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STAFF REPORT AND RECOMMENDATION

ON CONSISTENCY CERTIFICATION

Consistency Certification No.	**CC-061-07**
Staff:	ST/MD-SF
File Date:	9/28/2007
3 Months:	12/28/2007
6 Months:	3/28/2008
Commission Meeting:	12/14/2007

APPLICANT: **Peter Dupuy, Ocean Pacific Seafood**

PROJECT LOCATION: Exclusive Economic Zone (EEZ), primarily 40 to 200 miles offshore of mainland California (Exhibit 1), and within 3 miles of San Nicolas Island and outside the southern California Bight (as depicted on Exhibit 2)

PROJECT DESCRIPTION: Exempted Fishing Permit (EFP) from the National Marine Fisheries Service (NMFS), which would authorize Mr. Dupuy to conduct longline fishing from September 15, 2008, through December 2008

SUBSTANTIVE FILE DOCUMENTS: See Page 42

EXECUTIVE SUMMARY

On August 10, 2007, the Commission unanimously objected to a National Marine Fisheries Service (NMFS)-submitted consistency determination (CD-041-07) for an Exempted Fishing Permit (EFP) that would authorize one vessel operator (Peter Dupuy, Ocean Pacific Seafood) to conduct shallow set longline (SSLL) fishing for swordfish in the exclusive economic zone (EEZ) off California (and up to central Oregon). Where a fishery is otherwise prohibited under an existing Fishery Management Plan, which is the case for SSLL within the EEZ for west coast fishermen, the fishery can only be conducted if NMFS approves an exempted fishing permit for it.

In its previous review the Commission advised NMFS and Mr. Dupuy that the proper procedural review mechanism was a consistency certification rather than a consistency determination, and that it should be submitted by the applicant for the EFP (i.e., Mr. Dupuy). In addition to expressing serious fundamental concerns over the activity in the proposed location and time period, the Commission also indicated that NMFS had not completed its environmental review and had not specified all the mitigation measures applicable to the activity.

NMFS is near completion of its review and analysis, and Mr. Dupuy has submitted the matter to the Commission in the proper form, a consistency certification, for the EFP (Exhibit 15). Because Mr. Dupuy relies heavily on NMFS' draft environmental analysis of the activity and its consistency with the Coastal Act, most of the discussion in this report is a Commission analysis of statements, data, analysis, and conclusions submitted by NMFS as contained in the Commission's previous findings on CD-041-07. Newer information received since the time of the Commission's previous action is discussed on pages 34-39 of this report. This discussion does not include analysis of NMFS' subsequent Final Environmental Assessment and Biological Opinion, because that information has not yet been submitted.

This permit would allow up to four fishing trips targeting swordfish, using up to 100-kilometer (km) long main lines, with hooks set at an approximately 40 meter depth, using 14 sets per trip, and with up to 1200 hooks per set, for a total of up to 67,200 hooks for the total effort. Assuming the same time period as previously submitted, the four trips would occur from September 15, 2008, through December 2008. The use of longline gear within the west coast EEZ is currently prohibited, although drift gill net fishing is allowed within the EEZ, subject to seasonal restrictions. NMFS states the purpose of the EFP is to assist NMFS in determining whether longline fishing, subject to gear restrictions and continuous monitoring, represents an economically and environmentally superior alternative to either drift gillnet or harpoon gear for swordfish fishing within the west coast EEZ.

Harpoon gear is a highly selective gear type and generates practically no bycatch (the unintended capture of non-target species). NMFS contends that expanding the harpoon fishery is impractical, but has not submitted any supporting data. Both drift gillnet and longline fishing create significant amounts of bycatch, including endangered marine mammals, sea turtles, and seabirds. NMFS is required to reduce bycatch and mortalities in all fisheries, and in this effort NMFS seeks information that would assist planning efforts for possible transitioning from drift gill net to longline fishing. Nevertheless significant bycatch concerns remain even for longline fishing; as stated above, the only practiced fishery for swordfish that avoids significant bycatch is harpoon fishing. NMFS has not submitted any supporting data establishing that longlines produce less bycatch in areas where both longline fishing and drift gill nets are used. In the absence of such data, the Commission staff compared bycatch generated by drift gill nets on the west coast with longlines in Hawaii. This comparison has serious limitations; however it is clear that different species are affected at different rates by the two fisheries. Marine mammals would appear to benefit from a switch to longlines, seabirds would not benefit and would instead be harmed, and impacts to sea turtles are unclear.

Multiple lawsuits have resulted in temporary shut downs of the longline fisheries on the east coast and in Hawaii due to sea turtle bycatch. In order to re-open those fisheries, NMFS tested and now requires new gear regulations designed to reduce the amount of sea turtle bycatch. The new regulations require the use of circle hooks and mackerel bait. Based on two and one-half years of data, the new regulations in Hawaii indicate that sea turtle takes (the harming, wounding, or killing of sea turtles) were significantly reduced (by 89% (Exhibit 10)). The proposed EFP would include all the measures that have been implemented in Hawaii, including 100% observer coverage. With these measures, NMFS believes the effects from this EFP would be minimal, and that the benefits from the information gained would outweigh its adverse effects.

However Mr. Dupuy is proposing the activity where longline fishing has not historically occurred, thus raising serious questions over the purported benefits of sea turtle take reduction (current leatherback sea turtle take is zero). In addition, the area for the EFP includes the Pacific Leatherback Conservation Area (Exhibits 1 & 4) an area specifically designated by NMFS to protect leatherbacks. Drift gillnet fishing is prohibited in this area from August 15-November 15, the time period of peak leatherback abundance. NMFS found this time and area closure was necessary to avoid the likelihood of the drift gillnet fishery jeopardizing the continued existence of leatherbacks. NMFS' Recovery Plan for the leatherback turtle further notes:

> *It has been suggested that roughly one-half the global population of adult females nests on the west coast of Mexico (Pritchard 1982a); if so, the waters off the west coast of the United States may represent some of the most important foraging habitat in the entire world for the leatherback turtle.*[1] [Emphasis added]

The Commission supports the fundamental concept of conducting further research to transition drift gillnet fishing to less damaging forms of fishing for swordfish. The primary issue, however, is whether the proposed EFP activity will further this effort, and whether it is proposed in the most appropriate location.

Since longline fishing is not allowed inside the west coast EEZ, no leatherbacks are currently being taken by longline in the EEZ. Moreover, the Pacific Leatherback Conservation Area has been so effective for the west coast drift gillnet fishery that zero leatherbacks have been taken since its inception in 2001. The proposed EFP would increase the incidental take of leatherbacks from the current amount of zero. Considering the highly endangered status of this species, even one mortality would represent a significant impact.

In its previous action, the Commission determined that information was lacking that would enable the Commission to determine the project's consistency with Section 30230. To

[1] National Marine Fisheries Service and US Fish and Wildlife Service. 1998. Recovery Plan for US Pacific Populations of Leatherback Turtle (*Dermochelys coriacea*), p. 14.

adequately consider this proposal and determine its consistency with Section 30230, the Commission requested responses to a number questions, including: (a) whether the activity could be restricted to be outside the seasonal Leatherback Conservation Area; (b) basic project information such as the nature and effect of the caps (which, if reached, would cause the EFP to cease); (c) responses to comments NMFS received on its Draft Environmental Assessment; (d) results of further coordination with other resources agencies; (e) questions about how this EFP would fit into an overall strategy for take reductions, including alternative strategies for swordfish fishing that might result in fewer takes than longline or drift gill net fishing; (f) an analysis of why NMFS could not eliminate the lightsticks from the longlines, due to concerns over the fact that sea turtles are attracted to lightsticks from the longlines; and (g) whether seabird minimization measures could be included that have been recommended by Birdlife International[2] (Exhibit 13).

To date, the Commission has not received the specific information outlined above. If it is received prior to the hearing, the Commission staff will prepare an addendum. Given the information currently available, the Commission does not believe Mr. Dupuy and NMFS have made a compelling case that to further transition from one destructive fishery (drift gillnet) to one arguably less destructive fishery (longline), in an area which is currently closed to longlining and seasonally closed to gill netting (due to leatherback takes), is consistent with the goals and requirements of Section 30230 to maintain healthy populations and protect areas of special biological significance. Nor has NMFS made the case that the same information it seeks to gather in conducting this experiment cannot be accomplished by conducting the activity outside the Pacific Leatherback Conservation Area. Conducting the EFP in the same geographic area and time period that drift gillnetting *is* allowed would appear to provide more useful comparisons of the two fisheries, which is the stated reason for conducting the EFP. The Commission has concerns over the fundamental ability of the study design to provide useful results for comparisons of the two fisheries, and the Commission therefore questions the statistical validity of the approach proposed (and notes that NMFS itself denied an EFP in August 2007 due to concerns it had over the statistical validity of an EFP for longline fishing in the Atlantic). Along with the Pacific Fishery Management Council's Scientific and Statistical Advisory Committee, NMFS has acknowledged the proposed EFP would not generate sufficient data to compare the two fisheries. The Commission further notes that NMFS itself is in the process of promulgating regulations that will establish an expedited, uniform, and regionally-based process for issuance of EFPs. A proposed rule is expected by the end of November. Based on all these concerns, the Commission questions whether the project would adequately protect important marine resources, would provide special protection to areas and species of special biological or economic significance, and would be carried out in a manner that will sustain the biological productivity of coastal waters and maintain healthy populations of all species of marine organisms. At a minimum, absent the information needed discussed in

[2] *See* Birdlife International, Seabird Bycatch Mitigation Measures, at http://www.birdlife.org/action/science/species/seabirds/mitigations.html (last visited on November 21, 2007).

the previous paragraph above, the Commission can only conclude that information is lacking that would enable the Commission to determine the project's consistency with the marine resources policy (Section 30230) of the Coastal Act. The Commission is therefore objecting to NMFS' consistency determination, based on lack of adequate information to determine the project's consistency with the enforceable policies of the California Coastal Management Program (CCMP) (i.e., Section 30230 of the Coastal Act).

With respect to Coastal Act policies protecting commercial and recreational fishing, while the Commission has a few questions about the rationale for the striped marlin cap, and about catch of non-target tunas, NMFS will be implementing two measures which appear to be included in order to avoid conflicts *between* commercial and recreational fishing. As recommended by the Pacific Fishery Management Council, the EFP area would avoid portions of the southern California Bight (as depicted in Exhibit 2) to avoid areas heavily fished by recreational fishers, and the permit would include a cap on catches of striped marlin, to avoid taking an important recreational fishing species. Both of these measures are an attempt to reduce conflicts with the recreational fishing community; however input received by the Commission during the August hearing indicated some recreational fishermen opposed the EFP. Although the Commission has requested finalization of the size of this cap, the project is clearly intended to support commercial fishing, and the activity is not likely to adversely affect commercial or recreational fishing. The proposed activity is therefore consistent with Sections 30234 and 30234.5.

STAFF SUMMARY AND RECOMMENDATION

I. STAFF SUMMARY

A. Project Description. The proposed project is NMFS' issuance to Mr. Dupuy of an exempted fishing permit (EFP) which would authorize a single longline fishing vessel to conduct an otherwise prohibited fishery targeting broadbill swordfish (*Xiphias gladius*) in the exclusive economic zone (EEZ) off California (and up to central Oregon).[3] The use of longline gear within the west coast EEZ is currently prohibited although drift gillnet fishing is allowed within the EEZ, subject to seasonal restrictions. The purpose of the EFP is to assist NMFS in determining whether longline fishing, subject to gear restrictions and continuous monitoring, represents an economically and environmentally superior alternative to either drift gillnet or harpoon gear for fishing within the west coast EEZ. New regulations for the Hawaii pelagic longline fishery have shown significant reductions (89%) in sea turtle bycatch since the use of circle hooks and mackerel bait became mandatory in 2004 (Exhibit 10)(Gilman et al. 2006d). Ultimately, NMFS states, the goal of the project is to gather information and test new gear types to support any future decisions to modify management regulations.

Typical Longline Fishing. Longline fishing gear consists of a main line strung horizontally across up to 100 km of ocean, supported at regular intervals by vertical float lines connected to

[3] The Commission is reviewing only the offshore-California portion of the activity.

surface floats (Exhibit 9). Descending from the main line are branch lines, each ending in a single, baited hook. Mainlines are rigged with 22 m branch lines at approximately 61 m intervals and buoyed every 1.6 km. Between 800 and 1,300 hooks are deployed per set. Bait is usually squid or mackerel. The mainline is deployed from 4 to 7 hours and left to drift (unattached) for 7 to 10 hours with radio beacons attached to facilitate gear recovery. Retrieval typically requires 7 to 10 hours depending on length of mainline and number of hooks deployed. Fishing occurs primarily during the night. Longline gear targeting tuna (deep set) is set at depths below 100 m. Longline gear targeting swordfish (shallow set) is set at sunset at depths less than 100 m, and hauled at sunrise. A typical longliner carries a crew of six, including the captain, although some of the smaller vessels operate with a four-man crew. Fishing trips last around three weeks. Most vessels do not have built-in refrigeration equipment, limiting their trip length.

