toward the boat ramp and an additional 572 feet (174 m) eastward adjacent to the proposed RV expansion area (for a total length of 1,182 feet [360 m]). The existing timber seawall would be removed in its entirety and all debris would be transported for appropriate disposal. No dredging would be required for either the removal of the existing seawall or construction of the new retaining wall. The new retaining wall would consist of a vinyl sheet pile face, steel tie back rods, and a cast-in place concrete*

*cap. After the retaining wall is built, the void behind the wall would be backfilled. By removing the existing seawall and placing the new retaining wall above the +7.8 feet (2.4 m) MLLW line, approximately 5,300 square feet (500 square meters) of intertidal habitat would be created.*

***Wave Attenuation Replacement***

*The proposed action would replace the existing floating-tire attenuator with a concrete floating wave attenuator. The new system would be similar to a pontoon and would be constructed of a concrete exterior with a styrofoam interior, which creates buoyancy. Each interlocking section would measure about 50 feet (15 m) in length and would be moored with chains to cement blocks. The new attenuator would be installed in the current footprint ...* [Exhibit 3], *and would retain the existing access route into the marina. No dredging would be required for the removal of the existing attenuator or installation of the new attenuator.*

**B. Status of Local Coastal Program.** The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the LCP has been certified by the Commission and incorporated into the California Coastal Management Program (CCMP), it can provide guidance in applying Chapter 3 policies in light of local circumstances. If the LCP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The City of Coronado's LCP has been incorporated into the CCMP.

**C. Federal Agency's Consistency Determination**. The Navy has determined the project consistent to the maximum extent practicable with the California Coastal Management Program.

## II. STAFF RECOMMENDATION:

The staff recommends that the Commission adopt the following motion:

**MOTION:** **I move that the Commission concur with consistency determination CD-52-04 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:**

Staff recommends a **YES** vote on the motion. Passage of this motion will result in an agreement 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 consistency determination CD-052-04 by the U.S. Navy 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.

**III. FINDINGS AND DECLARATIONS:**

The Commission finds and declares as follows:

**A. Marine Resources/Coastal Waters/Environmentally Sensitive Habitat.** 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 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:*
>
> > *(l) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities. ...*
> >
> > *(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities ....*
>
> ***Section 30240:*** *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
>
> *(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 those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

The proposed piers, pilings, ramp, and seawall removal involve dredging and fill of estuarine coastal waters (see Exhibit 7 for precise quantities) and, as such, must pass the allowable use, alternatives, and mitigation tests of Section 30233(a) of the Coastal Act. The Commission has historically found Navy boating facilities (including ramps and piers) in open coastal waters

and estuaries to be allowable uses as coastal dependent boating facilities. Accordingly, the Commission finds the components of the project involving proposed fill activities constitute allowable uses under Sections 30233(a)(1) and (4) of the Coastal Act.

Looking at the alternatives test, given the coastal-dependent nature of the facility, which needs to be located along the shoreline of the NAB in order to function, combined with the fact that it involves fairly minor expansions of existing uses, it is logical to assume that there is no less environmentally damaging location. With the avoidance and mitigation measures incorporated into the project, including avoiding in-water construction during the least tern and snowy plover nesting seasons, avoiding noise impacts that could affect these species, use of Best Management Practices minimize water quality impacts, and surveying for and mitigating any eelgrass impacts, and given the net habitat benefit of opening up new areas to intertidal action (through removing the existing shoreline structure and replacing it with a more landward retaining wall), the Commission finds that the project is the least environmentally damaging feasible alternative and therefore meets the second test of Section 30233(a).

Concerning dredging impacts, the Navy states:

> *Proposed improvements to the boat ramp would require dredging of an estimated 50 to 55 cubic yards (38 to 42 cubic meters) of bottom sediments from the foot of the existing boat ramp, at depths between 0 and –3.0 feet (0 to –0.9 m) MLLW. Sediments likely would be dredged from the foot of the boat ramp using a land-based excavator and a temporary cofferdam for dewatering. Sediments proposed for removal would be tested prior to dredging using standard USEPA and USACE testing protocols to determine suitable disposal options. None of the other project components (i.e., fixed pier replacement; floating dock utilities upgrade and expansion; RV park expansion and repair; seawall replacement; wave attenuation replacement) would require dredging or filling of open coastal waters. Although the Fiddler's Cove Marina is not open to the general public, the project is the repair and expansion of a recreational boating facility available to active duty and retired U.S. military personnel, active drilling reservists, DoD [i.e., Dept. of Defense] employees, and their families. The dredging for the boat ramp expansion will be offset by the removal of the seawall, which would create an additional 5,300 square feet (500 square meters) of intertidal habitat.*

Analyzing mitigation needs and overall marine resource impacts, the Navy states:

> *The project area includes the shallow waters and benthic habitats (including eelgrass beds) of Fiddler's Cove, bordering intertidal mud- and sand flats, and surrounding shoreline areas. The adjacent area of South Delta Beach is an important nesting site for California least terns and western snowy plovers. South Delta Beach would not be affected by the proposed action. Fiddler's Cove is subject to relatively heavy use by marine birds, including the California brown pelican, which forages and rests on the open waters and shorelines, in addition to resting on man-made structures.*

*The project would temporarily impact relatively small areas of shallow water, intertidal, and shoreline habitat during construction of the new facilities. Construction would result in a net increase of about 0.85 acre of man-made hard substrate on the water surface and/or sandbottom areas. Construction activities would require about 6 weeks in each of the four locations (new brow, floating dock, boat ramp, and wave attenuator), and about 3 months for the RV park expansion. Construction activities may temporarily displace marine biota (invertebrates, fishes, and resting or foraging water birds) or cause them to avoid the local areas of construction. However, due to the short duration of construction activities and the availability of similar habitats in surrounding waters and shorelines, such displacement would not significantly affect marine species. In-water construction would not occur during the spring/summer breeding season of the California least tern or western snowy plover, and noise from land-based construction would be consistent with the terms of the California least tern Memorandum of Understanding between the Department of Navy and the U.S. Fish and Wildlife Service.*

*The net addition of less than one acre of hard substrate to Fiddler's Cove, and a relatively small increase in the level of recreational use, would not adversely affect the productivity of marine resources or their utilization. Marine birds are expected to continue to heavily use the area and would rest/perch on the new in-water structures. Eelgrass is not known to be currently present in affected areas, and any impacts on eelgrass would be very small in area (a few square feet). Pre- and post-construction eelgrass surveys will be conducted prior to any in-water construction activities. If the post-construction eelgrass survey indicates eelgrass has been impacted by construction activities, banked credits from the DoN* [i.e., Navy] *Eelgrass Mitigation Bank (Draft) South and South Central San Diego Bay sites will be used to offset those impacts. Removing the existing seawall and placing the new retaining wall above the +7.8 feet (2.4 m) MLLW line would create approximately 5,300 square feet (500 square meters) of intertidal habitat. In addition, the existing floating-tire wave attenuator is in a rapid state of decay; replacing the existing system with a new concrete floating wave attenuator would prevent debris from the current system from entering into the San Diego Bay.*

