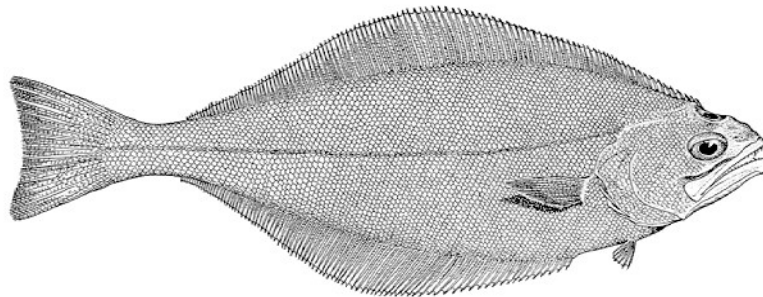


APPENDIX B:
Proposed Arrowtooth Flounder -
Rockfish Conservation Area (AT-
RCA)Trawl Fishing Program
Scoping Document



**Proposed
Arrowtooth Flounder -
Rockfish Conservation Area (AT-RCA)
Trawl Fishing Program
Scoping Document**



May 2004

Washington Department of Fish and Wildlife
Intergovernmental Resource Management
48 Devonshire Road
Montesano, WA 98563

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**WASHINGTON DEPARTMENT OF FISH AND WILDLIFE (WDFW)
PROPOSED
ARROWTOOTH FLOUNDER-ROCKFISH CONSERVATION AREA (AT-RCA)
TRAWL FISHING PROGRAM**

SCOPING DOCUMENT

1. BACKGROUND AND PURPOSE

Excluding Pacific whiting, the West Coast groundfish fishery stocks and harvests have been declining since the early 1990s. Since 1993, due to the increasingly severe harvest restrictions, landings of groundfish have fallen. Most of the decline has occurred in recent years with current levels of harvest being less than half of the harvests achieved in 1993. Over the last two decades, an unusually low level of recruitment into the fishery has occurred for many groundfish species.

Changes in the oceanic regime and an abnormally high number of El Nino events are likely to have contributed to the decline in the recruitment of several important long-lived rockfish species. These causes have exacerbated the difficulties in setting harvest quotas that attempted to counteract the decline in these stocks. This has a primary effect on the fishers and their crews, and secondary effects on port communities and fishery-related businesses, such as fish processors. The complex dynamics of managing the groundfish fisheries is further affected by the fact that recovery of these long-lived species will range from 10 years at the minimum to in excess of 50 years.

In recent years, the Pacific Fishery Management Council has been presented with new scientific information which suggests that productivity of West Coast groundfish is unusually low. As a result, more restrictive management measures have been adopted since 1998. During the 1983-1999 period, coastwide non-whiting landings have decreased 65 percent from 107,000 metric tons to 38,000 metric tons. In terms of revenue for the same period, non-whiting revenues have declined by 54 percent from \$99.9 million to \$46 million. The decline in abundance has been particularly severe for rockfish and flatfishes which account for about half of the non-whiting revenue.

Since 1998, the Pacific Council has initiated rebuilding plans for nine overfished groundfish species. Critical to these rebuilding plans and to the overall improvement of groundfish management is the need for more and better scientific data. There are 82 species covered under the West Coast Groundfish Fishery Management Plan, and at present, there is little or no data on a large number of these species. There is a need for comprehensive, timely and credible data for priority species to aid in the conservation and rebuilding efforts for these stocks.

In January 2000, the Secretary of Commerce declared a commercial fishery failure in the Pacific Coast groundfish fishery. In response to the request for disaster assistance, Congress appropriated \$5 million in federal assistance to the affected states. Washington State received \$1.5 million of the total appropriation, and a portion of those Disaster Relief funds (\$300K) went to WDFW to implement its At-Sea Data Collection Program.

The AT-RCA program has been conducted under an Exempted Fishing Permit (EFP) for four years, as part of the WDFW At-Sea Data Collection Program. This project was initiated in 2001 to allow fishers access to healthier groundfish stocks while meeting the rebuilding targets of overfished stocks, and to collect bycatch data through an at-sea observer program. It was understood that the data collected in these programs would assist with future fishery management by producing valuable and accurate data on the amount, location and species composition of the bycatch of rockfish associated with these fisheries, rather than using calculated bycatch assumptions. It was also thought that these data would allow the Pacific Council to establish trip limits in the future that maximize fishing opportunities on healthy stocks while meeting conservation goals for depleted stocks.

Pacific Coast groundfish are managed by the Pacific Fishery Management Council under a federal fishery management plan (FMP). The management goals of the FMP are to:

1. Prevent overfishing by managing for appropriate harvest levels and prevent any net loss of the habitat of living marine resources.
2. Maximize the value of the groundfish resource as a whole.
3. Achieve the maximum biological yield of the overall groundfish fishery, promote year-round availability of quality seafood to the consumer, and promote recreational fishing opportunities.

