Proposed Regulation to End Groundfish Gear Restrictions at Cape Sarichef, and to Eliminate Obsolete References from Regulations

Regulatory Impact Review (RIR)

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Abstract: This document contains a Regulatory Impact Review (RIR) analyzing the potential impacts of a proposal to (1) reopen waters that have been closed to groundfish fishing to facilitate a now completed experiment on the impact of trawling on localized depletion of Pacific cod, and (2) eliminate obsolete references to the Cape Sarichef closure, and another closure at Chiniak Gully off Kodiak Island. The Chiniak Gully closure itself has ended under existing regulations. The analyses in this document address the requirements of Presidential Executive Order 12866.

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Executive Summary

This Regulatory Impact Review (RIR) evaluates a regulatory amendment that would (1) open waters off Cape Sarichef that have been closed to groundfish fishing to facilitate a now completed experiment on the impact of trawling on localized depletion of Pacific cod, and (2) eliminate obsolete references to the Cape Sarichef closure, and another closure at Chiniak Gully off Kodiak Island. The Chiniak Gully closure itself has ended under existing regulations. This RIR has been prepared to meet the requirement, in Presidential Executive Order 12866, to evaluate the costs and benefits of regulatory actions.

In 2003, NMFS restricted fishing activity by trawl, longline, and pot fishermen in a zone off Cape Sarichef, just north of Unimak Pass in the Aleutians, for the years 2003-2006. The purpose of the restriction was to facilitate an experimental test of the hypothesis that trawl fishing imposed localized depletion on stocks of Pacific cod. The results of the research project had the potential to shed light on the impacts of fishing on Pacific cod stocks, and on Steller sea lion forage resources.

The experimental design was a success and NMFS had enough confidence in the results of the experiment to terminate the project a year early. Thus, the fishing closure lost its rationale for 2006. This action has two alternatives, continue the closure through March 2006, or end the fishing restrictions before then. The restriction will not be effective in subsequent years, no matter which alternative NMFS chooses.

If the no action alternative is chosen, and the fishing restrictions are not lifted a year early, the industry would continue to bear the costs that were identified in the RIR that evaluated the original closure of the area to fishing. As summarized in Sections 5.8 and 5.9 of that RIR, the gears restricted in the closure area were expected to shift their operations elsewhere. Revenue losses were expected to be minor, because the closure area was relatively small, and the operations did have the opportunity to fish elsewhere, but the operations were expected to incur higher costs due to potentially lower catch per unit of effort or greater traveling costs.

There would be no benefits associated with the continued closure. The experiment that the closure was meant to facilitate has been successfully concluded. No additional work would be carried out in 2006.

Thus, the action alternative, which removes a regulatory restriction, would eliminate the potential costs to industry identified in the 2002 RIR without creating any apparent costs. While a quantitative estimate of the net benefits of the action can't be made, a qualitative evaluation indicates that benefits of this action exceed the costs.

Neither of these alternatives appears to have the potential to impose costs of $100 million on the U.S. economy. These alternatives do not appear to "adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities...."

NMFS has not identified any factors that would (a) "Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency"; (b) "Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof"; or (c) "Raise novel legal or policy issues arising out of legal mandates, the President=s priorities, or the principles set forth in the executive order."

1 Introduction

This Regulatory Impact Review (RIR) evaluates a regulatory amendment that would (1) open waters off Cape Sarichef that have been closed to groundfish fishing in order to facilitate a now completed experiment on the impact of trawling on localized depletion of Pacific cod, and (2) eliminate obsolete references to the Cape Sarichef closure, and another closure at Chiniak Gully off Kodiak Island. The Chiniak Gully closure itself has ended under existing regulations. This RIR has been prepared to meet the requirement, in Presidential Executive Order 12866, to evaluate the costs and benefits of regulatory actions.

2 What is a Regulatory Impact Review

This RIR is required under Presidential Executive Order (E.O.) 12866 (58 *FR* 51735; October 4, 1993). The requirements for all regulatory actions specified in E.O. 12866 are summarized in the following statement from the order:

> In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nonetheless essential to consider. Further, in choosing among alternative regulatory approaches agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach.

E.O. 12866 requires that the Office of Management and Budget review proposed regulatory programs that are considered to be Asignificant@. A Asignificant regulatory action@ is one that is likely to:

- $ Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, local or tribal governments or communities;
- $ Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;
- $ Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or
- $ Raise novel legal or policy issues arising out of legal mandates, the President=s priorities, or the principles set forth in this Executive Order.