Proposed EFP. The EFP would authorize Mr. Dupuy to operate a single longline vessel off the coasts of California and Oregon. Most of the area would be between 40 and 200 nautical miles offshore of the mainland, and the Southern California Bight (as depicted in Exhibit 2) would be excluded (to avoid competition with existing recreational fishing). However the authorized area in at least one location is directly adjacent to the coastal zone (coastal waters within the 3 mile limit around San Nicolas Island). Each trip will consist of 14 sets, with each set containing no more than 1,200 hooks. Four trips are proposed, for a total of 67,200 hooks, during the period September-December 2008. A range of mitigation and management measures are included to reduce anticipated bycatch. The proposed EFP would include:

1. 100 percent observer coverage, paid for by NMFS
2. A single vessel participating
3. Maximum of 14 sets per trip
4. Maximum of four trips between September and December (up to 56 total sets for the entire duration of the proposed EFP)
5. No fishing within the Southern California Bight as defined by the applicant. (See Exhibit 2)
6. No fishing within 40 nmi of the mainland coastline, or within the Channel Islands National Marine Sanctuary, or within 3 miles of San Nicolas Island (see Exhibit 2)
7. Use of only shallow-set longline gear, set so hooks are at a depth of 40–45 meters below the surface, and use of the following lines and hooks:
    a. 50–100 km mainline
    b. 18 m floatline
    c. 24 m branchlines
    d. 2–8 hooks between floats
    e. 400–1,200 hooks per set
8. Use 18/0 circle hooks with a 10° offset to fish for swordfish.
9. Use mackerel or mackerel-type bait (as described at 50 CFR 665.33(g)).
10. Allow the use of light sticks.

Additional measures would be included to further minimize potential takes of protected species and bycatch of other species of concern:

1. Require use of time and depth recorders (TDR) to estimate fishing depth. (The number of TDR units deployed per set and per trip would be determined by NMFS in consultation with the applicant.)

2. Gear may not be set until one hour after local sunset and must be fully deployed before local sunrise. (This measure is based on a condition in the USFWS biological opinion for the HMS FMP with regard to the endangered short-tailed albatross and brown pelican).

3. Prohibit the use of a line shooter for setting the gear.

4. Require use of a NMFS-approved dehooking device to maximize finfish (e.g., blue shark) bycatch survivability.

5. Establish protected species take caps for marine mammals, sea turtles, seabirds, and prohibited species, such as striped marlin, that may be exposed to and adversely affected by this action. (If a cap is reached, the EFP will be halted.)

B. Background. The Pacific Fishery Management Council (PFMC) is one of eight regional fishery management councils established by the Magnuson-Stevens Fishery Conservation and Management Act to manage fisheries that fall between 3- 200 nautical miles offshore of the US coastline. The Pacific Council is responsible for fisheries off the coasts of California, Oregon, and Washington. One of the goals in adopting its Fishery Management Plans (FMP) is to harmonize Magnuson-Stevens Act fishery management with Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) requirements. Before a FMP can be finalized, it is subject to review and approval by NMFS.

The applicable FMP for longline swordfish fishing is the Highly Migratory Species Fishery Management Plan (HMS FMP). Highly migratory species are those pelagic species with a wide geographic distribution, both inside and outside of countries' EEZs, which undertake migrations of significant but variable distances across oceans for feeding or reproduction. The species include:

Tunas: north Pacific albacore, yellowfin, bigeye, skipjack, and northern bluefin
Sharks: common thresher, pelagic thresher, bigeye thresher, shortfin mako, blue
Billfish/swordfish: striped marlin, Pacific swordfish
Other: dorado (also known as dolphinfish and mahi-mahi)

Gear types used to catch highly migratory species include troll gear, drift gillnets, harpoons, longlines, and purse seines, and for recreational boats, hook-and-line gear.

The FMP applies to all west coast vessels that fish for management unit species within the EEZ off California, Oregon or Washington, as well as that fish for management unit species on the high seas (seaward of the EEZ) and that land their fish in California, Oregon or Washington.

Swordfish are targeted with shallow set longlines (SSLL), or longline gear that is set at shallow depths (relative to tuna fishing, which is set at a greater depth). According to NMFS' Draft Environmental Assessment (DEA)[4] and the California Department of Fish & Game[5], California state law has never allowed longline fishing for swordfish within its EEZ. A varying sized fleet of California-based longline vessels historically targeted swordfish outside of the EEZ.[6] In 2004, NMFS published a Biological Opinion (BO) in which it determined that impacts to sea turtles were too great to continue this practice. In the BO, NMFS found that in addition to the proposed prohibition of SSLL west of 150º W longitude, it was also necessary to prohibit SSLL east of 150º W to prevent jeopardizing the continued existence of loggerhead sea turtles. NMFS asserted its use of authority under the Endangered Species Act to add these regulations to ensure the fishery complied with this federal statute.[7] This regulation was incorporated into the HMS FMP in May 2004. Thus, west coast fishermen are currently prohibited from targeting swordfish using SSLL gear both inside and outside of the west coast EEZ.

In 2006 fisherman Peter Dupuy submitted an application to the PFMC for the subject EFP to target swordfish using SSLL gear in the west coast EEZ, for the reasons described above in the project description. In April 2007 the PFMC approved the EFP and forwarded it to NMFS, which is currently reviewing it. On May 30, 2007, NMFS submitted a consistency determination to the Commission, requesting concurrence that the activity was consistent to the maximum extent practicable with the California Coastal Management Program (CCMP). On August 7, 2007, the Commission objected to that consistency determination (CD-041-07). The Commission also advised all parties that, rather than a NMFS-submitted consistency determination, the proper procedural review mechanism would be the subject consistency certification now submitted by Mr. Dupuy.

C. <u>Applicant's Consistency Certification</u>.

Peter Dupuy certifies that the proposed activity complies with the federally approved California Coastal Management Program and will be conducted in a manner consistent with such program.

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[4] National Marine Fisheries Service and Pacific Fishery Management Council, *Issuance of an Exempted Permit to Fish with Longline Gear in the West Coast EEZ, Draft Environmental Assessment*, April 2007. It can also be found at http://www.pcouncil.org/bb/2007/0407/J2.pdf Page 24 states: "Second, because pelagic longline fishing has never been permitted within the EEZ waters adjacent to California, there are no longline fishery dependent records to draw upon to estimate the effects of the proposed action."

[5] Personal communication between Commission staff and Marja Voiknovich, Regional Manager, California Department of Fish & Game in August 2007.

[6] See Footnote 4 at 10.

[7] National Marine Fisheries Service, *Endangered Species Act Section 7 Consultation Biological Opinion* on the adoption of (1) proposed Highly Migratory Species Management Plan; (2) continued operation of Highly Migratory Species fishery vessels under permits pursuant to the High Seas Fishing Compliance Act; and (3) Endangered Species Act regulation on the prohibition of shallow longline sets east of the 150º West longitude, February 4, 2004.

D. Staff Recommendation and Motion.
The staff recommends that the Commission adopt the following motion:

MOTION: I move that the Commission **concur** with consistency certification CC-061-07 that the project described therein is consistent with the enforceable policies of the California Coastal Management Program (CCMP).

Staff Recommendation:

The staff recommends a **NO** vote on the motion. Failure of this motion will result in an objection to the certification 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 Object to Consistency Certification:

The Commission hereby **objects to** the consistency certification by Peter Dupuy, on the grounds that the project described therein lacks information necessary to evaluate the project's consistency with the enforceable policies of the CCMP.

II. Procedures

A. Consistency Certification Procedures.
Section 307(c)(3) of the Coastal Zone Management Act provides:

> *(3) (A) After final approval by the Secretary of a state's management program, any applicant for a required Federal license or permit to conduct an activity, in or outside of the coastal zone, affecting any land or water use or natural resource of the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the enforceable policies of the state's approved program and that such activity will be conducted in a manner consistent with the program. … No license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant's certification or until, by the state's failure to act, the concurrence is conclusively presumed, unless the Secretary, on his own initiative or upon appeal by the applicant, finds, after providing a reasonable opportunity for detailed comments from the Federal agency involved and from the state, that the activity is consistent with the objectives of this title or is otherwise necessary in the interest of national security.*

This EFP is not a listed permit in California's certified Coastal Management Program ("CCMP"). As a result, the Commission must obtain permission from OCRM pursuant to § 930.54 and 930.54[8] of the Coastal Zone Management Act ("CZMA") regulations before it can proceed with federal consistency review. On July 13, 2007, the Commission staff requested OCRM's permission to review this permit. On August 7, 2007, OCRM granted the Commission staff's request (Exhibit 16).

B. <u>Procedure if the Commission finds that the activity is inconsistent with the CCMP</u>:

1. <u>Necessary Information</u>.
Section 930.58(c) of the federal consistency regulations (15 CFR Section 930.58 (c)) requires that, if the Commission's objection is based on a lack of information, the Commission must identify the information necessary for it to assess the project's consistency with the CCMP. That section states:

> *(c) A State agency objection may be based upon a determination that the applicant has failed, following a written State agency request, to supply the information required pursuant to § 930.58 or other information necessary for the State agency to determine consistency. If the State agency objects on the grounds of insufficient information, the objection shall describe the nature of the information requested and the necessity of having such information to determine the consistency of the activity with the management program. The objection may describe alternative measures (if they exist) which, if adopted by the applicant, may permit the proposed activity to be conducted in a manner consistent with the enforceable policies of the management program.*

As described fully in Marine Resources Section of this report below, the Commission has found this consistency certification to lack the information that the Commission has requested Peter Dupuy (and NMFS) to provide to enable the Commission to determine whether the proposed project is consistent with Section 30230 of the Coastal Act. In order to determine the project's consistency with the CCMP, the Commission has requested that Peter Dupuy/NMFS provide it with the following necessary information:

(1) Analysis of whether the activity could be restricted to be outside the seasonal Leatherback Conservation Area;
(2) Basic project information such as the nature and effect of the caps (which, if reached, would cause the EFP to cease);
(3) Responses to comments NMFS received on its Draft Environmental Assessment;
(4) Results of further coordination with other resources agencies;
(5) Response to questions about how this EFP would fit into an overall strategy for take reductions, including alternative strategies for swordfish fishing that might result in fewer takes than longline or drift gill net fishing;

[8] 15 CFR § 930.53 and 930.54

(6)) An analysis of why NMFS could not eliminate the lightsticks from the longlines, due to concerns over the fact that sea turtles are attracted to lightsticks from the longlines; and

(7) Analysis of whether seabird minimization measures could be included that have been recommended by Birdlife International (Exhibit 13).

Necessity for Information Requested. The need for this information is explained in the findings below; to summarize, it is needed to enable the Commission to analyze the project's consistency with the requirements of Section 30230 of the Coastal Act that marine resources be maintained, enhanced, and where feasible, restored, that special protection shall be given to areas and species of special biological or economic significance, and that 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. (The Commission staff transmitted these information requests in a letter to Peter Dupuy dated November 27, 2007.)

C. Right of Appeal.

Pursuant to 15 CFR Part 930, Subpart H, and within 30 days from receipt of notice of a Commission objection, Peter Dupuy may request that the Secretary of Commerce override this objection. In order to grant an override request, the Secretary must find that the activity is consistent with the objectives or purposes of the Coastal Zone Management Act, or is necessary in the interest of national security. A copy of the request and supporting information must be sent to the California Coastal Commission and the National Marine Fisheries Service. The Secretary may collect fees from Peter Dupuy for administering and processing its request.

III. FINDINGS AND DECLARATIONS

The Commission finds and declares as follows:

A. Marine Resources. Section 30230 of the Coastal Act provides:

> *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.*

Overview. The major defining oceanographic characteristic of the area of the proposed EFP is the California Current, which moves colder northern waters from British Columbia southward to Baja California. Predominant northwesterly winds and the earth's spin result in mild to strong upwelling in the California Current. Upwelling causes deep, cold, nutrient-rich water to rise, cooling the water and creating conditions favorable for phytoplankton, or algae, to multiply by the millions. Phytoplankton provide about 50% of the oxygen on Earth and form

the basis of marine food webs.[9] In the Eastern Pacific Ocean phytoplankton serve as primary food items for a wide variety of primary consumers including jellyfish, crustaceans, mollusks, and juvenile fish which are in turn consumed by higher trophic level species such as invertebrates, finfish, sea turtles, seabirds, pinnipeds, dolphins, and whales.