In 2000, the Council adopted a Groundfish Fishery Strategic Plan. Strategic plan goals include:

- To adopt understandable, enforceable, and stable regulations that, to the greatest extent possible, meet the FMP's goals and objectives and the requirements of the Magnuson-Stevens Act.
- To establish an allowable level of catch that prevents overfishing while achieving optimum yield based on best available science.
- To quantify the amount and species of fish caught by the various gears in the groundfish fishery and account for total fishery-related removals.

The Groundfish Strategic Plan suggests that observer coverage be prioritized, perhaps focusing on collecting total mortality data for overfished groundfish stocks. As a secondary priority, the plan also states that an observer program should supplement the collection of data for stock assessments. Both of these objectives, along with the goals outlined above, are addressed with the proposed AT-RCA program.

The purpose of the AT-RCA program is to assist the Pacific Fishery Management Council in achieving the goals of the FMP by collecting bycatch data on overfished stocks (e.g., canary rockfish) to allow for informed management decisions, while maximizing safe harvest levels of healthier stocks (e.g., arrowtooth flounder).

Specifically, the objectives of the AT-RCA program are to:

- Use data collected from previous fisheries conducted under Exempted Fishing Permits to provide trawl fishers limited access to the federal trawl rockfish conservation area to target arrowtooth flounder.
- Continue to measure bycatch rates for canary and other rockfish associated with the arrowtooth flounder fishery through an at-sea observer program.
- Require the retention of all rockfish to acquire biological (age and sex) data for stock assessments through state shoreside sampling programs.
- Collect data that could be used to augment the National Marine Fisheries Service (NMFS) groundfish observer program.
- Encourage innovative ideas to develop and test selective gears.

While the AT-RCA program has been implemented through an EFP, NMFS has provided strong guidance that EFPs should have a termination date, and should not be used solely for the economic benefit of the participants. Again, from the initiation of the EFP, NMFS and the Council stressed the importance of using the data collected in these programs on a broader scale to assist with future fishery management. There was also support to apply these data to establish trip limits in the future that maximize fishing opportunities on healthy stocks while meeting conservation goals for depleted stocks.

The requirements of the AT-RCA program have been refined over time; in 2001 and 2002, the program primarily focused on the use of state-sponsored monitors onboard vessels to monitor bycatch, and collect discard data and biological samples. Beginning in 2003, WDFW required participating fishers to use an excluder device in an effort to minimize rockfish bycatch. There were no specific parameters identified; participating fishers were allowed to experiment with different excluder types. All of the participants used one of three types of excluders—these are defined and required as part of the 2004 EFP, and as part of the proposed AT-RCA program. Also for 2004, the participants will not have full access to the trawl rockfish conservation area (RCA), but are required to avoid areas of higher rockfish bycatch within the RCA. These closed areas have been defined through results from the first three years of the EFP, and are part of the provisions of the proposed AT-RCA program.

As the EFP has been refined over time, with more requirements each year, the participating fishers have been adamant in their belief that the majority of the bycatch reduction is a result of having an onboard monitor and hard bycatch caps for overfished rockfish, primarily canary. The presence on an onboard observer or state-sponsored monitor has caused the fishers to change their fishing behavior. They are actively avoiding areas with higher bycatch rates, experimenting with gear modifications to exclude rockfish, and taking a more precautionary approach to fishing practices in general, in order to stay within their bycatch caps while maximizing targeted catch.

WDFW believes that the AT-RCA program has been a success as an EFP and the data collected has been extremely valuable. Aside from the bycatch and biological data, the EFP has demonstrated that certain management tools, such as an at-sea monitoring program, bycatch caps for overfished rockfish, and mandatory rockfish retention, can be successfully implemented and also supported by fishers by providing economic incentives.

Since this management approach has been successfully demonstrated and refined over the four years of the program, there is little value in continuing the AT-RCA program as an EFP and much to be gained by moving the program into federal regulations. Because the EFP has been funded with state Disaster Relief monies, participation in the EFP has been limited to Washington-licensed trawl fishers; having the program defined in federal regulations would provide the opportunity to participate in the AT-RCA program to all West Coast trawl fishers.

2. ALTERNATIVES

Alternative 1. No action alternative (status quo). This alternative reflects no special provision for a conservation area approach to provide targeted trawl fishing opportunity for arrowtooth flounder, either through an EFP or federal regulations. Under this alternative, the EFP would be discontinued and arrowtooth fishers and processors would have to harvest and fill markets with arrowtooth that may be available outside the trawl RCA. It would result in no changes in management costs and no increase in costs for trawl fishers. For those participants in the Washington arrowtooth flounder EFP, there would be significant reductions in revenue. There would also be significant impacts to the facilities that process arrowtooth flounder and to their communities as a result of discontinuing the EFP. The vessels that fished under the EFP would likely fish seaward of the trawl RCA to access higher large footrope limits. As a result, there could be changes in fishing mortality of targeted stocks (arrowtooth flounder and petrale sole), bycatch of overfished rockfish and non-rockfish species, EFH impacts as a result of changing areas fished, and enforcement costs. The expected impacts of this alternative are compared with the expected impacts of Alternative 2 in the analysis of Alternative 2 below.