The U.S. Fish and Wildlife Service disagrees with the Navy's determination of minimal impact. The Fish and Wildlife Service has written several letters on military pier projects over the past year expressing concerns over the cumulative loss of foraging space for least terns and snowy plovers and requesting 1:1 mitigation for any new bay areas being shaded/covered by piers and other Navy structures. For this project, the Fish and Wildlife Service states (Exhibit 6):

*A total of 1.01 acre of new structures covering the surface area of the bay will result from the proposed project t [i.e., dock expansion (+0.9 acre), boat ramp replacement (+0.02 acre), wave attenuator (+0.09 acre], while a total of 0.16 acre of structures covering the bay will be removed [i.e., fixed pier replacement (-0.04 acre), seawall replacement ((-0.12 acre)].*

> *The Service's major concern with the proposed action is increased coverage of San Diego Bay. The proposed project will result in permanent net loss of 0.85 acre of San Diego Bay surface area and foraging habitat that can be utilized by the California least tern* (Sterna antillarum browni) *and brown pelican* (Pelecanus occidentalis californicus), *which are species that have been listed by the Service and the State of California as endangered. The project would restrict foraging opportunities for these birds because least terns and brown pelicans must be able to see their prey to successfully capture it. The Service is concerned that no mitigation is proposed to offset the increased coverage of the bay's surface and impacts to these sight-foraging marine birds. Least terns and brown pelicans are known to forage in Fiddler's Cove. The least tern nesting colony at South Delta Beach is immediately adjacent and north of Fiddler's Cove. Fiddler's Cove is one of the most heavily used areas by the brown pelican, which roosts on the existing wave attenuator.*
>
> *Due to the cumulative loss of surface area in San Diego Bay, the Service has consistently recommended in recent years that impacts to bay surface area be mitigated at a minimum 1:1 ratio. Mitigation to offset loss of foraging area for marine birds may include removal of existing structures that cover San Diego Bay, creation of open water through removal of fill within San Diego Bay, or shallowing-up deep water portions of San Diego Bay to create shallow subtidal habitat. ...[A]t least 0.85 acre of additional mitigation area should be provided to offset the new area of foraging habitat lost. Furthermore, new water covering structures should not be installed until mitigation is proposed.*

The California Department of Fish and Game echoes the Fish and Wildlife Service's concern, stating:

> *Although the coverage of bay surface area habitat associated with this project may seem small, it is of concern to the Department because of cumulative impacts from these kinds of activities. The San Diego Bay Integrated Natural Resources Management Plan (2000) cites 131 acres of San Diego bay habitat covered by docks, piers and wharves (without ships and boats). As cited in the final Environment Impact Statement for the Navy's Pier 10/11 Replacement Pier and Dredging Project (2001), Navy projects have reduced bay coverage in San Diego by approximately 10 acres. ...*
>
> *We believe the project proponent should address the impacts of additional bay surface area coverage and investigate opportunities to replace the lost foraging habitat. For example, the project proponent could remove obsolete docks/structures elsewhere in the area to expose additional bay habitat. ... Additional eelgrass could be planted to offset impacts as well.*

The Navy is willing to offset any eelgrass impacts, and schedule the project to avoid the least tern nesting season, but the Navy does not believes the "loss of foraging area" impacts warrant mitigation. The Navy states:

***Tern Foraging and Surface Area Loss Fact Sheet***

*The Fish and Wildlife Service (FWS) has requested mitigation for bay surface area coverage to offset the loss of available forage area for the federally endangered California least tern. Although the FWS has not requested formal consultation under Section seven of the Endangered Species Act (ESA), they are citing "cumulative impacts" as their justification for requesting mitigation. By not requesting formal consultation the FWS is essentially saying they don't believe there is a "may effect" under ESA but also state the have a long standing tradition of "concern" over the continued loss of forage habitat in the bay. Other than personal opinion, the FWS has failed to offer any data supporting concerns that the surface area loss is adversely affects terns. Navy data below illustrates that in the past 10 years tern nests and fledglings have increased during a period of extensive construction activities in the bay:*

1. *San Diego Bay has a* ***surface area of 12,440 acres*** *comprised of the following habitats*
   a. *Deep Subtidal (>20 ft) – 4,443 acres*
   b. *Moderately Deep Subtidal (-12 to –20 ft) – 2,219*
   c. *Shallow Subtidal (-2.2 to –12) – 3,213 acres*
   d. *Vegetated Shallow /Moderately Deep Subtidal – 1,586 acres*
   e. *Intertidal (+2 to -2.2) – 979 acres*

2. *There has been a net* ***increase of 5.49 acres*** *of surface area coverage in the bay since 1994 (-10.16 acres Navy and +4.67 acres Port). The increase constitutes a* ***.044% loss*** *of all the surface area of the bay.*

3. *Tern foraging studies from Baird 1997 and Merkel 2003 have shown that terns* ***forage throughout the bay and ocean*** *and are not geographically dependant on any specific bathymetry or habitat. The studies found that terns are opportunistic feeders and will forage wherever the schooling fish such as top smelt and anchovies are found.*

4. *The 5-year fisheries study by Allen 2000 concluded that the primary schooling forage species (topsmelt, anchovy and sardine)* ***occur in all the ecoregions*** *(north, north central, south central and south) of the bay and in all of the bathymetric regimes (deep, deep subtidal, shallow subtidal, vegetated deep and shallow subtidal and intertidal) during the spring/summer forage season. This is consistent with the findings from Baird and Merkel.*

5. *Navy tern monitoring data from 1993 to 2003 has shown a total* ***increase of 695% of nests*** *Navy-wide in San Diego Bay (331% at NASNI MAT, 224% at NAB Delta North, 2700% at NAB Delta South and 62,300% at NAB Ocean). The data also shows an average* ***increase 75% of fledglings*** *in San Diego Bay.*

> *Based on the data above, there is no evidence that the existing* ***.044% increase*** *of surface coverage has had any effect (adverse or otherwise) on tern breeding success in San Diego Bay. Therefore there is no "may effect" or "cumulative" effect on terns with regards this project or any future Navy project in San Diego Bay and no mitigation should be offered.* [Above emphases in original]

Information contained in the area's Integrated Natural Resources Management Plans (INRMP)[1] (Naval Base Coronado, (May 2002) and San Diego Bay (2000)), could be viewed as supporting either the Navy's or the Fish and Wildlife Service's positions. The two INRMPs document the substantial progress the Navy has made in consultation with the Fish and Wildlife Service in increasing least tern and snowy plover populations and nesting success. However they also indicate that "Dock and pier shading may also influence the ability of terns to forage." For an overview of management concerns for least terns, the Naval Base Coronado INRMP states:

- ***Management Concerns- California Least Tern***

*The San Diego Bay INRMP (USDoN SWDIV 2000) summarizes several specific management concerns for the California least tern in the Bay area, many of which remain relevant to the NBC coastal properties under this INRMP:*

- *The California least tern is a species so critically imperiled that populations are not self-sustaining without ongoing intensive management.*

- *The loss of good roosting platforms may have impacted tern foraging. The proximity of roosting to foraging areas is important for saving the California least tern's energy between feeding bouts, thus allowing them to bring more energy to chicks (Baird 1997). Dock and pier shading may also influence the ability of terns to forage.* [Emphasis added]

- *There is a strong relationship between endangered species success and predator management. While there are differences among sites, predator management has at times been inconsistent from site to site, with the variation primarily related to different contracting agencies, their mandates and responsibilities, and individual biologist experience or opinion. The lack of consistency and predictability of labor needed for predator management from year to year has made it difficult to keep experienced workers on hand for maximum effectiveness at tackling a challenging task.*

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1 An INRMP is a five-year, ecosystem-based plan that the Navy (or in the case of the San Diego Bay INRMP, the Navy and the Port of San Diego) developed in cooperation with and with the concurrence of the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), and the National Marine Fisheries Service (NMFS, or NOAA Fisheries). The documents reflect the mutual agreement of all parties.

