


MEMORANDUM

TO: Council, SSC and AP Members
FROM: Clarence G. Pautzke 
Executive Director
DATE: November 21, 1995
SUBJECT: Pacific Ocean Perch (POP) Rebuilding

ESTIMATED TIME 4 Hours (for all D-2 items)
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ACTION REQUIRED

Final review of Amendment 38 to revise the rebuilding schedule for Pacific ocean perch.

BACKGROUND

Decline of the Pacific ocean perch (POP) stock since the early period of the foreign fishery prompted the North Pacific Fishery Management Council (Council) to recommend a rebuilding plan for POP. The POP Rebuilding Plan was contained in Amendment 32 to the Fishery Management Plan for Groundfish of the Gulf of Alaska, which was approved by the Secretary of Commerce. The POP Rebuilding Plan provides a specific rebuilding strategy for POP stocks, based on available biological and economic information. An algorithm, or procedure, was selected to annually determine the POP total allowable catch (TAC). However, the amendment did not provide for any flexibility in setting TAC below this amount. In December 1994 the Council requested an analysis of alternatives for modifying the FMP to allow this flexibility.

The Council has expressed concern that the TAC level in a given year, as specified in the FMP, could be high enough to allow a directed fishery which may potentially jeopardize the continued rebuilding of POP populations. The environmental assessment (mailed to you on November 22nd) examines the impacts associated with establishing the current TAC specification as the upper bound and allowing some flexibility in setting a lower TAC for POP. NMFS also added an additional alternative to reevaluate the current Rebuilding Plan. Item D-2(a)(1) contains the Executive Summary from the analysis.

Three alternatives are considered:

Alternative 1: Status quo. Maintain the current procedure for specifying the annual TAC amounts for POP as detailed in the FMP. The current means of calculating the TAC was part of the policy alternative adopted by the Council under Amendment 32, the Rebuilding Plan.

Alternative 2: Amend the FMP to allow the Council to specify a POP TAC *at or below* the amount dictated by the Rebuilding Plan. The current algorithm for specifying the TAC would be the upper-bound limit and the POP TAC could be annually specified at or below this level.

> in one or more of the GOA areas or districts

Alternative 3: Re-evaluate the Rebuilding Plan to address conservation or biological concerns that may not be being met by the current plan. The Council would direct staff to complete an analysis of alternatives to the Rebuilding Plan should this alternative be chosen.

Under Alternative 2, the current TAC calculation would be the upper limit and the POP TAC could be annually specified at or below this level. This would allow the Council, for example, to adjust the TAC to provide only enough POP to supply bycatch needs in other fisheries. Available scientific information concerning the status of the stock, received from the Plan Team, the Scientific and Statistical Committee, and other appropriate sources, would be the established criteria for adjusting the TAC downwards.

The primary difference between Alternatives 2 and 3 is that the former would not change the general direction established by the Rebuilding Plan, except to allow the Council flexibility in setting annual Gulf of Alaska (GOA) POP TACs if the Council identified specific biological or conservation issues that were not adequately addressed by the Rebuilding Plan TAC level. However, if the Council believes that the general direction of the Rebuilding Plan, which will allow for increasing POP TAC levels as the POP biomass increases, does not reflect how they wish to pursue POP rebuilding in the future, NMFS recommends re-evaluation of the Rebuilding Plan to address these concerns. NMFS further recommends that if socioeconomic concerns exist with respect to the management of the POP fishery, particularly in the Eastern GOA, that it consider a separate FMP amendment to address these issues separate from the conservation issues addressed under the POP Rebuilding Plan.

Summary of Current FMP Rebuilding Plan for POP TAC

The FMP establishes the procedure for deriving the annual GOA TACs for POP. POP stocks are considered to be rebuilt when the total biomass of mature females is equal to or greater than B_{MSY} (estimated to be about 150,000 mt). Annual TACs of Pacific ocean perch are determined as follows:

- (a) Determine the current and target biomass and optimal fishing mortality rate. For purposes of this rebuilding plan, the target biomass is B_{MSY} , the total biomass of mature females that would produce the maximum sustainable yield, on average. The optimal fishing mortality rate is the rate that maximizes expected biological and economic yields over a range of plausible stock-recruitment relationships.
- (b) Determine the fishing mortality rate halfway between the optimal fishing mortality rate and the fishing mortality rate estimated to be sufficient to supply unavoidable bycatch of Pacific ocean perch in the Gulf based on 1992 bycatch.
- (c) When the current biomass of mature females is less than B_{MSY} , adjust the resultant fishing mortality rate in (b) by the ratio of current biomass to B_{MSY} . When B_{MSY} is attained, the fishing mortality rate will be the optimal fishing mortality.
- (d) The TAC of Pacific ocean perch is the amount of fish resulting from the adjusted fishing mortality rate.
- (e) The TAC is apportioned among regulatory areas in proportion to POP biomass distribution.

