



Pre-Proposal: Resumption of trawling for California Halibut seasonally, Monterey Bay

I. Background

Prior to the enactment of the California Halibut Trawl bill (SB 1459) in 2004, California Fish and Game Code Section §8836 governed trawling outside three miles from the nearest point of land within waters of Monterey Bay (Fish and Game Management District 17, defined by Code Sec. §11025). Trawlers caught a variety of flatfish including halibut, flounder, sole and sanddabs in the Bay waters seaward of the 3-mile line. The area offshore of Capitola between 3 miles and about 40 fathoms can be very productive in the summer. As late as 2006, a few members of the Southern California Trawlers Association (SCTA) and several other trawlers from Santa Cruz, Moss Landing and Port San Luis made up to half of their annual landings (by value) from these trawl grounds, especially in recent years, as the live halibut market developed more fully. This is a high-value, low-volume, low-impact fishery, much as the current ocean conservation community is currently seeking to support.

During negotiations between SCTA representatives and sponsors of the California Halibut Trawl Permit legislation (SB 1459) concern was expressed regarding some language in the draft bill [now F&G Code Sec. 8841(h)] which reads “Except as provided in Section 8495 or 8842 [California Halibut Trawl Grounds (CHTG) between Pt. Conception and Pt. Mugu, and pink shrimp grounds in northern California State waters], it is unlawful to engage in bottom trawling in ocean waters of the state.” This language, on its face, appears designed to terminate all trawling in all state waters regardless of potential sustainability of modern trawl gear and techniques. We continued to comment at successive legislative committee hearings that this was not relevant to developing a halibut trawl permit, the stated goal of the legislation, and should have been stricken from the bill. It was not.

After passage of the legislation, Department of Fish & Game (DFG) wardens continued to board and inspect trawlers outside three miles, and continued to allow trawling for halibut in the historic trawl grounds outside 3 miles, in waters of 40 fathoms or less off Capitola, right up to the summer of 2006. Wardens had been enforcing regulations, and permitting trawling in this area, in the same way since 1915¹. Thus, the Department of Fish and Game, and Enforcement Division, clearly were unaware of the nexus between the language of SB 1459 and the special “bay” delineation of state waters at Monterey Bay. This special status arose from international negotiations on territorial boundaries that were historical prelude to the establishment of the U.S. Exclusive Economic Zone. (See below for explanation of various demarcation lines.)

In the Summer of 2006, a member of SCTA received a notice-letter from DFG Deputy Director Sonke Mastrup informing him that henceforth, it would be unlawful to trawl “in waters of the state in Monterey Bay,” citing F&G Code Sec. 8495 and 8842, and noting that Monterey Bay

¹ Scofield, W.L. 1948. Trawling Gear in California. CA. Fish Bull. No. 72, p. 23 “**1915**...At Santa Cruz, there were four sets [of paranzella trawl boats] in operation.”

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State Waters extend from shore out to a line drawn three miles farther offshore of a straight line between the Santa Cruz Light and Point Pinos Light (in Pacific Grove). With that notification, all trawling became officially prohibited in historic trawl grounds of Monterey Bay (and out over 12 miles from Moss Landing). This not only affected halibut trawlers, but others who have historically trawled for flounder, sole and sanddabs in waters of the Bay under Federal Groundfish Management Plan (GMP) permits or open access rules.

II. Delineation of Areas Under Regulations

A. 1:50,000 Scale Nautical Chart segment of Monterey Bay (Chart 18685)

Figure 1.

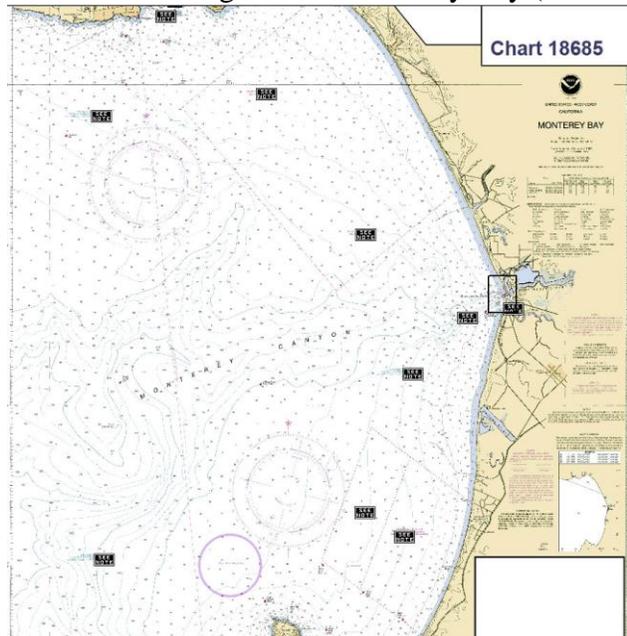
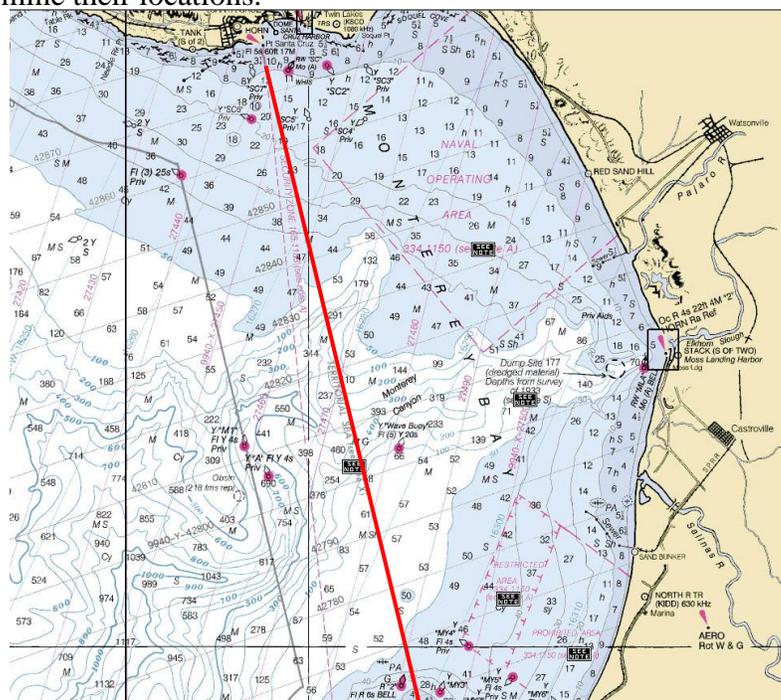


