

4.2 Effects of Establishing an Approach for Identifying Habitat Areas of Particular Concern

Identifying HAPCs, like describing and identifying EFH, does not have any direct environmental, economic, or socioeconomic impact, but may result in indirect impacts. The identification of HAPCs provides a means for NMFS and the Council to highlight priority areas within EFH for conservation and management. For example, HAPCs may be used to focus conservation and management efforts on particularly valuable and/or vulnerable subsets of EFH. Although HAPC identification does not convey any higher regulatory standards for minimizing adverse effects of fishing or conducting EFH consultations on non-fishing actions, NMFS and the Council may be more risk averse when developing management measures to minimize adverse effects of fishing on HAPCs and when recommending measures to federal and state agencies to minimize adverse effects of non-fishing activities on HAPCs. The potential environmental, economic, and socioeconomic impacts of designating HAPCs are comparable to those described in Section 4.1 for EFH, because any identified HAPCs would be a subset of areas identified as EFH. As with EFH, conservation of HAPCs is expected to support healthier fish stocks and more productive fisheries over the long term, which, in turn, will provide environmental, economic, and socioeconomic benefits.

4.2.1 Criteria for Evaluating the Effects of Establishing an Approach to Identify HAPCs

The alternatives for HAPC identification in this EIS are a range of different methodological approaches, rather than different specific types or areas of habitat. As discussed in Section 2.3.2, the Council decided to select an approach for identifying HAPCs first, and then to identify specific HAPCs. (Identification of HAPCs is not required under the Magnuson-Stevens Act or the EFH regulations.) Therefore, the likely environmental or socioeconomic impacts of HAPC identification cannot be evaluated with specificity in this EIS. Instead, the following sections provide a general qualitative analysis of how the different approaches, when applied to specific HAPC identifications, might affect the following topics: habitat, target species, federally managed fisheries, other fisheries and fishery resources, protected species, ecosystems and biodiversity, and non-fishing activities. The criteria presented in Tables 4.1-1 through 4.1-7 for evaluating the effects of EFH description and identification apply to HAPC identification as well. Those tables present the criteria used in the following sections to determine whether the likely effects for each topic are negative (E-), neutral (Ø), positive (E+), or unknown (U). The following sections collapse all relevant issues for each topic into a single determination of effects, and thus use a simpler method of analysis than the method used in Section 4.1 to evaluate the effects of describing and identifying EFH. This broader analysis is warranted because the alternatives represent different approaches for identifying HAPCs, rather than specific different resulting HAPC designations. The analysis compares the effects of each alternative to status quo conditions (i.e., Alternative 2).

In general, if the analysis suggests either a potential effect or a known effect, the EIS assigns a rating of E+ or E-. The EIS assigns a rating of Ø if the analysis suggests no discernible effect, and a rating of U if there is no basis for inferring the effect. This rating method results in fewer Ø and U ratings than the more detailed analytical approach used in Section 4.3 for the alternatives to minimize the adverse effects of fishing on EFH, and is appropriate here because the analysis of the alternative approaches for identifying HAPCs is necessarily more qualitative. In short, the analysis assumes that facilitating the identification of HAPCs affords an opportunity to identify and minimize potential adverse effects, which in turn is likely to result in certain positive or negative effects for most of the factors evaluated. The accompanying Regulatory Impact Review and Initial Regulatory Flexibility Analysis (Appendix C) does not further evaluate the regulatory, economic, and socioeconomic effects of establishing an approach for identifying HAPCs, because such effects are indirect consequences that may result from separate future actions, and therefore cannot be evaluated more specifically in the present analysis.

Although the remainder of this section discusses the environmental consequences of the alternatives for establishing an approach to identify HAPCs, the results of the analysis are very similar for some of the alternatives, and it can be difficult to distinguish between them. Readers should refer to Section 4.5.2 for a comparison of the effects of the alternatives to highlight similarities and differences.

4.2.2 Effects of Alternative 1 (No HAPC Identification)

Under Alternative 1, there would be no HAPC identification for species managed by the North Pacific Council. The existing HAPC designations that were approved in 1999 would be rescinded.

4.2.2.1 Effects on Habitat (E-)

Alternative 1 could have a negative effect on habitat complexity, benthic biodiversity, and prey species. HAPC identification may confer incrementally more protection for identified habitats by distinguishing them from the whole of EFH and conveying that they are priority areas for conservation and management. Without HAPC identification, the opportunity to delineate specific subsets of EFH would not exist.