Note on 1996 Stock Assessment

The Gulf of Alaska SAFE shows a 1996 estimate of 125,704 mt for current spawning female biomass, and is equivalent to approximately 84% of the rebuilding plan goal of 150,000 mt. This continues an upward trend from 75,486 mt in 1994 and 116,334 mt in 1995. The spawning female biomass of 125,704 mt would lead to a team-recommended ABC of 8,060 mt in 1996 (compared to 6,530 mt in 1995), and a TAC of 6,959 mt (compared to 5,630 mt in 1995).

Executive Summary

Decline of the Pacific ocean perch (POP) stock since the early period of the foreign fishery prompted the North Pacific Fishery Management Council (Council) to recommend a rebuilding plan for POP. The POP Rebuilding Plan was contained in Amendment 32 to the Fishery Management Plan for Groundfish of the Gulf of Alaska, which was approved by the Secretary of Commerce. The POP Rebuilding Plan provides a specific rebuilding strategy for POP stocks, based on available biological and economic information. An algorithm, or procedure, was selected to annually determine the POP total allowable catch (TAC). However, the amendment did not provide for any flexibility in setting TAC below this amount. In December 1994 the Council requested an analysis of alternatives for modifying the FMP to allow this flexibility.

Three alternatives are considered:

Alternative 1: Status quo. Maintain the current procedure for specifying the annual TAC amounts for POP as detailed in the FMP. The current means of calculating the TAC was part of the policy alternative adopted by the Council under Amendment 32, the Rebuilding Plan.

Alternative 2: Amend the FMP to allow the Council to specify a POP TAC *at or below* the amount dictated by the Rebuilding Plan. The current algorithm for specifying the TAC would be the upper-bound limit and the POP TAC could be annually specified at or below this level.

Alternative 3: Re-evaluate the Rebuilding Plan to address conservation or biological concerns that may not be being met by the current plan. The Council would direct staff to complete an analysis of alternatives to the Rebuilding Plan should this alternative be chosen.

The Council requested analysis of Alternative 2 and NMFS added Alternative 3. The primary difference between the two is that Alternative 2 would not change the general direction established by the Rebuilding Plan except to allow the Council flexibility in setting annual Gulf of Alaska (GOA) POP TACs if the Council identified specific biological or conservation issues that were not adequately addressed by the Rebuilding Plan TAC level. However, if the Council believes that the general direction of the Rebuilding Plan, which will allow for increasing POP TAC levels as the POP biomass increases, does not reflect how they wish to pursue POP rebuilding in the future, NMFS recommends re-evaluation of the Rebuilding Plan to address these concerns. NMFS further recommends that if socioeconomic concerns exist with respect to the management of the POP fishery, particularly in the Eastern GOA, that it consider a separate FMP amendment to address these issues separate from the conservation issues addressed under the POP Rebuilding Plan.

The economic impact of a particular annual POP TAC will depend on the difference between the upper-limit of the TAC as determined by the Rebuilding Plan algorithm, and the amount recommended by the Council. Any reduction in TAC from the Rebuilding Plan amount will result in a loss in revenue to trawl catcher/processors currently participating in the POP directed fishery, that may or may not be made up in the future. Unless these losses are offset by other benefits identified by the Council and NMFS, the reduction in TAC would result in a net loss.

The 1995 directed trawl fishery for POP can be used to illustrate the potential economic losses to current participants in the first year from a bycatch-only TAC. Nineteen trawl catcher/processors participated in the directed POP fishery. All of these catcher/processors except one was 100 percent observed. The estimated wholesale processed product value of the 1995 directed fishery was about \$6.7 million. POP contributed

about \$3 million to the value, other rockfish approximately \$1.9 million, and sablefish bycatch about \$1.6 million. The majority of this catch would likely not have been harvested if POP had been placed on bycatch only status in 1995.