Morro Bay/Port San Luis Exempted Fishing Permit
Progress Report for the Pacific Fishery Management Council

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1. Introduction - The Morro Bay/Port San Luis Exempted Fishing Permit (EFP) is testing how establishing a cooperatively managed, community fishing association (CFA) that employs commercial trawl permits to use fixed-gear such as longline, trap, pot, and hook-and-line gear off the Central California coast, under shared aggregate catch limits for target and bycatch species, can provide economic, social and environmental benefits. More detailed information on the purposes and goals of this project can be found in the 2010 EFP application, which was submitted for the November 2009 PFMC briefing book.

Between April 7 and September 30, 2010, 110 fishing trips have taken place under this EFP. It is expected that fishing under the EFP will continue until the end of December 2010. In addition to landings under the EFP, overall landings in 2009 for Morro Bay and Port San Luis have increased approximately 220% from their all-time lows in 2007. An additional offloading facility has become available in Morro Bay and the new baiting business formed in 2009 continues to operate and serve local and visiting fishermen. In addition to these developments, several other major tasks have been completed:

- An EFP fishermen selection process was revised and again successfully implemented in 2010;
- EFP data collection protocols were revised from 2009 based on feedback from fishermen and is consistently reducing data management costs;
- Use of the online database, “eCatch”, continued and is being updated to increase functionality and performance for fishermen and project managers; and,
- The harvest plan was periodically revised in 2010 with input from EFP fishermen, and regular meetings to update the fishermen on project progress and accomplishments.

Implementation of the EFP is overseen by the Community Based Fishing Association (CBFA), which is comprised of representatives of the partners on the EFP proposal. The CBFA oversees all aspects of EFP implementation. The CBFA has met approximately every two months to review progress and, offer recommendations and advice for the direction of the project. Development of the harvest plan has been led by a team that includes the CBFA, participating fishermen and project managers.

2. Harvest Planning Challenge - The goals for the harvest plan are to:

- Maximize learning of the feasibility and cost effectiveness of harvesting traditionally trawl caught species with alternative fishing gears and techniques;
- Minimize catch of depleted species and overall bycatch rates; and,

- Build foundation for local multi-species fixed gear groundfish fishery.

The primary harvest planning challenge for fishing under the EFP is to access the diversity of species that are traditionally landed by trawling using fixed gear instead. Not all trawl-caught species can be caught using fixed gear, particularly many desirable flatfish species. However, if this community (or any other) is to convert a portion of its traditional trawl capacity to fixed gear fishing, it will be important to develop the knowledge to target the diversity of species typically caught using trawl gear. This knowledge will be particularly important for operating under low limits for depleted species, increasing the value of certain target species and remaining flexible with stock assessment results and designating species overfished.

The constraints of the harvest plan include sharing low aggregate catch limits for depleted species shared among six fishermen, the need to provide a viable fishing opportunity for fishermen who make the business decision to participate in the EFP versus open access, and the need to share a fewer number of observers compared to fishermen. Further, all fishing activity in 2010 has taken place in waters deeper than 170 fathoms as an additional measure to avoid depleted species (the EFP stipulates that fishing must occur in waters deeper than 150 fathoms).

The harvest plan was developed by the participating fishermen and members of the CBFA and then approved by the CBFA. The harvest plan is intended to be managed adaptively as circumstances dictate. Management and pacing of sablefish landings has been an important consideration in the EFP harvest plan not only because they are abundant and caught in high numbers even when targeting other EFP target species, but also because they are among the most economically desirable species for fixed gear operations.

In the first iteration of the harvest plan, EFP project managers decided to establish six positions (six permits available) in the EFP and partition the sablefish aggregate catch limit (300 mt) into smaller individual allocations that were based on EFP fishermen participation duration and/or gear type. To further pace sablefish landings, each fisherman was allocated sablefish in 10,000 pound sub-allocations. Once a fisherman reached the 10,000-pound sablefish sub-allocation, an assessment of prior landings would determine the granting of another 10,000 pound sub-allocation. The aggregated catch limits for other target species (e.g. blackgill rockfish, shortspine thornyhead) was not divided amongst the six EFP fishermen, which allowed for fishermen interested in targeting these species to fish for them without the limits imposed by individual allocations.

The harvest plan also outlines the lease rate for the permit license agreement between TNC and participating fishermen. The license agreement requires compliance with all EFP terms and conditions. The lease rate can also help direct fishing efforts towards desirable and potentially underutilized target species. The lease rate outlined in the harvest plan was only levied on sablefish and shortspine thornyhead. All revenue resulting from lease agreements are allocated to the cover the cost of managing the EFP project.

