

Chapter 4 Environmental Consequences of the Proposed Project

4.1 Proposed Project

Consistent with CEQA and the Commission's certified regulatory program, this Chapter addresses whether implementation of the proposed NFMP could result in a significant or potentially significant environmental impact under CEQA. Although many recreational and commercial fish species occur in the nearshore environment, the proposed NFMP only covers the following 19 species: California sheephead (*Semicossyphus pulcher*), cabezon (*Scorpaenichthys marmoratus*), kelp greenling (*Hexagrammos decagrammus*), rock greenling (*H. lagocephalus*), California scorpionfish (*Scorpaena guttata*), monkeyface prickelback (*Cebidichthys violaceus*), and 13 species of rockfish: black (*Sebastes melanops*), black-and-yellow (*S. chrysomelas*), blue (*S. mystinus*), brown (*S. auriculatus*), calico (*S. dallii*), china (*S. nebulosus*), copper (*S. caurinus*), gopher (*S. carnatus*), grass (*S. rastrelliger*), kelp (*S. atrovirens*), olive (*S. serranoides*), quillback (*S. maliger*), and treefish (*S. serriceps*). Not all species occur equally in all areas of the state and, therefore, there are marked differences in species composition in catch numbers and ecosystem usage within the project boundaries from the Oregon to Mexico borders and from the shoreline out one mile. The NFMP measures, which will be used by the Commission for the conservation and management of the fishery, are described in detail in Section 1 Chapter 3 of this document.

As described in Section 2 Chapter 2.1, the proposed project consists of a suite of strategies and options available to the Commission to manage the commercial and recreational fishery comprised of the 19 species addressed in the NFMP. These management strategies include: fishery control rules, regional management, marine protected areas, restricted access, and resource allocation. Whether implementation of the proposed project will result in potentially significant impacts under CEQA is a function of whether implementation of the individual management strategies, either individually or concurrently, would cause such impacts.

4.1.1 Effects to Air Quality

Air quality impacts are considered significant if the proposed project would cause or contribute to a violation of the federal or California ambient air quality standards and/or exposes sensitive receptors to substantial pollutant concentrations.

Major source of air pollutants under the proposed NFMP would be fishing vessel exhaust and activities associated with fish processing businesses, including related vehicle trips. In this regard, sources of air emissions are generally the same for the proposed project as currently exist in the nearshore fishery. Air quality impacts resulting from the proposed project, as a consequence, are not expected to change or adversely affect existing air quality conditions or the overall amount of emissions associated with current fishing activities. In this respect, air quality impacts that might result with the proposed project are generally expected to be less than significant.

With respect to the individual project elements, development and implementation of fishery control rules could result in a localized increase in the concentration of certain air pollutants if management decisions under the proposed NFMP concentrate fishing

activities in smaller fishing areas closer to shore. Should this happen at the same time and place that strong onshore wind conditions exist, a localized increase in the concentration of certain air pollutants could occur in limited areas when compared to existing conditions. Such effects could occur under the proposed project, if at all, only after MPAs are designated and fishing efforts are shifted away from MPAs. Short-term, localized increase in air emissions, as a result of MPAs, are expected to be less than significant because project-related emissions, when compared to existing conditions, would not expose sensitive receptors to additional air pollutants, or cause or contribute to a violation of a state or federal air quality standard. In addition, the Commission and Department are not aware of any documented evidence that fishing vessel exhaust or other fishing-related activities in the nearshore fishery has or will cause or contribute to a violation of state or federal air quality standards.

Other aspects of the proposed project are also not expected to result in significant air quality impacts. Managing the fishery in three regions, for example, will not change air quality impacts from present conditions. Instead, local management will result in closer monitoring of environmental conditions when compared to management on a statewide basis. The restricted access component of the proposed project would, in turn, decrease the current level of take of four species by 50 percent. This reduction is expected to result in an overall decrease in air quality emissions when compared to existing conditions, especially in those areas affected by the restricted access element of the proposed project. Likewise, the restricted access program's goal of matching the fleet-to-fish populations should benefit the environment overall by reducing the total number of vessels and the associated air pollution in the nearshore fishery. Impacts, as a result, are expected to be less than significant. The same is true of the resource allocation component of the proposed project. While the regional management component of the NFMP proposes that resource allocation be managed on a regional, rather than statewide basis, nearshore species under State management will nevertheless have catches reduced by 50 percent from current catch levels until such time as they are determined to be monitored by a data-rich system. This overall reduction in take, once again, is expected to result in a net environmental benefit compared to existing conditions in and around the nearshore fishery, including a net reduction in air emissions. Finally, significant air quality impacts are not expected from the combined effects of the individual project elements because implementation of the proposed NFMP will benefit natural resources held in trust for the people of California when compared to existing conditions.

4.1.2 Effects to Water Quality

Water quality impacts are considered significant if the project causes or contributes to the violation of water quality standards, criteria, or waste discharge requirements, or substantially degrades water quality such that acute toxicity results.

In general, sources and causes of water quality related affects are expected to be the same as existing conditions under the proposed NFMP (e.g., discharges of oily bilge water, re-suspension of bottom sediments, refuse and sanitary waste dumping, and sloughing of bottom paint into water, etc.). Effects on water quality associated with the proposed project, as a consequence, are not expected to adversely affect existing

water quality conditions. Accordingly, implementation of the proposed NFMP will likely result in less than significant water quality impacts when compared to existing conditions.

