

**Environmental Impact Statement/
Overseas Environmental Impact Statement**

Point Mugu Sea Range

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3.11 Socioeconomic Resources

3.11.1 Introduction

Socioeconomics comprises the basic attributes and resources associated with the human environment, particularly population and economic activity. Economic activity typically encompasses employment, personal income, and industrial growth.

Socioeconomic data herein are presented at the county, regional, and state levels to analyze baseline socioeconomic conditions in the context of local and regional and state trends. Data have been collected from previously published documents issued by federal and state agencies.

3.11.2 Region of Influence

In the context of statewide socioeconomic activity, industries active in the region of influence (ROI) (see detailed description below) are a substantial contributor to the social and economic well-being of California. For example, fishing districts potentially affected by ongoing Naval operations on the Point Mugu Sea Range (PMSR) account for almost half of the revenue generated by commercial fishing operations statewide (California Department of Fish and Wildlife, 2018a). Other economic activities somewhat unique to the ROI—including sport fishing and commercial shipping—also are significant contributors to statewide economic benefit. Less unique but equally important, Ventura County agriculture employment is critical not only at the county level but also in the viability of the statewide agricultural industry. However, the agricultural industry is not likely to be affected by testing and training activities associated with PMSR, with the exception of takeoffs and landings at the airfield.

The ROI for socioeconomics is defined as the area in which the principal effects arising from implementation of the proposed action or an identified alternative are likely to occur. The Proposed Action and alternatives would directly affect areas already dedicated to military use in Ventura County, and open water locations off the coastlines of Los Angeles, Ventura, Santa Barbara, and San Luis Obispo Counties. Current uses of potentially affected areas include military facilities, national park activities, commercial fishing, commercial marine transport, sport fishing, tourism, and recreation.

Implementation of the Proposed Action would not result in significant changes on land in affected areas; only the intensity and type of testing and training activities performed in water would change. Therefore, the ROI for the Proposed Action and alternatives would be limited to the coastlines of Los Angeles, Ventura, Santa Barbara, and San Luis Obispo Counties, and users of the open water areas in the PMSR.

3.11.3 Approach to Analysis

To the extent that the ongoing and proposed testing and training activities that occur within the ROI could affect the human environment, the following topics were identified: commercial transportation and shipping, commercial and general aviation, commercial and recreational fishing, subsistence fishing, and other forms of recreation/tourism. Each of these socioeconomic resources represents an aspect of the human environment that involves economics (e.g., employment, income, or revenue) and social conditions (e.g., enjoyment and quality of life) associated with the marine environment of the ROI.

The baseline for identifying the socioeconomic conditions in the ROI was derived using relevant published information from sources that include federal and state government agencies and databases. Previous environmental studies were also reviewed.

The alternatives were evaluated based on the potential for impacts and the degree to which testing and training activities could impact socioeconomic resources. The potential for impacts depends on the likelihood that the testing and training activities would interface with public activities or infrastructure. Factors considered in the analysis include whether temporal or spatial interfaces would be available between the public or infrastructure and testing and training activities. If potential exists for this interface, factors considered to estimate the degree to which an exposure could impact socioeconomic include whether there could be an impact on livelihood, quality of experience, resource availability, income, or employment. If no potential for the public to interface with an activity is expected, the impacts would be considered negligible.

3.11.4 Affected Environment

This section describes the socioeconomic resources associated with human activities and livelihoods in the ROI.

3.11.4.1 Transportation and Shipping

3.11.4.1.1 Ocean Transportation

Military Transportation and Shipping

Ocean transportation includes the transit of commercial, private, and military vessels at sea, including submarines. A large amount of ocean traffic occurs through the PMSR; more than 7,000 vessel movements through the PMSR have been estimated for a one-year period (U.S. Department of the Navy, 2013). Of these, approximately 800 are a result of Navy activity. Shipping routes cross the PMSR through the Santa Barbara Channel and through an area south of the Channel Islands.

Naval Air Warfare Center Weapons Division (NAWCWD) manages the PMSR for a variety of uses, although maritime and air operations, including missile and target launches, are the primary uses. Common types of vessels used in the PMSR include range support boats, larger ships (e.g., cruisers, destroyers, and aircraft carriers), and surface targets.