Figure 1 is a small-scale NOS-Nautical Chart segment taken from Chart 18685: Monterey Bay. Note that this fine-scale Chart for navigation of Monterey Bay does not delineate or illustrate in any way either the three-mile line or the “state waters” Boundary Line for Monterey Bay. This is, in part, one of the sources of confusion for local and regional trawl fishermen who rely on these charts, as prudent mariners should, to determine their locations.

B. 1:210,668 Scale Coastwise Chart depicting waters of Monterey Bay

Figure 2.



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Figure 2 is a segment taken from NOS Navigation Chart 18680: Point Sur to San Francisco, at a much larger scale, 1:210,668, for the named coastline reach. Note that at this larger scale, the Chart depicts a line denoted “Territorial Sea” (here highlighted in red), and, in gray, seaward by 3 miles, the “state waters” Boundary Line. Note that the “3-mile line” separating State from Federal waters coastwide follows the coast, coming from the north or top left of the chart until it encounters a point three miles seaward of the Territorial Sea line (near the Santa Cruz Lighthouse), at which point it parallels the Territorial Sea line until it encounters, again, a point 3 miles from the shoreline, near the Point Pinos Lighthouse at the south end of Monterey Bay. The Territorial Sea line runs from the Santa Cruz Light to the Pt. Pinos Light, and relates to International Waters negotiations related to the Law of the Sea Treaty. The NOS Chart Note explaining the relevance of this line reads as follows:

Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limits of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas and Puerto Rico and the Three Nautical Mile line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states...

A fuller discussion of the state-federal tension over jurisdictional boundaries can be found at

<http://caselaw.lp.findlaw.com/scripts/getcase.pl?court=us&vol=381&invol=139>.

Certain sections specifically refer to the designation applied at Monterey Bay.

C. Chart of Area Used Historically by Artisanal Small-boat Trawlers for California Halibut

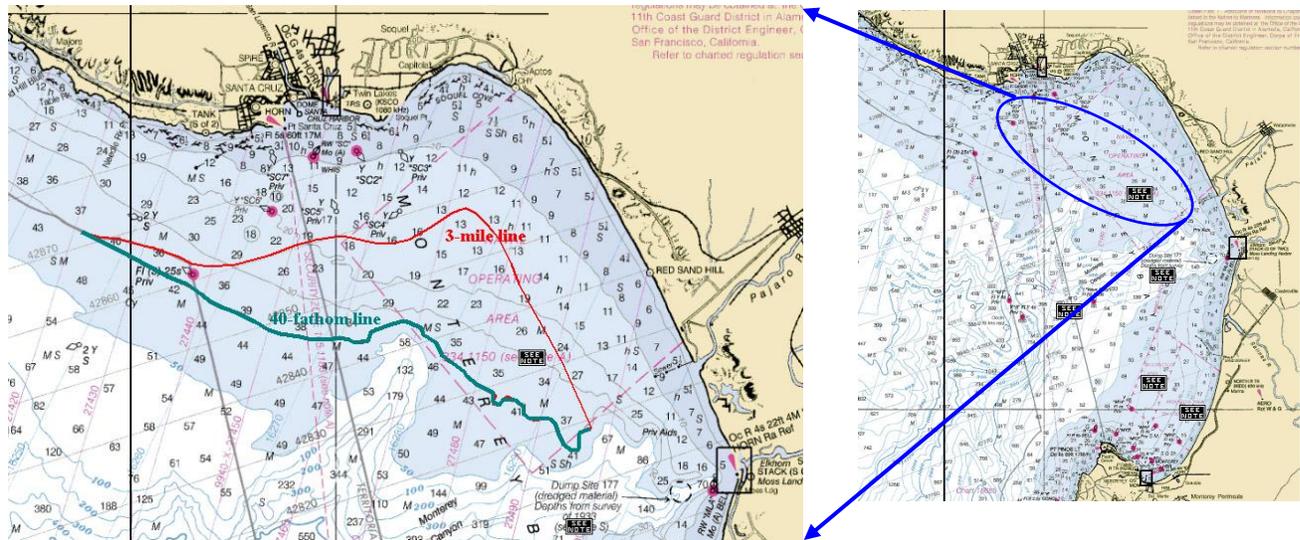


Figure 3.