With respect to individual elements of the proposed project, localized increases in concentration of certain water pollutants could result, especially if fishing activities are concentrated under the NFMP into smaller fishing areas closer to shore. Such effects could occur under the proposed project only after MPAs are designated and fishing activities are shifted away from MPAs. Short-term, localized increase in water quality impacts, as a result of MPAs, are expected to be less than significant because project-related effects, when compared to existing conditions, would not cause or contribute to a violation of water quality standards, criteria, or waste discharge requirements, or substantially degrade water quality such that acute toxicity results. In addition, most fishing activities do not occur in areas designated as impaired, and as such, fishing activities under the proposed project would not cause a significant water quality impact when compared to existing conditions. Other aspects of the proposed project are also not expected to result in significant water quality impacts. Managing the fishery in three regions, for example, will not change water quality impacts when compared to present conditions. Instead, local management will result in closer monitoring of environmental conditions when compared to management on a statewide basis. The restricted access component of the proposed project would, in turn, decrease the current level of take of four species by 50 percent. This reduction is expected to result in an overall decrease in fishing-related water quality pollution when compared to existing conditions, especially in those areas affected by the restricted access element of the proposed project. Likewise, the restricted access program's goal, of matching the fleet-to-fish populations, should benefit the environment overall by reducing the total number of vessels and associated water pollution in the nearshore fishery. Impacts, as a result, are expected to be less than significant. The same is true of the resource allocation component of the proposed project. While the regional management component of the NFMP proposes that resource allocation be managed on a regional, rather than statewide basis, nearshore species under State management will nevertheless have catches reduced by 50 percent from current catch levels until such time as they are determined to be monitored by a data-rich system. This overall reduction in take, once again, is expected to result in a net environmental benefit compared to existing conditions in and around the nearshore fishery, including a net reduction in water pollution associated with fishing activity. Finally, significant water quality impacts are not expected from the combined effects of the individual project elements because implementation of the proposed NFMP will benefit natural resources held in trust for the people of California when compared to existing conditions.

4.1.3 Effects to Geology

Impacts on geological resources and features are considered significant if the project results in changes to unique geological features that are not reversible, or contributes to, or triggers, or accelerates, any geological processes such as erosion or marine landslides.

The major source of impacts to geological features and resources under the

proposed NFMP would be from gear interaction with bottom features (e.g., damage of rocky reefs from anchors, nets, trawl doors, etc.). The source of project-related effects, as a result, is the same as under current conditions. In this respect, impacts on existing geological resources associated with implementation of the proposed NFMP are generally expected to be less than significant under CEQA.

With respect to individual project elements, geological changes to existing conditions that result from the development and implementation of the fishery control rules could result in localized increases of impacts to rocky reefs, especially if fishing activities are concentrated into fishing areas that are smaller than currently exist. Such effects could occur under the proposed project, if at all, only after MPAs are designated and fishing efforts are shifted away from MPAs. Any project-related impacts to existing geological resources would be less than significant because most unique, hard-relief features are known and documented, and most individuals engaged in fishing activities avoid areas where gear could be damaged and lost.

Other aspects of the proposed project are not expected to result in significant impacts to geological resources. Managing the fishery in three regions will not change effects to geological resources from present conditions because increased localized management would help redirect fishing practices from activities that are damaging to the hard-relief habitats used and relied on by targeted fishes. The restricted access component would decrease fishing for four species by 50 percent from current levels. This would benefit the environment in areas fished for those species and potentially significant impacts are not expected as a result. The restricted access program's goal of matching the fleet-to-fish populations should benefit the environment by reducing the total number of vessels and the associated potential for reefs to sustain damage. These changes should not increase at least until the fish populations have increased to a level beyond current numbers and have reached sustainability. Project-related impacts, as a result, are expected to be less than significant. The resource allocation component of the proposed project is not expected to result in potentially significant geological impacts. While the regional management component of the NFMP proposes that allocation be managed on a regional rather than statewide basis, nearshore species under State management will nevertheless have catches reduced by 50 percent until such time as they are determined to be data-rich. Therefore, geological effects would be less than significant. Finally, effects on geological resources from the combined components of the proposed project are expected to be less than significant since the implementation of the proposed project will benefit natural resources held in the trust for the people of California when compared to existing conditions.

4.1.4 Effects to Physical Oceanography

Impacts on physical oceanography are considered significant if the project results in substantial changes in currents, dissolved oxygen, salinity, temperature, or upwelling. For purposes of these significance criteria, project-related changes in physical oceanographic conditions are considered substantial where such changes exceed the range of normal variability of identified physical parameters.

There are no known fishing activities currently allowed in the nearshore fishery that have the potential to change or are changing existing salinity, currents, dissolved

oxygen, or temperature beyond the range of normal variability. The same is true of reasonably foreseeable activities under the proposed NFMP. In this regard, implementation of the proposed project is not expected to result in significant impacts on physical oceanography.

4.1.5 Effects to Coastal Habitat

Impacts on coastal habitat are considered significant if the project results in a substantial adverse effect, including through habitat modification, on any species identified as a candidate, sensitive, or special status species; if the project results in a substantial adverse effect on any sensitive natural community, interferes substantially with the movement of any native resident or migratory fish or wildlife species, or impedes the use of native nursery sites, such as estuaries. Significant effects also would occur if the project results in a measurable change in regional species composition, ecological function, or community structure. Finally, a significant effect would result if the project would reduce the number or restrict the range of an endangered, rare, or threatened species as defined by Section 15380 of Title 14 of the California Code of Regulations. For purposes of these significance criteria, project-related changes are substantial where such changes result in a measurable decline in the aforementioned parameters beyond normal variability in the localized area.

