

Washington Coastal Stray and Abandoned Crab Pot Reporting and Recovery Program

1. Project Summary

Applicant Organization: Washington Department of Fish and Wildlife (WDFW)

Project Title: Washington Coastal Stray and Abandoned Crab Pot Reporting and Recovery Program

Site Location: The Stray and Abandoned Pot Reporting and Recovery programs will cover the state and federal waters from the U.S. Canadian border to the Washington Oregon border. The Cut-Off Crab Pot Recovery Program will be focused on two high priority areas; the area near the mouth of Grays Harbor from Copalis Beach to Pt. Chehalis and the area near the mouth of the Columbia River north to Klipsan Beach.

On-the-Ground Activity Start Date: July 2009

NOAA Trust Resources to benefit from the project: The removal of lost crab gear will benefit Dungeness crab, mussels, other invertebrates and benthic organisms, juvenile and adult rockfish, flat fish, salmon, marine mammals, and other marine life and will restore the habitats necessary to the health of these species.

Project Scope:

- Implement a program utilizing chartered vessels operating both during and after the commercial crab season to remove crab pots that have been lost or abandoned.
- Implement data collection protocols that will quantify the amount of gear removed and the species affected by derelict gear in the chartered vessel removal and the high priority area gear removal effort.
- Develop educational materials on the effect of derelict gear, ways to reduce gear loss, and report on the extent of derelict gear on the Washington coast.

Area to be Improved: State and Federal waters along the coast of Washington.

Project Time Line: Summer 2009 through Summer 2011

Federal Funds Requested & Non-Federal Match Anticipated: Total federal funds requested: \$73,612 non-federal match anticipated: \$72,131

Overall Project Cost: \$145,743

Note: We recognize that this is not exactly the 1:1 match requested in this document. Please refer to the budget narrative for details.

Partner and Volunteer Support Anticipated: The Westport Dungeness Crab Fishermen's Association, the Columbia River Crab Fisherman's Association, and the Quinault Indian Nation, have all agreed to provide volunteer support in addition to contract support for gear removal efforts. The volunteer hours will primarily be spent during on board gear removal work and with storing and distributing salvaged gear.

Letters of Support:

Ray Toste, Westport Crab Fishermen's Association

Dale Beasley, Columbia River Crab Fisherman's Association

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2. Project Narrative

Background

The states of Washington, Oregon and California are authorized to manage the coastal Dungeness crab fisheries adjacent to each state in state (0-3 miles) and federal waters (3-200 miles) through the Magnuson Stevens Fishery Conservation and Management Act. The Washington Department of Fish and Wildlife (WDFW) manages the fishery off the coast of Washington.

The coastal commercial Dungeness crab fishery has occurred in Washington's coastal waters for many years and is one of the most important commercial fisheries in Washington State. Since 1950, the Washington coastal crab fishery has produced between 2.6 and 25 million pounds per season. Coastal crab landings over the last 20 years average about 14.7 million pounds per season; the 2004-2005 season produced record high landings of 25 million pounds.

The commercial fishery in Washington occurs in coastal waters extending approximately 140 miles from the U.S. Canadian Border to the Washington Oregon border and west from the shore to approximately 80 fathoms and at times deeper.

There are 225 coastal Dungeness crab licenses under a limited license program; approximately 190-200 of those have been actively fished during the most recent seasons. Under a two tiered pot limit of 300 or 500 pots per vessel, approximately 90,000 crab pots are deployed at the start of each commercial season, which typically starts in December or January. The majority of the crabs are harvested in the first four to five months of the nine-month season.

A healthy Dungeness crab resource sustains a commercial fishery that has a strong socioeconomic impact on the small remote coastal communities of Westport, Ilwaco, Chinook, Neah Bay and LaPush. The majority of the crabs harvested in the coastal fishery are delivered to buying facilities and processing plants located in these ports, which provides additional jobs and resources to these communities. The vast majority of the fishers that participate in this fishery also make their homes and raise their families in these communities. A healthy Dungeness crab resource has provided these communities long term stability during years when salmon and groundfish resources could not support large commercial fisheries.

Problem

Not only do stray and abandoned crab pots present a problem to those that are dependant on a healthy Dungeness crab resource to make a living they also have a detrimental affect on NOAA trust resources. State-enforced regulations governing crab pot design and construction serve to minimize the potential for long term 'ghost fishing'

by pots that remain on the sea floor. 'Escape rings' and panels held together with biodegradable twine help to insure that crabs trapped in lost pots are released in a reasonable amount of time. These measures will protect the Dungeness crab resource to some extent but even with these provisions, it is certain that lost crab pots are responsible for unnecessary crab mortality and degradation of the marine environment.