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As noted above, this area has been fished on and off since 1915 with the first sets of paranzella net trawlers from Santa Cruz. The habitat is sand/sandy mud, just like the bottom type in the CHTG of the Santa Barbara Channel. Thus, halibut trawl fishing using the same type of gear as used in the CHTG would produce the same findings regarding sustainability as those in the Channel.

Because sea conditions in Monterey Bay are more extreme than those in the Channel, it is to be expected that winter storm wave events produce an even larger effect on natural sediment movements in the Bay than in the Channel, especially in the shallower waters near the 3-mile line. The halibut fishery continued to be productive in this area over nearly a century, and this sandy-mud ecosystem, in a naturally-disturbed environment, is adapted to large-scale sediment movement. Studies of the Monterey Canyon done by Monterey Bay Research Institute have noted such mass-sediment movement.

The findings made by the Fish and Game Commission regarding the use of this gear confirm that the net rides over the seafloor, not on or in it, and the doors skip along the tops of the sand ridges without digging long grooves into the sediment. Video of the net's behavior during fishing is available on the Commission's website, <http://www.cal-span.org/cgi-bin/archive.php?owner=CFG&date=2008-02-07> at time code 5:11:15 that clearly illustrate this gear behavior. Additional video showing much the same effect in before-and-after ROV passes over halibut trawled area is also available from test halibut trawls off Port San Luis during the Local Marine Fisheries Impact Program administered by the Department of Fish and Game.

Regarding issues raised by some during SB 1459 hearings on the effects of sediment, a biologist intimately involved in the restoration of kelp beds in Southern California for decades provided testimony indicating that there is no effect of sedimentation from trawling on the restoration of kelp in California. This testimony can also be reviewed at the Fish and Game Commission archived records, <http://www.cal-span.org/cgi-bin/archive.php?owner=CFG&date=2007-11-01> at time code 3:10:35.

As previously mentioned, paranzella trawling in Monterey Bay began in 1915. Prior to the enactment of SB 1459, trawling was authorized in waters outside 3 miles by Fish and Game Code § 8836, which reads

8836. In Districts 17, 18, and 118.5, trawl nets may be used in waters not less than three nautical miles from the nearest point of land on the mainland shore, including those portions of Monterey Bay, Estero Bay, and San Luis Obispo Bay which lie within those districts.

The waters of Monterey Bay are wholly within Fish and Game District 17. However, with the advent of SB 1459, language was included which conflicted with (and superceded) § 8836, and, inadvertently or not, closed these traditional halibut trawl areas, as follows:

8841(h) Except as provided in Section 8495 or 8842, it is unlawful to engage in bottom trawling in ocean waters of the state.

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Due to the definition of “state waters” in Monterey Bay stemming from International Law of the Sea considerations and court cases between the Federal and State governments, this defined away a traditional, low-volume, high-value, sustainable California halibut trawl fishery that had for decades been providing fresh, local California halibut to restaurants and markets in Santa Cruz, Monterey and as far away as San Francisco and Los Angeles. This is exactly the type of fishery that conservation groups now are trying to stimulate along the coastline.

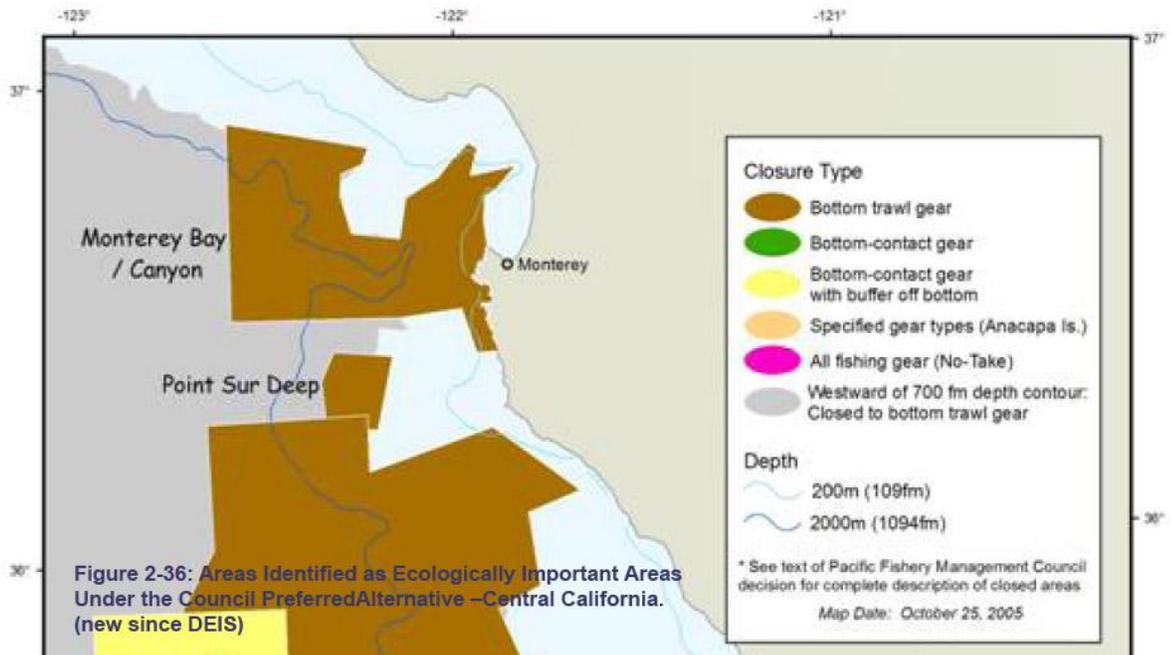
D. Pacific Fisheries Management Council (PFMC) Groundfish Management Plan Essential Fish Habitat Areas