- *Intensive management of the California least tern has proven effective in increasing its population and in securing terrestrial habitats around the Bay where other species also benefit, including western snowy plovers and horned larks. However, land managers practicing successful predator management have supported progressively more of the populations of sensitive species and are then held to more restrictive use due to the success of their programs. Good management should not be punitive.* [Emphasis added]

The INRMP also states:

> *The U.S. Navy has undertaken substantial effort to mitigate for impacts and protect the endangered California least tern over the years ...* [including:]
>
> *... consultation [in 1980] culminated in a 5 March 1980 USFWS BO* [Biological Opinion] *that required the U.S. Navy to create 30 acres of alternate California least tern nesting habitat on the NAS North Island airfield.*
>
> *... consultation [in 1983] resulted in a 2 March 1983 USFWS BO and a 1984 MOU between the USFWS and the US Navy to provide for the setaside, fencing, and management of 75 acres at NAB Coronado's Delta Beach as a California Least Tern Preserve .*
>
> *The preserve at Delta Beach was fenced in an attempt to alleviate or at least minimize predator and human-related problems. This exclosure fence has been key to high reproductive success for least terns there. Predator control is annually conducted by USDA-APHIS. The predator control program is required to identify mammalian and avian predators and develop methods to trap, eliminate, or relocate predators. The U.S. Navy's California least tern management program on the preserve is aggressive and consistently funded, with the result that NAB Coronado has shouldered a growing share of the responsibility for the California least tern's reproductive success in the San Diego Bay/Southern California.*
>
> *In 1987, a five year programmatic "in-water construction" MOU between the U.S. Navy and USFWS provided for an additional ten acres of tern nesting area at NAB Coronado's South Delta Beach, as well as an additional 3–5 acres of California least tern foraging habitat, the removal of overhead power lines at Delta Beach, predator control efforts for tern colonies, studies to determine effects of various in-water construction activities, end of year reports on tern population monitoring studies, and a list of proposed U.S. Navy projects to be conducted in San Diego Bay. In exchange, ongoing maintenance and new construction activities could be conducted by the U.S. Navy in San Diego Bay without the need for formal consultation with USFWS on each action as long as California least tern foraging areas were not affected. The U.S. Navy agreed to provide an annual funding source of $250,000 for management and monitoring of the California least tern in the San Diego Bay region, as well as a one-time funding source of $500,000 to be used in the creation of additional tern foraging or nesting habitat. In addition, the U.S. Navy agreed to provide a permanent position*

*within the U.S. Navy to oversee the implementation of the MOU. The 1987 MOU was updated in 1993 (Appendix B) and provided for annual funding of $250,000 by the U.S. Navy to continue California least tern management and predator control efforts. The MOU is currently being revised.*

*The MOU between the U.S. Navy and USFWS has been vital to providing funding consistency up front, rather than depending on project-by-project funding (Section 5.3 Beneficial Partnerships and Cooperative Agreements). It also has been vital to providing personnel consistency by establishing a permanent, fulltime natural resource position at SWDIV in 1988 to manage the tern conservation program and coordinate with USFWS on U.S. Navy projects that may affect the tern. Another pivotal element to the U.S. Navy's program is the retention of a tern expert since 1988 who has overseen the monitoring of individual nesting sites and prepared annual reports on the breeding success of the tern colonies on Naval properties. This implementation of an objective, scientific, long-term monitoring program has provided critical information essential to developing prudent management strategies in San Diego Bay. Predator management has been carried out under a Cooperative Agreement with the USDA-APHIS Wildlife Services since March 1988. This arrangement allows Wildlife Services to keep more experienced personnel available, as well as provide for effective management by providing adequate lead and follow-up to tern season. In exchange for enhanced and proactive predator management, the U.S. Navy received some flexibility in timing of in-water construction that could affect the success of California least tern foraging.*

*Nesting sites at NAS North Island and NAB Coronado have also experienced increases in the number of fledglings produced in recent years. Intensive management has resulted in high reproductive success rates for U.S. Navy lands compared to other locations around San Diego Bay (Figure 3-11*[Exhibit 5]*). In 2000, 87% of all fledglings produced around San Diego Bay were on U.S. Navy lands, as were 11% of all fledglings in the state of California.*

The San Diego Bay INRMP acknowledges the Navy's point that piers can provide foraging benefits for least terns, but it also points out the difficulty in quantifying this benefit. This INRMP states:

*Some structures have positive value because they are often used as roosting sites for waterbirds to conserve energy and avoid harsh weather conditions. Floating docks in shallow water are used by roosting and foraging waterbirds (e.g. brown pelicans, cormorants, and gulls) because the sites are relatively undisturbed by human activity (US Department of the Navy 1995). Structures are also substrate for a diverse community of marine organisms that appear to attract schooling fish, foraging terns, and other waterbirds (Ogden 1994; US Department of the Navy1994).*

*All of the man-made structures can support a wealth of invertebrates and seaweeds, including many of the exotic species that have invaded the Bay. However, little scientific information is apparently available on the distributions of these various types*

> *of hard substrata and the biotic communities that they support within the Bay (S. Murray, California State University-Fullerton, pers. comm.).*

Finally, in reporting on a Navy study of the shading/foraging relationship, the San Diego Bay INRMP states:

> *A preliminary study funded by the Navy on wharf shading impacts is in progress (Merkel and Associates 1999). The purpose of the study is to characterize biological communities along an environmental gradient of shading under pile-supported structures, to determine if shading might affect the forage base for fish. The results provided evidence that shaded areas beneath structures continued to support an infaunal community. A numerically greater number of organisms was found under the piers than outside them. The pile community was not as rich as that along pier edges; however a developed pile community existed in all areas. Fish communities were poorly represented in the study, probably due to the sampling season, so no conclusions were reached with respect to differences in their abundance along the shade gradient.*

Historically, absent eelgrass impacts, the Commission has not previously required mitigation for shading or loss of foraging area from small to mid-sized Navy (or other agency) piers, either from additional bay coverage or shading impacts, or from the fill represented by new pilings. The proposed project represents only a small (1.5%) increase in coverage at Fiddler's Cove (Exhibit 7). Looking cumulatively, with a total surface area of San Diego Bay of 12,440 acres, in the past 10 years the Navy has covered approximately 10 acres (approximately 0.08% [>1/12 of 1%] of the Bay). Given the information available at this time, the Commission finds no data-driven biological basis for determining that this impact is significant. Hypothetically, if the coverage trend were to continue, at some point the impact would be significant (e.g., if the Navy continued at the rate of the last 10 years for the next century, it would cover 100 acres, or about 0.8% of the Bay).