This complex food web supports west coast commercial fisheries valued at more than $430 million in 2006 alone.[10] Other ecosystem goods provided (besides seafood) include pharmaceuticals and industrial products, also valued in the millions of dollars. In addition, the Eastern Pacific Ocean provides ecosystem services providing inestimable human value, including global materials cycling (i.e., carbon, nitrogen, oxygen, phosphorus, and sulfur); transformation, detoxification, and sequestration of pollutants and societal wastes; support of coastal based recreation, tourism, and retirement industries; coastal land development and valuation; and provision of cultural and future scientific values.[11]

The oceanic fronts that contain the biological productivity favored by the targeted swordfish are, for the same productivity reasons, frequented by other marine species likely to be caught as bycatch in longline fishing gear. Bycatch data for SSLL vessels has been collected and interpreted for more than a decade. It is well established that longlines incidentally capture large numbers of sea turtles, marine mammals, seabirds, and other finfish. In fact, the DEA uses observer records from both the California-based SSLL (closed in 2004) and Hawaiian SSLL fisheries to demonstrate the amount and type of species caught. These records reveal that the total observed catch for the California-based SSLL yielded 53% bycatch and the Hawaii SSLL yielded 68% bycatch. Further, records indicate that the total observed catch for non-circle hook SSLL trips (gear used in California and Hawaii prior to February 2004) yielded 76% bycatch and the new circle hook SSLL trips (new gear modifications used in Hawaii since 2004) have yielded 60% bycatch. The proposed EFP will employ the new gear modifications currently used in Hawaii. These data show that longlining, even with the new gear modifications, is not a selective gear type and indiscriminately captures more bycatch than swordfish. Nevertheless, when comparing mortality rates of bycatch, SSLL may indeed, as NMFS has framed the issue, be less environmentally damaging than drift gillnets, and the Commission fully supports the fundamental concept of conducting further research to transition drift gill net fishing to less damaging forms of fishing for swordfish.

Purpose. Mr. Dupuy's consistency certification relies on NMFS' analyses. NMFS has provided two analyses of the project's effects: the DEA mentioned above, and more specifically with respect to California, "An Evaluation of the Proposed Shallow-Set Longline Exempted Fishing Permit's Consistency to the California Coast Act," submitted on July 19,

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[9] *See* NASA, Earth Observatory, http://earthobservatory.nasa.gov/Newsroom/NewImages/images.php3?img_id=17405 (last visited on November 19, 2007).

[10] Voorhees, D.V., Pritchard, E.S., 2007. *Fisheries of the United States 2006*. National Marine Fisheries Service. Office of Science and Technology. Current Fishery Statistics No. 2006.

[11] Daily, G.D., 1997. *Nature's Services: Societal Dependence on Natural Ecosystems*. Island Press. p.177-194.

2007, attached as Exhibit 5, and otherwise referred to here as NMFS' (previously submitted and objected to) consistency determination (CD-041-07). These documents note that the California EEZ is, as currently regulated, and has historically been, off limits to SSLL fishing. Drift gillnet fishing is allowed within the EEZ under the current regulatory regime (although it is not allowed within the Pacific Leatherback Conservation Area (Exhibits 1 & 4) during the period of August 15-November 15). Under the current regulatory regime, only if NMFS issues the proposed EFP can SSLL fishing be allowed in the EEZ. NMFS is proposing this EFP based on the provisions of 50 CFR 600.745(b), which allow prohibited activities for specified activities, including: "limited testing," "data collection," or "exploratory" purposes. NMFS' stated purpose (DEA) is "to gather preliminary information to help determine whether longline fishing could be an economically viable alternative to the current drift gillnet fishery with less environmental impact." NMFS' consistency determination further stated:

> *The EFP would authorize the harvest of management unit species using a gear type currently prohibited within the west coast EEZ, for the purpose of: (1) limited testing of a gear type with imposed measures and procedures intended to limit the incidental take of species listed under the Endangered Species Act (ESA) to a level that would not jeopardize their continued existence and, (2) determine if the resulting fishery is economically viable. Once sufficient information is gathered by means of the EFP to determine whether and how the fishery may be prosecuted, regulatory action may be proposed to effect a permanent change applicable to fishery participants as a whole, based on the measures applied as part of the EFP.*

Overall Estimated Take. NMFS notes that the level of swordfish catch would be very small compared to Eastern Pacific Ocean-wide catch levels (the proposed EFP would catch 7–18 metric tons, whereas the overall effort is in the range of 11,000–20,000 metric tons/year). NMFS acknowledges that bycatch, or as defined by NMFS in this situation "non-target" species, would represent a high percentage of the catch (greater than 50%). However NMFS further maintains that mortalities would be low. NMFS states, for example:

> *Bycatch of non-target species (which is likely to be principally blue sharks) would also constitute a minor component of the larger Pacific-wide catches. As noted previously, approximately 95 percent of captured blue sharks were released alive in the Hawaii SSLL based on observer records for trips utilizing circle hooks, mackerel-type bait, and de-hooking pliers (162 trips, June 2005 -March, 2006). Consequently, NMFS estimates that blue shark mortality under the EFP would represent a small incremental increase in overall fishing mortality. Therefore, it is reasonable to conclude that granting the EFP for 2007 would not have significant effects on target or non-target stocks.*

As stated previously, because commercial longline fishing has never been permitted within the California EEZ there are no longline fishery dependent records to draw upon to predict potential impacts to non-target species. NMFS has therefore extrapolated data from other fisheries in the United States to determine the impacts of the proposed EFP. NMFS considered

data from Hawaii, the Atlantic, the west coast gillnet fishery, and the California-based SSLL (that operated outside the west coast EEZ until 2004).

However NMFS relied exclusively on observer data from Hawaii to estimate the number of swordfish and other finfish that will be taken in the proposed EFP. NMFS used the Hawaii data because the proposed EFP will use the same gear used in Hawaii. However, the Hawaiian data have been collected over a short time frame, beginning in mid-2004, and come from a very different geographic region. Therefore, whether these data are robust is questionable; however they are the only data NMFS has provided to the Commission. NMFS estimates:

> *Using the highest potential effort scenario (67,200 hooks), coupled with the observed CPUE* [Catch per Unit Effort] *estimates presented in Table 7, the proposed action would harvest in order of magnitude an estimated 1,153 target swordfish, 850 blue sharks, 235 dorado, 105 bigeye tuna, 59 shortfin mako sharks, and 57 striped marlin. U.S. longline bigeye tuna catches in the Pacific are subject to an annual quota of 500 mt. The catch of bigeye tuna under this EFP would be monitored for accounting and compliance with the annual quota and would therefore be a part of conservation measures established by the Inter-American Tropical Tuna Commission (http://www.iattc.org/HomeENG.htm) and implemented by NMFS. Striped marlin impacts would be capped at 12 fish as recommended by the PFMC. In addition, given that striped marlin distribution and abundance increases in the more tropical waters targeted by the Hawaii-based SSLL fishery, the actual catch of striped marlin under the proposed action should be less in the more temperate, coastal habitat that will be fished in the proposed action area. Further, Southern California Billfish Club catch records for recreationally caught striped marlin report for the most part reflect marlin captured in the SCB, which will be a closed area under the terms and conditions of the proposed action. The peak striped marlin catches in the SCB occur in September, coinciding with a series of major recreational billfish tournaments.*

Based on these estimates, the projected amount of swordfish generated by the proposed EFP would represent 40% of all species landed, and the EFP would therefore generate 60% non-target species.[12] The list below summarizes NMFS' non-target take estimates (note: any species not listed below means that NMFS predicts no individuals will be taken):

Marine Mammals

California sea lion	Small numbers
Northern elephant seal	Small numbers
Short-beaked common dolphin	Small numbers
Risso's dolphin	Small numbers
Northern right whale dolphin	Small numbers
Cuvier's beaked whale	Small numbers

[12] National Marine Fisheries Service. *An Evaluation of the Proposed Shallow-Set Longline Exempted Fishing Permit's Consistency to the California Coastal Act*. See Exhibit 5.

Sea Turtles	
Leatherback	Small numbers
Seabirds	
Black-footed albatross	1
Laysan's albatross	2
Finfish	
Blue shark	850
Dorado	235
Escolar	112
Bigeye tuna	105
Longnose lancetfish	85
Albacore	71
Shortfin mako shark	59
Striped marlin	57
Remora	29
Snake mackerel	22
Oilfish	15
Blue marlin	12
Yellowfin tuna	11
Sickle Pomfret	9
Shortbill spearfish	8
Pelagic stingray	6
Opah	6
Wahoo	5
Skipjack tuna	4
Unidentified mako sharks	4
Bigeye thresher shark	2
Unidentified fish	2
Tunas and mackerels	1
Unidentified billfishes	1

Blue Sharks. NMFS notes the high bycatch rate of blue sharks **(***Prionace glauca*), which are not marketable and would therefore be discarded. The mitigation measures required under the EFP would not appear to reduce blue shark catch rates, although NMFS states they would "appear to increase survivorship." NMFS states:

> *Hawaii SSLL observer records for trips utilizing circle hooks, mackerel-type bait, and de-hooking pliers (162 trips, June 2005 -March, 2006), indicate that approximately 95 percent of captured blue sharks were released alive. Estimated blue shark mortality under the EFP, however, would represent a small incremental increase in overall fishing mortality.*

Marine Mammals. Concerning species protected under the Marine Mammal Protection Act (MMPA), NMFS' analysis begins by noting marine mammals in the area taken during **drift gillnet** fishing:

Table 8. Marine mammals observed taken in the drift gillnet fishery. (Source: NMFS CD)

Species	Number observed taken
Beaked Whale, Baird's	1
Beaked Whale, Cuviers	21
Beaked Whale, Hubbs'	5
Beaked Whale, Mesoplodont	2
Beaked Whale, Stejneger's	1
Beaked Whale, Unidentified	3
Dolphin, Bottlenose	3
Dolphin, Long-Beaked Common	14
Dolphin, Northern Right Whale	65
Dolphin, Pacific White-sided	28
Dolphin, Risso's	33
Dolphin, Short-Beaked Common	327
Dolphin, Striped	1
Dolphin, Unidentified Common	21
Porpoise Dall's	22
Sea Lion, California	153
Sea Lion, Steller	2
Seal, Northern Elephant	112
Whale, Fin	1
Whale, Gray	3
Whale, Humpback	3
Whale, Killer	1
Whale, Minke	3
Whale, Pygmy Sperm	2
Whale, Short-finned Pilot	12
Whale, Sperm	8

For **longline** fishing, NMFS states:

> *Entanglements in gillnets is usually attributed to marine mammals being unable to detect the net and becoming entangled. By contrast, marine mammal takes in longlines are generally attributed to depredation by odontocetes, either feeding on the bait or fish caught on the hooks, although entanglements are also possible (Gilman et al. 2006a). Entanglements of large baleen whales have been recorded in the Hawaii based SSLL fishery although they are not common (Forney 2004). There have been no observed interactions in the Atlantic SSLL, where effort overlaps, spatially and temporally with marine mammals. Observer records from California, Hawaii, and the Atlantic suggest that marine mammal entanglements of most species are generally quite low in longline fisheries.*

As with the blue shark estimates above, extrapolating from other SSLL fisheries, NMFS states:

> *Based upon the available information, NMFS anticipated that small numbers of a few marine mammal species may be taken during the proposed action, these include: California sea lions, northern elephant seals, short-beaked common dolphins, Risso's dolphins, northern right whale dolphins, and Cuvier's beaked whales.*

Estimating how many of these takes are likely to be a serious injury/mortality, NMFS states:

> *In order to assess what may happen to animals that encounter the SSLL gear, observer records from other longline fisheries were reviewed. In the California SSLL fishery, outside the EEZ, three marine mammals have been observed entangled in gear (two Risso's dolphins and one unidentified dolphin) and of these, one was killed. In the Hawaii-based shallow set longline fishery since 2004 with the implementation of new gear requirements, all of the marine mammals were recorded as injured and one killed. In the Hawaii-based shallow set longline fishery targeting swordfish prior to 2004, there were 16 observed entanglements of marine mammals. The species observed taken were Risso's dolphin, short-finned pilot whale, sperm whale, spinner dolphin, bottlenose dolphin, short-beaked common dolphin. Ten of the 16 takes were considered serious injuries, one was a mortality (at time of entanglement) and five of the entanglements were not serious injuries (Forney 2004), thus over two-thirds of the entanglements resulted in serious injuries or mortalities. In the Atlantic, the mortality/serious injury rates varied among marine mammal species, but were on average around 50 percent (NMFS 2006a). This rate of serious injury/mortality may serve as the best estimate available for this proposed EFP.*

Acknowledging the uncertainties from extrapolating, NMFS concludes for marine mammals:

> *While it is not possible to quantify the number of marine mammals of each species that may be affected by the proposed fishery, based upon marine mammal take rates in other SSLL fisheries and the biology, abundance, and distribution of the species, the number of individuals taken is likely to be quite low, likely in the range of one to ten depending on the species and their responses to the gear. Based upon observed rates in other SSLL fisheries, it is likely that approximately 50 percent of marine mammals takes in the proposed fishery will result in a serious injury/mortality.*

Sea Turtles. NMFS states that four species of marine turtles may be found in the area of the proposed action: leatherback turtle (*Dermochelys coriacea*), loggerhead turtle (*Caretta caretta*), olive ridley (*Lepidochelys olivacea*), and green turtle (*Chelonia mydas*). Extrapolating as described above for other species, NMFS estimates:

> *The likelihood of sea turtle take under the proposed action is quite low. Based upon observer records from the drift gillnet fishery, other SSLL fisheries, and the biology and*

distribution of the species, a small number of leatherbacks may be exposed to and affected by the proposed action.