During the development of designated Essential Fish Habitat required by the Magnuson Act of the Federal Fishery Management Councils, The Nature Conservancy and other ocean conservation NGOs worked with west coast trawl groups (Fishermens Marketing Assn., Southern CA Trawlers Assn.) to develop mutually acceptable proposals that protect deepwater coral and sponge habitat as well as underpin groundfish stock rebuilding plans. The results were comprehensive, set aside hundreds of thousands of square miles of seafloor prohibited to trawling, and acceptable to west coast trawlers, including California halibut small-boat trawl fishermen.

For the area of Monterey Bay relevant to the present proposal, the EFH set-aside is depicted in Figure 4 below. Credit must be given the NGO conservation groups for effective outreach and communication with trawl fishermen to arrive at this satisfactory outcome.

Figure 4

Essential Fish
Habitat Map
Of Monterey
Bay (excerpt
From NMFS
EFH EIS,
Dec., 2005)



Notice in Figure 4 that the area closed to trawling in Monterey Bay (brown shading) extends shoreward to about the 200 meter water depth (about 109 fathoms). Since the proposed resumption of the halibut trawl fishery in Monterey is in less than 40 fathoms water depth, there is no overlap of the proposed area with area deemed Essential Fish Habitat under the PFMC Groundfish Management Plan. This agreement was reached after clear and effective

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communication among ocean NGOs, trawl fishery representatives, and the Department of Fish and Game's representative to the Groundfish Management Team of the Pacific Council.

III. Halibut Trawl Gear: A Century of R&D

Trawling nets and doors have undergone continual research and development across the world since their inception in the late 19th century. Today's nets bear little resemblance to those of the last century except for their general, overall flattened "cornucopia" shape. Smaller boats pulling these nets have led to use of lighter and lighter twines. Due to issues with rocky bottom habitat destruction, the use of large "roller" or "rockhopper" gear has been prohibited in most trawl areas of concern. Headrope, footrope, bridle and door design have all been refined to minimize bycatch and impacts to the seafloor, as well as to be towed by smaller and smaller fishing boats².

These lighter nets, in turn, virtually prohibit use in areas that are "snaggy," such as rocky reefs, since they tear so easily. No trawl fisherman in his right mind would risk spending several days ashore mending a torn net instead of being out fishing if he knew he could avoid this result. The loss of income of several days fishing (particularly when it is good) can be a considerable reduction in annual income.

Net mesh sizes have been the subject of careful study and experiment by the Department of Fish and Game since the 1960's. Today's modern halibut trawl nets use a 7 1/2" mesh in the cod end or "bag" (where the fish collect) and this mesh size has been proven to be effective in ensuring that immature and/or sublegal halibut less than 22" in length are not retained, and that bycatch of other species is minimized, particularly of rockfish and/or other groundfish as well as invertebrates found in this sandy/mud bottom. Any invertebrates taken in halibut trawls, of course, are easily returned to the sea alive.

A careful study conducted in 1964 and 1965 showed that a 7 1/2-inch mesh trawl cod end was very effective in allowing immature halibut which are generally less than 22 inches, to escape capture (Schott, 1975). This was later confirmed by observation of commercial catches on the Halibut Trawl Grounds in 1972, 1973, and 1976, which showed that the 7 1/2-inch mesh functioned well in providing escapement for halibut less than 22 inches.³

The 7 1/2-inch mesh trawl cod end required in defined California halibut trawling grounds provides escapement for undersized, unmarketable halibut. Little objection to this regulation has been shown by the commercial fleet. Most fishermen are happy that a large percentage of the undesirable and unmarketable fishes escape through the trawl cod end. Subsequently, these do not have to be sorted and discarded.⁴

² A Community Report/primer on trawling and the gear currently used to trawl in the Santa Barbara Channel is available

from the Southern California Trawlers Association on request.

³ Karpov, K. 1981. California Halibut Fishery: An Evaluation of Trawl Ground Legislation. Marine Resources Region Report, February, 1981.

Schott, J. 1975. Otter Trawl Cod-End Escapement Experiments for California Halibut. CA Fish and Game 61(2):95-103

⁴ Schott, J. 1977. Evaluation of regulations concerning the fishery for California Halibut, *Paralichthys californicus*. Department of Fish and Game Marine Resources Administrative Report No. 77-4.

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The trawl gear proposed for use in Monterey Bay is the exact same trawl gear that was reviewed and affirmed by the Department of Fish and Game and the Fish and Game Commission during the SB 1459 hearings. As now prescribed by law⁵, the following restrictions apply to halibut trawl nets used in the CHTG [California Code of Regulations, Title 14, §124]:

(b) **Gears.** Special gear requirements apply while trawling for California halibut in the California Halibut Trawl grounds. Each trawl net, including trawl doors and footrope chain, shall meet the following requirements:

(1) Each trawl net shall have a headrope not exceeding 90 feet in length. The headrope is defined as a chain, rope, or wire attached to the trawl webbing forming the leading edge of the top panel of the trawl net. Headrope shall be measured from where it intersects the bridle on the left side of the net to where it intersects the bridle on the right side of the net.