Alternative 2. Implement the provisions of the previous Washington Arrowtooth Flounder EFP into federal regulations. This alternative would integrate all of the provisions of the Washington arrowtooth flounder EFP into regulations pertaining to limited entry trawl permitted vessels fishing for groundfish within the EEZ. Specifically, this option would allow trawl fishers to access portions of the trawl RCA north of Destruction Island, WA, and have higher limits for arrowtooth flounder and petrale sole for the May-August time period. The provisions of this alternative include: implementation of a full rockfish retention program; 100% observer coverage (either by a state-sponsored monitor or a federal observer); fully funded by the permit holder; bycatch caps for overfished stocks; rockfish excluder requirements; and VMS declaration requirements. A full description of the regulatory provisions for this alternative are contained in Appendix A.

3. ANALYSIS

Management Costs - There is expected to be an increase in management costs as a result of

modifying the VMS declaration system and administering the state-sponsored monitoring programs. The intent of this regulation would be to add a declaration code to the existing NMFS VMS declaration system. Fishers who would like to participate in the program would need to declare, through the VMS declaration system, on or before February 15 of each calendar year (i.e., must declare by February 15, 2005, in order to participate in May-August 2005). The estimated cost of adding the declaration code to the NMFS VMS declaration system is a one-time cost of \$15,000.

Following receipt of the declaration notice, NMFS staff would provide Groundfish Management Team representatives with the list of participants. State agency representatives would then be responsible for contacting the vessel owners within their respective states, and securing contracts with those individuals for the program. The key elements of this contract include: the provisions of the AT-RCA program (observer coverage, bycatch caps, rockfish retention, area closures, and gear requirements), a payment schedule for the state-sponsored monitoring program, and a designated processing facility (to be completed by the vessel owner). The costs associated with this administrative task will vary, depending on the amount of vessels that declare and, subsequently, the number of contracts that will need to be prepared and issued; however, the estimated cost of this activity is expected to be minimal (< \$200 per year).

Once the contracts have been secured with the participating vessels, the state agencies will meet with the representatives from the designated processing facilities that have been specified in the state/vessel contract, to review the provisions of the program as well as secure contracts with them. The key elements of this contract include: Provisions to comply with the rockfish retention provision--processing facilities receiving the fish will need to record the rockfish above trip limits, but required to be retained under this program, on a separate fish ticket--and the requirement to forfeit the value of those rockfish above limits to the state. The costs associated with this administrative task will vary, depending on the amount of processing facilities involved. The initial (first-year) estimated cost of this activity is expected to be about \$500; however, this cost should be reduced in subsequent years (< \$200 per year).

After the contracts are in place, the state agencies will follow their respective procedures for hiring temporary personnel as state-sponsored monitors. Once staff have been hired, additional time will need to be spent training the at-sea monitors consistent with the NMFS Observer Training Manual. Training activities will need to include: safety training; sampling methodology; rockfish and flatfish identification; equipment training; and familiarity with the provisions of the program (estimated training time is about ten days). The task of hiring and training the state-sponsored monitors is estimated to be about \$3,000 per year.

Beyond training, there will be additional costs associated with supervising the monitors and overseeing the program. To the extent that these tasks can be absorbed with existing staff resources, these administrative costs for the duration of the four-month program are estimated to be about \$5,000. If additional supervisory staff needs to be hired, the projected costs would be increased to about \$12,000. The budget detail for the management cost estimates are contained in Appendix B.

Participant Costs and Revenue

Under Alternative 2, the participating permit holders would be liable for reimbursing the respective state agencies for the costs associated with the state-sponsored monitoring program. The estimated costs for the monitoring program will vary by state, but is estimated to be about \$4,000 to \$4,500 per month, or \$16,000 to \$18,000 for the full four-month program. Table 1. describes the average ex-vessel revenue above trip limits for the vessels participating in the Washington arrowtooth flounder EFP in 2002 and 2003. The reason the ex-vessel revenue increased in 2003 is a combination of an increase in effort (one significant vessel only participated for two months in 2002) and a decrease in trip limits for arrowtooth flounder and petrale sole in 2003 (small footrope limits).

Table 1. Average ex-vessel revenue above trip limits for the 2002 and 2003 Washington arrowtooth flounder EFPs.

	Arrowtooth	Petrals	Total
2002	\$36,951	\$6,881	\$43,832
2003	\$42,843	\$45,268	\$88,111

The trip limits which were in place for May-August for 2002 and 2003, and planned for 2004, are contained in Table 2. Table 3. uses the Fisheries Economic Assessment Model (FEAM) to project the impacts at the processor, vessel, local, and state levels for the value above trip limits in the 2002 and 2003 Washington arrowtooth flounder EFPs.