4.2.2.2 Effects on Target Species (E-)

Alternative 1 could have a negative effect on target species by precluding the opportunity to confer incrementally more habitat protection in specified areas that might benefit productivity, prey availability, and growth to maturity for managed species. The absence of HAPC identification would have no effect on fishing mortality and could be slightly beneficial for the spatial and temporal distribution of catch if it becomes less likely that there would be area closures for certain fisheries.

4.2.2.3 Effects on Economic and Socioeconomic Aspects of Federally Managed Fisheries (E+/E-)

Alternative 1 could have a near-term positive effect on fishing industry operating costs, fishing communities, and regulatory and enforcement programs if the absence of HAPCs makes it less likely that there would be new restrictions on certain fisheries to protect habitats. The Magnuson-Stevens Act requirement to minimize adverse effects of fishing on habitat applies to all of EFH, not just HAPCs, so it would remain applicable under this alternative. However, with no HAPC identification, federally managed fisheries might have less predictability regarding areas of special concern, insofar as specific subsets of EFH would not be highlighted as HAPCs for priority conservation and management. In the long term, the protection of valuable habitats should be beneficial for fisheries because it will promote healthy fish stocks; therefore, near-term costs should yield longer-term benefits. Alternative 1 could have a near-term negative effect on passive use values if the absence of HAPCs makes it less likely that there would be new restrictions on certain fisheries to protect habitats, because some people who do not participate in fisheries may value fisheries less if they perceive that habitats are not protected adequately. Alternative 1 would have no short-term effect on industry revenue. Alternative 1 would have no effect on safety or consumer costs.

4.2.2.4 Effects on Other Fisheries and Fishery Resources (E-)

Alternative 1 could have a negative effect on other fisheries and fishery resources. Although HAPC identification pertains to habitats for federally managed species, other fisheries and fishery resources that are dependent on the same habitats may benefit indirectly from the protection of those areas. Without HAPC identification, those potential indirect benefits would be foregone.

4.2.2.5 Effects on Protected Species (E-)

Alternative 1 could have a negative effect on protected species of mammals, salmon, and seabirds. Although HAPC identification pertains to habitats for federally managed species, protected species of mammals, salmon, and seabirds that are dependent on the same habitats may benefit indirectly from the protection of those areas. Without HAPC identification, those potential indirect benefits would be foregone.

4.2.2.6 Effects on Ecosystems and Biodiversity (E-)

Alternative 1 could have a negative effect on ecosystems and biodiversity. Although HAPC identification pertains to habitats for federally managed species, overall ecosystem health and stability may benefit indirectly from the protection of those areas. Without HAPC identification, those potential indirect benefits would be foregone.

4.2.2.7 Effects on Non-fishing Activities (E+)

Alternative 1 could have a positive effect on costs for federal and state agencies that authorize, fund, or undertake actions affecting fish habitat and the industries that support such actions. Without HAPC identification, EFH consultations could not focus additional attention on especially valuable or vulnerable subsets of EFH.

4.2.2.8 Summary of the Effects of Alternative 1

Alternative 1 would result in the elimination of HAPC designations in Alaska. Overall, Alternative 1 could have positive effects for the industries and other entities that may currently face requirements (for federally managed fishing activities) or recommendations (for non-fishing activities) that are designed to protect especially important subsets of EFH. Alternative 1 could have negative effects for the habitats and species that may be protected by measures resulting indirectly from HAPC identification. Such measures would include either required measures to minimize adverse effects of fishing on EFH or recommended measures to minimize effects of non-fishing activities on EFH. A comparison of Alternative 1 to the other alternatives for establishing an approach to identify HAPCs is presented in Section 4.5.2 and Table 4.5.-3.

4.2.3 Effects of Alternative 2 (Status Quo HAPCs)

Under Alternative 2, the existing HAPC designations would remain in effect with no changes. Those designations include living substrates in deep water, living substrates in shallow water, and freshwater areas used by anadromous salmon.

Alternative 2 represents a continuation of status quo conditions and, therefore, would have no effect (Ø) relative to existing conditions for habitat, target species, federally managed fisheries, other fisheries and fishery resources, protected species, ecosystems and biodiversity, or non-fishing activities. This analysis includes information on the effects of all the other alternatives for establishing an approach to identify HAPCs as compared to the status quo.