The sea turtle species at greatest risk from the proposed EFP is the leatherback turtle. NMFS cites significant reductions in sea turtle mortalities in Hawaii since a suite of mitigation measures was implemented in 2004 (Exhibit 10), which have been more effective for hard-shell turtles (loggerhead, olive ridley, and green) than soft-shelled (leatherback). NMFS states:

To evaluate the likelihood of leatherback mortalities, a review of Hawaii observer records since the implementation of mitigation measures in 2004 was reviewed and is provided in Table 9. The changes in hookings rates and interactions appear related to changes in the hook type and bait (18/0 circle hooks with a 10 degree offset and mackerel bait). Similar results were recorded in the Atlantic SSLL fishery and experiments testing alternative gear types in the Northeast Distant waters off the east coast of Canada and the U.S. While the precise reason for the change in hookings is still under investigation, the results are encouraging, particularly for hardshelled turtles (i.e., loggerhead, olive ridley, and green).

Table 9. Changes in sea turtle hookings observed in Hawaii-based SSLL fishery, before and after implementation of bycatch mitigation measures in 2004.

Turtles observed taken	Deeply hooked	Ingested hooked	Lightly hooked	Entangled
Before regulations				
Leatherback (n=31)	0	10%	84%	6%
Hardshelled (n=180) Loggerhead (n=163)	60%	0	38%	2%
After regulations				
Leatherback (n=10)	0	0	100%	0
Loggerheads (n=27)	0	22%	63%	15%

Observer records from the SSLL fishery in the Atlantic and experiments conducted in the Northeast Distant waters were also reviewed, to aid understanding the likely impacts to turtles when using modified SSLL gear, as proposed in the SSLL EFP. In both fisheries, leatherback sea turtle take rates were low, immediate mortality was nearly zero, and calculated post-hooking mortalities (developed using the matrix in Table …[9]) was very low. Observer records from the SSLL fishery just outside the California EEZ were examined and again supported the assertion that very few leatherbacks are likely to be taken in the SSLL EFP.

As noted above, it is difficult to estimate the likely bycatch of sea turtles under this proposed action. However, based upon observer records detailed above and a review of the biology and distribution of sea turtles that may be in the proposed action area, the level of take is expected to be low with consequent very low levels of post-hooking mortalities. Leatherbacks are the species most likely to be affected by this action.

NMFS estimates that loggerheads would only be likely to be affected if an El Niño event occurs, and, further, that "… the most recent climate models suggest that an El Nino is unlikely to develop in late 2007." NMFS has not provided any El Niño information for 2008.

Seabirds. NMFS is currently consulting with the U.S. Fish and Wildlife Service on seabird effects, particularly several albatross species: black-footed albatross (BFAL, *Phoebastria nigripes*), the Laysan albatross (LAAL, *P. immutabilis*) and the short-tailed albatross (STAL, *P. albatrus*), as well as the brown pelican (*Pelecanus occidentalis*) and Cassin's auklet (*Ptychoramphus aleuticus*). The formal Section 7 consultation covers only Endangered Species Act listed species and will include only the short-tailed albatross and brown pelican. This consultation has not yet been submitted to the Commission, although NMFS notes that its bird management reduction measures, including night time gear setting, should reduce effects to a minimum. NMFS states:

> *U.S.-based pelagic longline swordfish and tuna fisheries in the vicinity of the Hawaiian Islands have the potential to affect albatrosses. NMFS observer records from 1994–2000 (based on four percent observer coverage) estimate an average take of 1,380 BFAL and 1,163 LAAL per year. No takes of STAL in any U.S.-based pelagic longline fishery have been reported. When the Hawaii-based swordfish longline fishery reopened on a limited basis in 2004 with new fishing requirements (e.g., deploying sets no earlier than one hour after local sunset and ending deployment no later than one hour before local sunrise; using large 18/0 circle hooks; 100 percent observer coverage; using thawed and blue-dyed bait) observers documented 10 BFAL and 71 LAAL captured in this fishery with 2,133,096 hooks observed. The proposed action would be expected to take one BFAL, two LAAL, and zero STAL. Neither BFAL or LAAL are listed under the ESA. The 2004 USFWS biological opinion on the HMS FMP does not expect that STAL would be taken by any of the HMS fisheries.*

NMFS Marine Resource Conclusion. NMFS concludes:

> *The proposed action would primarily affect biodiversity and ecosystem function through the removal of target, non-target, and protected species. Fish removals under the proposed action would represent a very minor proportion of the biomass of these species and would have a remote likelihood of adversely affecting biodiversity and ecosystem function. … Bycatch of non-target species (which is likely to be principally blue sharks) would also constitute a minor component of the larger Pacific-wide catches. As noted previously, approximately 95 percent of captured blue sharks were released alive in the Hawaii SSLL based on observer records for trips utilizing circle hooks, mackerel-type bait, and de-hooking pliers (162 trips, June 2005 -March, 2006). Consequently, NMFS estimates that blue shark mortality under the EFP would represent a small incremental increase in overall fishing mortality. Therefore, it is reasonable to conclude that granting the EFP for 2007 would not have significant effects on target or non-target stocks.*

Longline gear is known to incidentally catch and entangle threatened and endangered marine mammals, sea turtles and seabirds. This is true of any fishing gear that relies on hooking or entanglement to catch targeted species. There is no doubt that authorization of the EFP would increase the risk of a take of one of these protected species. Marine mammal species considered most likely to be affected by this action, California sea lion, northern elephant seal, short-beaked common dolphin, Risso's dolphin, northern right whale dolphin, and Cuvier's beaked whales are all from stocks that are not listed on the ESA nor considered depleted under the MMPA. Very low levels of take of animals from these stocks are anticipated under the proposed EFP. When combined with existing known threats to these stocks such as ship strikes, exposure to toxins, pollution, loss of habitat or prey, and underwater sound, it is not expected that the proposed action will change the status of these species or trigger concern over the stocks' status.

Leatherbacks are most likely to be affected by the proposed action and likely only a few individuals. General threats to Pacific sea turtles include poaching of eggs, killing of females at nesting beaches, human encroachment (development), beach erosion, and microclimate-related impacts at nesting sites, low hatchling success, and incidental capture in fisheries. Very low or no mortalities are anticipated, thus the proposed action is unlikely, within the context of other effects, to change the status of leatherbacks in the Pacific.

Lastly, it is known that seabirds are killed in longline fisheries. However, other longline fisheries such as the domestic longline fisheries in Alaska and Hawaii have implemented mitigation measures that have substantially reduced incidental seabird mortality. Mitigation measures from these fisheries will be incorporated into the proposed EFP, as applicable and appropriate, as part of the terms and conditions of the proposed EFP.

A key question which this EFP would help address is whether longline fishing subject to gear restrictions and continuous monitoring represents an economically and environmentally superior alternative to either drift gillnet or harpoon gear for fishing within the west coast EEZ. The EFP is intended to gather information for assessing the viability of longline fishing as an alternative to drift gillnet fishing. Based on what is known about the environmental impacts of the other two swordfish fisheries and what is known about longline gear in other areas, it is NMFS position that longline gear falls somewhere between the range of impacts characteristic of the harpoon and drift gillnet fisheries. In other words, NMFS believes that the longline gear proposed for this action is less selective than harpoon gear but more selective than drift gillnet gear (Figure 3). Exactly where the SSLL lies between the range of impacts is not known at this time. A key purpose of this EFP would be to begin collecting necessary information to make that determination.

> *Some might suggest that due to the high selectivity of harpoon gear, this should be the primary gear type used for catching swordfish. NMFS does not believe that harpoon gear offers a realistic alternative as it is a low volume fishery. Catch rates in the drift gillnet fishery are 2-3 times higher than in the harpoon fishery (Coan et al., 1998). In addition, drift gillnet fishery vessels use less fuel in finding and pursing their catch, do not rely on spotter planes, and drift gillnet vessels can supplement their swordfish catches with non-target species. (Coan et al., 1998). Even if harpoons were the preferred gear type, the number of vessels required to provide commercial quantities of swordfish would undoubtedly create serious congestion problems in the southern California Bight. User conflicts would most likely occur with recreational fishing vessels.*
>
> *In terms of long range consistency with the California Coastal Act, NMFS believes that if the EFP is conducted it could provide valuable information for forming the basis for potentially converting the drift gillnet fishery to the more selective longline fishery. To make that determination, additional information would need to be collected in future years under controlled conditions of additional EFPs until there is sufficient information to determine whether a regulatory change is justified. Any future fishing activities of this nature would be subject to additional rigorous environmental review to evaluate potential effects. However, the long term benefits of identifying and implementing a gear type that provides a more environmentally conservative way to target swordfish off California while minimizing risk to protected species cannot be overlooked and remains consistent with the objectives of the Coastal Act.*

Opponents' Contentions. Project opponents (including Center for Biological Diversity) have questioned the usefulness and legality of the proposed EFP and have contended that any degree of takes of leatherbacks may lead to a jeopardy finding, based on NMFS' issuance of a jeopardy opinion for the drift gillnet fishery and its creation of the Pacific Leatherback Conservation Area. The Center for Biological Diversity also contends that "Since the leatherback closure went into effect, no leatherback sea turtles have been observed taken in the drift gillnet fishery." The Center for Biological Diversity further contends:

> *The regulations implementing the HMS FMP refer to the leatherback closure area as the Pacific Leatherback Conservation Area. This area has been repeatedly recognized by scientists as one of the most important leatherback foraging areas in the Pacific. The significance of this area was summed up in a recent study.*
>
> *Ultimately, successful conservation efforts for leatherback turtles must include both nesting beach protection and mitigation of at-sea threats in foraging areas and along migratory routes.* ***This study has demonstrated that waters off central California are a critical foraging area for one of the largest remaining Pacific nesting populations.*** *Fortunately, threats such as coastal gillnet and longline fisheries that may incidentally catch leatherback turtles have largely been eliminated within our nearshore study area, although pelagic driftnet and longline fisheries remain along the migratory pathways to and from the coast (e.g., Spotila et al., 1996; Carretta et al., 2005). Continued efforts to*

identify and characterize Pacific foraging areas are critical for mitigating at-sea threats, monitoring population trends, and, ultimately, for the successful recovery of Pacific leatherback turtle populations.

…

Despite the scale of effort to be authorized under the EFP, there is no experimental design to meet the EFP's stated purpose. The permitee will simply be allowed to fish with otherwise prohibited gear in an otherwise closed area until he either completes the authorized number of sets, decides based on unstated criteria that such fishing is not "economically viable", or exceeds largely unspecified caps for protected species interactions. In short, the proposed EFP will place critically endangered leatherback sea turtles at needless risk, add additional fishing pressure on species already subject to overfishing, unlawfully take species protected by the ESA, MMPA, MBTA, and state law, yet provide no meaningful data. As detailed below, issuing the proposed EFP in not only nonsensical, it is patently illegal.

…

The issuance of the Longline EFP would also likely violate the ESA based on impacts to the short-tailed albatross. Self-reports of seabird interactions with the former California-based longline fishery acknowledged take of 100 albatross of various species. Dozens of albatross were also observed taken in the handful of trips with actual observer coverage. It is therefore reasonable to assume that short-tailed albatross are likely to be entangled and killed if pelagic longline fishing is allowed off of California. Given the imperiled status of the short-tailed albatross, we do not believe than any additional take authorization for the species can be lawfully granted.

…

The Longline EFP directly puts at risk several species of ESA-listed marine mammals. Both sperm whales and humpback whales have observed entangled in identical fishing gear used by Hawaii-based pelagic longlining vessels. Killer whales are likewise known to interact with and become entangled in longline fishing gear. The Southern Resident population-of killer whales (Orcinus orca) was recently listed as endangered, and is known to seasonally occur in the range of the proposed EFP. Additionally, Steller sea lions and Guadalupe fur seals also may overlap with the proposed EFP and are subject to entanglement. Given the known and frequent interactions of longline fisheries with humpback whales, sperms whales, and killer whales we do not see why NMFS and the applicant would chose this reckless and illegal path.

