Finding of No Significant Impact
2013 Pacific Sardine Annual Specifications

National Oceanic and Atmospheric Administration Administrative Order 216-6 (NAO 216-6) (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality regulations at 40 C.F.R. §1508.27 state that the significance of an action should be analyzed both in terms of *context* and *intensity*. Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria. These include:

1) Can the proposed action be reasonably expected to jeopardize the sustainability of any target species that may be affected by the action?

The primary impact to the Pacific sardine resource as a result of this action is the potential removal of approximately 66,495 mt of Pacific sardine, as this catch level is the primary management target for the fishery. Once this catch level has been reached the fishery is closed and no retention of Pacific sardine is allowed in CPS fisheries. The current harvest control rule formula used to determine the HG for Pacific sardine takes into account the sardine resource as well as ecosystem and physical environmental factors. This is accomplished through a low harvest fraction (15%), a 150,000 mt threshold below which fishing is prohibited, and recognition that sardine are caught internationally. These precautions are based on the dynamic nature of the Pacific sardine stock as well as its importance in the ecosystem as forage for other species.

The current harvest control rule formula incorporates a 150,000 mt stock biomass threshold, or "cutoff" below which no harvest is allowed. Each year this "cutoff" number of 150,000 mt is subtracted from the overall biomass number before the harvestable biomass is calculated to ensure a minimum spawning biomass is protected. In so doing, the sardine resource is protected at low or uncertain biomass estimates.

HARVEST GUIDELINE = (BIOMASS - CUTOFF) * FRACTION * DISTRIBUTION
HARVEST GUIDELINE = (659,539 mt -150,000 mt) * 15% x 87% = 66,495 mt

2) Can the proposed action be reasonably expected to jeopardize the sustainability of any non-target species?

This action is not predicted to change incidental catch rates in such a way to jeopardize the sustainability of other fish stocks. The sardine fishery managed through this action has very low incidental catches of non-target species. The main incidental catch is of other CPS species such as northern anchovy and Pacific mackerel. Catch of these other species is monitored and accounted for in determining total harvest mortality of each respective stock, therefore ensuring that incidental catch will not jeopardize the sustainability of these species. Other species are caught in very small quantities with no likelihood of jeopardizing sustainability. Protected species that may be potential incidental catch are considered separately under question #5.

3) Can the proposed action be reasonably expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in FMPs?

This action is not expected to result in substantial damage to the ocean and coastal habitats and/or EFH as defined under the Magnuson-Stevens Act and identified in the FMP. The CPS fishery uses lampara and purse seine gear that generally are not associated with adverse impacts to ocean and coastal habitats. The fishery is also prosecuted in pelagic habitats, which, because of their physical characteristics, are not significantly affected by this fishing gear. Although the removal of Pacific sardine via fishing activities may adversely affect EFH through the removal of a prey resource, the harvest guidelines adequately minimize the adverse effect by ensuring that sufficient numbers of Pacific sardine remain in the ecosystem, thus adhering to the intent of the EFH provisions of the Magnuson-Stevens Fishery Management Act (Magnuson-Stevens Act), which is to promote the protection, conservation, and enhancement of EFH for the purpose of maintaining sustainable fisheries.

4) Can the proposed action be reasonably expected to have a substantial adverse impact on public health or safety?

Public health and safety issues related to CPS fisheries are discussed and analyzed in the CPS FMP (Appendix D). The proposed action does not substantially change the attributes of CPS fisheries related to safety (such as time, area, and methods) and, therefore, does not create a derby-style fishery where fishermen feel pressure to fish during an open season when adverse weather or conflicts with other fisheries may exist. Additionally, there are no threats to the public as far as dredging, water intake structures, wastewater, discharge from hazardous substances, or coastal development impacts. Therefore, the action is not expected to have a substantial adverse impact on public health or safety.

5) Can the proposed action be reasonably expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species?

This action is not expected to adversely affect endangered or threatened species, marine mammals, or critical habitat.