Table 2. Limited entry trawl trip limits for May-August north of 40°10'N latitude, 2002-2004.

	2002		2003		2004	
	Per trip	Per mo.	Per 2 months		Per 2 months	
			Lg Foot	Sm Foot	Lg Foot	Sm Foot
Arrowtooth	7,500	30,000	200,000	5,000	150,000	6,000
Petrals		15,000	30,000	10,000	100,000	25,000

Table 3. Projected impacts using FEAM model for the value above trip limits in the Washington arrowtooth flounder EFP in 2002 and 2003.

	2002			2003		
	Arrowtooth	Petrals	Total	Arrowtooth	Petrals	Total
Processor Impact	\$687,287	\$11,636	\$698,922	\$796,875	\$76,544	\$873,419
Vessel Impact	\$368,918	\$68,702	\$437,620	\$427,742	\$451,954	\$879,696
Total Impact	\$1,056,205	\$80,338	\$1,136,542	\$1,224,616	\$528,497	\$1,753,115
At Local Level	\$940,022	\$71,501	\$1,011,523	\$1,089,909	\$470,363	\$1,560,272
At State Level	\$1,160,521	\$88,272	\$1,248,793	\$1,345,566	\$580,695	\$1,926,261

There are many factors to consider in projecting vessel revenue for participants fishing under this program, including individual effort, individual costs, market limits, and knowledge of the fishery. However, using the average revenue derived from the Washington EFPs, the amount of revenue generated from having access to the trawl RCA and higher trip limits for arrowtooth and petrale outweighs the costs of the state-sponsored monitoring program. Average revenue in 2003 of \$88,000 vs. estimated monitoring costs of \$18,000 for a net gain of \$70,000 (before costs for crew, fuel, ice, etc. are deducted).

Fishing Mortality of Targeted Stocks

Arrowtooth flounder move onto the shelf during the summer months (May-August) (Rickey 1995), so, under Alternative 1, it is unlikely that fishers using large footrope gear and fishing seaward of the trawl RCA during these months would fulfill the large footrope limits for arrowtooth flounder (200,000 lbs/2 mo. in 2003). Further, with the increase in size of the RCA in 2004 (moving from 100 fms to 60 fms for May-June, and from 100 fms to 75 fms in July-August), fishers using small footrope gear may also have difficulty achieving the small footrope limits shoreward of the RCA. Therefore, if Alternative 2 is adopted, there would be an expected increase in the fishing mortality of targeted stocks (arrowtooth flounder and petrale sole) as part of this program. However, this increased mortality probably would be similar to that experienced under the EFP given the average vessel landings of arrowtooth and petrale (within 93% for arrowtooth and 100% for petrale) that occurred with the 2003 limits for large footrope gear (Table 4.). To the extent that the projected catches of targeted stocks modeled preseason assumed that the large footrope limits would be achieved by some vessels, there may not be an increase in fishing mortality of targeted stocks beyond what was projected.

Table 4. Total and average vessel landings of targeted stocks above trip limits in the Washington arrowtooth flounder EFP in 2002 and 2003.

	2002		2003	
	Total	Per Mo.	Total	Per Mo.
Arrowtooth	369,509	92,377	428,427	107,107
Petrale	6,256	1,564	41,153	10,288

Community Impacts

There are two processing facilities that consistently participated in the Washington arrowtooth flounder EFP located in Bellingham and Blaine, Washington. Landings of arrowtooth flounder and petrale sole from non-EFP participating vessels to these facilities during the EFP period are minimal. As noted above, successfully catching arrowtooth flounder to fill available markets in the May-August period is likely dependent upon accessing the trawl RCA. If product were not available for these processing facilities to buy, significant reductions in employment and/or plant closures would result.

Bycatch

There is expected to be a full accounting of bycatch of rockfish (*Sebastes and Sebastelobus*) under this program with the 100% observer coverage and full rockfish retention requirements.

Estimates of bycatch of prohibited species will also be collected; however, estimates of non-rockfish bycatch (e.g., flatfish, lingcod) will not be collected. Under the definition of bycatch in the Magnuson-Stevens Act (i.e., discarded fish), rockfish bycatch will be reduced to zero. It is also significant to note that over the first three years of the program, less than one percent (by weight) of the rockfish that were required to be retained were unmarketable. Further, the full rockfish retention provisions of the program were strongly supported by participating processors and fishers. To the extent that rocky areas within the RCA would remain closed, and participating fishers will avoid areas of higher rockfish bycatch, this could likely result in a decrease of rockfish bycatch mortality. It is difficult to project how this program would affect bycatch of non-rockfish species because if Alternative 2 is not adopted, then most of the fishers would likely be fishing seaward of the RCA to access the higher large footrope limits; therefore, the amount of bycatch of non-rockfish species may not change. The species caught and discarded may vary, however, with higher amounts of flatfish within the RCA vs. higher amounts of Dover sole, shortspine and longspine thornyheads, and sablefish seaward of the RCA.