Non-military activities can occur in all areas within the PMSR. When United States (U.S.) Navy activities require exclusive use of an area, the NAWCWD notifies mariners by issuing a Notice to Mariners (NTM) and secures the area.

Commercial Shipping

A major shipping channel established by the U.S. Coast Guard is aligned just north of, and roughly parallel with, the northern Channel Islands. This channel is used by commercial cargo vessels traveling between northern Pacific and Southern California ports, as well as by traffic destined for remote ports such as the Panama Canal or Asia (U.S. Department of the Navy, 2018). Commercial shipping in the PMSR is dominated by cargo transports, oil tankers, and barges. The PMSR is used by commercial vessels traveling between northern Pacific ports (e.g., Vancouver, Seattle, and San Francisco) and those situated in Southern California. The PMSR is also transited by vessels to and from the Panama Canal, Indonesia, or other western ports. A large amount of ocean traffic occurs through the PMSR; nearly 9,200 ships (2017 data) annually transit into and out of the ports of Los Angeles and Long Beach (Marine Exchange of Southern California, 2018) and over \$9.5 billion of cargo move through the Port of Hueneme annually (The Port of Hueneme, 2020). Shipping routes cross the Sea Range through the Santa Barbara Channel and through an area north of the Channel Islands (U.S. Department of the Navy, 2018). The relative distribution of commercial vessel traffic in the ROI is presented in Figure 3.0-1.

3.11.4.1.2 Military Air Transit

Military aircraft routinely operate within international airspace over the PMSR. Areas of concentrated and regular military testing and training activities tend to be located away from heavily used offshore areas to ensure public safety. Areas most frequently used for aircraft operations and missile activities are within Warning Area 289 South (W-289S) (Figure 1-1). These areas are part of the Outer PMSR and are located west (seaward) of the imaginary line between San Nicolas Island (SNI) and San Miguel Island. This imaginary line is about 45 nautical miles southwest of Point Mugu (U.S. Department of the Navy, 2013).

3.11.4.1.3 Commercial and General Aviation

Air traffic routes for civilian aircraft with instrument flight rules clearances run north and south along the coast and do not enter the PMSR. There are corridors for aircraft to cross the PMSR while under Federal Aviation Administration control. These are important corridors because they allow air traffic to approach or leave the Los Angeles Area enroute to Hawaii or other transpacific destinations (U.S. Department of the Navy, 2013). Eight Warning Areas compose the majority of the airspace over the PMSR. Warning Areas are designated airspace for military activities that are within international airspace but are open to all aircraft. Flights within Warning Areas by non-participating aircraft are not prohibited because these areas are over international waters. Part or all of the Warning Areas lie within international airspace and are activated on an intermittent basis. The public is notified 24 hours in advance that the Navy requires exclusive use of a Warning Area through issuance of a Notice to Airmen (NOTAM) by the Federal Aviation Administration (U.S. Department of the Navy, 2013).

3.11.4.2 Commercial and Recreational Fishing

3.11.4.2.1 Commercial Fishing

Economic activity associated with commercial fishing is compiled by the California Department of Fish and Wildlife (CDFW) through required reporting procedures. Catch totals by species are reported by commercial fleets within each district. Totals and associated revenues for ports within the Santa Barbara area (which includes ports and landings from Los Angeles to Avila Beach) are recorded by the CDFW. In 2017, the ports of Ventura and Hueneme landed the largest total poundage of commercial fish species in the Santa Barbara area with approximately 54 million pounds (24.5 million kilograms) and 36 million pounds (16.3 million kilograms), respectively. With regard to total value, the ports of Ventura (\$31 million) and Hueneme (\$18 million) were also the most lucrative ports. A summary of reported poundage and values for 2017 is presented in Table 3.11-1.

Table 3.11-1: Regional Commercial Fishing Poundage and Value (2017)

Port	Pounds	Value
Hueneme	35,936,403	\$18,481,438
Santa Barbara	3,912,104	\$12,943,816
Oxnard	1,379,011	\$3,350,242
Ventura	53,742,966	\$30,939,138
Goleta Beach	1,712	\$7,299
Surf Beach	704	\$4,911
Other ¹	10,268	\$33,881
Total	94,983,169	\$65,760,725

¹This category comprises landings too small to be considered ports but required to report daily catches.
Source: California Department of Fish and Wildlife (2018b)

3.11.4.2.2 Recreational Fishing

Southern California is the leading recreational fishing area along the Pacific coast of the United States. The area encompassed by the PMSR is fished year-round due to favorable prevailing weather and sea conditions. Modes of recreational fishing include shore and pier activities, as well as private and charter boats.