3 Statutory authority

The National Marine Fisheries Service (NMFS) manages the U.S. groundfish fisheries of the Bering Sea and Aleutian Islands Management Area and Gulf of Alaska in the Exclusive Economic Zone under the Fishery Management Plans (FMP) for those areas. The North Pacific Fishery Management Council (Council) prepared the FMPs under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Regulations implement the FMPs at

50 CFR part 679. General regulations that also pertain to U.S. fisheries appear at subpart H of 50 CFR part 600.

4 Purpose and need for this action

In October 2002, the Council adopted a regulatory amendment to implement a seasonal closure to directed fishing for groundfish by vessels using trawl, pot, or hook-and-line gear in a portion of the waters off Cape Sarichef in the Bering Sea subarea. The purpose of this action was to support a NMFS research project, investigating the effect of commercial fishing on Pacific cod abundance in localized areas.

This study was an integral part of a NMFS comprehensive research program designed to evaluate effects of fishing on the foraging behavior of Steller sea lions. The western distinct population segment (DPS) of Steller sea lions is listed as endangered under the Endangered Species Act and is likely to be adversely affected by the Atka mackerel, pollock, and Pacific cod fisheries. Steller sea lion protection measures are currently implemented to ensure that the pollock, Atka mackerel, and Pacific cod fisheries are not likely to jeopardize the continued existence of, nor adversely modify or destroy critical habitat for the western DPS of Steller sea lions (68 *FR* 204, January 2, 2003).

Currently, the information available to evaluate alternative methods for protecting Steller sea lions and their critical habitat is limited. Improved information could enhance the effectiveness and efficiency of existing protection measures. NMFS and other management agencies and organizations have undertaken numerous research initiatives to learn more about Steller sea lions and their interactions with their environment, including potential fishery related effects that may be associated with the status of the western DPS of Steller sea lions.

The goal of the NMFS research project was to evaluate the effects of commercial trawl fishing on Pacific cod, and to test a localized depletion hypothesis. This hypothesis states that the commercial fisheries, by depleting the local Steller sea lion prey, could adversely affect the critical habitat of Steller sea lions. This study was designed as a comparison between sites within an area subject to intensive seasonal trawling, and control sites within a nearby zone where trawling is prohibited. The study required that experimental pot gear be deployed before and after a period of intense trawl fishing for Pacific cod. NMFS deployed pot fishing gear in the restriction area from March 15 through March 31, a time period that historically included a less intense rate of fishing during the winter trawl fishery for Pacific cod. This time period reduced the risk of trawl gear disturbing the experimental pot gear. Pot loss or displacement would reduce the quality of the information gathered in the study. The commercial pot and hook-and-line gear closures were necessary to ensure that observed fishing effects were due to trawl fishing, and not to additional fishing effort by hook-and-line and pot vessels moving into the area to fill the void created by the trawl closure. The closures to other gear also prevented the other gears from entering and operating in the restricted area in the absence of the trawl activity A complete description of the study is available in the EA/RIR/IRFA for this action (NMFS, 2002).

The proposed rule for this action was published in the *Federal Register* on January 23, 2003 (68 *FR* 3225). No comments were received during the 15–day public review and comment period, and no changes were made from the proposed rule to the final rule. The final rule was published on March 7, 2003 (68 *FR* 11004), and the rule became effect on March 15, 2003. The text box

below shows the text of the rule change. In addition to this text, a map figure in the rule illustrated the restricted area. This has not been included here.

§679.22 Closures.
* * * * *
(a)* * *
(11) *Cape Sarichef Research Restriction Area (applicable through March 31, 2006)*(i) *Description of Cape Sarichef Research Restriction Area*. The Cape Sarichef Research Restriction Area is all waters located outside of the 10 nm no trawl area around Cape Sarichef, as described in Tables 4 and 5 to this part, and inside the boundary of the following coordinates joined in order by straight lines (Figure 21 to part 679):
54°30' N lat., 165°14' W long.;
54°35' N lat., 165°26' W long.;
54°48' N lat., 165°04' W long.;
54°44' N lat., 164°56' W long.; and,
54°30' N lat., 165°14' W long.
(ii) Closure. The Cape Sarichef Research Restriction Area is closed from March 15 through March 31 to directed fishing for groundfish by vessels named on a Federal Fisheries Permit issued under § 679.4(b) and using trawl, pot, or hook-and-line gear.