Enforcement

It is difficult to assess the impact to enforcement costs under Alternative 2. Fishers participating in the AT-RCA program would be shifting from the limited entry groundfish trawl fishery which would not represent an increase in overall fishing effort. There could be costs associated with an increase in the number of fishers that can access the trawl RCA. However, with 100% observer coverage under this program, and declaration requirements under the VMS system, enforcement costs might be reduced since landings of arrowtooth flounder and petrale would not need to be tracked against limits under Alternative 2.

Protected Species Interactions

There is not expected to be any increase in protected species interactions as a result of this action.

EFH Impacts

Because the proposed program is area-specific within the RCA and high rocky relief areas favored by rockfish will remain closed, this proposal is not expected to increase impacts to EFH for rockfish. Flat, muddy areas favored by flatfish, however, will be open to fishing and there may be an increase in impacts to those areas.

Data Requirements

There are no additional data requirements beyond what is currently required under state and federal law. Logbooks as required by state regulations must be maintained by the vessel operator, and trips taken under the program must be noted on the logbook sheets.

4. ALTERNATIVES CONSIDERED AND ELIMINATED

An alternative that implemented all of the provisions of Alternative 2 except for the 100% observer coverage requirement was considered. This option was eliminated because the participants in the Washington arrowtooth flounder EFP indicated that the program worked because of the observer coverage requirement. The state-sponsored monitors onboard the vessels helped ensure compliance with the bycatch caps. Having the monitors onboard resulted in

positive changes in fishing behavior—skippers avoided known areas of higher abundances of rockfish, canary, in particular. Skippers also changed other fishing practices, such as experimenting with rockfish excluder devices, shortening tow time, and fishing in areas and during times of the day when canary rockfish are less available, in an effort to reduce rockfish catches. Requiring 100% observer coverage for this program, coupled with a hard bycatch cap for overfished rockfish species, helps ensure that vessels fishing in areas which are closed for rockfish conservation (RCA) do not exceed their projected rockfish catches, which could affect other West Coast fisheries that harvest groundfish. Further, data are not available to analyze what the projected impacts to overfished rockfish would be in the absence of observer coverage and bycatch caps as these provisions were required under the EFP and fishery independent data have not been collected.

5. REFERENCES CITED

Rickey, Martha H. 1995. Maturity, spawning, and seasonal movement of arrowtooth flounder, *Atheresthes stomias*, off Washington. Fishery Bulletin 93:127-138.

REGULATORY PROVISIONS FOR ALTERNATIVE 2.

1. FISHING PERIODS

- A. The fishing activities described below would be permitted during the months of May, June, July, and August of each year.

2. REPORTING REQUIREMENTS

- A. The operator of any vessel registered to a limited entry permit with a trawl endorsement must provide NMFS with a declaration report, as specified below, to identify the intent to fish within the trawl conservation area north of Destruction Island, as defined in the Federal Register.
- B. Declaration reports will be submitted to NMFS through the current VMS declaration system.
- C. Declaration reports must be received by February 15th of the year when fishing in the conservation area will occur. (For example, to fish for arrowtooth in the trawl conservation area in May 2005, a declaration report must be received by February 15, 2005.)

3. FISHING RESTRICTIONS

A. Discards

- 1. All fish caught during a tow under the AT-RCA program must be brought onboard the vessel.
- 2. All rockfish brought on board the vessel while fishing under the AT-RCA program must be retained onboard the fishing vessel and delivered to a designated processor.

B. Groundfish trip limits

- 1. The targeted species, arrowtooth flounder, is not subject to a monthly trip limit, but is constrained by the incidental catch of canary rockfish which will be applied as follows:
 - a. Up to 250 lbs per month of canary rockfish may be landed per vessel in tows conducted under the AT-RCA program, which includes all tows within the federal trawl conservation area. If the vessel has already reached the current small footrope monthly limits for arrowtooth flounder and petrale sole as published in the Federal Register when the 250 lbs of canary rockfish are caught, the vessel cannot prosecute any additional

targeted arrowtooth tows for the remainder of the month and cannot retain any additional arrowtooth flounder or petrale sole.