Inner waters from Santa Barbara to Point Conception are lined with kelp beds and reefs that provide recreational fishing opportunities to catch kelp bass, yellowtail, bonito, rockfish, barracuda, and others. Popular Channel Islands sport fishing areas are concentrated around the offshore kelp beds and open ocean south of Anacapa and Santa Cruz islands (U.S. Department of the Navy, 2013). Total fish catches of recreational passenger fishing boats in California are recorded by the CDFW and the California Recreational Fisheries Survey. Catches for the Central, Channel, and South Districts are provided in Table 3.11-2.

Table 3.11-2: Total Recreational Fish Catches in the Central, Channel, and South Districts (2017)

District	Number of Fish
Central (San Luis Obispo, Monterey, and Santa Cruz Counties)	1,942,902
Channel (Ventura and Santa Barbara Counties)	1,734,908
South (San Diego, Orange, and Los Angeles Counties)	6,683,894
Total	10,361,704

Source: California Department of Fish and Wildlife (2018c).

3.11.4.2.3 Subsistence Fishing

The U.S. Environmental Protection Agency considers subsistence fishers to be people who rely on non-commercial fish as a major source of protein. Subsistence fishers tend to consume fish and shellfish at higher rates than other fishers, and for a greater percentage of the year, because of cultural and economic factors. Subsistence fishing is generally assumed to occur close to the coastline, from beaches, piers, or small boats (U.S. Environmental Protection Agency, 2002).

There are no specific criteria or thresholds that define subsistence fishers; however, survey-based studies have indicated that lower-income urban populations, Native Americans, and Asian Americans are more likely to be subsistence fishers. Regional studies show that subsistence fishing is common among non-white, non-European/American ethnicity, particularly with those from Spanish, Hispanic, or Latino backgrounds, in addition to some of Samoan, Vietnamese, and Chinese backgrounds. While the economic value of subsistence fishing may be low in a regional context, it may be critical for the livelihoods of many communities (U.S. Department of the Navy, 2017).

3.11.4.3 Other Recreational Activities/Tourism

The Channel Islands are also used by the public for recreational purposes other than sport fishing (e.g., boating, diving, and whale watching). These activities originate from harbors, coves, and marinas along the mainland coast. Whale watching is popular in the region primarily from March through May (during the annual gray whale northward migration); bird watching and marine mammal observation are popular year-round. Recreational diving at shipwrecks and natural areas around the Channel Islands is also popular (National Park Service, 2015).

Due to abundant marine life and the presence of large sea caves and rock formations, the Channel Islands are considered a primary destination of interest for sea kayakers in California. Several regional operations offer sea kayaking excursions in the Channel Islands National Marine Sanctuary region. Users can also take kayaks out to the islands on commercial or private vessels, and spend single or multiple days kayaking along the islands' shorelines. Boating, with both sail and powered boats, is also a popular pastime in the ROI (National Park Service, 2015).

Private companies also offer cruises around the Channel Islands. The lengths of the cruises vary from day trips to a five-day excursion and range in price from \$25 per adult to up to \$5,540 (Island Packers, 2018; National Geographic, 2018). All of the activities discussed in this section contribute to the local economy and employment. Several businesses exist that provide rental equipment and boat tours for local residents and visitors to use.

3.11.5 Environmental Consequences

This section evaluates how and to what degree the activities described in Chapter 2 (Description of Proposed Action and Alternatives) could impact socioeconomic resources of the ROI. Table 2-2 in Section 2.2 (Alternatives Development) presents the baseline and proposed testing and training activities for each alternative, including the number of events occurring annually. However, not all of these activities would require closures within PMSR, and some activities could occur at the same time under the same closure. The analysis presented below applies to all of the testing and training scenarios (air-to-air, air-to-surface, surface-to-air, surface-to-surface, and subsurface-to-surface), as described in detail in Section 2.1 (Proposed Action).