Retaining the status quo HAPCs would continue the effects that those designations have had since 1999 (evaluated in the EA for FMP Amendments 55/55/8/5/5; NMFS 1999), which have been very similar to the anticipated effects of HAPCs that might be identified under Alternatives 3, 4, and 5. In general,

HAPC designation can have negative effects for the industries and other entities that may face requirements (for federally managed fishing activities) or recommendations (for non-fishing activities) that are designed to protect especially important subsets of EFH. Identification of HAPCs can have positive effects for the habitats and species that may be protected by measures resulting indirectly from HAPC identification. Such measures include either required measures to minimize adverse effects of fishing on EFH or recommended measures to minimize effects of non-fishing activities on EFH. A comparison of Alternative 2 to the other alternatives for establishing an approach to identify HAPCs is presented in Section 4.5.2 and Table 4.5-3.

4.2.4 Effects of Alternative 3 (Preferred Alternative) (Site Based Concept)

Under Alternative 3, the existing HAPC designations would be rescinded and the Council would adopt an approach that allows specific sites within EFH, selected to address a particular problem, to be identified as HAPCs in the future.

4.2.4.1 Effects on Habitat (E+)

Alternative 3 could have a positive effect on habitat complexity, benthic biodiversity, and prey species. Site-based HAPCs may confer incrementally more protection for identified habitats by distinguishing them from the whole of EFH and from the broad types of habitat currently identified as HAPCs, thereby conveying that they are priority areas for conservation and management.

4.2.4.2 Effects on Target Species (E+)

Alternative 3 could have a positive effect on target species by conferring incrementally more habitat protection in specified areas that might benefit productivity, prey availability, and growth to maturity for managed species. Alternative 3 could have a beneficial effect on fishing mortality in the event that TAC reductions were enacted to protect HAPCs, and could be slightly negative for the spatial and temporal distribution of catch if the designations lead to HAPCs being closed to certain fisheries, thereby concentrating fishing effort in remaining open areas.

4.2.4.3 Effects on Economic and Socioeconomic Aspects of Federally Managed Fisheries (E+/E-)

Alternative 3 could have a near-term negative effect on fishing industry operating costs, fishing communities, and regulatory and enforcement programs if the resulting HAPCs prompt new restrictions on certain fisheries to protect habitats. However, the Magnuson-Stevens Act requirement to minimize adverse effects of fishing on habitat applies to all of EFH, not just HAPCs. In the long term, the protection of valuable habitats should be beneficial for fisheries because it will promote healthy fish stocks. Alternative 3 could have a positive effect on passive use values because some people who do not participate in fisheries may value fisheries more if they perceive that habitats are protected adequately. Alternative 3 is not expected to affect fishing industry revenue in the short term, but fishing revenues could increase in the long term if identifying HAPCs leads these habitats to produce greater numbers of fish. The potential for this long-term effect is unclear. Alternative 3 would have no effect on safety or consumer costs.

4.2.4.4 Effects on Other Fisheries and Fishery Resources (E+)

Alternative 3 may have a positive effect on other fisheries and fishery resources. Although HAPC identification pertains to habitats for federally managed species, other fisheries and fishery resources that are dependent on the same habitats may benefit indirectly from the protection of those areas.

4.2.4.5 Effects on Protected Species (E+)

Alternative 3 may have a positive effect on protected species of mammals, salmon, and seabirds. Although HAPC identification pertains to habitats for federally managed species, protected species of mammals, salmon, and seabirds that are dependent on the same habitats may benefit indirectly from the protection of those areas.

4.2.4.6 Effects on Ecosystems and Biodiversity (E+)

Alternative 3 could have a positive effect on ecosystems and biodiversity. Although HAPC identification pertains to habitats for federally managed species, overall ecosystem health and stability may benefit indirectly from the protection of those areas.

4.2.4.7 Effects on Non-fishing Activities (E-)

Alternative 3 could have a negative effect on federal and state agencies that authorize, fund, or undertake actions affecting fish habitat and the industries that support such actions. HAPCs may focus additional attention on especially valuable or vulnerable subsets of EFH, potentially leading the responsible agencies to restrict development that would affect such habitats.