Given the lack of convincing data at this time to support mitigating the aerial impact, but acknowledging that the cumulative losses are a reasonable concern, the Commission finds that the proposed project is not the appropriate vehicle to trigger a shift in policy. Therefore, while the Commission shares the U.S. Fish and Wildlife Service's (and Department of Fish and Game's) concern, which is primarily expressed in terms of cumulative impacts, in light of the fact that this Fiddler's Cove Marina project includes creation of additional intertidal habitat and in any event represents only a 1.5% increase in coverage at Fiddlers Cove, the Commission believes the facts in this case do not warrant imposition of additional mitigation requirements. At the same time the Commission wishes to put the Navy on notice that the concern remains valid and that this issue may be revisited for future Navy pier proposals.

In conclusion, because the Navy will mitigate any eelgrass impacts, the project will avoid in-water construction during the least tern and snowy plover nesting seasons, avoid noise impacts that could affect these species, minimize water quality impacts (see following section), and result in a net increase in intertidal estuarine habitat, the Commission finds that the Navy has provided adequate mitigation for any adverse marine resources and environmentally sensitive

habitat. The Commission concludes that the project is consistent with the requirements of Sections 30230, 30233, and 30240 of the Coastal Act.

**B. Water Quality.** Section 30231 of the Coastal Act provides:

*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, [and] controlling runoff....*

Section 30232 provides

*Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

Addressing water quality concerns, the Navy states:

*Discharges of storm water at the Fiddler's Cove Marina will be regulated under pending National Pollutant Discharge Elimination System (NPDES) permit # CAG 999001 (Coastal Marina Permit- San Diego Basin). Stormwater pollution prevention plans (SWPPP) are designed to minimize water quality degradation through establishment of site-specific best management practices (BMPs), implementation of standard erosion control measures, and implementation of spill prevention and containment measures. Measures in the SWPPP would minimize potential impacts on surface water quality from pollutant inputs and any residual impacts would not be significant.*

*BMPs may include but are not limited to the following:*

- *Constructing berms and, if needed, covering sand/gravel stock piles to prevent erosion and offsite transport by stormwater runoff;*
- *Covering storm drain catch basins within the construction area to prevent sediments and debris from collecting in the basins;*
- *Sweeping and disposing soils from the work area to prevent offsite transport and/or runoff into storm drains and the Bay;*
- *Implementing measures to prevent runoff into the Bay of any debris from cutting, grinding, or welding;*

- *Placing drip pans under mechanical equipment to catch leaks (e.g., fuels and hydraulic fluids); and*

- *Properly storing or disposing all materials with potential for polluting stormwater runoff.*

In response to the Commission staff's request for BMP's for the RV parking lot, the Navy states it will implement the following requirements:

- *Vehicle washing is not permitted on the premises;*

- *Runoff of any kind is not permitted;*

- *Trash receptacles are located throughout the park to reduce litter;*

- *Maintenance crew uses sweeping and blowing equipment when needed versus washing with water;*

- *Dog waste bag stations are located throughout the park to reduce pet waste contamination;*

- *Facility operates a Haz-waste collection site free of charge to all customers to prevent improper disposal;*

- *Vehicle maintenance is not permitted within the park; and*

- *Inspections of the park are conducted at least twice a day to ensure compliance.*

Concerning spill protection, the Navy states:

> *[The Navy] ...has a comprehensive spill prevention and response program. As part of this program the following oil and hazardous substances prevention and response plans have been developed: Spill Prevention, Control, and Countermeasures Plan; Hazardous Materials Response Plans; and Facility Response Plan. The Fiddler's Cove Marina project would be included in these plans.*
>
> *No hazardous substances would be released or generated during construction.*

At the Commission staff's request, the Navy has also committed to providing the BMPs and Storm Water Pollution Prevention Plan to the Commission staff for its review, prior to commencement of construction. With the Navy's commitments to implement and allow Commission staff review of the BMPs and spill prevention plans to minimize water quality

impacts, the Commission finds that the project's water quality impacts will be minimized and that the project is consistent with the water quality and oil spill prevention policies (Sections 30231 and 30232) of the Coastal Act.

**C. Public Access.** Section 30210 of the Coastal Act provides:

*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 safety needs and the need to protect public rights, rights of private property public owners, and natural resource areas from overuse.*

Section 30212 provides in part:

*(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:*

*(1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources....*

Sections 30220-30222 provide, where such lands are suitable, for preserving and protecting coastal and oceanfront land for water-oriented recreational activities. Section 30224 provides:

*Increased recreational boating use of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launching facilities, providing additional berthing space in existing harbors, limited non-water dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected waters areas, and in areas dredged from dry land.*

The Navy maintains that the project is consistent with the public access and recreation policies of the Coastal Act, stating:

*The proposed action is located at NAB Coronado, and access is restricted to active duty and retired U.S. military personnel, active drilling reservists, DoD employees, and their families only. The proposed action would not interfere with the public's right of access to the sea.*

*The proposed action is located at NAB Coronado in an area not open to the general public for reasons of national security. Public access to the shoreline is available at the nearby Silver Strand State Beach. Therefore, the proposed action is consistent with this policy.*

*The proposed action is located at NAB Coronado, and is designed to enhance and expand existing water-oriented recreational functions of the Fiddler's Cove Marina. As discussed under Section 30210 above, the proposed action is located in an area restricted to water-oriented recreational use by active duty and retired U.S. military personnel, active drilling reservists, DoD employees, and their families only. The proposed action would not affect other coastal areas used for public recreational activities. Public recreational areas are located at the adjacent Silver Strand State Beach, which features extensive beaches on both the Pacific Ocean and San Diego Bay. Nearby public recreational activities include camping, swimming, surfing, boating, water-skiing, volleyball, picnicking, biking, jogging and walking.*

*The proposed action is located at NAB Coronado. As discussed under Section 30210 above, the proposed action is located in an area restricted to use by active duty and retired U.S. military personnel, active drilling reservists, DoD employees, and their families only. No aspect of the proposed action would affect upland areas suitable for public recreational uses.*

*The proposed action would encourage increased recreational boating use of coastal waters by U.S. military personnel, DoD employees, and their families by repairing deteriorated marina facilities at Fiddler's Cove and expanding existing water-oriented recreational functions of the marina.*

The Commission agrees and finds that project will not affect public access, because the shoreline adjacent to the site and waters immediately offshore in San Diego Bay are not now publicly accessible due to military security needs, and due to the lack of burdens on public access generated by the project. The Commission therefore concludes that the project is consistent with the public access (Sections 30210-30212) and recreation (Sections 30220-30224) policies of the Coastal Act.