The coastal crab fishery is underway during some of the most severe weather of the year. In the past, post-season surveys have estimated gear loss to be approximately 10% of the pots fished during the season. Gear loss may be higher in some areas.

Weather is a major mechanism for gear loss, poor weather at the beginning of the season can create rough seas where pots can drift off with strong currents and become lost. Pots can also get buried by sand because of strong currents and become what is known as a "stuck pot". Marine vessel propellers may cut off buoys as they pass through heavily fished areas creating what are called "cut-offs". If fishers cannot find lost pots or do not have the means to recover stuck pots or pots with cut off buoys they become abandoned or derelict gear.

Cut-off', 'stray' and 'abandoned' crab gear is increasingly causing 'gear conflicts' with other fisheries that share the near shore waters adjacent to the coastline, as well as problems within the commercial crab fleet itself. Salmon trollers and bottom trawlers have expressed frustration due to regularly occurring encounters with crab pots in the course of their routine fishing activities. Trollers report gear tangles, broken rigging and lost opportunity in areas rendered virtually un-fishable due to stray pots and their accompanying ropes and buoys. Trawlers complain of time lost spent removing cut-off pots that routinely become entangled in their nets as they tow the sandy bottom inside of 100 fathoms. Crabbers themselves, complain about productive 'crab grounds' that become difficult to fish because abandoned strings of crab gear take up valuable 'real estate'. WDFW has received an increased number of reports from recreational fishermen that are coming into contact with stray and abandoned crab gear.

Crab pots become a problem if they get moved from their organized strings by becoming snagged on the tow bridles of barges that frequently transit crab-fishing grounds. Other pots are lost from their string when high winter swell and strong winter currents move and disperse pots far from the location the fisherman set them.

Stray pots can disrupt other fishing gear including salmon troll gear and create problems for mariners transiting the area. Smaller salmon troll vessels can become unstable if the trolling gear entangles a stray pot. Loss of salmon troll gear, including those fish on the lines when the entanglement occurs, results in the demise of fish, primarily salmon species. Stray pots also impact shrimp and near-shore bottom trawl fisheries. In these cases, the stray pot typically becomes entangled in the forward part of the net or doors and is drug along the seabed until the vessels picks up its net.

Action to Date

Stray and abandoned crab pots have accumulated in coastal waters as a result of many years of commercial and recreational Dungeness crab fishing. WDFW and the commercial Dungeness crab industry have started working to address stray and abandoned crab gear along the west coast of Washington State.

In 2008, WDFW formed an ad hoc Coastal Stray and Abandoned Crab Gear Removal Advisory Board. The advisory board includes staff from WDFW, including marine enforcement staff, representatives from the Westport Crab Fishermen's Association, the Columbia River Crab Fisherman's Association, commercial crab fishermen and Quinault Indian Nation staff.

It is difficult to know the location and quantity of stray and abandoned pots along the coast of Washington. In order to get an idea of magnitude of the problem and to aid in prioritizing gear removal efforts, WDFW will implement a reporting system, available to all marine vessels to report the location of crab pots that have become lost or separated from actively fished crab pots. This program will be implemented in early 2009 and will include all of the coastal waters from the US Canadian Boarder to the Oregon-Washington border.

The lost gear reporting program creates a system that will quantify and map visibly lost and abandoned gear in the coastal waters off Washington from the U.S. Canadian border to the Washington Oregon border. A toll free telephone number will be provided for recreational fishermen, shrimp fishermen, trawl fishermen and tug crew to report locations of the stray pots. WDFW will collect and enter the data into a database. Information collected will include the location of the buoys as GPS coordinates (latitude and longitude), and any visible buoy brand, tag and color information. The department will compare the reported information to WDFW license and buoy databases so that the owner may be contacted.

It is intended that this system will be combined with the stray and abandoned gear reporting system already in place in Puget Sound. WDFW will work with coastal fishing groups including the Westport crab Fishermen's Association, Columbia River Crab Fisherman's Association, Westport Charter Boat Association, Washington Sea Grant, coastal Tribes and the U.S Coast Guard to publicize this information.