…

Even if the stated purposes of the EFP could be considered valid reasons for issuance of an EFP, the EFP as proposed simply is not designed to meet these purposes. The Scientific and Statistical Committee of the PFMC explicitly acknowledged as much in its review of the EFP:

> *The SSC notes that the proposed EFP pertains to operation of a single vessel which would be fishing with longline gear in an area without corresponding drift gillnet fishing for comparison of finfish and prohibited species bycatch between the two gear types. Few constraints are imposed to limit where the vessel will operate, and no experimental design is proposed to test the hypothesis that- longline gear would offer an improvement in bycatch rates over drift gillnet fishing gear. Average bycatch values are inadequate to evaluate bycatch impacts. Bycatch events are typically rare and spatially correlated. As such, the problem is one of estimating the statistical probability of a rare event (i.e. a longline set with large bycatch).* ***Data collected from a single vessel operating under an EFP would not be adequate for this purpose.***

Opponents have also pointed out that the Pacific Leatherback Conservation Area has been referenced repeatedly in the scientific literature as critical foraging grounds and as an area where newly discovered migratory pathways for leatherbacks occur. The Pacific Leatherback Conservation Area is a time and area closure that coincides with peak abundance of leatherbacks that migrate annually to this area. Since the implementation of the Pacific Leatherback Conservation Area by regulation in 2001, zero leatherbacks have been taken by the drift gillnet fishery. Opponents therefore question the logic of allowing the EFP to fish within the leatherback conservation area, especially since the DEA acknowledges leatherbacks may be taken.

Opponents have further questioned NMFS' methodology in estimating impacts based on the extrapolations discussed above, for several reasons, including: a) the areas do not precisely match; b) relying on observer data from the drift gillnet fishery is problematic, c) the drift gillnet observer records do not reflect likely takes in the proposed EFP, and d) the different gear types likely have different catch per unit effort rates and may result in different probabilities of marine mammal takes. (NMFS defends its methodology, contending it is based on the best available science, and that any underestimates of impact can be addressed through the implementation of caps.)

The Humane Society of the U.S. has questioned NMFS' estimate that there will be zero take of short-finned pilot whales, in part, because the EFP will be targeting water too cold (60º- 65º F) for short-finned pilot whales. The Humane Society contends that NMFS has not taken into account that this species is the marine mammal taken with the greatest frequency in the Atlantic Longline fishery, and that the Atlantic Pelagic Longline Take Reduction Team has reviewed information indicating that interactions between short-finned pilot whales and longlines begin to occur at noticeably higher rates between 62º- 66º F and peak at 70º- 80º F.

Concerns have also been expressed over the bycatch of yellowfin tuna and bigeye tuna, since both of these stocks are classified by NMFS and the Inter-American Tropical Tuna Commission (IATTC) as subject to overfishing (i.e., the stock is being fished at a rate higher than the rate that will result in maximum sustainable yield). Last year all fisheries targeting bigeye tuna in the Eastern Pacific Ocean were closed early because the quota was met before

the fishing season was over. NMFS' estimated non-target catch of 105 bigeye and 11 yellowfin tunas and could exert more pressure on these struggling fisheries.

Supporters' Contentions. Project supporters (including the Federation of Independent Seafood Harvesters (Exhibit 6)): (1) urge Commission deference to NMFS' expertise in managing fisheries; (2) express the potential benefits to the fishing industry (and the marine environment) of developing more bycatch friendly alternatives from the EFP; (3) compare the economic implications inherent in transitioning from drift gill net to longlines; (4) note that the California Fish and Game Commission has previously authorized experimental longline fishing in 1979, 1987, and 1988-1991 (thus calling into question statements that longline fishing has never occurred in the California EEZ (although this statement was contained in NMFS' DEA and the California Department of Fish and Game has only verified the 1988-1991 experimental shark fishery))[13]; and (5) point out that where fisheries are closed or restricted, State policy directs the Department of Fish and Game to "assist and foster the development of alternative fisheries or alternative fishing gear for those commercial fishermen affected by the restrictions, closures, or resource losses…".

Commission analysis. Leatherbacks are expected to be captured as bycatch under the proposed EFP. Leatherbacks are protected under various international treaties and United States federal law. They are listed as Endangered throughout their global range under the Endangered Species Act. The World Conservation Union (of which the United States is a member State) lists leatherbacks as critically endangered, a designation given only when a species is facing an extremely high risk of extinction in the wild in the immediate future. NMFS researchers from the Southwest Fisheries Science Center maintain Pacific leatherbacks have suffered a population reduction of 95% over the last 20 years.[14] The status of leatherbacks in the Pacific Ocean is so precarious that some scientists believe they will become extinct within one or two human generations.[15] The Commission has historically urged the fullest protection of this species (Exhibit 7).

Two populations of leatherbacks nest on opposite sides of the Pacific and undertake what may be the longest migration for any living reptile today as they routinely cross the entire Pacific basin. A recent tracking study,[16] as well as genetic analyses of leatherbacks tagged off the

[13] The Commission staff communicated with the California Department of Fish & Game to clarify this issue. No records were found for an EFP in 1979 or 1987.
[14] Personal communication between Commission staff and Peter Dutton, Director Marine Turtle Research Program, NMFS, and Scott Benson, marine biologist, NMFS, on Aug 9, 2007.
[15] Spotila, J.R., et al. 1996. Worldwide population decline of *Dermochelys coriacea*: Are leatherback turtles going extinct? Chelonian Conservation and Biology 2(2): 209-222.
[16] Benson, S.R., et al. 2007. Post-Nesting Migrations of Leatherback Turtles (*Dermochelys coriacea*) from Jamursba-Medi, Bird's Head Peninsula, Indonesia. Chelonian Conservation and Biology. 6(1): 150-153.

California coast and caught incidentally in drift gillnets off the west coast,[17] reveal they come from nesting beaches in the Western Pacific in New Guinea, Indonesia, Malaysia, the Solomon Islands, and Australia.

Yet another recent study revealed that aerial line-transect surveys found leatherbacks in the highest densities in the areas around the Gulf of the Farallones and Monterey Bay from late summer through fall. These areas also support favorable habitat for leatherback prey items and clearly represent foraging grounds. Previous studies summarized above have linked these leatherback turtles off the west coast to one of the two largest remaining Pacific breeding populations in Jamursba-Medi, Indonesia. This study demonstrated the waters off of central California are a critical foraging area for one of the largest remaining Pacific nesting populations. Successful conservation efforts for leatherbacks must include both nesting beach protection and mitigation of threats at sea in foraging areas and along migratory routes.[18]

How and why sea turtles are hooked by longline gear

Leatherbacks and loggerheads are incidentally captured by longlines at far greater rates than other species of sea turtles such as greens, olive ridleys, and Kemp's ridleys. Loggerheads tend to target the bait and wind up getting hooked in the mouth or, even worse, ingesting the hook. By contrast, leatherbacks do not target the bait (they prefer jelly fish) but instead are more frequently entangled in the longline itself. This results in a higher proportion of external hookings, primarily in their flippers which are quite long and prone to entanglement with invisible monofilament fishing line.

The traditional gear used included Japan hooks (J hooks) and squid bait. New gear types, designed to reduce the incidental take of sea turtles, were devised and tested in the Western North Atlantic from 2001-2003. These new gear modifications included the use of larger circle hooks, mackerel bait, and turtle de-hooking devices. Results of the new gear as compared to the old gear indicated major decreases in the capture rate, 88% for loggerheads and 63% for leatherbacks. This was due primarily to the increased size and different shape of the hooks (more difficult to swallow), switching from squid to mackerel bait attracted less loggerheads, and four different de-hooking devices increased the odds that one of them would successfully remove the hook. The net result is fewer internal hookings, more external hookings, and more turtles released with less or no gear, which NMFS believes reduces the probability of death.[19] Long term effects are unknown; however it is reasonable to assume that a decreased capture rate implies a decreased mortality rate as well, for both loggerheads and leatherbacks.

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[17] Dutton, P.H., et al. 2007. Status and Genetic Structure of Nesting Populations of Leatherback Turtles (*Dermochelys coriacea*) in the Western Pacific. Chelonian Conservation and Biology. 6(1): 47-53.

[18] Benson, S.R., et al. Abundance, distribution, and habitat of leatherback turtles (*Dermochelys coriacea*) off California, 1990-2003. In press. Fishery Bulletin, Vol. 105, 2007.

[19] Read, A.J. 2007. *Do circle hooks reduce the mortality of sea turtles in pelagic longlines?* A review of recent experiments. Biological Conservation 135. p 155-169.

An important distinction between the mortality rates for leatherbacks and loggerheads that were captured is that while it decreased significantly for loggerheads (by about 50%), it stayed about the same for leatherbacks (14% vs. 13%). This is because leatherbacks were already getting hooked externally more often than internally, so the effect of the new gear was less pronounced.[20]

The Hawaii SSLL closed in 2001 due to a NMFS jeopardy finding for leatherbacks and re-opened in 2004 with the incorporation of this new gear as a mandatory requirement. As NMFS points out, results show significant reductions (Exhibit 10): 90% for loggerheads and 82% for leatherbacks. Analysis of the location of hookings and estimated mortality rates has not yet been performed, but again, it is reasonable these reductions imply a decreased mortality rate as well.

Recent NMFS regulatory action taken to prevent further decline of leatherbacks
Entanglement and drowning in longline gear is a primary cause cited for the severe decline of leatherbacks.[21] NMFS has issued several Biological Opinions (BOs) for fishery management plans pursuant to Endangered Species Act Section 7 consultation requirements involving takes of leatherbacks in commercial fisheries of the Pacific Ocean. Twice NMFS has issued jeopardy opinions for leatherbacks.

- The 2000 BO for the west coast drift gillnet fishery determined that drift gillnets were jeopardizing the continued existence of leatherbacks. NMFS' opinion stated that any additional impacts to the Western Pacific leatherback stocks were likely to maintain or exacerbate the decline in these populations. This BO also led to the creation of the Pacific Leatherback Conservation Area.
- The 2001 BO for Pelagics FMP in Hawaii determined that longlines targeting swordfish were jeopardizing the continued existence of leatherbacks. This resulted in the temporary closure of the swordfish fishery, until new less damaging gear could be developed.

As described earlier, in 2004, NMFS issued a BO for the west coast HMS FMP with a jeopardy opinion for loggerhead sea turtles. In order to avoid this jeopardy finding and also to conserve leatherbacks, NMFS issued a reasonable and prudent alternative that closed the entire SSLL fishery outside of the west coast EEZ.

Methodology to Assess Leatherback Takes
NMFS has not provided the Commission with the methodology used to estimate leatherback takes. NMFS states that the catch per unit effort for leatherbacks in the Hawaii SSLL since 2004 (when the new gear modifications began and which are identical to the proposed EFP gear) have been highly variable. NMFS goes on to say that if the catch per unit effort from the

[20] Id.
[21] Id.

2004 BO for the Pelagics FMP are used instead, then anticipated rate of take is very low. NMFS has not provided the actual data on which these calculations are based.

Based on discussions with NMFS the Commission infers that whichever catch per unit effort rate was used, it was simply multiplied by the number of hooks that will be used in the proposed EFP (up to 67,200) to obtain the estimated take of leatherbacks. NMFS has not published a numerical estimate, but instead has characterized it as "very low." From informal discussions with NMFS it appears the take would be in the range of four or five leatherbacks, and with a NMFS estimate of a 15% mortality rate, a potential mortality of less than one. NMFS' BO, when published, may clarify its estimates more formally. The 15% mortality rate is based on the assumption that leatherbacks would be hooked externally, with or without entanglement, and would be released with the hook still attached, and with line that is less than half the length of the turtle's carapace.

Current leatherback takes vs. estimated takes from proposed EFP
Since longline fishing is not currently conducted inside the west coast EEZ, no leatherbacks are currently being taken by longlines. As discussed earlier, the Pacific Leatherback Conservation Area has been so effective for the west coast drift gillnet fishery that no leatherbacks have been taken by the fishery since it was created in 2001. The proposed EFP would increase the incidental take of leatherbacks from the current amount of zero to some unknown amount. NMFS has not provided an estimated number of takes in any of its environmental analyses, but has verbally indicated it could be four or five per year, with an estimated mortality of somewhere between ½ and one. Despite this small number, this represents a significant increase from the current baseline.

The HMS FMP is accompanied by an incidental take statement that allows up to three leatherbacks takes per year by the west coast drift gillnet fishery. As noted above, however, no takes have been observed in the drift gillnet fishery since 2001. The DEA states that due to uncertainties surrounding the probability of leatherback takes, NMFS cannot assure with certainty that the proposed EFP would result in levels of mortalities that are either consistent or inconsistent with the existing ITS, meaning it may be more or less than three takes.