(2) The thickness of the webbing of any portion of the trawl net shall not exceed 7 millimeters in diameter.

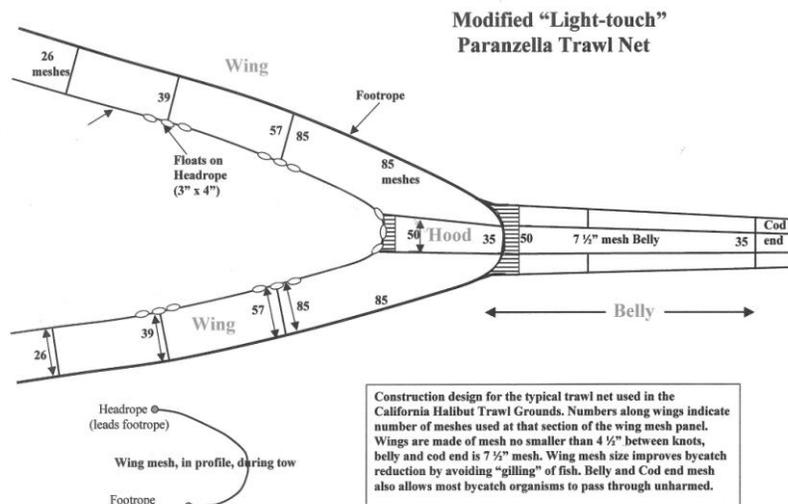
(3) Each trawl door shall not exceed 500 pounds in weight.

(4) Any chain attached to the footrope shall not exceed one quarter inch in diameter of the link material. The footrope is defined as a rope or wire attached to the trawl webbing forming the leading edge of the bottom panel of the trawl net.

(5) The trawl shall have no rollers or bobbins on any part of the net or footrope. Rollers or bobbins are devices made of wood, steel, rubber, plastic, or other hard material that encircle the trawl footrope. These devices are commonly used to either bounce or pivot over seabed obstructions, in order to prevent the trawl footrope and net from snagging on the seabed.

Note: Authority cited: Sections 8841 and 8495, Fish and Game Code. Reference: Sections 8392, 8494, 8495, 8496, 8497, 8830, 8831, 8837, 8840, 8841 and 8843, Fish and Game Code.

Figure 4. Light-Touch Paranzella Net used in the artisanal, small-boat fishery for California Halibut



⁵ CA Fish and Game Code Sec. 8495(e) and CA Code of Regulations Title 14 §124

IV. Proposed Sustainable, Low-Impact Seasonal Fishery

A. Season

As opposed to year-round fishing for California Halibut, trawl fishermen of the CHTG have long believed that regulations protecting halibut in nearshore waters during the spawning season (spring months) are a good regulation to promote a healthy and sustainable resource. Unlike sport fishing for halibut, in which “derbies” using indiscriminate treble hooks and “trap rigs” may be conducted during this important stock-rebuilding period for the fish and take undersized and spawning halibut alike, halibut trawl fishermen agreed to close the fishery in the CHTG from March 1 through June 15. This closure applies to waters as close as within 1 mile from shore, closer to the beach than the proposal for Monterey. Halibut spawn very close to the beach, typically less than a mile from shore.

Likewise, the proposed season for the Monterey Bay halibut trawl fishery is generally after the spring spawning period is over, but, importantly, three times farther from spawning areas than in the CHTG of the Santa Barbara Channel. This proposal suggests a limited time fishery in the historically-used halibut trawl areas of Monterey Bay from May 1 to September 30 only. Because this fishery is proposed to be outside three miles, as opposed to outside one mile in the CHTG, three times farther from the beach-spawning halibut, this is consistent with protection of the halibut spawning biomass near the beach in Monterey Bay.

B. High-value, Low-volume, Low-impact Sustainable Fishery

This fishery has already met the strictest standards ever applied to a commercial fishery as a result of the legislation described above. In March of 2007, the California Fish and Game Commission made the findings required by this statute. For the bulk of the Halibut Trawl Grounds, the Commission found that this fishery 1) minimizes bycatch, 2) is likely not damaging seafloor habitat, 3) is not adversely affecting ecosystem health, and 4) is not impeding reasonable restoration of kelp, coral, or other biogenic habitats.⁶

The bottom habitat type of the small area off Capitola outside three miles and extending seaward out to about 40 fathoms depth (another few miles) is just like the bottom habitat type of the California Halibut Trawl Grounds (CHTG) in the Santa Barbara Channel, to the south. It is sandy-mud bottom. Since the habitat types are the same, the fishery is likely to have the same sustainability rating in this sandy-mud bottom area off Capitola as that found by the Commission for the CHTG.

As noted above, concern raised by sportfish industry interests about the potential for trawling to affect “reasonable restoration of kelp, coral and other biogenic habitats” were addressed by the Fish and Game Commission and by testimony to the Commission from Dr. Craig Barilotti, a retired Kelco kelp restoration biologist. The concern was completely unbased in fact or theory for the California Halibut Trawl Grounds and regional kelp beds.