**D. Visual Resources.** Section 30251 of the Coastal Act provides in part:

*The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.*

The Navy states:

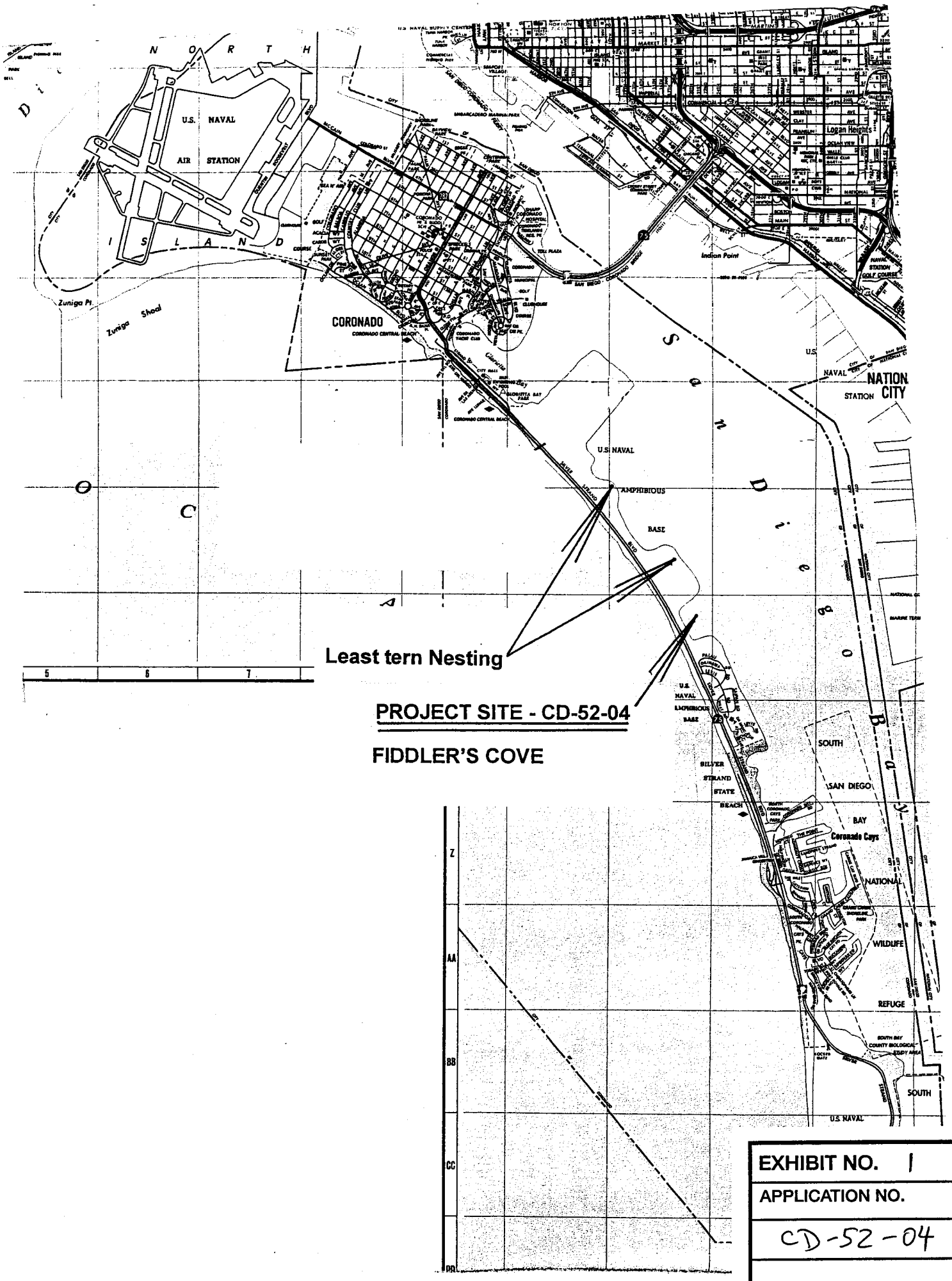
*The Fiddler's Cove Marina is in an area designated for marine-related recreation. The viewscape from the project area across San Diego Bay is of Naval Station San Diego and maritime related industrial facilities and the general San Diego skyline. Repair of the Fiddler's Cove Marina facility will not change the visual character of the area. No scenic vistas would be obstructed by the marina improvements.*

> *the Fiddler's Cove Marina facility will not change the visual character of the area. No scenic vistas would be obstructed by the marina improvements.*
>
> *The proposed action involves the repair and replacement of existing deteriorating marina facilities. The existing RV park would be expanded eastward to provide additional campsites with utility hook-ups, a comfort station/washroom facility, and a picnic area. The expansion area is contiguous with the existing RV park (see* ...[Exhibit 3 – south side of the cove]), *and is currently degraded, heavily disturbed by vehicle use, and essentially devoid of vegetation. The RV park expansion would thus be in compliance with this policy.*

The Commission agrees with the Navy's conclusion that the project will not adversely affect public views, will be similar to the existing uses at the site, and will be visually compatible with the character of the surrounding area. The Commission therefore finds the project consistent with the view protection policy (Section 30251) of the Coastal Act.

## IV. SUBSTANTIVE FILE DOCUMENTS:

1. CD-15-81 (U.S. Navy, NAB Master Plan)
2. CD-92-92 (U.S. Navy, Seawall, Fiddler's Cove)
3. CD-88-96 (U.S. Navy, Waterfront Operations Facility)
4. CD-31-01 (U.S. Navy, Replacement Pier for Piers 10 and 11, Naval Station San Diego)
5. CD-66-04 (U.S. Navy, NAB Lightering Improvements)
6. San Diego Bay Integrated Natural Resources Management Plan (2000)
7. Naval Base Coronado Integrated Natural Resources Management Plan (May 2002)




| EXHIBIT NO. 1 |
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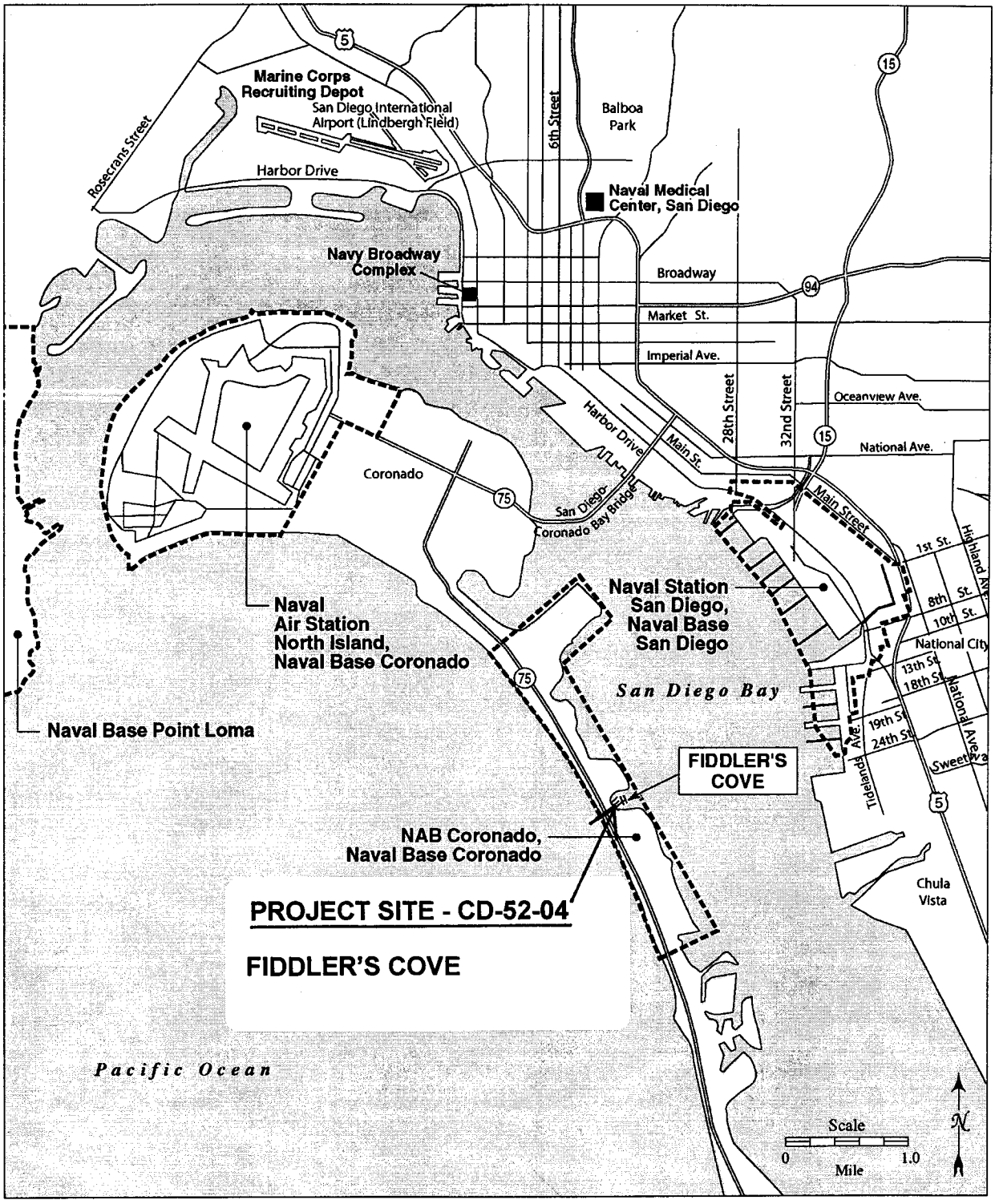