The Commission is concerned about estimated takes by the EFP. Clearly, new gear regulations in existing fisheries such as in the Atlantic and Hawaii are highly appropriate to reduce sea turtle capture rates there. However, for California offshore waters that do not currently have a longlining fleet, and where the drift gillnet fleet is not taking sea turtles, the proposed EFP would **increase** the current sea turtle capture rate of zero. The benefits derived from the new gear regulations in the Atlantic and Hawaii would not be realized in California because California does not have an approved swordfish SSLL fishery and is therefore not taking any sea turtles. The Commission therefore questions the need for the proposed EFP, which may be a solution for a longlining problem that does not currently exist. In addition if NMFS' goal of

transitioning the entire drift gillnet fishery to longlining comes to fruition, the fishing effort and impacts will increase from one vessel and a few leatherbacks (under the proposed EFP) to an unknown number of vessels and leatherbacks.

Pacific Leatherback Conservation Area

As discussed earlier, NMFS established a seasonal gillnet ban referred to as the Pacific Leatherback Conservation Area in 2001 based on the 2000 BO for the west coast drift gillnet fishery. NMFS determined this time and area closure was necessary to avoid the likelihood of the west coast drift gillnet fishery jeopardizing the continued existence of leatherbacks. From August 15-November 15 in state and federal waters from Monterey Bay, CA north to 45º N lat., intersecting the Oregon coast, fishing with drift gillnets is prohibited.

The proposed EFP would allow Mr. Dupuy to fish anywhere within the Pacific Leatherback Conservation Area (beyond 40 nautical miles offshore) during the annual closure. The proposed EFP would begin in September and run through December, in close temporal alignment with the time frame of the annual closure.

As discussed above, the Pacific Leatherback Conservation Area encompasses a large area that functions as a migratory pathway for Western Pacific leatherbacks that are accessing foraging areas of the Eastern Pacific. Both the migratory pathways and the foraging grounds support leatherbacks known to come from one of the two largest remaining Pacific breeding populations, and hence are considered critical areas necessary for leatherback survival.

NMFS noted this same concern it its June 5, 2007, denial of a previously submitted EFP for drift gillnetting. NMFS' response cited the foraging study discussed above and expressed concerns that the migratory pathways that obviously exist between the critical nearshore waters off California and Oregon and the nesting grounds of the Western Pacific may be affected if drift gillnetting is allowed in the Pacific Leatherback Conservation Area.[22] NMFS' Recovery Plan for the leatherback turtle further notes:

> *It has been suggested that roughly one-half the global population of adult females nests on the west coast of Mexico (Pritchard 1982a); if so, the waters off the west coast of the United States may represent some of the most important foraging habitat in the entire world for the leatherback turtle.* [23] [Emphasis added]

Caps

NMFS uses caps to define the maximum number of sea turtles that can be caught in a fishery; exceeding the annual cap shuts down the fishery for the remainder of the year. For example, annual caps for the Hawaii SSLL are set at 16 for leatherbacks and 17 for loggerheads. These

[22] National Marine Fisheries Service. 2007. Letter from Rodney McInnis to Donald Hansen denying the EFP for drift gillnetting.
[23] *See* Footnote 1.

numbers represent the number of individuals that NMFS believes may be incidentally captured each year without jeopardizing the species.

Data from Hawaii for the period of May 2004- November 21, 2007 indicates a total of 62 sea turtles were captured, including 43 loggerheads, 16 leatherbacks, 2 unknown hardshell turtles, and 1 olive ridley.[24] The cap for loggerheads was met during the first quarter of 2006, which shut the fishery down for the remainder of the year. If two more loggerheads or eleven more leatherbacks are captured in 2007, the fishery would again be shut down.

NMFS has indicated it intends to impose a cap on leatherback takes for the proposed EFP; however it has not yet formally decided what that cap will be. Clearly, the Commission needs this information to understand the upper bounds of what the impacts would be. Due to their highly endangered status, leatherbacks would certainly qualify as a species of special biological significance warranting special protection under Section 30230.

Short-finned pilot whales may be affected by the proposed EFP
The status of the short-finned pilot whale stock off the west coast is not well understood. There have been 11 observed takes in the west coast drift gillnet fishery since 1990 with 20% or less observer coverage. All takes resulted in death.

NMFS has published a Potential Biological Removal ("PBR") rate which quantifies the maximum number of animals that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimal sustainable population. The PBR for the west coast stock is less than one animal (the draft 2007 stock assessment[25] sets it at 0.98, down from 1.2). The average annual human-caused mortality from 2000-2004 is 1.0, which exceeds the anticipated PBR of 0.98, and therefore this species is classified as a "strategic stock."

The Hawaiian stock of short-finned pilot whales differs from the west coast stock. Between 1994- 2004, six short-finned pilot whales were observed to be hooked with 4-26% observer coverage. No takes have been observed since 2004 when new gear modifications and 100% observer coverage were instituted.

The List of Fisheries of 2008, which classifies all United States commercial fisheries based on the level of incidental serious injury and mortality of marine mammals as required by § 118 of the Marine Mammal Protection Act, recognizes that both the west coast drift gillnet fishery and the Hawaiian longline fishery incidentally kill and/or injure short-finned pilot whales. Both fisheries are designated as Category I, meaning the annual mortality and serious injury of a stock in a given fishery is greater than or equal to 50% of the PBR level. The west coast stock

[24] *See* Pacific Islands Regional Office, NMFS, Leatherback and Loggerhead Turtle Interactions in the Shallow-Set Component of the Hawaii-based Longline Fishery at http://www.fpir.noaa.gov/SFD/SFD_turtleint.html (last visited on November 21, 2007).
[25] Carretta, James V., et al. 2007. *Draft US Pacific Marine Mammal Stock Assessments.* National Oceanic and Atmospheric Administration. National Marine Fisheries Service. Southwest Fisheries Science Center.

is driving the classification of the west coast drift gillnet fishery as Category I, meaning that serious injuries and mortalities of short-finned pilot whales are greater than 50% of the stock's PBR.

In the Atlantic pelagic longline fishery, the number of pilot whales taken has actually increased since the new gear regulations. The 2006 estimated number of pilot whale interactions was consistent with that from 2005 and reflects an increasing trend since 2003. This is occurring despite an overall reduction in effort. NMFS believes the apparent increase in pilot whale interaction rates over the last several years is a cause for concern that requires continued monitoring.[26]

Methodology to Assess Short-Finned Pilot Whale Takes
NMFS has not provided the Commission with the methodology used to estimate short-finned pilot whale takes. While NMFS has not provided the data or the CPUE rate used, the Commission infers that whatever CPUE was used it was simply multiplied by the number of hooks that will be used in the proposed EFP (67,200) to obtain the estimated take of short-finned pilot whales. NMFS states that based on their low abundance, their occurrence in water generally warmer than the proposed EFP area, and the use of mackerel bait, it is unlikely that they would be affected by the proposed EFP.

The Commission notes that despite the low abundance of short-finned pilot whales, they are found within the area of the proposed EFP. On September 23, 2007 a female pilot whale beached herself off Luffenholtz Beach south of Trinidad, California.[27]

Current short-finned pilot whale takes vs. estimated takes from proposed EFP
The current take rate, as discussed above, is at an annual average of 1 animal. When the draft 2007 stock assessment is finalized, this will put the current west coast drift gillnet fishery over the PBR and in violation of the Marine Mammal Protection Act.

NMFS estimated that the proposed EFP will affect zero short-finned pilot whales. For precaution, NMFS will likely set a cap of one animal, based in part on the recommendation made by the Pacific Fishery Management Council. Thus, if the proposed EFP incidentally catches one short-finned pilot whale, the fishery will immediately cease. However, NMFS has not yet committed to a cap of one.

While the Commission agrees that the cap should be only one short-finned pilot whale, the Commission remains uncomfortable with setting the cap higher than its PBR, especially when

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[26] Fairfeld-Walsh, C. and Garrison, L. June 2007. Estimated Bycatch of Marine Mammals and Turtles in the US Atlantic Pelagic Longline Fleet During 2006. NOAA Technical Memorandum NMFS-SEFSC-560.
[27] *See* Times-Standard at http://www.times-standard.com//ci_6993030?IADID=Search-www.times-standard.com-www.times-standard.com&IADID=Search-www.times-standard.com-www.times-standard.com (last visited on November 21, 2007).

the PBR has already been exceeded. With a PBR of less than one animal (0.98) and its classification as a strategic stock, short-finned pilot whales would certainly qualify as a species of special biological significance warranting special protection under Section 30230.

Other Marine Mammals

The same concern is extended to the following nine endangered and threatened marine mammals, one of which (humpback whale) was incidentally caught just last year in the Hawaii SSLL fishery that uses the same gear as the proposed EFP:

Blue whale	Endangered
Fin whale	Endangered
Humpback whale	Endangered
Sei whale	Endangered
Sperm whale	Endangered
Steller sea lion	Threatened
Southern resident killer whales	Endangered
Northern right whale	Endangered
Guadalupe fur seal	Endangered

All of these species are of special biological significance and it appears doubtful that simply estimating they will not suffer takes will provide them with special protection. Just as for the short-finned pilot whale, the Commission believes, at a minimum, NMFS needs to set a cap of one for each of these species. This would ensure the proposed EFP will immediately shut down if one is incidentally caught. The Commission believes that NMFS' current approach, relying on a Supplemental Endangered Species Act Section 7 Consultation if one of these species is taken in the proposed EFP, may be inadequate and, with its to-be-determined consequences, makes it speculative to determine its adequacy. This approach leads to uncertainty and unnecessarily complicates the Commission's analysis of the project's consistency with Section 30230.

Marine Resource Impacts Conclusion

The Commission agrees with NMFS that, in comparing eastern-Pacific wide fishing efforts (11,000 to 20,000 annual metric tons, regionwide, versus 7-18 metric tons for the proposed EFP), the proposed project by itself would have minimal effects on total populations of most marine species. However the Commission does not agree these effects would be so minimal as to avoid conflict with the requirements of Section 30230 to maintain healthy populations and provide special protection for species of special biological significance. The Commission is concerned in particular over leatherback turtles, a highly endangered species whose numbers have been so decimated that even one take can result in adverse population effects, and short-finned pilot whales, a species that has already exceeded its 2007 PBR. These species can ill afford even one take and qualify as species of special biological significance. In addition, the Commission is concerned over listed marine mammal and albatross species. The Commission notes that the Pacific Leatherback Conservation Area was designated in this area precisely due to the dire consequences of multiple threats to this species, and the Commission finds that this

area certainly qualifies as an "area … of special biological significance" warranting special protection under Section 30230. The Commission appreciates that from an overall perspective SSLL fishing may be less destructive to some marine resources than drift gillnet fishing. Nevertheless, several untested assumptions raise questions about the applicability of taking this overall concept to justify allowing SSLL in California's offshore waters, particularly in the Pacific Leatherback Conservation Area.

NMFS has not submitted any supporting data establishing that longlines produce less bycatch in areas where both longline fishing and drift gill nets are used. In the absence of such data, the Commission staff compared bycatch generated by drift gill nets on the west coast with longlines in Hawaii. This comparison has serious limitations, but clearly both gear types generate significant amounts of bycatch. Total estimated mortalities of protected species from 1996-2002 within the west coast drift gillnet fishery indicates about 97% were marine mammals, 3% were sea turtles, and less than 1% were seabirds.[28] Total observed interactions of protected species from 2004 (partial year) to March 31, 2007, within the Hawaii SSLL indicates about 62% were seabirds, 32% were sea turtles, and 6% were marine mammals.[29] Direct comparisons are difficult to make, because the first are estimated mortalities while the second are observed interactions that may or may not have resulted in death. What is clear is that different species groups are affected at different rates by the two fisheries. The most obvious example of this are marine mammals who make up the bulk of deaths by gillnet, but represent the fewest interactions by longline. This implies the suggested replacement of drift gillnets with longlines would involve a trade-off of increasing or decreasing bycatch by species group, rather than a uniform decrease across all species groups. With this data, marine mammals would benefit most, seabirds the least, and conclusions for sea turtles are difficult to draw without further analysis. Effort would be a primary consideration as well. For example, at some point the anticipated benefits for marine mammals would plateau and additional effort would begin to become a detriment. Ideally, what would appear to be most useful would be conducting a statistically valid experiment designed to test bycatch rates by species during the same season and in the same geographic area where both longlines and gill nets are used. It is hard to understand the usefulness of conducting the proposed EFP in an area that is off limits to drift gillnet fishing.