4.2.4.8 Summary of the Effects of Alternative 3

Alternative 3 would rescind the existing HAPCs and allow specific sites within EFH, selected to address an identified problem, to be identified as HAPCs in the future. Overall, Alternative 3 could have negative effects for the industries and other entities that may face requirements (for federally managed fishing activities) or recommendations (for non-fishing activities) that are designed to protect especially important subsets of EFH. Alternative 3 could have positive effects for the habitats and species that may be protected by measures resulting indirectly from HAPC designations. Such measures would include either required measures to minimize adverse effects of fishing on EFH or recommended measures to minimize effects of non-fishing activities on EFH. A comparison of Alternative 3 to the other alternatives for establishing an approach to identify HAPCs is presented in Section 4.5.2 and Table 4.5-3.

4.2.5 Effects of Alternative 4 (Type/Site Based Concept)

Under Alternative 4, the existing HAPC designations would be rescinded and the Council would adopt an approach that allows specific sites selected within identified habitat types within EFH to be identified as HAPCs in the future.

4.2.5.1 Effects on Habitat (E+)

Alternative 4 could have a positive effect on habitat complexity, benthic biodiversity, and prey species. Site-based HAPCs may confer incrementally more protection for identified habitats by distinguishing

them from the whole of EFH and from the broad types of habitat currently identified as HAPCs, thereby conveying that they are priority areas for conservation and management.

4.2.5.2 Effects on Target Species (E+)

Alternative 4 could have a positive effect on target species by conferring incrementally more habitat protection in specified areas that might benefit productivity, prey availability, and growth to maturity for managed species. Alternative 3 could have a beneficial effect on fishing mortality in the event that TAC reductions were enacted to protect HAPCs, and could be slightly negative for the spatial and temporal distribution of catch if the designations lead to HAPCs being closed to certain fisheries, thereby concentrating fishing effort in remaining open areas.

4.2.5.3 Effects on Economic and Socioeconomic Aspects of Federally Managed Fisheries (E+/E-)

Alternative 4 could have a near-term negative effect on fishing industry operating costs, fishing communities, and regulatory and enforcement programs if the resulting HAPCs prompt new restrictions on certain fisheries to protect habitats. However, the Magnuson-Stevens Act requirement to minimize adverse effects of fishing on habitat applies to all of EFH, not just HAPCs. In the long term, the protection of valuable habitats should be beneficial for fisheries because it will promote healthy fish stocks. Alternative 4 could have a positive effect on passive use values because some people who do not participate in fisheries may value fisheries more if they perceive that habitats are protected adequately. Alternative 4 is not expected to affect fishing industry revenue in the short term, but fishing revenues could increase in the long term if identifying HAPCs leads these habitats to produce greater numbers of fish. The potential for this long-term effect is unclear. Alternative 4 would have no effect on safety or consumer costs.

4.2.5.4 Effects on Other Fisheries and Fishery Resources (E+)

Alternative 4 may have a positive effect on other fisheries and fishery resources. Although HAPC identification pertains to habitats for federally managed species, other fisheries and fishery resources that are dependent on the same habitats may benefit indirectly from the protection of those areas.

4.2.5.5 Effects on Protected Species (E+)

Alternative 4 may have a positive effect on protected species of mammals, salmon, and seabirds. Although HAPC identification pertains to habitats for federally managed species, protected species of mammals, salmon, and seabirds that are dependent on the same habitats may benefit indirectly from the protection of those areas.

4.2.5.6 Effects on Ecosystems and Biodiversity (E+)

Alternative 4 could have a positive effect on ecosystems and biodiversity. Although HAPC identification pertains to habitats for federally managed species, overall ecosystem health and stability may benefit indirectly from the protection of those areas.

4.2.5.7 Effects on Non-fishing Activities (E-)

Alternative 4 could have a negative effect on federal and state agencies that authorize, fund, or undertake actions affecting fish habitat and the industries that support such actions. HAPCs may focus additional

attention on especially valuable or vulnerable subsets of EFH, potentially leading the responsible agencies to restrict development that would affect such habitats.

4.2.5.8 Summary of the Effects of Alternative 4

Alternative 4 would rescind the existing HAPCs and allow specific sites within particular habitat types within EFH to be identified as HAPCs in the future. Overall, Alternative 4 could have negative effects for the industries and other entities that may face requirements (for federally managed fishing activities) or recommendations (for non-fishing activities) that are designed to protect especially important subsets of EFH. Alternative 4 could have positive effects for the habitats and species that may be protected by measures resulting indirectly from HAPC designations. Such measures would include either required measures to minimize adverse effects of fishing on EFH or recommended measures to minimize effects of non-fishing activities on EFH. A comparison of Alternative 4 to the other alternatives for establishing an approach to identify HAPCs is presented in Section 4.5.2 and Table 4.5-3.