Between October and the end of 2010, EFP fishermen and project managers will be exploring other harvest planning ideas to encourage more diverse catches. Diversifying catches is a long term process and will be a continuing area of focus for this project. The complete evolution of the harvest plan will be discussed in the final 2010 EFP report.

While efforts to better diversify catches clearly remains a work in progress, the collaborative and adaptive nature of the harvest planning process will be an important part of a successful CFA. The elements that have been found to be successful are as follows:

- Well defined roles and responsibilities. The harvest planning team is empowered to make decisions on the plan. Their efforts are guided by the goals and constraints of the EFP. While advice or approval may (and should) be sought from interested parties (CBFA, markets, other stakeholders), responsibility rests with the fishermen and project managers;
- A rapid turnaround of information to inform decision making and that all fishermen have equal access to information using the eCatch database (refer to Section 3.1); and,
- Planning team members meet on a weekly basis, with few exceptions, which has helped build commitment to the process and provides an opportunity to air and resolve problems quickly.

2.1. Budgeting the Aggregate Catch Limit Across Different Operations – When the trawl sector of the groundfish fishery transitions to an individual transferable quota (ITQ) management structure, a significant change expected will be the incorporation of some trawl effort into this nascent CFA. Concurrent with this EFP, TNC is working with other central coast fishermen to deploy trawl permits on trawling vessels that are subject to gear and area restrictions, and scientific research is underway to more clearly understand the economics and environmental effects of these operations. Significant effort is also being given to measuring the economic costs and benefits of these arrangements. While the downsides to trawling include that it is non-selective, more difficult to avoid depleted species than fixed gear, and contributes to greater habitat impacts, the advantages include increased diversity and volume and the market demand for trawl-caught fish. A future goal of this effort is to mitigate the downsides and accentuate the advantages of incorporating trawling into a diversified CFA portfolio.

A fishery that relies entirely on a single species or a single gear type jeopardizes community stability by harvesting that single species at a rate higher than the resource and/or market can withstand. A more resilient fishing model shows more diversity in species and gear type and is able to respond and recover quickly from shocks; much like a well-managed stock portfolio.

A challenge for the CFA in the future will be to "budget" its available quota shares across different operations in a way such that it encourages diversity, optimizes landings values, while observing constraints. Transitioning a portion of historic trawl effort to more selective gear could minimize the risk of catching depleted species, reduce habitat impacts by using less destructive gear, keep some portion of trawl vessels operational while using the remainder for

several fixed gear operations working throughout the year, and could diversify landings for both processors, the consumer and local restaurants. Another option that could provide better returns would be to target flatfish species with trawl or Scottish seine gear, and increase the proportion of quota pounds available to fixed gear operations for sablefish or rockfish which typically receive a higher ex-vessel price for their catches while reserving the quantity of petrale sole for a smaller number of trawl operations.

Cooperation among participating fishermen will be key to meeting these complex challenges. The tools and techniques, most of which are not new, used in this EFP will be effective as future efforts seek to broaden the CFA to include trawl effort. An area of exploration for the remainder of 2010 and beyond will be to how to further define and resolve the quota budgeting challenge for a successful CFA.

3. Monitoring the Exempted Fishing Permit – The goals for monitoring the EFP are:

- Ensure all fishing is conducted in compliance with EFP Terms and Conditions including catch of targeted and depleted species, location of fishing and landings, fishing gear , retention/discard requirements, participation, observer coverage, and trip limits;
- Complying with monitoring and reporting requirements, including at-sea observers, bi-weekly landings reports, vessel monitoring systems, and preliminary and final reporting requirements;
- Provide full catch accounting for fishing activity under the EFP;
- Find ways to make monitoring efficient and less costly; and,
- Provide for fishery data and reports to be available to managers and fishermen to inform harvest and fishing trip planning.

In the EFP, each fishing trip is monitored by a human observer and fishermen must retain all rockfish, regardless of condition (marketable or not). For this EFP, fishermen complete a project-specific logbook and record the port/harbor departure date, time, and set date, time, location, and composition of catches (retained and discards). In addition, fishermen have been asked by project managers to record the costs associated with each trip such as fuel, ice, bait, baiting services, groceries and crew share. Observers provide bycatch and discard information and assist in documenting total catches associated with EFP fishing. These data are entered into a database, known as “eCatch”, along with data from other fishing projects (including a restricted trawl operation in Morro Bay and a Scottish seine operation in Half Moon Bay) and are used to monitor the fishery, prepare catch reports for NMFS, and provide data in a user-friendly form to fishermen.