Last winter, WDFW worked with the commercial crab industry to help crab fishermen recover crab gear that had been disrupted by the severe storm that hit the coast and southwest Washington on December 3, 2007, just days after the commercial crab season got underway. This recovery effort included the implementation of a program that allowed fishermen to recover their own gear in addition to gear owned by other fishers that had agreed to participate in the program. This program was unique in that it included an emergency regulation allowing fishermen the ability to recover gear that did not belong to them; under normal fishing regulations it is illegal to have another persons gear on board your vessel.

WDFW will continue to work with the advisory board, enforcement staff and the coastal crab industry to develop and implement regulations that allow volunteer vessels to remove stray and abandoned pots when the owner is not available, unidentified or when there is an agreement between the owner and the volunteer during and after the commercial crab season. Many fishers work on retrieving gear that has been stuck or lost during once the season is over. Fishers work together to bring in gear that belongs to multiple owners and request permission through WDFW enforcement to have gear that is owned by someone else on board another's vessel. These provisions are intended to relieve some of the constraints that fishers feel is keeping them from their traditional practices of retrieving stuck, lost and abandoned pots at the end of the season. These measures are specifically designed to increase the amount of stray and abandoned crab pots that are removed during the normal fishing operations during and after the commercial season.

Project Overview- Next Steps:

WDFW is taking a stepwise approach to the development and implementation of a stray and abandoned crab pot removal program in coastal waters. The portion of the WDFW proposal that comprises the majority of the funding need focuses the stray and abandoned crab pot removal efforts to the southern Washington coast. The rationale behind this smaller scale focus is twofold, 1) it will provide the WDFW team an opportunity to develop the skills and methods required for effective gear removal on the open ocean and 2) it will target the gear removal to specific high priority areas. The northern high priority area is located in an area that is co-managed by the WDFW and the Quinault Indian Nation (QIN). WDFW and QIN will work together to coordinate the gear removal effort in this area.

Stray and Abandoned Pot Recovery Program

Gear left in the water after the coastal commercial crab season closes on September 15th is determined to be 'illegal' and subject to seizure by WDFW enforcement officers. Unfortunately, the Marine Enforcement division does not have the resources to retrieve all of the 'abandoned gear' left in the ocean at the end of the season.

This portion of the proposal focuses on the removal of stray and abandoned crab pots that are visible from the surface using contracted commercial vessels. This effort will restore and protect the marine habitat and increase safety to commercial and recreational vessels by removing stray and abandoned crab pots that would normally be left in the marine environment.

The removal efforts will be focused on the high priority areas near the entrance of Grays Harbor south to the Columbia River. The WDFW proposal includes 16 vessel days dedicated to the removal of crab gear left in the ocean after the fishing season is closed, twelve-vessel days will be dedicated to this portion of the proposal. WDFW will begin soliciting contractors for this portion of the program in July of 2008 with the goal of beginning the removal efforts in late September after the end of the commercial season.

Although it is impossible to provide an exact figure for the amount of gear that will be removed during this portion of the project, the charter operation will be conducted in areas known to have high concentrations of lost crab pots and will attempt to maximize the amount of gear removed.

Cut-off Crab Pot Recovery

This portion of the program will focus on the removal of up to 100% of the crab pots that have had buoys separated and become un-retrievable in two one square mile areas. The removal will be focused in the high priority areas near the mouth of the Columbia River and the entrance to Grays Harbor. This project will restore marine habitat and protect living marine resources by removing derelict gear from a specific area.

This effort is based on a program conducted by ODFW off the Oregon coast and is designed to identify, through at-sea 'trials', effective and efficient methods to recover this lost gear so it can be removed from the ocean and minimize the 'nuisance factor' to other fisheries. The project will attempt to quantify the amount of derelict gear on the seafloor in certain high-traffic areas. The project will also attempt to determine the effectiveness of biodegradable escape mechanisms currently used on crab pots.

Four vessel days will be dedicated to this portion of the project. A mid-sized vessel equipped with suitable winch equipment and adequate deck-space will be contracted to tow a grapple on the ocean floor following a pre-determined 'grid pattern'. These 'sweeps' will be carried out in areas known to contain numerous crab pots (i.e. waters adjacent to the mouth of the Columbia river and the waters near the entrance to Grays Harbor) and will be conducted in a manner that will effectively 'clean' a specific location of crab pot debris. Various methodologies will be employed to determine effectiveness, and all 'at sea' activity will be documented for review and implementation beyond the project period. WDFW will consult with ODFW and the OFCC prior to conducting this work in order to implement a program utilizing the most appropriate methods and tools.