In general, fishing and other activities associated with implementation of the proposed NFMP could adversely affect coastal habitats through discharge of pollutants, physical disturbance of bottom sediments and benthic flora and fauna due to gear interactions, bycatch discard if fishing is relocated outside of MPAs, and through physical displacement of listed species from their respective habitat. These affects, however, are not unique to the proposed NFMP. Instead, the affects currently exist and occur as a result of present and ongoing fishing activities in the nearshore fishery. Generally speaking, similar affects are expected to occur with adoption of the proposed NFMP because, for example, fishing activities will continue in the nearshore fishery with the same gear that is currently used. Thus, even with adoption of the proposed NFMP, impacts to coastal habitats would generally be the same as currently exist, including disturbances to soft- and hard-bottom features and their associated communities, dislodgement and/or crushing of the substrate, re-suspension of contaminated sediments, and movement of listed species from preferred habitats due to human disturbances. For the same reason, project-related impacts to coastal habitat are not expected to change or exceed existing conditions associated with the current fishing activities. Project-related impacts, as a result, are generally expected to be less than significant under CEQA.

With respect to impacts associated with individual project elements, development and implementation of fishery control rules could result in changes to coastal habitats and may have a potential to increase effects to localized rocky reefs, especially if fishing activities are concentrated into smaller areas. This would most likely occur, if at all, only after MPAs are designated and fishing activities are shifted away from designated MPAs. Potential impacts, however, would be rendered less than significant under CEQA through implementation of the proposed project itself, including, among other options, restricting the number of participants in the effected fishery.

Other portions of the proposed NFMP are also not expected to result in potentially significant impacts on coastal habitat. Managing the fishery in three regions, for example, will not change effects to resources from present conditions because increased localized management will provide for more of a real time analysis of fish population changes. This will allow for implementation of various NFMP measures that would render any such impacts less than significant under CEQA. The restricted access component, in turn, would decrease fishing for four species by 50 percent from current levels. This would benefit the environment in areas fished for those species and potentially significant impacts to coastal habitats are not expected as a result. Likewise, the restricted access program's goal of matching fleet-to-fish populations should benefit the environment by reducing the total number of vessels fishing for targeted species in the nearshore fishery. This reduction is expected, for example, to actually reduce the potential for damage to reefs during fishing activities. The allocation component of the proposed project is also not expected to result in potentially significant impacts to coastal habitat. While the regional management segment of the NFMP proposes that allocation be managed on a regional rather than statewide basis, nearshore species under State management will nevertheless have catches reduced by 50 percent until such time as they are determined to be data-rich. Therefore, effects to coastal habitats would be less than significant. Finally, effects to coastal habitats from the combined components of the proposed project are expected to be less than significant since implementation of the proposed NFMP will benefit natural resources held in trust for the people of California when compared to existing conditions.

4.1.6 Effects to Benthic Habitat

Impacts on benthic habitat are considered significant if the project results in a substantial adverse effect, including through habitat modification, on any species identified as a candidate, sensitive, or special status species; if the project results in a substantial adverse effect on any sensitive natural community, interferes substantially with the movement of any native resident or migratory fish or wildlife species, or impedes the use of native nursery sites, such as offshore reefs. Significant effect also would occur if the project results in a measurable change in regional species composition, ecological function, or community structure. Finally, a significant effect would result if the project would reduce the number or restrict the range of an endangered, rare, or threatened species as defined by Section 15380 of Title 14 of the California Code of Regulations. For purposes of these significance criteria, project-related changes are substantial where such changes result in a measurable decline in the aforementioned parameters beyond normal variability in the localized area.

In general, fishing and other activities associated with the proposed NFMP could affect benthic habitat in and around the nearshore fishery. These effects, however, are not unique to the proposed project. Instead, these effects and conditions currently exist in the nearshore fishery and presently occur as a result of existing fishing and other activities in the nearshore fishery. Generally speaking, these activities and effects are expected to continue even with implementation of the proposed NFMP. Thus, project-related impacts on benthic habitat are generally expected to be similar to those that presently occur in the nearshore fishery because of current fishing and other related

activities.

With respect to impacts associated with individual project elements, development and implementation of fishery control rules could result in changes to benthic habitats and may have a potential to increase effects to localized rocky reefs, kelp beds, or soft-bottom habitat, especially if fishing activities are concentrated into smaller areas. This would most likely occur, if at all, only after MPAs are designated and fishing activities shift away from designated MPAs. Short-term, localized increases in fishing pressure because of MPAs would be potentially significant, in particular, in those areas that are considered fully utilized. Physical disturbances to the soft-bottom habitat from the proposed project, in contrast, are not expected to change species abundance or composition from those conditions associated with the current nearshore fishery activities. Soft-bottom in-fauna are expected to rapidly repopulate or recolonize. Changes are expected to be within the natural variability for the resources. As regards potentially significant impacts, these effects would be rendered less than significant under CEQA through implementation of the proposed NFMP itself, including, among other options, restricting the number of participants in a particular fishery or changes in gear authorized.

Other portions of the proposed NFMP are also not expected to result in potentially significant impacts on benthic habitat. Regional management, restricted access, and allocation effects under the proposed project are not expected to result in an adverse change in the existing physical conditions in the nearshore fishery, which necessarily include existing and ongoing effects that result from current fishing and related activities in the nearshore fishery. In addition, the proposed NFMP includes a number of feedback loops that provide information to the Commission and others responsible for fisheries management. This information will be used to manage the nearshore fishery in a manner that achieves and maintains a sustainable fishery while avoiding and substantially lessening potentially significant impacts under CEQA. Finally, effects to benthic habitats from the combined components of the proposed project are expected to be less than significant since the implementation of the proposed NFMP will benefit natural resources held in trust for the people of California when compared to existing conditions.