3.1. eCatch - The CFA will require economically efficient collection of up-to-date and accurate information on the location, amount, and species of fish caught under the EFP and other arrangements and agreements. To address this need and to maintain data integrity and efficiency, an online database, known as “eCatch”, was developed and deployed a secure, password protection. This database provides a low cost method for project managers, staff and fishermen to monitor collective progress towards aggregate catch limits, assess revenue, and

visualize the spatial behavior[1] of the fleet. The one-way flow of these fishery data from fishermen to fishery managers was viewed as a shortcoming and a missed opportunity in traditional monitoring. Other cooperative fishery efforts have relied upon selective data sharing among the cooperating fishermen to allow them to monitor their activities and make improvements.

eCatch is a powerful tool for adaptive and spatial management. EFP fishermen have access to the online eCatch database and can utilize the database to access trip data and utilize these data to plan upcoming fishing trips, view maps of their recent trips, assess the EFP fishing grounds to identify those areas with the greatest potential for target species and to identify and avoid areas in which depleted species are likely to be caught. Feedback has been solicited from the fishermen on ways to increase the functionality of the database. Many of the recommendations revolve around increasing the information seen by each fisherman for their respective trip and set (i.e. time of day, geographic coordinates, number of fish per set, and tide and moon phase) that is visible in the map interface of the database. During the 2010 EFP, a recommendation from the EFP fishermen was to make target species landing data available only to project managers and the respective EFP fisherman that conducted the trip while maintaining the sharing of depleted species catches with all EFP fishermen. The fishermen's rationale for this change was to reduce competition for fishing locations and to provide a stimulus for geographic experimentation. The overall consensus is that eCatch may be able to assist the fishermen fish more efficiently and reduce bycatch rates of non-target and depleted species.

eCatch also includes a number of standard queries, including one that allows project managers to produce a report on catches that is accurate within 48 hours (the timeframe within which fishermen must submit trip data to project managers) and data is reviewed for quality every two weeks (the timeframe for required reports to NMFS). Project managers are interested in developing on-board, real-time data collection strategies, such as electronic logbooks that may be able to upload data to eCatch in near real-time fashion.

[1] Spatial information from EFP fishermen is from latitude/longitude for each set reported in trip logbooks. For trawl operations, a subscription for Vessel Monitoring System data was purchased.