⁶ California Fish and Game Code § 8495(c) and California Code of Regulations, Title 14, §124(a)(1)

C. Number of Participants

As noted above, beginning as far back as 1915 only a handful of boats have used this area to trawl for California Halibut. In more recent years, leading up to the 2006 DFG letter informing halibut trawlers of the closure of state waters in Monterey Bay, only a limited number of small trawl vessels have used these waters.

Only one or two boats from Santa Cruz Harbor fished the area in 2005-2006, one or two from Moss Landing, a couple from Monterey, one from Port San Luis, and two or three from Santa Barbara Harbor. In general, the number of trawl permits has been declining fairly rapidly over the last decade, as a result of a Federal permit buyback effort under the Groundfish Management Plan, and a subsequent buy-out of many remaining groundfish permits by The Nature Conservancy in ports from Morro Bay to Half Moon Bay.

Boats from Half Moon Bay trawl for halibut in local waters, not Monterey Bay. Boats from ports further north have a declining economic equation in making a decision to come south to fish halibut for a few months in the summer, and typically have other fisheries to go to during those months. Thus, it is highly unlikely that a larger trawl vessel from Eureka or Crescent City would decide to abandon their fisheries there, steam down to Monterey Bay and fish halibut for a few months. Permits specifically for the California Halibut Trawl Fishery, required to land California halibut, have also been declining since their first issuance, as Table 1, below, illustrates.

Table 1. California Halibut Permits Issued by the State of California⁷

<u>YEAR</u>	<u># OF PERMITS</u>
2006	62
2007	59
2008	52
2009*	49

*as of September 30, 2009

Despite the low numbers of trawlers (perhaps 6-10) using the waters off Capitola outside three miles up to 2006, the supply of fresh, local California halibut to restaurants and markets in Monterey, Santa Cruz and other coastal California communities is an important social and economic value.

V. Social Impact

Small trawl vessels from Santa Cruz, Monterey, Morro Bay and Santa Barbara have accessed this halibut trawl area in the summer months for many decades, and for Santa Cruz, perhaps nearly a century. At these times, this small area provides an important component of fresh, local halibut deliveries to coastal community markets from San Francisco to Los Angeles. As our society and State looks more and more to sustainable local fisheries as the correct model for

⁷ <http://www.dfg.ca.gov>

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seafood, fresh local halibut taken by small artisanal trawl vessels a few miles from a local buying station fits the model as well as or better than many other fisheries.

In fact, two coastal tourism surveys done by Responsive Management, a nationally recognized survey research company, on behalf of the Alliance of Communities for Sustainable Fisheries⁸ in Monterey in 2007 and 2009 found that

- 86% of U.S. residents support legal commercial fishing and shellfish fishing in U.S. waters,
- 71% agree that some change to the natural biodiversity in U.S. ocean waters is acceptable in exchange for a continued food supply through fishing and shellfish fishing. Only 20% disagreed,
- 82% would prefer to buy local and 63% would not be willing to buy imported seafood, if that meant putting California's family fishermen out of business,
- 66% do not feel that fishing is even harming the ocean, 25% rated their concern for continuing family fishing at the highest level possible and 55% disagree that family fishing is harming the ocean.

All of the boats formerly participating in the Monterey Bay halibut trawl fishery outside three miles off Capitola are small-boat individual family owned operations.

When asked why they are visiting Santa Barbara and/or Monterey Harbors, many visitors readily offer that it is to see fishing boats unload catch, and to have the opportunity to get truly fresh, local seafood. Saturday "fishermen's markets" are thriving from San Pedro to San Francisco. Restaurants are now being urged to seek out, and are collaborating in this effort, to find fresh local fish and prioritize this above imported fish for which the environmental impacts are either very significant or at best completely unknown. A new and influential San Francisco Bay Area sustainable seafood and recipe book was published recently by a restaurateur about this very topic⁹. The tourism value of continuing to offer fresh local California halibut to coastal communities such as these is obviously a significant component of these coastal communities' social structure, both from a local business (fishing infrastructure) and tourism perspective.

VI. Economic Impact

Prior to its closure in Monterey Bay, the area off Capitola fished in the summer months has supported a fairly large proportion of some small trawl boat revenues. Captain Morgan Castagnola, a fourth generation commercial fisherman fishing an historic small artisanal trawl vessel owned by his family for generations (F/V Cecilia, built by Linwall Boatworks in 1949 in Santa Barbara), estimates that in some years, those few months halibut fishing off Capitola represent roughly half his annual income. Other fishermen from Santa Cruz, Monterey and Port San Luis have likewise historically depended on fishing halibut in this area for substantial parts of their annual income.

Given that every fishery in California, the most highly regulated area of 10 major fishery areas studied worldwide¹⁰, is now on a limited-entry or other restricted access basis, when a small family fishery operation loses access to an area due to changes in regulations such as this or due to the perceived need to close roughly 20% of the California coastline to take of any marine

⁸ <http://www.alliancefisheries.com/>

⁹ Johnson, P. 2007. Fish Forever. John Wiley & Sons, NJ. 438 pp.