4.1.7 Effects to Pelagic Habitat

Impacts on benthic habitat are considered significant if the project results in a substantial adverse effect, including through habitat modification, on any species identified as a candidate, sensitive, or special status species; if the project results in a substantial adverse effect on any sensitive natural community, interferes substantially with the movement of any native resident or migratory fish or wildlife species, or impedes the use of native nursery sites. Significant effect also would occur if the project results in a measurable change in regional species composition, ecological function, or community structure. Finally, a significant effect would result if the project would reduce the number or restrict the range of an endangered, rare, or threatened species as defined by Section 15380 of Title 14 of the California Code of Regulations. For purposes of these significance criteria, project-related changes are substantial where such changes result in a measurable decline in the aforementioned parameters beyond

normal variability in the localized area.

In general, fishing and other activities associated with implementation of the proposed NFMP could adversely affect pelagic habitat through discharge of pollutants, bycatch discards if fishing is relocated outside of MPAs, interaction with lost fishing gear, and physical displacement of listed species from habitats (most likely sea turtles). These affects, however, are not unique to the proposed NFMP. Instead, the affects currently exist and occur as a result of present and ongoing fishing activities in the nearshore fishery. Generally speaking, similar affects are expected to occur with adoption of the proposed NFMP because, for example, fishing activities will continue in the nearshore fishery with the same gear currently used. Thus, even with adoption of the proposed NFMP, the present condition of pelagic habitat in and around the nearshore fishery is not expected to change relative to existing conditions. For the same reason, project-related effects on pelagic habitat are generally expected to be less than significant under CEQA.

With respect to impacts associated with individual project elements, development and implementation of fishery control rules could affect pelagic habitat once MPAs are designated. With MPAs in place, fishing activities could shift away from such areas, with fishing efforts focused and more concentrated in other none-designated areas of the nearshore fishery. This could result, in turn, in localized, potentially significant impacts. Any such impacts would be rendered less than significant, however, through implementation of various management options contemplated under the proposed NFMP, including restricting the number of participants and/or amount of fishing in the affected area. Ultimately, because most of the species addressed in the proposed NFMP are associated with rocky reefs, impacts to pelagic habitats would be less than significant, as implementation would not result in a measurable change in regional species composition or community structure.

Other portions of the proposed NFMP are also not expected to result in potentially significant impacts on pelagic habitat. Regional management, restricted access, and allocation are not expected to result in potentially significant adverse changes to existing conditions in and around the nearshore fishery because feedback loops built into the NFMP program will provide information that can be used to manage the fishery in a manner that ensures no such impacts will occur. Finally, effects to pelagic habitat from the combined components of the proposed project are expected to be less than significant since the implementation of the proposed NFMP will benefit natural resources held in trust for the people of California when compared to existing conditions.

4.1.8 Effects to Areas of Special Concern

Impacts on areas of special concern are considered significant if the project has a substantial adverse effect on those designated special areas identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game, U. S. Fish and Wildlife Service, or National Marine Fisheries Service. Such effects are substantial where the project would result in the area no longer functioning as a designated special area.

In general, fishing and other activities associated with the proposed NFMP could

affect areas of special concern. These effects, however, are not unique to the proposed project. Instead, these affects and conditions currently exist in the nearshore fishery and presently occur as a result of fishing and other activities in the nearshore fishery. Generally speaking, these activities and effects are expected to continue even with implementation of the proposed NFMP. Thus, even with adoption of the proposed NFMP, the present condition of areas of special concern in and around the nearshore fishery is not expected to change relative to existing conditions. For the same reason, project-related effects on areas of special concern are generally expected to be less than significant under CEQA.

With respect to impacts associated with individual project elements, development and implementation of fishery control rules could affect areas of special concern once MPAs are designated. With MPAs in place, fishing activities could shift away from such areas, with fishing efforts focused and more concentrated in other non-designated areas of the nearshore fishery. This could result, in turn, in localized, potentially significant impacts on some areas of special concern. Any such impacts would be rendered less than significant, however, through implementation of various management options contemplated under the proposed NFMP, including restricting the number of participants and/or amount of fishing in the affected area. Ultimately, these management options will ensure that designated special areas of concern continue to function in a manner consistent with the designation.

Other portions of the proposed NFMP are also not expected to result in potentially significant impacts on areas of special concern. Regional management, restricted access, and allocation are not expected to result in potentially significant adverse changes to existing conditions in and around the nearshore fishery because feedback loops built into the NFMP program will provide information that can be used to manage the fishery in a manner that ensures no such impacts occur. Finally, effects to areas of special concern from the combined components of the proposed project are expected to be less than significant since implementation of the proposed NFMP will benefit natural resources held in trust for the people of California when compared to existing conditions.

4.1.9 Effects to Threatened and Endangered Species

Impacts on endangered, rare or threatened species, or species otherwise protected by State or federal law, are significant if the project would result in danger of irreparable injury to, or mortality in, an population of any such species where such a change occurs at a rate that threatens the viability of the population; if the project would impair the recovery of any such species, or where the project has the potential to reduce the number or restrict the range of an endangered, rare, or threatened species as defined by Section 15380 of Title 14 of the California Code of Regulations.