EFP Design Conclusion

NMFS' fundamental assumption underlying the EFP is that longline gear is more selective than drift gillnet gear. Scientific studies testing the assumption have not been performed and it would appear that the proposed EFP will not provide data to help answer this question. As NMFS has acknowledged, and noted above in the comments from the Pacific Fishery Management Council's Scientific and Statistical Advisory Committee, the proposed EFP would not generate sufficient data to compare the two fisheries.

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[28] Carretta, J.V., et al. *Estimates of Marine Mammal, Sea Turtle, and Seabird Mortality in the California Drift Gillnet Fishery for Swordfish and Thresher Shark, 1996-2002*. Marine Fisheries Review. 66(2), p. 21-30.

[29] *See* Footnote 24.

The first peer-reviewed scientific paper comparing the results of three different longline gear modification experiments that have taken place around the world was recently published.[30] It contains eight considerations for fisheries managers, researchers, and fishermen who are interested in conducting similar experimental trials. As the proposed EFP is characterized as an experimental fishery, two of these considerations appear especially pertinent:

- Conduct a power analysis prior to field work to ensure that a statistically significant outcome is feasible given the observed variation in capture rates and levels of effort.
- Consider the ethical implications of any experiment beforehand. In some cases, for example, it may not be appropriate to test a potential conservation measure on a gravely endangered population. In such cases, proxy populations or fisheries may be available.

The Commission questions whether the proposed EFP meets either one of these considerations, and believes it is inconsistent with them, by not performing the necessary statistical research prior to experimental design, and by proposing to fish with gear known to incidentally capture leatherbacks in the only Pacific Leatherback Conservation Area in the United States, and which was designed to avoid the serious threats to their existence.

More Information Needed

On August 6, 2007, NMFS responded to the questions that had been raised in the Commission staff's original recommendation on NMFS' consistency determination (CD-041-07). In that response (Exhibit 14), NMFS:

1. Modified the landward boundary to 40 nautical miles (n mi) from shore (previously it was 30 n mi).

2. Noted that this change means no activity would occur within any National Marine Sanctuary.

3. Noted that the final Environmental Assessment (EA), responses to comments on the draft EA, Biological Opinion, Fish and Wildlife Service coordination, have not been completed and the results of these reviews and coordination is not yet available.

4. Discussed the "caps" that NMFS will include in its final decision, and notes that caps for all listed species will not be included, but rather only for those species NMFS believes are "likely to be taken." However, no caps of species "likely to be taken" were provided. In addition, a "take" of a non-anticipated listed species would, then, trigger further consultation with NMFS for appropriate action, depending on the circumstances.

[30] *See* Footnote 19.

5. Indicated a concern over El Niño event is unwarranted because the loggerhead conservation area closure is seasonal and outside the time period for the proposed fishing activity.

6. Explained NMFS' position on why the activity would be allowed within the leatherback conservation area.

7. Discussed NMFS overall strategy and how this permit would fit into it.

8. Elaborated on why NMFS believes harpoon fishing could not replace drift gill net fishing for U.S. swordfish fisheries.

9. Elaborates on data comparing drift gill net and longline bycatch.

10. Discussed blue shark impacts, including that "blue sharks are not overfished, nor is overfishing occurring," according to the most recent stock assessments.

11. Listed seabird impact reduction measures.

12. Explained the cap for striped marlin.

13. Concluded with NMFS' position that, through compliance with its other federal mandates, NMFS believes the activity is consistent with Coastal Act marine resource protection policies.

In reviewing that response, the Commission determined that critical information gaps remained, most notably the caps on sensitive species, the results of consultation with the U.S. Fish and Wildlife Service, NMFS' responses to Draft EA comments, and NMFS' own analysis that will be included in its final Biological Opinion. The Commission also indicated that it needed: (1) an analysis of why NMFS could not eliminate the lightsticks from the longlines, due to concerns over the fact that sea turtles are attracted to lightsticks; and (2) information about whether seabird minimization measures could be included that have been recommended by Birdlife International[31] (Exhibit 13).

The Commission concluded that:

> *… despite the additional information submitted by NMFS, given the information currently available, the Commission does not believe NMFS has made a compelling case that to further transition from one destructive fishery to one arguably less destructive fishery, for an area which is currently seasonally off-limits to that fishery due to its destructiveness, is consistent with the goals and requirements of Section 30230 to maintain healthy populations and protect areas of special biological significance. Nor has NMFS made the case that the same information it seeks to gather in conducting this experiment cannot be accomplished by conducting the activity outside the seasonal Leatherback Conservation Area, from September 15 to November*

[31] *See* Footnote 2.

> *15. At a minimum, the Commission can only conclude that information is lacking that would enable the Commission to determine the project's consistency with Section 30230.*

Information obtained since the previous Commission action. Several relevant developments have occurred since the August 2007 hearing. They are listed briefly below.

Petition to revise the critical habitat designation for leatherbacks to include the Pacific Leatherback Conservation Area. The Secretaries of Commerce and Interior have received a petition to revise the critical habitat designation for leatherbacks to include the Pacific Leatherback Conservation Area. The petition was submitted on September 26, 2007. An initial finding from the Secretaries of Commerce and Interior is due December 26, 2007. If they find that a critical habitat revision is warranted, it will take up to approximately 2 years to designate (September 2009). If this area is designated as critical habitat, then activities that occur within it are subject to a higher level of scrutiny. For the proposed EFP, a critical habitat designation would not occur within the timeframe for the 2008 EFP fishing season. If the EFP is approved and/or applied for again in 2009, or if the Commission objects and the Secretary of Commerce Appeals process results in an approved but delayed 2009 EFP, and the PLCA has been designated, then a revised BO will need to include this level of analysis. For the time being, the Commission notes that the PLCA is under review and an initial finding is due late December 2007.

U.S. Fish and Wildlife Service 90-Day finding on a petition to list the Black-Footed Albatross as Threatened or Endangered. The US Fish and Wildlife Service's notice of petition finding and initiation of status review is contained in its Federal Register notice of October 9, 2007 (Vol 72, number 194) and states:

> *We find that the petition presents substantial scientific or commercial information to indicate that the inadequacy of existing regulatory mechanisms may threaten the continued existence of the **black-footed albatross**.*
>
> *We find that the petition presents substantial scientific or commercial information to indicate that the ingestion of a variety of contaminants, such as organochlorine compounds and heavy metals, may pose a threat to the continued existence of the **black-footed albatross**. [emphasis added]*

The notice found that substantial new information is available warranting consideration of listing this species. A review and information gathering phase has been triggered and should be concluded before June 2008. At that time, USFWS will either find that listing is not warranted, warranted, or warranted but precluded. If either of the last two findings are made, the black-footed albatross would become a candidate species until such time it is listed through a draft and final rule published in the Federal Register. If the black-footed albatross is listed under the Endangered Species Act, then NMFS will need to undergo an Endangered Species

Act Section 7 Consultation process with US Fish and Wildlife Service because the proposed EFP is estimated to take this species.

NMFS 90-Day finding on a petition to reclassify loggerhead sea turtles in the North Pacific Ocean with Endangered status and to designate critical habitat. Loggerheads are currently listed as Threatened under the Endangered Species Act. NMFS just published its finding that the petition presents substantial scientific information indicating that the petition action to uplist loggerheads to endangered may be warranted. This notice was published on November 16, 2007 in the Federal Register (Vol. 72, No. 221) and indicated that a full status review of loggerheads has been initiated and a finding regarding this petition will be made once it is complete.

The time frame for this review and a decision for uplisting is not clear. Although NMFS does not anticipate the proposed EFP will take loggerheads, if the geographic location of the proposed EFP changes to include loggerhead habitat then this process should be closely followed to gain useful information.

NMFS denial of an EFP on the east coast that would allow 13 vessels to longline in areas that are currently closed. As mentioned during the Commission's August 2007 public hearing on NMFS' consistency determination, NMFS recently denied an EFP for longline fishing due in part to lack of statistical validity. The rationale for NMFS' denial was stated in the August 9, 2007 Federal Register Notice (Volume 72, Number 153):

> *The Blue Water Fishermen's Association requested exemptions from certain regulations applicable to the harvest and landing of Atlantic HMS in order to collect data on the performance of mandatory circle hooks with regard to target catch and bycatch rates, hooking location, and mortality of fish at haul back. The proposal included data collection in the existing Charleston Bump and Florida East Coast pelagic longline closed areas. After considering public comment received….the Agency has decided not to issue a permit as requested by the current application. Specifically, the proposal did not discuss anticipated effort levels or the spatio-temporal distribution of effort, did not identify "control" fishing locations, and did not justify the number of vessels proposed to participate in the fishery. Absence of this information limits the ability of the Agency to evaluate the potential effectiveness of the data collection program and to analyze its impacts.*
>
> *NMFS supports collecting such data under controlled circumstances and as part of a program with a scientifically rigorous study design. These data are critical to evaluating the efficacy of bycatch mitigation efforts, including required bycatch reduction gears and time/area closures in the Atlantic pelagic longline fishery.*

The implications from this east coast EFP are that NMFS denied it because of a weak study design that lacked a spatio-temporal distribution of effort, did not identify "control" fishing locations, and did not justify the number of vessels. The proposed EFP contains similar

problems. No spatio-temporal distribution of effort is described, no "control" fishing locations are proposed, and no justification is provided for how one vessel will provide statistically valid data that could inform fishery managers on future management decisions. The Commission questions NMFS' consistency of approach, because it appears to support an EFP on the west coast that contains similar study design concerns that led NMFS to deny an EFP on the east coast.

The Commission further notes that, since that EFP was denied, a November 5, 2007, Federal Register Notice (Vol. 72, No. 213) requests comments on an Environmental Assessment for a new EFP in these same closed waters in the Atlantic. NMFS wrote this new EFP and will carry out the research. The new EA contains a rigorous scientific basis that the previously denied EFP did not. The research calls for 289 sets in total over a 1 year period, with half of the sets to occur outside the closed areas to act as a control. A power analysis was performed that confirmed the number of sets in and out of the closed areas will be able to provide a statistical difference between the two.

Comparing and contrasting this east coast EFP with the proposed wet coast EFP highlights the proposed EFP's shortcomings and shows how it is different in its methodology, effort, and research from that of the east coast EFP. For example, there is no rigorous scientific basis to the proposed EFP, nor was a power analysis that would determine the number of sets and amount of effort needed to create statistically significant data performed. The number of sets is much smaller and no control areas are included. The Commission believes that, in addition to avoiding the Pacific Leatherback Conservation Area altogether (during the time/area closure), the proposed EFP needs to be redesigned to a comparable level of statistical validity and scientific usefulness.

5-Year Reviews for Leatherbacks and Loggerheads. The Endangered Species Act requires completion of periodic reviews of species that are listed as threatened or endangered to ensure that the listing of these species remains accurate. NMFS completed a 5-year review for both loggerhead and leatherback sea turtles in August 2007. Both reports raise further concerns.[32]

Loggerhead populations are dropping worldwide. NMFS identified the most significant manmade factor affecting the conservation and recovery of the loggerhead as incidental capture in commercial and artisanal fisheries.

The East Pacific and Malaysia leatherback populations have collapsed. These are the same turtles that migrate to California to forage off the coast. Threats include loss of habitat, egg collection, killing of nesting females, low hatchling production despite large numbers, predator pressure, ship strikes, ingestion and entanglement with marine debris, and exposure to contaminants such as heavy metals. Incidental bycatch in artisanal and commercial fishing

[32] *See* NOAA Fisheries, Office of Protected Resources, 5-Year Reviews under the Endangered Species Act at http://www.nmfs.noaa.gov/pr/listing/reviews.htm (last visited on November 21, 2007).

operations, including longline, gillnet, and trawl fisheries, is a major impact that is far from being resolved.

New scientific publication indicates even a small number of longline vessels can dramatically impact sea turtles. This new journal article published in October 2007 studied takes of loggerhead turtles in gillnets and longlines in Baja California Sur, Mexico. While most of the analysis was specific to loggerheads in Mexico, the authors did find the following:

> *While bycatch in industrial-scale fisheries has driven declines in marine megafauna, small-scale fisheries can apparently have similarly severe effects where they overlap with megafauna high use areas. New telemetry studies are revealing that a range of migratory megafauna spend considerable time in coastal waters during vulnerable life history stages…..small-scale fisheries may be among the greatest current threats to non-target megafauna.*[33]

Leatherbacks were specifically cited in the reference section as a migratory megafauna that spends considerable time in coastal waters during vulnerable life history stages as revealed through telemetry studies. Some of these studies were included in the leatherback discussion section presented earlier in this staff report. The new information contained here is that it does not take an industrial-scale fishery to adversely affect endangered sea turtles if small numbers of longline fishing vessels operate in high use areas. The proposed EFP will be operating in the highest use area known for leatherbacks on the west coast: the Pacific Leatherback Conservation Area. This provides additional support for the Commission's view that leatherbacks off the California coast qualify for special protection and that the proposed EFP does not provide this level of special protection.