¹⁰ Worm, B., R. Hilborn, et al 2009. Rebuilding Global Fisheries. Science 325:578-585

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organism for ecosystem reasons, it is not a foregone conclusion that the loss of income represented by the loss of area can be replaced by simply “fishing somewhere else” or joining another fishery. It is becoming increasingly more difficult for small family operations to stay in the fishing business also given the trend in fuel prices and price pressures forcing global seafood products ever downward without respect to quality or fresh local character. These are additive, cumulative effects, not independent, and the phrase “death of a thousand cuts” applied by one California Highliner to the effects of the oil industry activities on commercial fishing can easily be extended to these additional trends as well.

The closure of this area due to SB 1459, whether intentional or accidental, has had an impact on a number of small family-run fishing operations, and that has rippled through fisheries infrastructure as well. One buyer of California halibut testified at a Commission meeting during consideration of SB 1459 that he had lost a significant share of his annual revenues (nearly a third) due to the fact that he could not supply his regional customers with sufficient fresh local halibut. It is likely that this has affected the revenue stream of other buyers and processors, as well as at the retail/restaurant end of the fresh fish chain as well. One [unconfirmed] observation that may, if true, illustrate this chain-reaction economic effect is that over 40 sushi restaurants in coastal Los Angeles area communities have closed in the last year.

VII. Research & Monitoring Plan

A. Federal Observer Program

As an “open access” fishery under the Pacific Fisheries Management Council’s Groundfish Management Plan, the California Halibut trawl fishery is subject to scheduled observer participation at the direction of the Council. Observer data is readily available on a periodic basis to look at issues of landings and bycatch. In fact, the Department of Fish and Game, in participating in a recent collaborative bycatch study to provide data to the Fish and Game Commission regarding the criteria findings required by SB 1459, used Federal Observer data in their report of findings in order to make a meaningful comparison of the bycatch data observed during the collaborative halibut trawl study. California Halibut trawl vessels are required by law to take along a Federally-trained fisheries observer whenever they are requested to do so. A large body of observer data exists.

B. California Department of Fish and Game Observers

The California Department of Fish and Game also has an observer program, and periodic research projects, which have, over the years, focused research on the California Halibut trawl fishery (see footnotes, above). The California Fish and Game Code specifies¹¹ that fishing boats must comply with a Department request to put an observer aboard at any time.

Further, a team of Department biologists was assembled in 2006 specifically to work collaboratively with trawlers, Sea Grant and independent scientists to do the research called for by the Fish and Game Commission. This team of Department biologists rode the boats during the collaborative halibut bycatch study, collected, archived, and analyzed all data collected, and wrote the report given to the Fish and Game Commission as requested. Unfortunately, this team

¹¹ California Fish and Game Code § 8841 (d)

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has currently be re-assigned to the fast-paced Marine Life Protection Act (of 2000) Initiative, currently developing marine reserves in the fourth planning area of the California coast in southern California. It is unknown when the group will be returned to their biological sciences roles to assist in the implementation of Fishery Management Plans under the prior Marine Life Management Act of 1999.

C. Additional Informative Research: Halibut Migration and Growth; Mark-Recapture Study

It became clear that while the Department has done a considerable body of research on California Halibut, and published a number of Fish Bulletins, CA Fish and Game Journal articles, and Marine Resources Region research reports on the subject, much of that information does not seem to have made its way into the hands of scientific advisory bodies assembled to advise the state on marine protected areas. For example, the Science Advisory Team to the Blue Ribbon Panel for the Marine Life Protection Act Initiative published a table of data on the movements of various species of interest for MLPA, and placed halibut in a group of fish said to move as adults only 1 to 10 kilometers¹². Yet mark-recapture studies done by the Department over many years contained data illustrating far larger migrations by adult halibut. The species should have been placed in the group reported to range in the 100-1,000 km. distance category. We are personally aware of individuals who have recaptured halibut illustrating the following migrations:

- 400 halibut were tagged in Cambria during DFG inshore halibut trawl fishery tests in the early 1990s.
 - a. one tagged fish was recaptured in Santa Monica
 - b. over a dozen were recaptured inside Morro Bay
- Halibut were tagged and released by the Department in the late 50s off the commercial trawler El Capitan in N. Santa Barbara County. 5 weeks later, one of them was recaptured in Oceanside.
- Halibut were tagged and released in Santa Monica in the early 2000's. F/V Pieface recaptured three of those tagged halibut at El Capitan and Carpinteria. Other members of SCTA recaptured additional halibut from this cohort.
- During El Nino years it is not uncommon to have up to 300-400 lbs of CA halibut caught daily in Eureka inside of 3-4 miles offshore. These fish are probably from the San Francisco Bay area.
- An Oregon trawler caught 300 lbs. off Willapa Bay, OR. He reported that it was not uncommon to catch that many in Oregon from time to time.

Thus it is evident that further research into the movements of both adult and juvenile halibut would be informative, and the information is certain to be useful to the Department when they begin preparation of a Fishery Management Plan for California Halibut. Mark-recapture studies done collaboratively with trawlers on the proposed Monterey Bay halibut grounds (and CHTG) would be a cost-effective way to obtain such useful data as growth-at-age and migration distances for a variety of size classes of halibut.

Specific study design and the development of funding for such studies would be done in collaboration with any number of well-known research organizations along the California coastline, including Moss Landing Marine Laboratories, Stanford University/Hopkins Marine Station, Monterey Bay Research Institute, Cal Poly Department of Biology/Center for Coastal Marine Science, and/or U.C. Santa Barbara Marine Science Institute, depending on availability of interested parties at these centers of marine science.