In general, fishing and other activities associated with the proposed NFMP could effect threatened or endangered species, or species otherwise protected by State or Federal law. These effects, however, are not unique to the proposed project. Instead, these affects and conditions currently exist in the nearshore fishery and presently occur as a result of fishing and other activities in the nearshore fishery. Generally speaking,

these activities and effects are expected to continue even with implementation of the proposed NFMP. Thus, even with adoption of the proposed NFMP, the present and ongoing effects on threatened and endangered species in and around the nearshore fishery are not expected to change relative to existing conditions. For the same reason, and as discussed below, project-related effects on threatened and endangered species are generally expected to be less than significant under CEQA.

4.1.9.1 Effects to Marine Mammals

The effects of fishery management decisions on marine mammal populations are typically considered in the context of direct and indirect effects. Direct effects are those where a marine mammal is incidentally taken, seriously injured, or disturbed, while indirect effects are those where the marine mammal's prey abundance and availability is negatively affected. NMFS's PBR calculation includes a reduction to account for indirect effects that may have caused the stock to be reduced below its OSP (K. Forney pers comm., Barlow et al. 1995), such as adverse impacts on behavior, reproduction, survival, loss of habitat, prey abundance and availability, or a change in spatial distribution and/or abundance.

Implementation of the proposed NFMP could affect marine mammal species of special concern through interaction with fishing gear and from the discharge of pollutants. Changes to marine mammal habitats could also affect areas that provide habitat for marine mammals, including areas used for essential behavior. Likewise, implementation of the proposed project could increase effects to localized rocky reefs, especially if fishing activities are concentrated in smaller areas closer to shore or closer to offshore islands. Such effects may occur, if at all, when MPAs are designated through the MLPA process. Following the designation of MPAs, fishing activities would shift away from designated areas, which could result in more concentrated fishing activities in other non-designated areas. These potentially significant impacts would be rendered less than significant, however, through implementation of various management options contemplated under the proposed NFMP, including restricting the number of participants and/or amount of fishing in the affected area, or restricting the use of certain types of gear.

Other aspects of the proposed NFMP are also not expected to result in potentially significant impacts to marine mammals. Managing the fishery in three regions, for example, will not result in significant impacts on marine mammals when compared to present conditions. Instead, local management will result in closer monitoring of environmental conditions when compared to management on a statewide basis, which is expected to provide a higher level of protection to marine mammals generally. The restricted access component of the proposed project would, in turn, decrease the current level of take of four species by 50 percent. This reduction is expected to result in an overall decrease in mammal/fishery interaction when compared to existing conditions, especially in those areas affected by the restricted access element of the proposed project. Restricted access is expected, in particular, to reduce current effects on marine mammals due to gill nets and abandoned gear. Likewise, the restricted access program's goal of matching the fleet-to-fish populations should benefit the environment overall through an overall reduction in fishing related environmental

impacts, including reductions in impacts to reefs (feeding habitat) from gear damage. Impacts, as a result, are expected to be less than significant. The same is true of the resource allocation component of the proposed project. While the regional management component of the NFMP proposes that resource allocation be managed on a regional, rather than statewide basis, nearshore species under State management will nevertheless have catches reduced by 50 percent from current catch levels until such time as they are determined to be monitored by a data-rich system. This overall reduction in take, once again, is expected to result in a net environmental benefit compared to existing conditions in and around the nearshore fishery, including a net reduction in fishing related impacts on marine mammals. Finally, significant impacts on marine mammals are not expected from the combined effects of the individual project elements because implementation of the proposed NFMP will benefit natural resources held in trust for the people of California when compared to existing conditions.

4.1.9.2 Effects to Marine Turtles

Implementation of the proposed NFMP could affect marine turtles in some instances. Such effects could occur, if at all, when MPAs are designated. Following these designations, fishing activities could shift away from designated areas, which could result in more-concentrated fishing activities in other non-designated areas. These potentially significant impacts would be rendered less than significant, however, through implementation of various management options contemplated under the proposed NFMP, including restricting the number of participants and/or amount of fishing in the affected area.

Other portions of the proposed NFMP are also not expected to result in potentially significant impacts on marine turtles. Regional management, restricted access, and allocation are not expected to result in potentially significant adverse changes to existing conditions in and around the nearshore fishery because feedback loops built into the NFMP program will provide information that can be used to manage the fishery in a manner that ensures no such impacts occur. Finally, effects on marine turtles from the combined components of the proposed project are expected to be less than significant since implementation of the proposed NFMP will benefit natural resources held in trust for the people of California when compared to existing conditions.

4.1.9.3 Effects to Listed Fishes

Fishing and other activities under the proposed NFMP are not likely to occur in tidewater goby habitat (low salinity waters in estuaries) and, as a consequence, no project-related changes to existing conditions are expected. The same is true of salmon spawning and rearing habitats. Adverse effects to salmon pelagic habitat could result with implementation of the proposed project, however, through fishing-related discharge of pollutants and bycatch discard in the nearshore fishery. Bycatch-related impacts on salmon could also result under the proposed project during fishing activities for rockfish. Any such potentially significant impacts are only expected, when MPAs are designated. These effects would be rendered less than significant under CEQA through implementation of various management options available under the proposed NFMP,

including restrictions on the number of participants and/or amount of fishing in the affected area, or restrictions on use of particular types of gear.

Other portions of the proposed NFMP are also not expected to result in potentially significant impacts on listed fishes. Regional management, restricted access, and allocation are not expected to result in potentially significant adverse changes to existing conditions in and around the nearshore fishery because feedback loops built into the NFMP program will provide information that can be used to manage the fishery in a manner that ensures no such impacts occur. Finally, effects on listed species from the combined components of the proposed project are expected to be less than significant since implementation of the proposed NFMP will benefit natural resources held in trust for the people of California when compared to existing conditions.