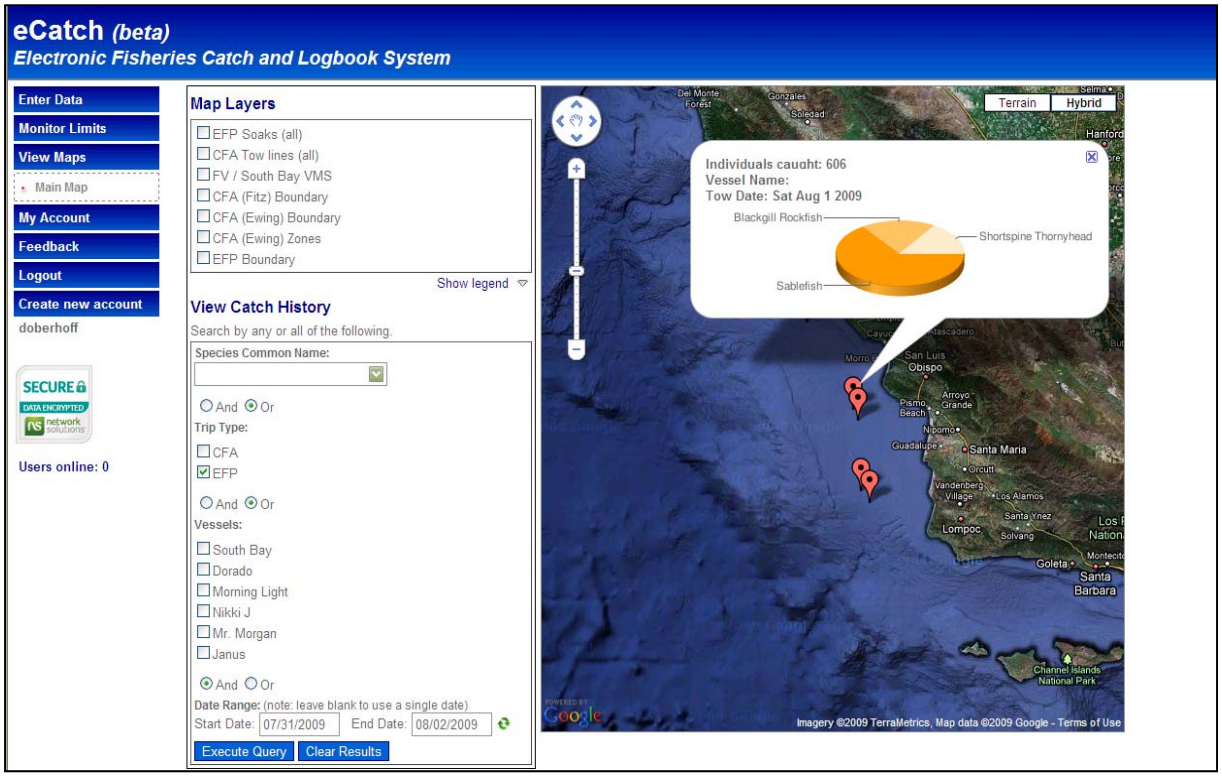

Figure 1 - Screenshot of eCatch database interactive mapping tool showing set locations. Note that each set has an associated pop-up that will show the date, name of vessel, quantity of fish caught per set, and catch composition. Data is available for EFP/Fixed gear operations, trawl and Scottish seine operations. (please note this example uses a fictionalized trip and set locations to protect confidential information of EFP fishermen.)

3.2. Observers – In the 2010 EFP, four observers are under contract by TNC with Pacific States Marine Fisheries Commission (PSMFC) to meet the EFP's 100% monitoring requirement. The EFP-dedicated observers cover all EFP fishing trips on a full-time basis and are following WCGOP observer protocols. The observers have also been tasked with completing an EFP project-specific trip summary form and a census of all retained rockfish for each fishing trip. Observer coverage is costly and fishing trip revenues are not sufficient to cover these costs. Maximizing the use of observers (smaller number of observers than fishing operations) and having the flexibility to research less costly monitoring schemes (i.e. electronic monitoring) is essential for smaller scale fishing operations.

In the 2010 EFP, four observers were shared among six fishing operations. If a future CFA is to facilitate sharing of observers as a means to reduce costs, a fair and transparent protocol must exist for assigning observers and a fisherman must accept the need to forego a trip if an observer is not available. In this EFP, the protocol used to assign an observer to a fishing vessel is part of the harvest plan and may be modified by the harvest planning team if necessary. From April 7 to June 30, a priority ranking system was created based on the timing of the landings by the individual fishermen, i.e. the fisherman with the most recent landing will receive the lowest priority rank and thereby move other fishermen up in priority. All requests for an observer had to be made with at least 24 hours notice. Any requests for an observer by a fisherman with a

lower rank defers to the highest ranked fisherman first. If the highest ranking fisherman chooses not to exercise his right to the available observer, the observer will be offered to the fisherman in the second position and so forth. A fisherman ranked higher than the requesting fisherman may choose to exercise their rank and utilize the available observer, thereby "bumping" a lower ranked request but subsequently sending himself to the lowest rank. If no higher priority fishermen utilize the available observer, the observer will be assigned to the lower priority rank individual who initially made the request.

On July 1 the observer sharing protocol in the harvest plan was changed due to the inclusion of two additional fishermen (from four to six fishermen) and a request by returning EFP fishermen that foresaw a need to revise the protocol to maintain an equitable sharing system. The observer sharing protocol developed by the fishermen and accepted by the fishermen and project managers has been termed the "20 day/10 day Observer Sharing Protocol." This protocol designates four of the six fishermen as "primary" fishermen (since there are four observers) and two as "secondary" fishermen. The protocol assigns a specific observer to one of the four fishermen for a 20 day period. The two fishermen in the secondary position will not have a dedicated observer for a 10 day period, but observers not being utilized by the primary fishermen can be assigned to a secondary fisherman. The observer assignments become effective at 12:00 a.m. on the day that their respective period beings and expires at 11:59 p.m. on the last day of the period. Exceeding these timeframes would only be allowable if agreed upon by the primary fisherman and the secondary fisherman. All requests for an observer were to be made by each fisherman and directly to each observer with 24 or more hours notice, which has reduced project management time and costs.

Partners in this project have identified the cost of human monitoring under the ITQ fishery to be a major impediment to developing a successful CFA. The costs of 100% observer coverage to individual fishermen, particularly those fishing fixed gear under trawl quota, would be too great for most small scale fishing operations.