- b. If a vessel has **not** already reached the current small footrope monthly limit for arrowtooth flounder as published in the Federal Register when the 250 lbs of canary rockfish are caught, the vessel may target arrowtooth flounder, and/or retain arrowtooth flounder until the small footrope monthly limit is reached. If the vessel has not already reached the current small footrope monthly limit for petrale sole as published in the Federal Register when the 250 lbs of canary rockfish are caught, the vessel may continue to retain petrale sole until the small footrope monthly limit is reached.
- c. Once the monthly canary rockfish cap has been reached, the vessel cannot fish within the trawl RCA for the remainder of the calendar month.
- d. An individual bycatch cap of 1,000 lbs. of canary rockfish will also apply to each vessel. Once this cap has been reached by an individual vessel in AT-RCA permitted tows, the vessel will not be allowed to continue to fish under the AT-RCA program.
- e. All tows conducted within the federal trawl conservation area are considered AT-RCA permitted tows.
- f. Petrale sole caught in a directed arrowtooth tow would not be subject to a monthly limit. Current groundfish trip limits for species other than arrowtooth flounder and petrale sole will apply to vessels operating under this program except that retention of rockfish over the limits will not be in violation of 50 CFR 660.323, so long as such overages are surrendered to the state in which the fish were landed.
- g. No directed "arrowtooth flounder" tows may be made south of Destruction Island (47°40'30" N. lat.).
- h. Specific descriptions of the designated areas within the trawl conservation area that would be open to fishing activities under the AT-RCA program are described in Attachment 1.

4. LANDINGS

- A. The AT-RCA program is valid only for landings made at processing plants that have been specifically designated by the state. To ensure that the purposes of the AT-RCA program are implemented, the state is required to have a written agreement, signed by a representative of a processing plant, before that processing plant is accepted as a "designated processor." The state will provide instructions to each participating processing plant specifying the plant's role and responsibilities in relation to this program, including the process for forfeiting overages to the state.

- B. The state must require that all fish caught during an AT-RCA permitted fishing trip, with the exception of spiny dogfish (*Squalus acanthias*) be offloaded at only one designated processing plant (i.e., the offloading of catch from one trip cannot be split between processing plants). Once offloading has commenced at a designated processing plant, all fish, except spiny dogfish, onboard the AT-RCA permitted vessel must be offloaded at that plant. Spiny dogfish may be offloaded at another designated plant, providing all of those taken during an individual fishing trip are offloaded at that plant.

5. GEAR RESTRICTIONS

- A. The AT-RCA program is valid only for fishing with legal trawl gear, as currently defined in federal regulations.
- B. While fishing under the AT-RCA program, an approved rockfish excluder must be used. Approved rockfish excluders are:
 - 1. Diamond Opening - A diamond-shaped opening cut into the top of the body of the net with the rear of the opening 15 meshes forward of the point where the body of the net connects to the intermediate. Each leg of the diamond must be at least 36 inches in length and cut on the bar.
 - 2. Triangle Opening - A triangle-shaped opening cut into the top of the body of the net with the point of the triangle toward the opening of the net and the base of the triangle 15 meshes forward of the point where the body of the net connects to the intermediate. The sides of the triangle must be at least 48 inches in length and cut on the bar. The base of the triangle must be at least 36 inches in length.
 - 3. Large Mesh - Large mesh in the top of the net immediately behind the headrope consisting of meshes at least 10 inches in diameter (between the knots) . This large-mesh panel must be at least the equivalent of 15 meshes of 10-inch mesh (150 inches). This would include, for example, an opening at least 150 inches in length using only jib lines to connect the headrope to the body of the net.
- C. Additionally, the fishing circle (widest circumference) of any net used under the AT-RCA program shall be limited to 450 meshes of 5 ½-inch mesh (between the knots), or the equivalent diameter if a different mesh size is used at the widest circumference of the net (for example, 354 meshes of 7-inch mesh).
- D. Vessels fishing under the AT-RCA program would be allowed to have more than one type of legal trawl gear onboard the vessel; however large footrope trawl gear can only be used for directed arrowtooth tows on the continental slope where the depth, throughout the tow, is greater than 120 fathoms.

6. DATA REQUIREMENTS

- A. Trawl Logs. Trawl logbooks as required by state law must be maintained by the vessel operator. "AT-RCA" shall be written on the log for each trip conducted under the AT-RCA program.

1. Estimated pounds of all retained species caught in each tow must be recorded in the logbooks.
 2. Before setting the gear the vessel operators must record the intended target species in the logbook.
- B. Other Reports. This program does not relieve the vessel operator from any other state or federal reporting requirements.

7. OBSERVER REQUIREMENTS

- A. All vessels fishing under the AT-RCA program must carry a state-sponsored observer or a federal observer the state has agreed to use as a substitute to monitor fishing strategies and bycatch caps, collect data to estimate catch and incidental catch, and observe the retention of all rockfish. Necessary arrangements will be made by the state to ensure that an on board observer is carried on all AT-RCA program trips.
- B. State-sponsored observers will remain onboard all of the vessel's trips for the two-month cumulative period in which AT-RCA program fishing occurs (even those trips not targeting arrowtooth flounder).
- C. Vessels carrying observers under the AT-RCA program must abide by groundfish observer regulations at 50 CFR 660.360 (d) & (j).
- D. All state-sponsored observers carried by vessels fishing under the AT-RCA program must have successfully completed an observer training course that prepares them for collecting data that is compatible with sampling protocols defined in the NMFS Pacific Coast groundfish observer manual.
- E. NMFS Observer coverage requirements at 50 CFR 660.360 are independent of AT-RCA program observer requirements. Vessels that carry a state-sponsored observer may also be required to carry a NMFS observer. A state observer is not a substitute for a NMFS observer and a vessel carrying a state observer is not exempt from federal observer requirements.
- F. The vessel operator must provide adequate departure and arrival notification to a designated state office including reasonable notice of unexpected changes in fishing plans, to allow for sampling of the catch at offloading and for deployment of at-sea [observers](#).