Figure1. Regional Location of Fiddler's Cove Marina

| EXHIBIT NO. 2 |
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| APPLICATION NO. |
| CD-52-04 |
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Figure 2.

**Proposed Fiddler's Cove Marina Improvements**

Figure2. Proposed Fiddler's Cove Marina Improvements



EXHIBIT NO. 3
APPLICATION NO.
CD-52-04

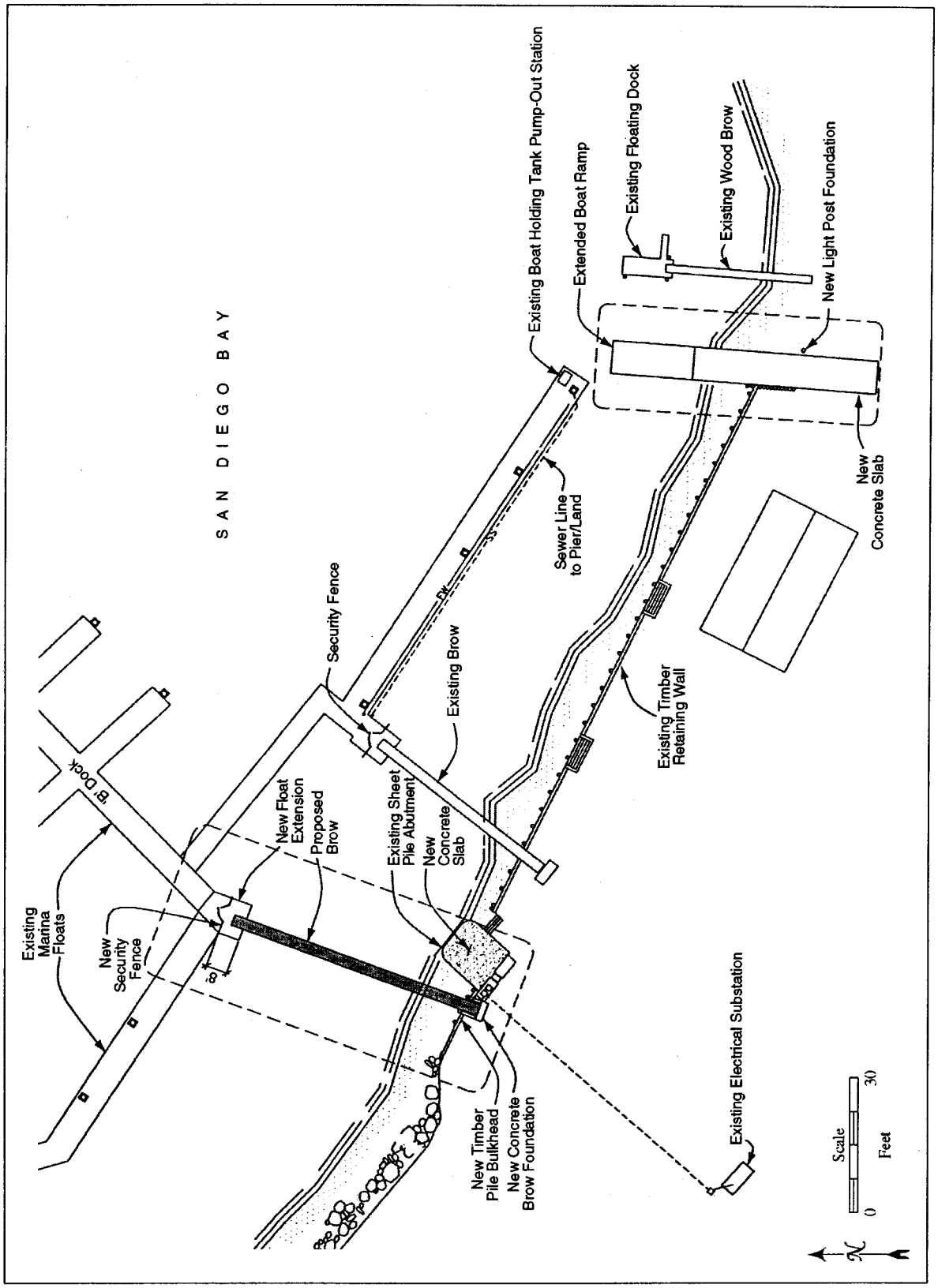


**Figure3. Details of Proposed Brow Construction and Boat Ramp Exte**

| EXHIBIT NO. 4 |
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| APPLICATION NO. |
| CD-52-04 |
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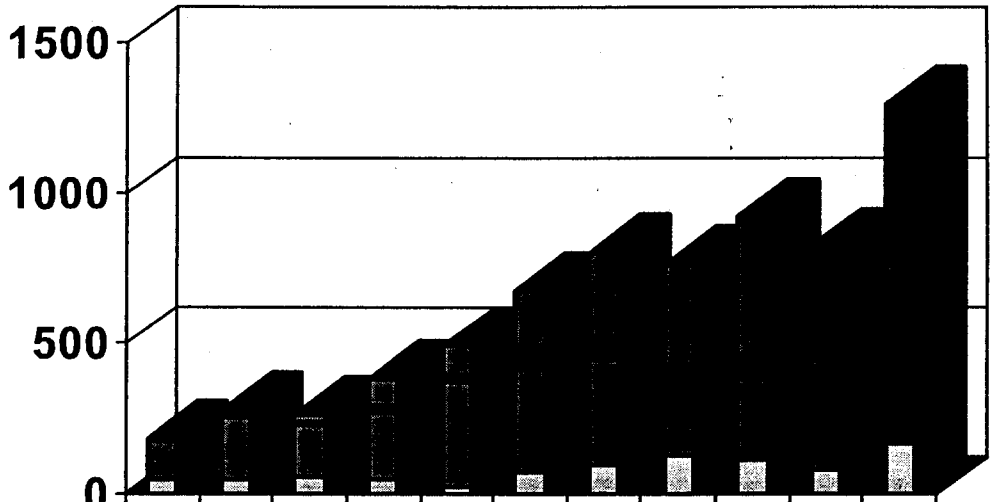
# Naval Base Coronado
# California Least Tern Nesting Data