4.1.9.4 Effects to Marine and Coastal Birds

Seabirds can be affected by a wide variety of factors including human disturbance, changes in key prey species, oil spills, toxic contaminants, fishery interactions, predation, and changes in climatic conditions. Unfortunately, there are many informational voids concerning seabird ecology, especially winter ecology, which makes it difficult to determine if a particular fishery is having a deleterious effect on a seabird population. Population monitoring has been conducted for some species that nest on cliffs and flat ground (e.g., California brown pelican, cormorants, common murre, California least tern) and for crevice dwelling species (e.g., Xantus' murrelets, storm-petrels, auklets, pigeon guillemots), but the data are not complete or uniform for all seabird breeding colonies throughout the State. Information concerning fishery interactions is, for the most part, anecdotal and difficult to quantify. Food habit data and the relationship to changes in key prey species are not well known, nor are the effects of environmental changes. This lack of information makes it difficult to analysis whether fishery management practices are having a potentially significant adverse impact on seabirds. The effect of fishery management decisions on seabird populations is typically considered in the context of direct and indirect effects. Direct effects are those where a seabird is incidentally seriously injured or killed as a result of activities associated with the fishery. This would include serious injury or death resulting from by catch or entanglement in fishing gear, serious injury or death resulting from seabirds in flight striking a fishing vessel, as well as disturbances that significantly impair essential behavioral patterns including breeding, feeding, or sheltering. Indirect effects are those that may be caused by the fishery, but are later in time or farther removed in distance, yet are reasonably foreseeable and causally related. This includes the reduction of seabird prey abundance and availability.

The proposed project is not expected to result in adverse effects on marine and coastal birds when compared to existing physical conditions in and around the nearshore fishery. With the implementation of the proposed NFMP, the major impacts are from interactions of marine and coastal birds with fishing gear and from the discharge of pollutants. Changes to marine and coastal bird habitats, resulting from the proposed project, may have potentially significant effects to localized breeding areas and associated feeding zones, especially if fishing activities are concentrated into

smaller areas such as closer to offshore islands. This would most likely occur only after MPAs are designated. Following the designation of MPAs, fishing activities would shift away from designated areas, which could result in more concentrated fishing activities in other non-designated areas. Potentially significant impacts would be rendered less than significant, however, through implementation of various management options contemplated under the proposed NFMP, including restricting the number of participants and/or amount of fishing in the affected area, or restricting the use of certain types of gear. Other aspects of the proposed NFMP are also not expected to result in potentially significant impacts to marine and coastal birds. Managing the fishery in three regions, for example, will not result in significant impacts on seabirds when compared to present conditions. Instead, local management will result in closer monitoring of environmental conditions when compared to management on a statewide basis, which is expected to provide a higher level of protection to marine birds generally. The restricted access component of the proposed project would, in turn, result in an overall decrease in seabird/fishery interaction when compared to existing conditions. Restricted access is expected, in particular, to reduce current effects on marine and coastal birds due to reduced gill nets and abandoned gear. Likewise, the restricted access program's goal of matching the fleet-to-fish populations should benefit the environment overall through an overall reduction in fishing related environmental impacts, including reductions in impacts to reefs (feeding habitat) from gear damage. Impacts, as a result, are expected to be less than significant. The same is true of the resource allocation component of the proposed project. While the regional management component of the NFMP proposes that resource allocation be managed on a regional, rather than statewide basis, nearshore species under State management will nevertheless have catches reduced by 50 percent from current catch levels until such time as they are determined to be monitored by a data-rich system. This overall reduction in take, once again, is expected to result in a net environmental benefit compared to existing conditions in and around the nearshore fishery, including a net reduction in fishing related impacts on marine and coastal birds. Finally, significant impacts on seabirds are not expected from the combined effects of the individual project elements because implementation of the proposed NFMP will benefit natural resources held in trust for the people of California when compared to existing conditions.

4.1.10 Effects to Non-listed Species

Impacts are considered significant if the proposed project has substantial adverse effects on biological functions such as feeding, migration, or reproduction, or where the project impedes the use of nursery sites, or modifies habitat such that a regional shift in species distribution occurs.

With the implementation of the NFMP, all non-listed species have the continued potential for interactions with fishing gear proposed project would utilize the same fishing gear as currently exists in the nearshore fishery. Greater effects would most likely occur to non-listed species after MPAs are designated and fishing effort is shifted away from MPAs. These impacts are expected to be short-term and localized in nature and would be less than significant because the NFMP includes measures to reduce impacts such as reducing the fleet or restricting gear types. Feedback loops built into

the NFMP program will provide information to trigger management changes when impacts to non-listed species become apparent. Finally, effects to non-listed species from the combined components of the proposed project are expected to be less than significant since the implementation of the NFMP will reduce fishing activity from the current level.

4.1.11 Effects to Target Fishes in this NFMP

Impacts are considered significant if the proposed project results in a measurable change, beyond normal variability, in species composition, ecological function, or community structure over several local areas, or a reduction in regionally important habitat. Impacts also are considered significant if substantial adverse effects occur to biological functions or where the project impedes the use of nursery sites.