8. PAYMENT OF OBSERVER FEES

1. AT-RCA program participants are liable for funding of state-sponsored observers for observation duties required under the AT-RCA program.
2. AT-RCA program participants are required to secure a written agreement with the state sponsoring the observers for the AT-RCA program. Written agreements would be valid

for the calendar year issued and will expire each year on August 31st.

3. The written agreement must be signed by the AT-RCA program participant and an official representative of the state and will include, but is not limited to, an agreement to abide by the regulations of the AT-RCA program, including funding for state-sponsored observers. The agreement will specify the applicable fees and a payment schedule for those fees (estimated to be approximately \$4,000-4,500 per month).
4. Funding for state-sponsored observers must be received by the designated state office a minimum of 30 days prior to the beginning of the fishing period in which fishing under the AT-RCA program will occur. For example, funding for fishing in Period 3 (May-June) is due by April 1; funding for fishing in Period 4 (July-August) is due by June 1.

9. SANCTIONS

Failure of a vessel owner, operator, or the program participant to comply with the terms and conditions of the AT-RCA program, a notice issued under 50 CFR Part 660, Subpart G, any other applicable provision of 50 CFR Parts 600 and 660 Subpart G, the Magnuson-Stevens Act, or any other regulations promulgated thereunder, may be grounds for revocation, suspension, or modification of this program as well as civil or criminal penalties under the Magnuson-Stevens Act with respect to all persons and vessels conducting activities under the AT-RCA program.

ATTACHMENT 1

Perimeter of 2004 Arrowtooth EFP Fishing Area

1	48	25.60 N	124	49.01 W
2	48	26.21 N	124	51.62 W
3	48	30.36 N	124	51.73 W
4	48	29.98 N	124	58.86 W
5	48	28.17 N	125	5.87 W
6	48	27.17 N	125	8.53 W
7	48	20.13 N	125	23.28 W
8	48	18.29 N	125	30.34 W
9	48	14.77 N	125	41.75 W
10	48	5.82 N	125	48.07 W
11	48	2.97 N	125	39.64 W
12	48	1.05 N	125	41.02 W
13	47	54.43 N	125	37.75 W
14	47	53.01 N	125	35.24 W
15	47	55.28 N	125	27.65 W
16	47	58.29 N	125	23.87 W
17	47	48.93 N	125	18.09 W
18	47	52.11 N	125	9.62 W
19	47	54.06 N	125	12.20 W
20	47	58.48 N	125	15.90 W
21	47	59.75 N	125	19.07 W
22	48	0.83 N	125	18.99 W
23	48	0.85 N	125	17.29 W
24	48	3.92 N	125	8.42 W
25	48	0.85 N	125	8.05 W
26	48	1.92 N	124	56.71 W
27	48	5.70 N	124	56.79 W
28	48	15.98 N	124	55.91 W
29	48	22.99 N	124	49.41 W
30	48	24.25 N	124	49.37 W
31	48	25.60 N	124	49.01 W

No Fishing Zones Within the Perimeter of the Arrowtooth Area

ZONE 1

1	48	23.69 N	124	53.84 W
2	48	23.64 N	124	57.00 W
3	48	22.43 N	124	59.66 W
4	48	20.06 N	124	59.66 W
5	48	20.03 N	124	56.93 W
6	48	23.69 N	124	53.84 W