## Tern Nests at NBC as of 31 Jul 03

Since 1977 Tern Nests have increased 9,885%

Data from Reports provided by E. Copper




| | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NAB OCEAN SIDE BEACHES | 0 | 1 | 31 | 84 | 91 | 182 | 278 | 330 | 462 | 401 | 623 |
| NAB DELTA BEACH SOUTH | 8 | 18 | 1 | 21 | 25 | 80 | 80 | 71 | 81 | 84 | 217 |
| NAB DELTA BEACH NORTH | 127 | 210 | 177 | 224 | 349 | 337 | 344 | 229 | 271 | 257 | 285 |
| NASNI RUNWAY 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| NASNI MAT SITE (1977 = 13) | 52 | 51 | 60 | 53 | 27 | 77 | 102 | 133 | 113 | 83 | 170 |
| ***TOTAL*** | ***187*** | ***280*** | ***269*** | ***382*** | ***492*** | ***676*** | ***804*** | ***763*** | ***927*** | ***825*** | ***1,298*** |

DoN 2003B

EXHIBIT NO. 5
APPLICATION NO. CD-52-04

**Figure 3.5-3. Naval Base Coronado California Least Tern Nesting Data**

Additional nesting habitat occurs at NRRF; however, no California least tern nests have been recorded there. California least terns forage on U.S. Navy property at NOLF IB, but the nesting area is owned by CDPR. USFWS also owns some nesting area in fee title. It is possible that the U.S. Navy also owns some nesting habitat, but this has not been examined in the context of revised NOLF IB boundary lines that vary from that described in the MOU (Collins, *pers. comm.*).

Nesting sites at NAS North Island and NAB Coronado have also experienced increases in the number of fledglings produced in recent years. Intensive management has resulted in high reproductive success rates for U.S. Navy lands compared to other locations around San Diego Bay (Figure 3-11). In 2000, 87% of all fledglings produced around San Diego Bay were on U.S. Navy lands, as were 11% of all fledglings in the state of California.

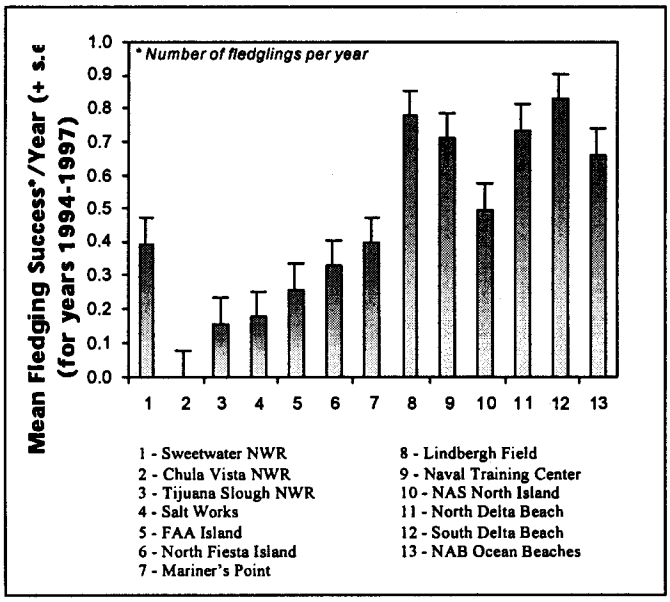



*Figure 3-11. Mean annual fledging success for California least tern nesting sites in San Diego Bay and vicinity, 1994-1997. Fledging success is defined as number of fledges per nest, averaged over the years 1994-1997.*

Due to an increase in California least tern nesting on NAB Coronado ocean-side training beaches in 1996 (84 nests) and 1997 (91 nests), a request for change in management strategy was sent to the USFWS asking approval to reduce the size of the coned off nesting area from over 1200 yards of beach in 1996 to a 500-yard section of Green 2 training beach during the 1997 breeding season. A request was also made to grant a take permit for up to 10 California least tern nests during the 1997-breeding season. USFWS BO 1-6-99-F-37 was issued concurring this change in management strategy and granting the requested take permit. Nests in 1998 were at an all time high, 337 nests at North Delta beach, 80 nests at South Delta beach, and 184 nests on the ocean-side operational training beaches. This BO was reinitiated and extended in 2000 and 2001.

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, California 92009

In Reply Refer To:
FWS-SDG-4032.1

JUN 0 3 2004

Ms. Jo Ellen Anderson
Planning Business Line Team Leader
Department of the Navy, Southwest Division
Naval Facilities Engineering Command
2585 Callagan Hwy, BLDG 99
San Diego, California 92136-5198

Attn: Ms. Christine Tuttle

Re: Revised Administrative Draft Environmental Assessment for the Fiddler's Cove Marina Repairs and Improvement Project

Dear Ms. Anderson:

The U.S. Fish and Wildlife Service (Service) has reviewed the U.S. Department of the Navy's (Navy) Environmental Assessment (EA), dated November 2003, for the Fiddler's Cove Marina Repairs and Improvements Project. Carolyn Lieberman of my staff in a April 26, 2004, telephone call to Ms. Christine Tuttle requested additional time to prepare comments on the EA. Ms. Tuttle advised the Service that the Navy would accept comments from the Service by June 3, 2004. The Service thanks the Navy for the time extension.

The Navy proposes to restore serviceability to deteriorated marina facilities at the existing Fiddler's Cove Marina in San Diego Bay, Naval Amphibious Base Coronado, San Diego, California. The proposal includes the following project components: (1) demolition of an existing fixed pier and construction of a new aluminum brow to provide pedestrian and utility access to the marina; (2) construction of a new dock headwalk and associated finger piers to expand dock capacity for 30 additional boat slips; (3) demolition of the existing boat ramp and construction of a new boat ramp that extends an additional 40 feet in length; (4) expansion and repair of the existing RV park; (5) demolition of the existing seawall and construction of a retaining wall located above the +7.8 feet mean lower low water (MLLW) line; and (6) demolition and replacement of the existing floating-tire attenuator with a concrete floating wave attenuator. A total of 1.01 acre of new structures covering the surface area of the bay will result from the proposed project [i.e., dock expansion (+0.9 acre), boat ramp replacement (+0.02 acre), wave attenuator replacement (+0.09 acre)], while a total 0.16 acre of structures covering the bay will be removed [i.e., fixed pier replacement (-0.04 acre), seawall replacement (-0.12 acre)].



| EXHIBIT NO. 6 |
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| APPLICATION NO. |
| CD-52-04 |

The Service's major concern with the proposed action is increased coverage of San Diego Bay. The proposed project will result in permanent net loss of 0.85 acre of San Diego Bay surface area and foraging habitat that can be utilized by the California least tern (*Sterna antillarum browni*, least tern) and the brown pelican (*Pelecanus occidentalis californicus*), which are species that have been listed by the Service and the State of California as endangered. The project would restrict foraging opportunities for these birds because least terns and brown pelicans must be able to see their prey to successfully capture it. The Service is concerned that no mitigation is proposed to offset the increased coverage of the bay's surface and impacts to these sight-foraging marine birds. Least terns and brown pelicans are known to forage in Fiddler's Cove. The least tern nesting colony at South Delta Beach is immediately adjacent and north of Fiddler's Cove. Fiddler's Cove is one of the most heavily used areas by the brown pelican, which roosts on the existing wave attenuator.