¹² Audio-visual presentation to the CA Fish & Game Commission August 2, 2006 by SAT Member Dr. Mark Carr

VIII. Why Resume Artisanal Trawl for Halibut in Monterey Bay?

A. Why Not?

Because DFG Code Sec. 8841 (h) says “Except as provided in Section 8495 or 8842, it is unlawful to engage in bottom trawling in ocean waters of the state.” We believe this was an inadvertent effect of SB 1459 language, since the DFG was not aware of the State waters line in Monterey Bay. Further, 8841(h) conflicts with Sec. 8836, which specifically allows trawling outside 3 miles in waters of Monterey Bay.

B. Why?

1. There is no valid scientific reason or evidence pertinent to the habitat or ecosystem of the proposed area to disallow trawling outside 3 nautical miles in Monterey Bay:

The sandy/mud bottom trawling done by a few small, artisanal trawl boats there:

- is a low-volume, high-value, low-impact sustainable fishery,
- does no harm to bottom habitat, and
- does not conflict with other users.

Under these conditions and present Fish & Game Code, the Commission may authorize specified trawl areas under its jurisdiction [F&G Code Sections 8841 (a), (b), and (e)]

2. Consistency With MLMA

Trawl fisheries representatives commented at every opportunity during legislative hearings and negotiations on the bill that the language of Sec. 8841(h) was not central to the stated purpose of the bill (implementing a halibut trawl permit system) and therefore should not be in the bill. That language is inconsistent with many of the goals of the Marine Life Management Act with respect to fostering sustainable fisheries and coastal community economies.

3. Longstanding Traditional Halibut and Flatfish Trawl Grounds:

Trawlers have been trawling in that area since the 1915, with no evidence that catch rates have gone up or down due to anything but natural variability, and no indication that habitat has been harmed by trawling in sandy mud. If there were any significant, lasting habitat damage, halibut would long ago have been eliminated from the area. As Dr. Greg Caillet of Moss Landing Marine Lab once said in a President’s Address to the Western Society of Naturalists, “it’s the habitat, stupid!” This is a sustainable fishery on sandy/mud bottom that is not doing damage to ecosystems or biogenic habitat like deepwater corals and sponges. In fact, objective scientists might point to the potential seafloor disturbance of trawl doors in sediment habitats as an “intermediate-level” disturbance, and, under the intermediate disturbance hypothesis in ecology, this actually increases species diversity and therefore ecosystem health. It is certain that the minimal interaction indicated between trawl doors and the bottom from the videos noted above is orders of magnitude lower than natural sediment transport in winter storm conditions in the area.

4. Consistency with Pacific Fisheries Management Council Essential Fish Habitat Designation:

The specific area in Monterey Bay that SCTA suggested remain open to halibut trawling during the Groundfish Management Plan Essential Fish Habitat discussion at the Pacific Fisheries

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Management Council was approved by the Council (see Fig. 4). In fact, Department staff assisted SCTA members in delineating this area by providing the geographic coordinates of the boundaries of the area in GIS format to be compatible with all of the other graphics being used to decide which areas to close and/or leave open for Essential Fish Habitat in June, 2005¹³.

5. This is a low-volume, high-value, low-impact fishery envisioned by proponents of the Ocean Protection Council's California Fisheries Fund

With the new emphasis on low-volume, high-value, low-impact sustainable fisheries being placed on California fisheries by policy set at the California Ocean Protection Council, this halibut trawl fishery outside 3 miles fits the profile exactly:

- live halibut are brought to market, fetching added value
- only small horsepower/net capacity boats are fishing these halibut grounds
- only small numbers of halibut are brought in each day by each boat
- the fishery provides fresh local fish to local markets, supporting shore-based community infrastructure
- for some boats, 50-80% of annual income is made during this time. With limited entry on all CA fisheries at this point, there are no substitutes for this income
- seasonal only: summer months

6. Does not conflict with other ocean uses:

- no conflicts with recreational fishermen in the specified area
- no conflicts with the new COOS ocean observatory equipment or other research interests

7. No marine mammal or seabird interactions:

Sea birds, otters, seals, sea lions, whales, dolphins or porpoises are not taken in halibut trawl nets in Monterey Bay or the CHTG.

9. Relationship between tourism and commercial fishing:

Testimony before the F&G Commission suggested that tourism is so large, and commercial fishing so small (economically) in Monterey Bay, that continuing fishing would be deleterious to tourism. This actually is contrary to the known tourism draw in Monterey Bay, i.e., a commercial fishing working harbor. Commercial fisheries are a net benefit to tourism in Monterey Bay, not a detriment. The public survey polls referenced above clearly support this observation.

Further, there is little to no nexus or interaction between trawling outside of 3 miles from shore and shore-based tourism, except that tourists like to see fishing boats unload in Monterey Harbor, and like to buy fresh local seafood from Monterey markets and restaurants. The only possible time when tourism based activities would even be aware of commercial fishing 3 miles or more from shore is when whale watching boats go out, and, for gray whale-watching season, the timing doesn't overlap with this summer fishery for halibut at all.

¹³ <http://www.nwr.noaa.gov/Groundfish-Halibut/Groundfish-Fishery-Management/NEPA-Documents/EFH-Final-EIS.cfm>