The Fisheries Interaction Team (FIT) of the Resource Ecology and Fishery Management (REFM) Division of the Alaska Fisheries Science Center conducted experiments in 2003, 2004, and 2005. The experimental results were very clear-cut, and following the 2005 experiment, the FIT decided it would be unnecessary to continue the experiment in 2006. As the FIT reported to the Council in June 2005 (Conners *et al.* 2005):

> We have now completed three years of the Pacific cod local depletion experiment at Cape Sarichef. The study was designed to determine if intensive trawl fishing for cod creates a localized depletion in fish abundance that could adversely affect prey availability for Steller sea lions. The experiment uses a before-after, treatment-control type design to compare the seasonal rate of change in cod abundance within the Cape Sarichef no-trawl zone to the rate of change in the adjacent heavily-trawled area. While the cod catch rates and observed seasonal changes have been variable over the three years of the study, the result of the comparison between trawled and untrawled areas has been consistent. In each of the three years, the nonparametric statistical test has overwhelmingly indicated no difference between sites in the trawled and untrawled areas (p-values of 0.81 to 0.98). Power calculations indicate that the experiments in 2004 and 2005 would have been able to detect a reduction in the average catch of the trawled zone in the range of 20-30%. Maps of the observed catches and seasonal percentage changes show no consistent spatial pattern.
>
> The concept of local depletion is strongly dependent on assumed spatial and temporal scale. The experiment looked for an effect based on assumptions that fishing effects would be evident within 5 nmi of the removal and persist for at least several weeks. The observed results indicate either that the relative rate of exploitation off Cape Sarichef is low or that actual fishing effects occur at different spatial and temporal scales. The results of preliminary tagging work and

auxiliary biological studies suggest that the cod stocks in the study area are highly mobile over time scales shorter than two weeks.

Part of the objective of the presentation is to seek input from the Council on directions for future research stemming from this study. If the Council is strongly interested in more work on the local depletion hypothesis, we have identified possible sites where the experiment could be repeated in the western Gulf of Alaska. We have also looked at ways to redesign field studies in the Bering Sea to look for fishery effects at different temporal and spatial scales. Another option is to shift focus to following up cod tagging studies in the Bering Sea, leading to quantitative estimates of movement rates and local mortality and exploitation rates.

Because the results through 2005 have been so consistent and clear, and because of reduced funding, we will not be repeating the Cape Sarichef experiment in winter 2006. The special closure of the study area for March 15-31 2006 can be rescinded. There is no other action requested of the council at this time. If there is strong interest in repeating the experiment at another location, council action for a special opener/closer would be needed for the winter 2007 season.

Although the research project was successfully concluded a year earlier than anticipated, regulations at 50 CFR 679.22(a)(11) still require the closure of the fishing area to groundfish fishing for 2006. The area closure won't be effective in subsequent years, whether or not NMFS takes action . Moreover, although the Cape Sarichef and Chiniak Gully research closures are no longer effective, regulations would continue to contain references to these in 50 CFR 679.22.

This action would lift the groundfish fishing restriction that is no longer needed for the successful completion of this experiment, and that has no other rationale. The action would also "clean-up" regulations, to eliminate now obsolete references to the Cape Sarichef and Chiniak Gully closures.

5 Alternatives considered

Two alternatives were considered for this action:

No action alternative: Under the no action alternative, the Cape Sarichef closed area would remain closed through the 2006 fishing season, and then reopen for 2007. The Chiniak Gully closed area would open as provided for in regulations, but the regulations would not be changed to eliminate the closure language.

Action alternative: Under the action alternative, the Cape Sarichef closed area would be opened a year earlier than scheduled, for the 2006 fishing season. Regulatory language would be revised to eliminate references to the Cape Sarichef and Chiniak Gully closures.

6 Costs and benefits

If the no action alternative is chosen, and the fishing restrictions are not lifted a year early, the industry would continue to bear the costs that were identified in the RIR that evaluated the original closure of the area to fishing. As summarized in Sections 5.8 and 5.9 of that RIR, the gear operators, restricted in the closure area, were expected to shift their operations elsewhere. Revenue losses were expected to be minor, because the closure area was relatively small, and the operations did have the opportunity to fish elsewhere in the immediate vicinity. They were, nonetheless, expected to incur reduced net revenues due to potentially lower catch per unit of effort and/or higher operating costs if required to travel greater distances (NMFS, 2002).

There would be no benefits associated with the continued closure. The experiment that the closure was meant to facilitate has been successfully concluded. No additional work will be carried out in 2006.

Thus, the action alternative, which removes a regulatory restriction, would eliminate the potential costs to industry, identified in the 2002 RIR, without creating any apparent costs. While a quantitative estimate of the net benefits of the action can't be made, a qualitative evaluation indicates that benefits of the proposed action exceed the costs.

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