To date, there have been nine consultations on the effects of CPS fisheries on endangered and threatened species. Most recently, NMFS SWR Sustainable Fisheries Division initiated a formal section 7 consultation with NMFS SWR Protected Resources Division (PRD) on the operation and prosecution of the Pacific sardine fishery. PRD completed a formal section 7 consultation on this action and, in a Biological Opinion dated December 21, 2010, determined that sardine fishing activities conducted under the CPS FMP and its implementing regulations are not likely to jeopardize the continued existence of any endangered or threatened species under the jurisdiction of NMFS or result in the destruction or adverse modification of critical habitat of any such species.

NMFS also initiated an ESA section 7 consultation with U.S. Fish and Wildlife Service (USFWS) regarding the effects of sardine fishing under the CPS FMP, as amended by Amendment 11 to the CPS FMP. USFWS concurred with NMFS and determined that sardine fishing under the CPS FMP as amended by Amendment 11 may affect, but was not likely to adversely affect: the endangered tidewater goby, the threatened western snowy plover, the Santa Ana sucker, the endangered short tailed albatross, the endangered California brown pelican, the endangered California least-tern, the threatened marbled murrelet, the threatened bald eagle, the threatened bull trout, and the candidate Xantus's murrelet. Formal consultation, however, was deemed necessary on the possible effects to the southern sea otter. The resulting biological opinion (BO) signed June 16, 2006, concluded that fishing activities conducted under Amendment 11 and its implementing regulations were not likely to jeopardize the continued existence of the otter. As a result of this BO, new reporting requirements and conservation measures were implemented for all CPS fisheries to provide further protection for southern sea otters. Specifically, CPS fishing boat operators and crew are prohibited from deploying their nets if a southern sea otter is observed within the area that would be encircled by the purse seine and must report if any interaction does take place with a sea otter. This management regime continues unchanged under the current CPS FMP, as amended through Amendment 13, and, therefore, the 2006 BO issued by USFWS remains valid and effective.

6) Can the proposed action be expected to have a substantial impact on biodiversity and ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

This action is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area.

Sardines are an important prey item (forage) for a wide range of marine animals and the harvest guideline was developed to account for the role of sardines in the ecosystem as forage. This action is not expected to substantially change the nature of the CPS fishery, which currently is managed in a precautionary manner to maintain a sustainable biomass of Pacific sardine while simultaneously considering the ecosystem role of Pacific sardine as a forage fish. This action is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area.

7) Are significant social or economic impacts interrelated with significant natural or physical environmental effects?

Anticipated impacts of the proposed action are discussed in the EA in Section 7. The EA concludes that while there may be potential economic impacts for any harvest guideline that is established, those impacts are not associated with significant natural or physical environmental effects resulting from fishing activity.

8) To what degree are the effects on the quality of the human environment likely to be highly controversial?

The action is not expected to be highly controversial. The Council's recommendations for the Pacific sardine fishery were developed through a public review process. The harvest guideline and allocation system for this year will not pose a substantial risk of irreparable harm to the target stock or related resources that might be affected by this action. The primary concerns of the public with this action included concerns about sustainability of the target resource and the role of the Pacific sardine stock as forage for predators.

9) Can the proposed action be reasonably expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas?

Fishing for Pacific sardine occurs within the nearshore pelagic waters of the U.S. Pacific coast and does not have the potential to impact terrestrial based lands or ecosystems (see CPS FMP Appendix D). Sardines are pelagic at all life stages and contact between the roundhaul type gear used to catch them and bottom substrate is rare because fishing usually occurs in water deeper than the depth of the net. Fisheries affected by this action are prosecuted in pelagic habitats, which,

because of their physical characteristics, are not significantly affected by the fishing gear. This action will not affect the way in which fisheries are prosecuted such that effects on habitat would change from current conditions. The proposed action affects the location and timing of the harvest of sardine within limits set to ensure stock sustainability and account for the role of this species in the ecosystem. Because of the nature of the fishery (purse-seine gear and pelagic habitat), this action will not affect physical characteristics of the environment within the action area.

10) To what degree are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

The Pacific sardine fishery has been carried out in accordance with a fishery management plan since 1978, and the process of determining and implementing annual harvest guidelines has been ongoing since 2000. While there most likely will be some uncertainties and risks associated with the management process, the uncertainties and risks are factored into the process, through the formulaic approach taken in establishing the annual harvest guidelines as well as the use of an uncertainty factor in the acceptable biological catch level (ABC) that reduces the ABC and annual catch limit (ACL) from the overfishing level (OFL).

11) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

This action does not relate to other actions with individually insignificant but cumulatively significant impacts. The action being taken is the setting of the catch limits and management measures for the 2013 Pacific sardine fishing season; with the primary impact to the environment associated with this action being the potential removal/catch of 66,495 mt through the directed commercial harvest of Pacific sardine. Sardine productivity and population size, over short (annual) and long (multidecadal) time scales, is driven primarily by ocean conditions and environmental factors. Outside of this environmental forcing, actions that may impact sardines are primarily those associated with this directed commercial harvest as there are no state or Federal fisheries for which a significant amount of Pacific sardine is caught as bycatch, and research catch of this species is de minimus (less than 1 mt).

12) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

This action will have no impacts to these resources as this action does not substantially change the attributes of CPS fisheries and CPS fisheries currently do not affect these areas.

Fishing for Pacific sardine occurs within the waters of the eastern Pacific Ocean, primarily off the coast of western North America and does not have the potential to impact terrestrial based lands or ecosystems (see FMP Appendix D). Sardine live in the water column, as opposed to living near the sea floor, so fishing gear used to catch them does not typically come into contact with the bottom substrate. Also, there are existing fishing controls on all Federally managed species put in place to protect special areas, such as rockfish conservation areas (sanctioned by the Pacific Fishery Management Council) and marine sanctuaries (which restrict fishing and boating in certain areas), which make it reasonable to conclude that there are not expected to be any adverse effects to unique or ecologically critical areas. Because of the action area and the nature of the proposed action, historic sites will not be affected by the proposed action.

13) Can the proposed action be reasonably expected to result in the introduction or spread of a non-indigenous species?

Vessels fishing for CPS typically fish relatively close to their home port and fishing activities would have a low risk of spreading any non-indigenous species. Furthermore, the purse-seine gear type used to fish for Pacific sardine does not use bait or in any other way lend to the introduction of any non-indigenous species. Therefore this action is not expected to result in the introduction or spread of any non-indigenous species.

14) Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

This action will not establish a precedent for future actions. The recommendation and determination process for harvest guidelines and annual catch limits are conducted each year by the Pacific Fishery Management Council and NMFS. Therefore a harvest guideline from one year does not set a precedent or affect the harvest guideline of the following year.

15) Can the proposed action be reasonably expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

This action is not expected to threaten a violation of other Federal, State, or local laws. The process of setting annual harvest guidelines for the sardine fishery and the fishing itself are a carried out in accordance with federal and state regulatory processes. Neither the guidelines nor the fishing activities threaten to violate any laws imposed for protection of the environment.

16) Can the proposed action be reasonably expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

This action is not expected to result in cumulative adverse effects that could have a substantial effect on the target species (Pacific sardine) or non-target species (see EA Section 7). Non-target catch in the Pacific sardine fishery is extremely low, with the primary non-target catch being other CPS species, and the harvest level for Pacific sardine is below the OFL to ensure a sustainable fishery resource.

Sardine productivity and population size, over short (annual) and long (multidecadal) time scales, is primarily by ocean conditions and environmental factors and is the primary driver for changes in sardine biomass. Although in low biomass conditions, fishing may exacerbate the condition of the stock, the harvest level for Pacific sardine is determined by a risk adverse harvest control rule established by the FMP that reduces harvest as the biomass declines and provides for a minimum level of spawning biomass below which no fishing is allowed. Bycatch in CPS fisheries is minimal because fishing operations generally target aggregations of coastal pelagic species. The proposed incidental rate is designed to reduce bycatch in those instances in which Pacific sardine is mixed in schools of Pacific mackerel or market squid following closure of the Pacific sardine directed fishery.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Environmental Assessment prepared for this action it is hereby determined that the implementation of the annual specifications for Pacific sardine will not significantly impact the quality of the human environment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an EIS for this action is not necessary.

for Rodney R. McInnis
Regional Administrator

5/21/2013
Date