Development and implementation of fishery control rules in Stage I would not change OYs and MSY (TAC) from current levels existing in the nearshore fishery. In this regard, effects are the same for the proposed project as existing conditions. With the designation of MPAs, fishing populations within MPAs could increase but those populations outside the MPAs could decrease due to increased effort in the remaining open fishing areas. Designation of MPAs has the potential to displace fishery participants from traditional fishing grounds. While conflicts include preclusion from the area, lost fishing time, and damage to equipment, effects to the environment would be less than significant within designated MPAs and potentially significant in the remaining open areas. Even then, the proposed project will render these impacts less than significant because implementation of the NFMP ensures that sustainability of the fishery occurs. If, through allocation, the fleet were decreased to match fish populations, then effects to the environment in the remaining open areas would not be potentially significant when compared to existing conditions. Implementation of regional management will provide supplemental data in determining if potentially significant effects to the environment are occurring due to the displacement of fishing activities. At that time, effectiveness of restricted access and allocation would be evaluated and changes in the MSY and OY values would be determined such that impacts are reduced to less than significant. Finally, effects to targeted fishes from the combined components of the proposed project are expected to be less than significant since the implementation of all these parts has the potential to reduce fishing activity from those currently existing.

4.1.12 Effects to Land Use

Impacts are considered significant if the project would require new facilities such as housing, streets, parks, and other amenities to meet the demands of the project. Impacts also are considered significant if the project conflicts with any applicable land use plan, policy or regulation of an agency with jurisdiction for an area affected by the project, but only where such a conflict results in a potentially significant change in existing physical conditions in and around the affected area.

Development activities within watersheds and in coastal marine areas often affect the habitat of groundfish and other fish species on both long-term and short-term scales. Runoff from development sites of toxics reduces the quality and quantity of

suitable fish habitat by the introduction of pesticides, fertilizers, petrochemicals, and construction chemicals. Sediment runoff can restrict tidal flows and tidal elevations resulting in losses of important fauna and flora. Shoreline stabilization projects that affect reflective wave energy can impede or accelerate natural movements of sand, thereby impacting intertidal and sub-tidal habitats (PFMC 1998).

With implementation and development of the NFMP, impacts from the proposed project would be the same as currently exist in the nearshore fishery. Fishing activities generally do not affect land use and if fishing activity is reduced through allocation or restricted access, impacts from the proposed project would be less than significant. Fishery control rules in Stage I would not change OYs and MSY (TAC) from the current levels existing in the nearshore fishery and, as a consequence, would not result in significant or potentially significant impacts when compared to existing conditions. Regional management, restricted access, and allocation effects would not exceed current effects to land use because the Commission can choose elements of the plan to reduce impacts to less than significant. Finally, effects to land use from the combined components of the proposed project are expected to be less than significant since the implementation of all these parts has the potential to reduce fishing activity and associated pressure on land based facilities from those currently existing.

4.1.13 Effects to Transportation

Impacts are considered significant if the project causes an increase in traffic that is substantial in relation to the existing traffic load and capacity, if the project causes any exceedances in the applicable level of service standard, or the project causes a substantial increase in hazards due to design features or incompatible uses.

Increases in truck traffic has the potential to occur if fishing is concentrated into smaller areas, from the designation of MPAs, such that landings increase at local ports. These potentially significant impacts would be short-term and localized and the implementation of the NFMP has the potential to alter harvest rates and therefore change transportation impacts to less than significant. The proposed project is not expected to result in a measurable change in the demand for public or private services. Regional management, restricted access, and allocation effects would not exceed current effects to transportation because the Commission can choose elements of the plan to reduce impacts to less than significant. Finally, effects to transportation from the combined components of the proposed project are expected to be less than significant since the implementation of all these parts has the potential to reduce fishing activity and associated pressure on land based facilities from those currently existing.

4.1.14 Effects from Noise

Impacts are considered significant if the project results in exposure of persons or wildlife and aquatic species to noise levels in excess of applicable noise standards or criteria, a permanent increase in ambient noise levels in the project vicinity above existing levels, a substantial temporary or periodic increase in existing ambient noise levels in the project vicinity, or where the proposed project exposes sensitive noise receptors to noise levels in excess of existing conditions.

Implementing the NFMP is not expected to increase ambient noise levels beyond

those associated with current fishing activities. Should the designation of MPAs result in a shift of fishing activities into areas that currently have limited fishing, potentially significant, but localized, noise impacts could occur. Even then, the proposed project will render these impacts less than significant because guidance from the NMFS, USFWS, and the Commission would enact those components of the NFMP to reduce impacts. Implementation of regional management, restricted access, and allocation could reduce potentially significant noise impacts by reducing the fishing fleet size. Finally, impacts from noise resulting from implementation of the combined components of the proposed project are expected to be less than significant since the implementation of all these parts has the potential to reduce fishing activity and associated pressure on sensitive receptors from those currently existing.

4.1.15 Effects to Utilities

Impacts are considered significant if the proposed project requires the construction of or results in the need to construct new facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

No sizeable demands from project-related activities are expected to affect utilities. Therefore, the proposed project would have less than significant effects to utilities.

4.1.16 Effects to Archaeology/Paleontology

Federal law, 36 CFR, Part 800 provides that environmental analyses need only consider effects on significant cultural resources. Significant resources include: resources listed on the National Register of Historic Places, eligible for listing in the National Register, designated as a National Historic Landmark, or listed in or eligible for listing in the California Register of Historical Resources. Impacts on historical resources are significant where the project may cause a substantial adverse change in the significance of a historical resource. A substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired as defined in Section 15064.5, subdivision (b)(2), of Title 14 of the California Code of Regulations. For the purposes of this significance threshold, historical resources shall include resources identified in Section 15064.5, subdivision (a) of Title 14 of the California Code of Regulations. The significance of project-related impacts on archaeological and paleontological resources shall be determined in accordance with Section 15064.5, subdivision (c), of Title 14 of the California Code of Regulations.