3.11.5.1 No Action Alternative

Under the No Action Alternative, proposed testing and training activities would not occur within the PMSR. Other military activities not associated with this Proposed Action would continue to occur. Therefore, existing environmental conditions for non-military activities or unassociated military activities would either remain unchanged or would improve slightly after cessation of ongoing testing and training activities, although the socioeconomic benefits that result from the cessation of Navy activity in these areas cannot be accurately determined at this time. However, there is the potential that economic impacts could occur within the ROI due to the potential loss of jobs currently associated with the Navy's use of PMSR. Similarly, the related socioeconomic impacts associated with the cessation of Navy activity cannot be accurately determined at this time.

Discontinuing the testing and training activities would result in fewer conflicts with non-military and unassociated military activities where testing and training activities have historically been conducted which could improve operation of these other activities. However, this discontinuation could also result in reduced economic activity associated with the Navy, although it cannot be accurately quantitatively determined at this time. Therefore, discontinuing testing and training activities under the No Action Alternative is not likely to measurably improve or impact the socioeconomic condition of the ROI.

3.11.5.2 Alternative 1 (Preferred Alternative)

A comparison of operational tempo proposed for each alternative, and proposed types and level of activities, are provided in Section 2.1.1 (Current and Proposed Activities).

3.11.5.2.1 Commercial Shipping

Common routes of travel for commercial shipping can be seen in Figure 3.0-1 in Chapter 3 (Affected Environment and Environmental Consequences). In the event that the Navy requires exclusive use of an area for testing and training activities, notifications are made by the NAWCWD through a NTM 24 hours in advance and via daily Very High Frequency (VHF)-FM Marine Radio (Channel 16) broadcasts. PMSR has established procedures to ensure that non-participating surface vessels are not exposed to undue risk. The surveillance aircraft survey designated clearance areas to ensure that surface vessels are not present. Any vessels, if present, are warned that they are in an area of an impending hazardous activity and are requested to leave the area. Contact with vessels is made by marine band FM radio; however, loudspeakers can be used if the boat is not equipped with a radio. Since most of these areas are in Territorial Waters, the Navy requests that ships leave the clearance areas. If vessels remain in a clearance area, the Sea Range will delay, cancel, or move the test to a clear area. A test will not normally be initiated if a non-participating vessel is present in a clearance area. If the closure involves an area used for commercial shipping routes, it is likely that with the advanced notice the commercial vessel could adjust its course to avoid the closed area. As a result of the increase in tempo of Alternative 1 compared to the baseline (see Table 2-2), the number of closures associated with Alternative 1 could increase as well. This increase in closures would not cause a significant change to commercial shipping activities, as closures would still be short in duration and limited to specific areas. These closures would not prevent commercial shipping vessels from traveling to their destinations. Therefore, testing and training activities associated with Alternative 1 would not significantly affect commercial shipping traffic, and this form of economic activity would not be disrupted. Socioeconomic impacts related to commercial shipping would be less than significant.

3.11.5.2.2 Commercial and General Aviation

Commercial and general aircraft are permitted to cross the PMSR through corridors under Federal Aviation Administration control. The NAWCWD would issue a NOTAM 24 hours in advance of Navy testing and training activities that would require exclusive use of airspace in and around these corridors. With this advanced warning, pilots could adjust their flight path to avoid the closed area. This would ensure that commercial and general air traffic could continue to and from transpacific destinations during the times of closure. As a result of the increase in tempo of Alternative 1 compared to the baseline (see Table 2-2), the number of closures associated with Alternative 1 could increase as well. However, this increase in closures compared to the baseline would not greatly impair commercial and general aviation activities as a result of the warning system and short duration and specific locations of closures. Therefore, testing and training activities associated with Alternative 1 would not significantly affect commercial and general aviation, and this form of economic activity would not be disrupted. Additionally, quality of life associated with the ability to partake in commercial or general aviation would not be negatively affected. Socioeconomic impacts related to commercial and general aviation would be less than significant.