ZONE 2

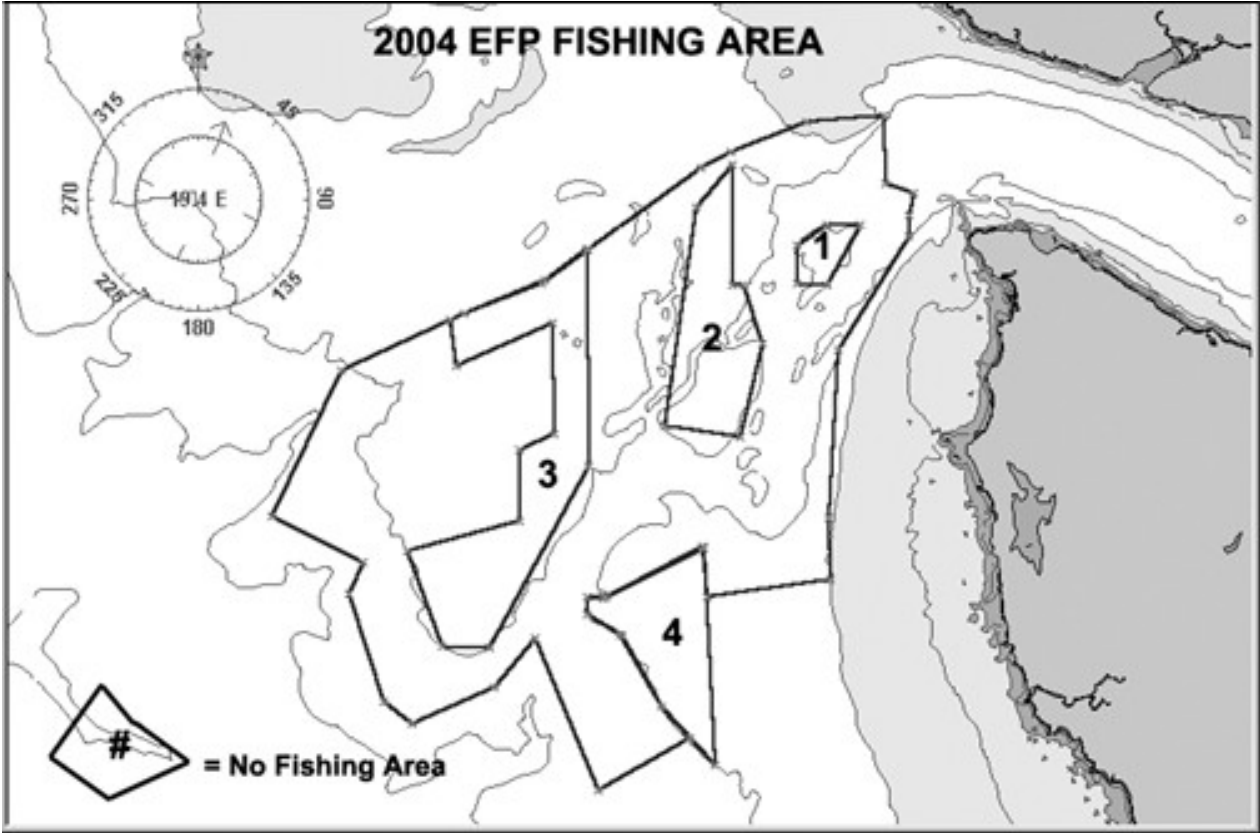
1	48	27.34 N	125	5.65 W
2	48	24.78 N	125	9.07 W
3	48	11.32 N	125	11.91 W
4	48	10.69 N	125	4.93 W
5	48	16.42 N	125	2.89 W
6	48	19.96 N	125	4.60 W
7	48	20.03 N	125	5.69 W
8	48	27.34 N	125	5.65 W

ZONE 3

1	48	22.17 N	125	19.07 W
2	48	8.91 N	125	18.96 W
3	47	57.70 N	125	28.12 W
4	47	57.85 N	125	32.48 W
5	48	3.70 N	125	35.57 W
6	48	5.55 N	125	25.36 W
7	48	9.93 N	125	25.28 W
8	48	10.86 N	125	22.05 W
9	48	17.63 N	125	22.23 W
10	48	15.01 N	125	31.17 W
11	48	17.85 N	125	31.72 W
12	48	20.25 N	125	22.92 W
13	48	22.19 N	125	19.07 W

ZONE 4

1	48	3.90 N	125	8.27 W
2	48	0.78 N	125	17.54 W
3	48	0.87 N	125	19.07 W
4	47	59.75 N	125	19.07 W
5	47	58.53 N	125	15.98 W
6	47	54.09 N	125	12.20 W
7	47	50.44 N	125	7.22 W
8	48	3.90 N	125	8.31 W



**MANAGEMENT COSTS FOR ALTERNATIVE 2.
BUDGET SUMMARY AND DETAIL**

Tasks (Responsible Party)

- A. Adding declaration code to NMFS VMS declaration system (NMFS)
- B. Securing contracts with participating vessel owners (States)
- C. Meeting and securing contracts with participating processors (States)
- D. Hiring and training state-sponsored monitors (States)
- E. Supervising monitors and overseeing program (States)

Costs

- A. \$15,000
- B. < \$200
- C. \$500 (first year); < \$200 (subsequent years)
- D. \$3,000
- E. \$5,000 (existing staff resources); ~ \$12,000 (new staff)

Budget Detail

- A. Cost estimate provided from NMFS Northwest Region via e-mail (March 2, 2004)
- B. State Biologist/Policy Coordinator - Salary and Benefits @ \$4,500 per month (~\$25.00 per hour) for < 8 hours
- C. State Biologist/Policy Coordinator - Salary and Benefits @ \$4,500 per month for 2.5 days
- D. State Biologist/Policy Coordinator - Salary and Benefits @ \$4,500 per month for 1 week (\$1,000) + State Scientific Technician/Biologist - Salary and Benefits @ \$3,000 per month for 3 weeks (\$2,000)
- E. State Scientific Technician/Biologist - Salary and Benefits @ \$3,000 per month for 1.6 months (existing staff); or 4 months (new staff)