Most of the coastal shallow water areas have been characterized, by various EIRs and are not considered sensitive for prehistoric resources (SLC 1999). Most fishing activity will occur away from shipwrecks due to high potential for gear damage or losses if shipwrecks are encountered. If MPAs were designated around shipwrecks as fish habitat, then effects would be less than currently exist. Decreasing the fishing fleet to match fish population levels, through allocation and/or restricted access, would decrease effects to archaeological resources than those currently occurring and would be less than significant. The development and implementation of the NFMP would not

result in impacts that are significant or potentially significant when compared to existing conditions. Therefore, impacts to archaeology/paleontology would be less than significant due to the direct avoidance of these resources by fishery participants.

4.2 Growth Inducement

The proposed NFMP is not expected to result in potentially significant growth inducing affects. The proposed project could foster some very limited economic activity, but that incremental affect would not be of a magnitude that it would stimulate the establishment of new businesses, population growth, or the construction of additional housing. In addition, no project characteristics are likely to remove obstacles to population growth or encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively. Only implementation of the Stage III fishery control rules could result in fishing activities above current levels. This increase is not expected to be significant relative to existing conditions in and around the nearshore fishery.

4.3 Significant Irreversible Environmental Effects

CEQA section 15126(f) requires that the proposed project identify potential impacts that could result in significant irreversible environmental changes, including the use of non-renewable resources and the irretrievable commitment of resources. An irreversible commitment of resources is one that cannot be reversed, except perhaps in the extreme long term (millions of years). The classic instance is when a species becomes extinct; this is an irreversible loss. Irretrievable commitments are those that are lost for a period of time. The proposed project would not result in significant irreversible environmental changes or irretrievable commitments of environmental resources. The project is designed to avoid significant adverse impacts to other species, their habitat, and listed or locally unique species.

4.4 Short-term Uses and Long-term Productivity

CEQA section 15126(e) requires that the cumulative and long-term effects of the proposed project that could affect the state of the environment, could narrow the range of beneficial uses of the environment, or that could pose long-term risks to health or safety be addressed. The proposed project will not affect a variety of short-term uses currently available nor are any significant impacts expected to occur. In addition, it will not adversely affect long-term productivity of statewide populations of the targeted species as this FMP is designed to bring fish populations and fishery participants into balance that promotes sustainability.

4.5 Cumulative Effects

In this section, the proposed project is analyzed in relation to other major projects in the region. Cumulative effects on environmental resources can result from the incremental effects of the project when added to other past, present, and reasonably foreseeable future projects in the area. Cumulative effects can result from individually minor but collectively significant actions over a period of time. The OY harvest levels in the proposed project become the cumulative harvest and are expected to have the

overall effect of constraining the fishery mortality to within OY harvest levels to maintain healthy fish populations over the long-term.

Other projects considered in the cumulative analysis include: delineation drilling on OCS leases off Santa Barbara, development of the 36 undeveloped but leased OCS tracts, transportation of oil from Alaska and overseas, commercial fishing of depressed stocks, stormwater runoff, fiber optic cable installations, helicopter and supply vessel traffic, geophysical surveys, construction, development and production, decommissioning, and commercial and residential development.

The development of the 36 offshore leases is anticipated between 2002 and 2030 (MMS 2001). Development of these leases would expect to increase crew and boat supply trips by approximately three percent above current levels. Impacts to marine mammals and marine and coastal birds are expected to result in temporary (less than 1-hour) localized disturbances. Helicopter trips routinely involve eight to ten trips each day per platform (MMS 2001). Pipeline construction activities would occur during the development phase. These activities would displace fishing activities from the associated infrastructure.

Since the prevailing onshore wind conditions exist along the coast, cumulative effects of air pollution could come from OCS activities, oil and container ship traffic, installation of fiber optic cables, and displaced fishing activities. During the next 28 years, all existing oil and gas platforms in federal and State waters are expected to be removed (MMS 2001). Platforms Hazel, Heidi, Hilda, and Hope were removed from State waters in 1996. In 2000, 877 oil tankers visited the ports of Los Angeles/ Long Beach and El Segundo. Of those, 192 were United States flagged oil tankers and 685 were foreign flagged oil tankers. The long-term oil supply outlook for California remains one of declining in-State and Alaska supplies leading to increasing dependence on foreign oil sources (CEC 1999). Since 1989, California refineries have received about half of Alaska's total production. If this trend remains unchanged into the 20-year future, the supply volumes from Alaska to California would decline by 61 percent from current levels. The CEC (1999) estimates that import of 168 to 257 million more barrels per year is expected by 2017 based on a very gradual decline in California in-State supply. This estimate means 337 more tanker deliveries per year, about one per day.

Commercial and residential development are expected to grow along the coast with the influx of increased pollution discharges, loss of upstream and wetland habitat, development in harbors and marinas, and increases in transportation corridors. This increase in development along the coastal strand has the potential to further stress already depressed fish stocks with added pollution and loss of habitat. Increases in development also have the potential to increase non-point discharges to rivers including agricultural contaminants and sediments. Loss of nearshore habitat due to increased sediment loads may affect fish population stability in the long-term.

The timing of fiber optic cable installation is unknown, however some operations have begun while the majority are expected to be in the nearshore environment within the next five years (MMS 2001). Global West project includes seven landfalls between San Francisco and San Diego, while MCI Worldcom and AT&T would land at Montana de Oro State park in San Luis Obispo County. Effects include disturbing the sediments for cable placement and physical sediment disturbance in deeper waters where the

cable is not buried or over hard substrate.

Cumulative effects of the proposed project are not expected to be cumulatively considerable, that is, significant, when compared to the additional proposed projects described above.