3.11.5.2.3 Commercial and Recreational Fishing

Commercial Fishing

As discussed in Section 3.11.4.2.1 (Commercial Fishing), commercial fishing can bring in significant contributions to the regional economies within the ROI. Under Alternative 1, periodic closures of various areas within the PMSR would be needed. Due to the increased tempo of testing and training activities associated with Alternative 1 (see Table 2-2), the number of annual closures could increase when compared to the baseline. As discussed previously, civilian commercial fishermen would be notified of these closures 24 hours in advance of the closure through a NTM issued by the NAWCWD and daily VHF-FM Marine Radio (Channel 16) broadcasts. As such, commercial fisherman would be able to plan their fishing trips accordingly. Further, the closures associated with the testing and training activities would not restrict use of the entire PMSR but smaller, more focused areas. Thus, while commercial fisherman would not have access to certain areas during closures, they would likely be able to move to another area nearby and continue their fishing activities. Additionally, closures would be short in duration and would not result in long-term inaccessibility of an area to fishermen. As a result, closures associated with Alternative 1 would not hinder commercial fishermen's ability to contribute to the local economy. Therefore, socioeconomic impacts related to commercial fishing would be less than significant.

Recreational Fishing

Similar to commercial fishing activities, recreational fishing could be limited as a result of the closures that would occur within the PMSR as a result of Alternative 1. For the purposes of this analysis, recreational fishing activities are associated with personal enjoyment and are not considered to affect an individual's economic well-being. Therefore, recreational fishing is only evaluated from a social perspective.

As a result of the increase in tempo of Alternative 1 compared to the baseline (see Table 2-2), the number of closures associated with Alternative 1 could increase as well. However, this increase in closures compared to the baseline (see Table 2-2) would not impede recreational fishing from occurring. Notifications are made by the NAWCWD through a NTM 24 hours in advance and via daily VHF-FM Marine Radio (Channel 16) broadcasts. PMSR has established procedures to ensure that non-participating surface vessels are not exposed to undue risk. The surveillance aircraft survey designated

clearance areas to ensure that surface vessels are not present. Any vessels, if present, are warned that they are in an area of an impending hazardous activity and are requested to leave the area. Contact with vessels is made by marine band FM radio; however, loudspeakers can be used if the boat is not equipped with a radio. Since most of these areas are in Territorial Waters, the Navy requests that ships leave the clearance areas. If vessels remain in a clearance area, the Sea Range will delay, cancel, or move the test to a clear area. A test will not normally be initiated if a non-participating vessel is present in a clearance area. Closures associated with launch events conducted from SNI are likely to be partial area closures so that boats can move to another area near SNI that remains open. This would allow fishermen to continue to recreate even when closures occur. Further, since advanced notice would be given for the closure events, fishermen would be able to plan their trips accordingly. Closures would be short in duration and would not result in long-term inaccessibility of an area to fishermen. Closures for testing and training activities associated with Alternative 1 are anticipated to be minimal and would not reduce fishermen's enjoyment or quality of life. Therefore, socioeconomic impacts related to recreational fishing would be less than significant.

Subsistence Fishing

As stated in Section 3.11.4.2.3 (Subsistence Fishing), subsistence fishing is generally assumed to occur close to the coastline, from beaches, piers, or small boats. As such, subsistence fishing activities is assumed to occur near public beaches and not in the open waters of the PMSR. These areas are not anticipated to be closed as a result of the testing and training activities associated with Alternative 1. Therefore, no socioeconomic impacts would occur to subsistence fishing as a result of Alternative 1.

3.11.5.2.4 Tourism

Typically, local residents and visitors who use the area within and around the PMSR are not affected or interrupted by military testing and training activities occurring in the PMSR, but residents and visitors would still be subject to the same closures as commercial and recreational fishermen should they occur. This could result in economic impacts on whale watching and cruise/commercial tour companies, as well as equipment rental companies in the area under Alternative 1. Further, personal enjoyment of the area could be impacted by closures of the PMSR. While the number of closures under Alternative 1 could increase when compared to the baseline, tourism activities would still be able to occur as normal within the PMSR. The NAWCWD would issue a NTM 24 hours in advance of Navy activities that require exclusive use of an area, in addition to daily VHF-FM Marine Radio (Channel 16) broadcasts about the closure. This would give companies time to plan their whale watching and cruise routes accordingly. Rental equipment would likely include kayaks, surfboards, and other recreational equipment that would be used closer to shore, and their use would not be impacted by Navy closures. Further, closures would be short in duration and would impact only specific areas of the PMSR, not the entire range, and do not typically affect common tourism areas. Therefore, socioeconomic impacts related to tourism would be less than significant.