New Magnuson Act Provisions Will Counter Import Threat. NMFS, the applicant, and some members of the public argued that the proposed EFP should be approved as a way to counter imported swordfish because foreign countries may not have bycatch regulations comparable to those of the United States. The Commission believes other methods are available to achieve this goal, in particular new provisions contained in the newly reauthorized Magnuson-Stevens Fishery Conservation and Management Act that were designed to address this very issue.

Specifically Sections 609 and 610 of the Magnuson Act require the identification of nations whose vessels are engaged in illegal, unregulated, and underreported fishing and/or nations whose vessels are engaged in bycatch of protected living marine resources and do not have a regulatory program designed to end or reduce bycatch that is comparable to the United States. Identified nations are notified and the Secretary of Commerce initiates consultations to encourage those nations to take appropriate corrective steps. Bilateral and multilateral treaties,

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[33] Peckham, S.H., et al. *Small-scale fisheries bycatch jeopardizes endangered pacific loggerhead turtles.* PLoS ONE. October 2007. Issue 10. e1041. p 1-6.

agreements for international restrictions through appropriate international management bodies, and amendments to any existing international treaties are all strategies that may be employed to address the bycatch of protected living resources.

Identified nations are either positively or negatively certified by the Secretary of Commerce. A positive certification means the nation has provided evidence that it has taken the necessary corrective action. If a nation is negatively certified or if NMFS cannot make a determination regarding its certification, the Secretary of the Treasury shall deny entry of that vessel to any place in the United States and to the navigable waters of the United States; and the President shall direct the Secretary of the Treasury to prohibit the importation into the United States of fish or fish products.

NMFS and the State Department have created a team that is currently working to draft proposed rules that will define the identification and certification process. These proposed rules are projected to be published in the beginning of 2008. This team is simultaneously working on bilateral agreements to avoid negative certifications and the need to impose trade sanctions. This program is estimated to be in place within the next five years, meaning that American consumers will only have certified imported seafood available for purchase.[34] Successful implementation of these provisions of the Magnuson Act would nullify the argument that the proposed EFP is needed to counter swordfish imports.

Marine Mammal Protection Act Provisions Can Also Counter Import Threat. This statue has an enforcement provision that allows the Secretary of Treasury to prohibit imports from foreign countries that do not have bycatch measures to protect marine mammals that are comparable to the United States. Thus, yet another federal statute contains the authority NMFS could implement to protect U.S. fishermen by prohibiting the import of seafood from foreign countries that do not have comparable bycatch regulations. To the Commission's knowledge, NMFS has not currently availed itself of this enforcement tool.

Commission Conclusion. Given the information currently available, the Commission does not believe Mr. Dupuy and NMFS have made a compelling case that to further transition from one destructive fishery (drift gillnet) to one arguably less destructive fishery (longline), in an area which is currently closed to longlining and seasonally closed to gill netting (due to leatherback takes), is consistent with the goals and requirements of Section 30230 to maintain healthy populations and protect areas of special biological significance. Nor has NMFS made the case that the same information it seeks to gather in conducting this experiment cannot be accomplished by conducting the activity outside the seasonal Pacific Leatherback Conservation Area, from September 15- November 15. Conducting the EFP in the same waters and period drift gillnet fishing *is* allowed would appear to provide more useful comparisons of the two fisheries. The Commission also has concerns over the fundamental ability of the study design

[34] Personal communication between Commission staff and Alexis Gutierrez, National Marine Fisheries Service, on October 25, 2007.

to provide useful results for comparisons of the two fisheries, and the Commission therefore questions the statistical validity of the approach proposed (and notes that NMFS itself denied an EFP in August 2007 due to concerns it had over statistical validity of an EFP for longline fishing in the Atlantic). The Commission further notes that NMFS itself is in the process of promulgating regulations that will establish an expedited, uniform, and regionally-based process for issuance of EFPs. A proposed rule is expected by the end of November. Lastly, the Commission notes that very little information was provided regarding the harpoon fishery, despite the stated purpose of comparing EFP data with the harpoon fishery. Based on all these concerns, the Commission questions whether the project could be found to adequately protect important marine resources, to provide special protection to areas and species of special biological or economic significance, and to be carried out in a manner that would sustain the biological productivity of coastal waters and maintain healthy populations of all species of marine organisms. At a minimum, the Commission needs further information to determine the project's consistency with the marine resource protection policy (Section 30230) of the Coastal Act.

To adequately consider this proposal and determine its consistency with Section 30230, the Commission is seeking responses to a number questions, including: (1) whether the activity could be restricted to be outside the seasonal Pacific Leatherback Conservation Area; (2) basic project information such as the nature and effect of the caps; (3) responses to comments NMFS received on its Draft Environmental Assessment; (4) results of further coordination with other resources agencies; (5) the effect of an unexpected but potential El Niño event during the EFP period; (6) questions about how this EFP would fit into an overall strategy for take reductions, including alternative strategies for swordfish fishing that might result in fewer takes than longline or drift gill net fishing; (7) the logistics behind how NMFS plans to transition fishermen from the drift gillnet fishery to a less damaging fishery; and (8) whether seabird minimization measures could be included that have been recommended by Birdlife International (Exhibit 13).

Without this information, the Commission is unable to determine whether the proposed project is consistent with the marine resources policy (Section 30230) of the Coastal Act. The Commission therefore objects to Mr. Dupuy's consistency certification, based on lack of adequate information to determine the project's consistency with the enforceable policies of the CCMP/Coastal Act.

B. <u>Commercial and Recreational Fishing</u>. Aside from the commercial fishing protection afforded under Section 30230, quoted above on page 11, Sections 30234 and 30234.5 provide for the need to protect commercial and recreational fishing opportunities, as follows:

> ***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.*
>
> ***30234.5:*** *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

NMFS contends that the proposed EFP would support commercial fishing for the following reasons:

> *The vessel that would participate in the EFP currently works out of a southern California harbor. The continued success of his fishing operations including the development of a longline fishery for highly migratory species increases the likelihood of maintaining the demand commercial fishing infrastructure at his home port as well as any California port he chooses to land his catch. As was shown in Figures 1 and 2, the number of commercial fishing vessels in both the harpoon and drift gillnet fisheries continues to decline as economic practicalities and management actions restrict their success. An opportunity to identify a new fishery that may be more selective for targeting swordfish could maintain and may even increase the current demand for commercial boating facilities.*
>
> *The proposed action would likely have a long-term beneficial socioeconomic impact, if it demonstrates that longline fishing conducted under restricted conditions to mitigate adverse impacts to protected species is an economically viable activity. In the short term, prosecution of the EFP could generate revenue for the applicant, some of which would have community income impacts in terms of purchase of fuel, supplies and other inputs. In the long term, it may provide an alternative to the current drift gillnet fleet for converting to an alternate, more conservative fishing style. If sufficient information is gathered by means of the proposed EFP to determine whether and how the fishery may be prosecuted, regulatory action may be proposed to effect a permanent change applicable to fishery participants as a whole, based on the measures applied as part of the EFP. NMFS does not see this swordfish fishery actually expanding, but rather, converting from one gear type to another. Consequently, the economic and commercial importance of the swordfish fishery would remain intact and may even resurge to more moderate levels of fishing activity.*

In addition to supporting commercial fishing efforts, NMFS will be implementing two measures which appear to be included in order to avoid conflicts *between* commercial and recreational fishing. As recommended by the Pacific Fishery Management Council, the permitted area would avoid portions of the southern California Bight (as shown in Exhibit 2) to avoid conflicts areas heavily fished by recreational fishers, and the permit would include a cap on catches of striped marlin. Although the Commission has requested finalization of the size of this cap, it would appear that the activity would not adversely affect commercial or recreational fishing, and the Commission therefore finds the proposed activity consistent with Sections 30234 and 30234.5.

IV. SUBSTANTIVE FILE DOCUMENTS:

1. Consistency Determination CD-061-07, NMFS, Longline Fishing Permit Exemption.

2. "An Evaluation of the Proposed Shallow-Set Longline Exempted Fishing Permit's Consistency to the California Coast Act," NMFS, July 19, 2007.

3. Draft Environmental Assessment, Issuance of an Exempted Permit To Fish With Longline West Coast EEZ, NMFS/PFMC, April 2007.

4. June 13, 2007, Federal Register Notice, NMFS, Magnuson-Stevens Act Provisions; General Provisions for Domestic Fisheries; Application for Exempted Fishing Permit.

5. National Marine Fisheries Service and US Fish and Wildlife Service. 1998. Recovery Plan for US Pacific Populations of Leatherback Turtle (*Dermochelys coriacea*), p. 14.

6. National Marine Fisheries Service and Pacific Fishery Management Council, *Issuance of an Exempted Permit to Fish with Longline Gear in the West Coast EEZ, Draft Environmental Assessment,* April 2007.

7. National Marine Fisheries Service, *Endangered Species Act Section 7 Consultation Biological Opinion* on the adoption of (1) proposed Highly Migratory Species Management Plan; (2) continued operation of Highly Migratory Species fishery vessels under permits pursuant to the High Seas Fishing Compliance Act; and (3) Endangered Species Act regulation on the prohibition of shallow longline sets east of the 150º West longitude, February 4, 2004.

8. Voorhees, D.V., Pritchard, E.S., 2007. *Fisheries of the United States 2006*. National Marine Fisheries Service. Office of Science and Technology. Current Fishery Statistics No. 2006.

9. Daily, G.D., 1997. *Nature's Services: Societal Dependence on Natural Ecosystems*. Island Press. p.177-194.

10. Spotila, J.R., et al. 1996. Worldwide population decline of *Dermochelys coriacea*: Are leatherback turtles going extinct? Chelonian Conservation and Biology 2(2): 209-222.

11. Benson, S.R., et al. 2007. Post-Nesting Migrations of Leatherback Turtles (*Dermochelys coriacea*) from Jamursba-Medi, Bird's Head Peninsula, Indonesia. Chelonian Conservation and Biology. 6(1): 150-153.

12. Dutton, P.H., et al. 2007. Status and Genetic Structure of Nesting Populations of Leatherback Turtles (*Dermochelys coriacea*) in the Western Pacific. Chelonian Conservation and Biology. 6(1): 47-53.

13. Benson, S.R., et al. Abundance, distribution, and habitat of leatherback turtles (*Dermochelys coriacea*) off California, 1990-2003. In press. Fishery Bulletin, Vol. 105, 2007.

14. Read, A.J. 2007. *Do circle hooks reduce the mortality of sea turtles in pelagic longlines?* A review of recent experiments. Biological Conservation 135. p 155-169.

15. National Marine Fisheries Service. 2007. Letter from Rodney McInnis to Donald Hansen denying the EFP for drift gillnetting.

16. Carretta, James V., et al. 2007. *Draft US Pacific Marine Mammal Stock Assessments.* National Oceanic and Atmospheric Administration. National Marine Fisheries Service. Southwest Fisheries Science Center.

17. Fairfeld-Walsh,C. and Garrison, L. June 2007. Estimated Bycatch of Marine Mammals and Turtles in the US Atlantic Pelagic Longline Fleet During 2006. NOAA Technical Memorandum NMFS-SEFSC-560.

18. Carretta, J.V., et al. *Estimates of Marine Mammal, Sea Turtle, and Seabird Mortality in the California Drift Gillnet Fishery for Swordfish and Thresher Shark, 1996-2002*. Marine Fisheries Review. 66(2), p. 21-30.

19. Peckham, S.H., et al. *Small-scale fisheries bycatch jeopardizes endangered pacific loggerhead turtles.* PLoS ONE. October 2007. Issue 10. e1041. p 1-6.

Exhibits:

Click on the link at left to go to the exhibits.

1. EFP area Pacific coast-wide
2. EFP area in southern california bight
3. Intersection of 30 mile limit and Monterey Bay NM Sanctuary boundary
4. Pacific Leatherback Conservation Area
5. NMFS Consistency Determination
6. Letter, Federation of Independent Seafood Harvesters, July 20, 2007
7. December 2002 CCC Resolution Supporting the Conservation of Sea Turtles
8. Letter to NMFS/PFMC, Assemblyman Jared Huffman, March 15, 2007
9. Typical Longline Gear
10. Pre- and Post-Hawaii Regulations, Sea Turtle Interactions (CPUE)
11. Letter, Center for Biological Diversity, July 27, 2007
12. Letter, Turtle Island Restoration Network, July 27, 2007
13. Seabird Minimization Measures recommended by Birdlife International

14. NMFS August 6, 2007, response CCC to staff questions on original NMFS consistency determination
15. Peter Dupuy's Consistency Certification
16. OCRM August 7, 2007, letter to CCC granting CCC review

Separate Attachment: Additional Correspondence

Click on the link at left to go to the *correspondence*.