Due to the cumulative loss of surface area in San Diego Bay, the Service has consistently recommended in recent years that impacts to bay surface area be mitigated at a minimum 1:1 ratio. Mitigation to offset loss of foraging area for marine birds may include removal of existing structures that cover San Diego Bay, creation of open water through removal of fill within San Diego Bay, or shallowing-up deep water portions of San Diego Bay to create shallow subtidal habitat. For instance, the creation of the 0.12 acre of intertidal habitat from the replacement of the seawall and the 0.04-acre reduction in bay coverage from replacement of the fixed pier partially offsets or mitigates the proposed 1.01-acre of new coverage of bay waters from the project. However, at least 0.85 acre of additional mitigation area should be provided to offset the net area of foraging habitat lost. Furthermore, new water covering structures should not be installed until mitigation is provided.

The Service appreciates the opportunity to comment on the referenced EA. We look forward to your response to our comments and offer our assistance on this project. If you have any questions regarding this letter, please contact Carolyn Lieberman at (760) 431-9440 extension 240.

Sincerely,

Therese O'Rourke
Assistant Field Supervisor

cc:
U.S. Army Corps of Engineers, San Diego, CA
California Department of Fish and Game, San Diego, CA (Attn: Marilyn Fluharty)
National Marine Fisheries Service, Long Beach, CA (Attn: Bob Hoffman)

# FIDDLER'S COVE
# MARINA REPAIRS AND IMPROVEMENTS PROJECT

## SURFACE COVERAGE

The replacement of various in-water structures would result in the net addition of approximately 0.83 acre of man-made structures to the waters of Fiddler's Cove, including boats that would use the new floating dock. This represents a roughly 1.5 percent increase in structural surface area, which would shade existing shallow water habitat within Fiddler's Cove. Table 1 provides a breakdown of surface area losses and gains by project component, and the following bullets provide more project-specific information.

- *Fixed Pier Replacement*: The existing 2,313-square foot (0.05 acre) fixed pier would be demolished, and would be replaced with a new 425-square foot (0.01 acre) aluminum brow. This would decrease the surface area from man-made structures by 0.04 acres.

- *Floating Dock Expansion*: A new headwalk (Headwalk G) and associated finger piers would be constructed that could house up to 30 boat slips. This would add 0.09 acres surface area from man-made structures, when the new boat slips are filled to capacity.

- *Boat Ramp Extension*: The portion of the boat ramp that extends above the surface of the water would be replaced with a new ramp of similar design. The change in surface coverage would be negligible.

- *Wave Attenuator Replacement*: The existing floating-tire attenuator would be replaced with a concrete floating attenuator. The surface area of the new attenuator would be slightly larger than the existing system, as shown in Table 1.

- *Seawall Replacement*: The existing 330-foot deteriorated seawall would be removed, and a new retaining wall would be built above the +7.8 feet mean lower low water (MLLW) line. This would create an estimated 0.12 acres of intertidal habitat.

- *RV Park Expansion*: The RV Park expansion would not affect the waters of Fiddler's Cove.

| EXHIBIT NO. 7 |
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| APPLICATION NO. |
| CD-52-04 |
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**Table 1. Effects of Project Components on Surface Area in Fiddler's Cove**

| *Project Component* | *Existing In-Water Surface Area* | *Proposed In-Water Surface Area* | *Net Change* |
|---|---|---|---|
| Fixed Pier Replacement | 0.05 acre | 0.01 acre | -0.04 acre |
| Floating Dock Addition | ~6.0 acres (including boats) | ~6.9 acres (including boats) | +0.9 acre |
| Boat Ramp Replacement | - | - | - |
| Wave Attenuator Replacement | 0.14 acre | 0.23 acre | +0.09 acre |
| Seawall Replacement | 0.12 acre | - | -0.12 acre |
| RV Park Expansion & Repair | - | - | - |
| **Totals** | **6.31 acres** | **7.14 acres** | **+0.83 acre** |

*Note this table represents a slightly revised version of Table 4.5-1 from the Revised Admin Draft EA (November 2003) in order to clarify new surface area coverage from new permanent fill.

## PERMANENT FILL

Table 2 provides a breakdown of proposed fill by project component, and the following bullets provide more project-specific information.

- *Fixed Pier Replacement*: Eight square concrete piles and an unknown number of creosote-treated timber piles (some of which do not extend above the water line) associated with the existing fixed pier would be removed, and up to 6 new piles would be installed during construction of the new aluminum brow. Although the dimension of the new piles is unknown at this time, it is expected that their combined dimension would be less than the combined dimension of the concrete and timber piles to be removed. However, because this is a design-build project, the net change in fill cannot be determined accurately.

- *Floating Dock Expansion*: Approximately 10 boat mooring blocks (each measuring 4 feet by 4 feet by 6 feet) would be removed for installation of the new headwalk and associated finger piers. Four to six new anchor piles would be installed during the construction of the new headwalk. Although the dimension of the new anchor piles is unknown at this time, it is expected that their combined dimension would be less than the combined dimension of the 10 mooring blocks to be removed. Additionally, 10 to 20 existing, deteriorating pier pilings that support the existing headwalks would be replaced with new pilings of similar dimensions. The net change in fill associated with the pilings is expected to be negligible. However, because this is a design-build project, the net change in fill cannot be determined accurately.

- *Boat Ramp Extension*: The boat ramp would be extended an additional 40 feet in length so that vessels can be launched at low tides. Dredging would remove an estimated 50 to 55 cubic yards of bottom sediments in the vicinity of the existing boat ramp. The existing boat

ramp covers about 0.02 acres of bay bottom, while the new boat ramp would cover approximately 0.04 acres of bay bottom. Therefore, the net change in permanent fill from the new boat ramp is 0.02 acres.

- *Wave Attenuator Replacement*: The concrete blocks currently in place for the old system would remain and by reutilized for mooring the new attenuation system. There would be no net change in fill.

- *Seawall Replacement*: The existing 330-foot deteriorated seawall would be removed, and a new retaining wall would be built above the +7.8 feet MLLW line. This would create an estimated 0.12 acres of intertidal habitat.

- *RV Park Expansion*: The RV Park expansion would not affect the waters of Fiddler's Cove.

**Table 2. Effects of Project Components on Permanent Fill in Fiddler's Cove**

| *Project Component* | *Net Change* |
|---|---|
| Fixed Pier Replacement | Negligible |
| Floating Dock Addition | Negligible |
| Boat Ramp Replacement | 0.02 |
| Wave Attenuator Replacement | - |
| Seawall Replacement | -0.12 acre |
| RV Park Expansion & Repair | - |
| **Totals** | **-0.10 acre** |