4.2.6 Effects of Alternative 5 (Species Core Area)

Under Alternative 5, the existing HAPC designations would be rescinded and the Council would adopt an approach that allows areas within EFH to be identified as HAPCs in the future based on productivity of the habitat for individual species.

4.2.6.1 Effects on Habitat (E+)

Alternative 5 could have a positive effect on habitat complexity, benthic biodiversity, and prey species. HAPCs based on core areas may confer incrementally more protection for identified habitats by distinguishing them from the whole of EFH and from the broad types of habitat currently identified as HAPCs, thereby conveying that they are priority areas for conservation and management.

4.2.6.2 Effects on Target Species (E+)

Alternative 5 could have a positive effect on target species by conferring incrementally more habitat protection in specified areas that might benefit productivity, prey availability, and growth to maturity for managed species. Alternative 5 could have a beneficial effect on fishing mortality in the event that TAC reductions were enacted to protect HAPCs, and could be slightly negative for the spatial and temporal distribution of catch if the designations lead to HAPCs being closed to certain fisheries, thereby concentrating fishing effort in remaining open areas.

4.2.6.3 Effects on Economic and Socioeconomic Aspects of Federally Managed Fisheries (E+/E-)

Alternative 5 could have a near-term negative effect on fishing industry operating costs, fishing communities, and regulatory and enforcement programs if the resulting HAPCs prompt new restrictions on certain fisheries to protect habitats. However, the Magnuson-Stevens Act requirement to minimize adverse effects of fishing on habitat applies to all of EFH, not just HAPCs. In the long term, the protection of valuable habitats should be beneficial for fisheries because it will promote healthy fish stocks. Alternative 5 could have a positive effect on passive use values because some people who do not participate in fisheries may value fisheries more if they perceive that habitats are protected adequately. Alternative 5 is not expected to affect fishing industry revenue in the short term, but fishing revenues could increase in the long term if identifying HAPCs leads these habitats to produce greater numbers of

fish. The potential for this long-term effect is unclear. Alternative 5 would have no effect on safety or consumer costs.

4.2.6.4 Effects on Other Fisheries and Fishery Resources (E+)

Alternative 5 may have a positive effect on other fisheries and fishery resources. Although HAPC identification pertains to habitats for federally managed species, other fisheries and fishery resources that are dependent on the same habitats may benefit indirectly from the protection of those areas.

4.2.6.5 Effects on Protected Species (E+)

Alternative 5 may have a positive effect on protected species of mammals, salmon, and seabirds. Although HAPC identification pertains to habitats for federally managed species, protected species of mammals, salmon, and seabirds that are dependent on the same habitats may benefit indirectly from the protection of those areas.

4.2.6.6 Effects on Ecosystems and Biodiversity (E+)

Alternative 5 could have a positive effect on ecosystems and biodiversity. Although HAPC identification pertains to habitats for federally managed species, overall ecosystem health and stability may benefit indirectly from the protection of those areas.

4.2.6.7 Effects on Non-fishing Activities (E-)

Alternative 5 could have a negative effect on federal and state agencies that authorize, fund, or undertake actions affecting fish habitat and the industries that support such actions. HAPCs may focus additional attention on especially valuable or vulnerable subsets of EFH, potentially leading the responsible agencies to restrict development that would affect such habitats.

4.2.6.8 Summary of the Effects of Alternative 5

Alternative 5 would rescind the existing HAPCs and allow areas within EFH to be identified as HAPCs in the future based on productivity of the habitat for individual species. Overall, Alternative 5 could have negative effects for the industries and other entities that may face requirements (for federally managed fishing activities) or recommendations (for non-fishing activities) that are designed to protect especially important subsets of EFH from harm. Alternative 5 would have positive effects for the habitats and species that could be protected by measures resulting indirectly from HAPC designations. Such measures would include either required measures to minimize adverse effects of fishing on EFH or recommended measures to minimize effects of non-fishing activities on EFH. A comparison of Alternative 5 to the other alternatives for establishing an approach to identify HAPCs is presented in Section 4.5.2 and Table 4.5-3.