In 2008, NOAA worked with TNC and the EFP fishermen to test the feasibility of a video-based electronic monitoring (EM) system on vessels using fixed gear in the EFP. While results from the 2008 study showed positive results, a short fishing season and lack of funding from NOAA to continue the research resulted in little new available data to guide the further development of EM for the larger fishery. Also, one potential bias was identified in that fishermen were relying on observers to share information. To resolve this issue, observers were instructed not to share their estimates with fishermen in 2009 and 2010. Additionally, improvements were made to the EFP logbooks to make them more comparable with EM technology. An EM system has the potential to be cost effective only if an audit system can successfully be developed. Future development of EM systems will require precise recordkeeping by individual fishermen, maintaining accurate logbooks and reporting technical issues to EM technical support staff in a timely manner. These steps will be critical towards developing an audit system in which the video reviewer will only have to review a portion of the data to make it cost effective. TNC funded another electronic monitoring project for 2010 on all vessels fishing under the EFP. An

interim and final report will be submitted to the Pacific Fishery Management Council that documents the results of the 2010 electronic monitoring project.

4. Jobs and Economic Effect of the Project – Local shoreside businesses have continued to invest in expanding their capacity as a result of increased harvest activity in the area, and the baiting business established in 2009 continues to grow and has been able to employ up to 12 people during the busy times of the year. Further, TNC and other partners have been working with local fishermen in cooperative research efforts, contributing to local employment in the fishery. Estimates of economic activity related to the EFP and other efforts will be updated in the final EFP report due to PFMC in 2011.

5. Fishermen Selection – In order to make the selection process as open and transparent as possible, project managers announced the details of the EFP opportunity in the newsletters to the Port San Luis Commercial Fisherman's Association and Morro Bay Commercial Fishermen's Organization and held a public meeting in both Port San Luis and Morro Bay to answer questions, distribute applications, and other pertinent material, and gain support for the project. Any commercial fisherman interested, eligible, and willing to abide by the rules of the EFP was invited to submit an application.

Ten fishermen applied to participate in the 2010 EFP. An independent, three member selection panel composed of community leaders, was convened to review the applications and make recommendations to TNC. TNC interviewed the top candidates and made the final decision to invite six fishermen to participate. All fishermen were identified to NMFS for confidential review by the Office of Law Enforcement (OLE). OLE provided no information to TNC, only verified for NMFS prior to issuance of the EFP that the applicants had no violations that would preclude their participation in the project.

6. EFP Landings Report – From April 7 to September 30, 2010, (the latest biweekly catch report to NMFS), target and depleted species landings under the EFP are as follows:

2010 EFP Rockfish and Non-Rockfish Landings

Target Species	EFP Landings and Observer Data (mt)	Amount Remaining (mt)	Aggregate Catch Limit for EFP (mt)
Sablefish	181.08	118.92	300.00
Southern Slope Rockfish (incl. blackgill and darkblotched)	7.78	52.22	60.00
Blackgill Rockfish	7.70	32.30	40.00
Longspine thornyhead	0.43	29.57	30.00
Shortspine thornyhead	10.63	49.37	60.00
Lingcod	0.00	15.00	15.00
Other fish:			
Chilipepper rockfish	0.00	20.00	20.00
Spiny dogfish	0.35	9.65	10.00
Splitnose Rockfish	0.01	0.99	1.00
Flatfish:			
Dover sole	0.38	9.62	10.00
Petrale sole	0.00	10.00	3.00
Other flatfish	0.00	10.00	10.00
Miscellaneous fish:			
Other skates	1.95	-	-
Pacific grenadiers	0.85	-	-
Unsp. Grenadiers	0.05	-	-
Albacore	0.04	-	-
Pacific pomfret	0.001	-	-
Unsp. octopus	0.001	-	-
Unsp. mackerel	0.001	-	-
Southern Shelf Rockfish	<0.001	-	-
Pinkrose rockfish	<0.001	-	-
Rosethorn rockfish	<0.001	-	-

2010 EFP Depleted Species Landings			
Depleted Species	EFP Landings (pounds)	Amount Remaining (pounds)	Aggregate catch limit for EFP (pounds)
Canary Rockfish	0	50	50
Yelloweye Rockfish	0	150	150
Widow Rockfish	0	4,409	4,409
Darkblotched Rockfish	0	1,000	2,204
Pacific Ocean Perch	0	300	300
Cowcod	0	440	440
Bocaccio	0	11,023	11,023

For more information on this Exempted Fishing Permit, please contact Michael Bell (805-441-1460 or mbell@tnc.org).