If ownership of crab pots brought to shore from this effort can be determined, they will be returned to the owner. If the owner cannot be determined, crab pots will be distributed based on the Washington State Uniform Unclaimed Property Act (Chapter 63.29 RCW).

Benthic ocean habitats will be free of crab pot debris. The animals of these habitats will have a decrease in mortality due to the removal of derelict pots in these areas. Although crab pots are designed with escape panels and with bottom segments designed to decompose, there still may be some animal mortality due to pots continuing to fish for at least a short time. The pots may continue to capture fish and shellfish if the traps are flipped upside down and the escape panel and biodegradable segments are buried. The presence of crab pots could also alter bottom structure and change the composition of animals present. The project will sweep a fixed area of bottom for crab pots and count the number of pots recovered. Live animals will be removed from the pots, counted, and released. Dead or attached animals will be counted and identified at the dock by WDFW employees. From monitoring the two areas covered, we will get a

measure of the numbers of derelict pots per square mile and an estimate of ghost fishing mortality per pot and per square mile for each area monitored.

Monitoring Program

Provide a summary report of information collected from the cut-off pot removal program. The program will provide a specific measure of the numbers of derelict pots per square mile and an estimate of ghost fishing mortality per pot and per square mile for each area monitored.

The cut-off pot removal program will result in the removal of up to 100% of the derelict crab pots from two heavily crabbed areas off of Westport and Long Beach, Washington. The number of recovered pots per mile, mortality per pot for each area, and an estimate of total derelict pot mortality that will be eliminated as a result of the cleanup will be determined for both areas.

The stray and abandoned pot removal program will be monitored by counting the number of pots recovered by the reporting system and then use the mortality data from the cut-off pot retrieval study to estimate the average mortality per lost pot and multiply it by the number of pots recovered to arrive at an estimate in the reduction of derelict pot mortality by stray pots.

Education

Design and distribute a brochure describing the effects of derelict crab gear on living marine resources and habitat. Produce a summary report of the cut-off pot removal program that estimates the extent of derelict crab gear in the Washington coastal areas surveyed.

WDFW with input from the advisory board will develop a brochure that explains the effect a derelict crab pot can have on the marine environment and how reducing the amount of derelict gear can restore and protect living marine resources. A summary report of the derelict gear removal program that quantifies the amount of derelict gear and the resulting mortality will be produced. The brochure and summary report will be mailed to all 225 coastal Dungeness crab license owners. The information will also be posted on the WDFW web site.

Local fishermen will be involved in gear recovery efforts and the development of protocols for prevention of gear loss. Fishermen will also help in developing preventative measures that can help decrease gear loss and in designing effective methods for the recovery of derelict gear.

WDFW will document the recovery of gear including retrieval methods, the animals (dead and alive) in contact with derelict gear during the project period. Photographs and video will be compiled for future educational purposes.

Permits and Consultations

Identifying permit requirements and obtaining any needed permits for crab pot retrieval is planned as part of the Coastal Stray and Abandoned Crab Pot Removal Advisory Board. This proposal will be internally reviewed and approved to be sure that any derelict gear removal efforts that occur in state waters meet the requirements of the WDFW derelict gear removal guidelines. All living marine life, except that are attached to gear that has been retrieved, (barnacles, invertebrates, algae) will be recorded and immediately returned to the water. Attached marine life will be recorded on shore. A Scientific Collection Permit, available from WDFW is required when taking marine species for scientific or educational purposes and will be obtained prior to gear retrieval. If a NOAA scientific research permit is also necessary, it is anticipated that permit can be obtained within a couple months of application. WDFW has the legal authority to conduct the project and is working with the WDFW Enforcement Division to ensure that no legal barriers exist that could hinder the project.

The planned methods and gear to retrieve pots and nets are anticipated to have minor and transitory impacts to living marine resources and habitats off Washington. WDFW will consult with ODFW and OFCC to obtain the specially designed grappling hooks designed for their cut-off pot removal program. The 'cut-off' gear removal project that utilizes grappling hooks will target sandy bottom in the area south of Copalis Beach near Grays Harbor to the Columbia River at the WA-OR border. The project sponsors will consult with NOAA Fisheries on Essential Fish Habitats for groundfish and salmon and on NEPA requirements.