3.11.5.3 Alternative 2

A comparison of operational tempo proposed for each alternative, and proposed types and level of activities, are provided in Section 2.1.1 (Current and Proposed Activities).

3.11.5.3.1 Commercial Shipping

Common routes of travel for commercial shipping can be seen in Figure 3.0-1 in Chapter 3 (Affected Environment and Environmental Consequences). In the event that the Navy requires exclusive use of an area for testing and training activities, notifications are made by the NAWCWD through a NTM 24 hours

in advance and via daily VHF-FM Marine Radio (Channel 16) broadcasts to ensure no civilian vessels would be present in the required area during these activities. PMSR has established procedures to ensure that non-participating surface vessels are not exposed to undue risk. The surveillance aircraft survey designated clearance areas to ensure that surface vessels are not present. Any vessels, if present, are warned that they are in an area of an impending hazardous activity and are requested to leave the area. Contact with vessels is made by marine band FM radio; however, loudspeakers can be used if the boat is not equipped with a radio. Since most of these areas are in Territorial Waters, the Navy requests that ships leave the clearance areas. If vessels remain in a clearance area, the Sea Range will delay, cancel, or move the test to a clear area. A test will not normally be initiated if a non-participating vessel is present in a clearance area. If the closure involves an area used for commercial shipping routes, it is likely that with the advanced notice the commercial vessel could adjust its course to avoid the closed area. As a result of the increase in tempo of Alternative 2 compared to the baseline (see Table 2-2), the number of closures could increase as well. This increase in closures compared to the baseline would not cause a significant change to commercial shipping activities, as closures would still be short in duration and limited to specific areas. These closures would not prevent commercial shipping vessels from traveling to their destinations. Therefore, testing and training activities associated with Alternative 2 would not significantly affect commercial shipping traffic and this form of economic activity would not be disrupted. Socioeconomic impacts related to commercial shipping would be less than significant.

3.11.5.3.2 Commercial and General Aviation

Commercial and general aircraft are permitted to cross the PMSR through corridors under Federal Aviation Administration control. The NAWCWD would issue a NOTAM 24 hours in advance of Navy activities that would require exclusive use of airspace in and around these corridors. With this advanced warning, pilots could adjust their flight path to avoid the closed area. This would ensure that commercial and general air traffic could continue to and from transpacific destinations during the times of closure. As a result of the increase in tempo of Alternative 2 compared to the baseline (see Table 2-2), the number of closures could increase as well. However, this increase in closures compared to the baseline would not greatly impair commercial and general aviation activities as a result of the warning system and short duration and specific locations of closures. Therefore, testing and training activities associated with Alternative 2 would not significantly affect commercial and general aviation, and this form of economic activity would not be disrupted. Additionally, quality of life associated with the ability to partake in commercial or general aviation would not be negatively affected. Socioeconomic impacts related to commercial and general aviation would be less than significant.

3.11.5.3.3 Commercial and Recreational Fishing

Commercial Fishing

As discussed in Section 3.11.4.2.1 (Commercial Fishing), commercial fishing can bring in significant contributions to the regional economies within the ROI. Under Alternative 2, periodic closures of various areas within the PMSR would need to occur. Due to the increased tempo of testing and training activities associated with Alternative 2, the number of annual closures could increase when compared to the baseline. As discussed previously, civilians would be notified of these closures 24 hours in advance of the closure through a NOMAR issued by the NAWCWD, in addition to daily VHF-FM Marine Radio (Channel 16) broadcasts. As such, commercial fisherman would be able to plan their fishing trips accordingly. Further, the closures associated with the testing and training activities would not restrict use of the entire PMSR but smaller, more focused areas. Thus, while commercial fisherman would not have access to certain areas during closures, they would likely be able to move to another area nearby

and continue their fishing activities. Additionally, closures would be short in duration and would not result in long-term inaccessibility of an area to fishermen. As a result, closures associated with Alternative 2 would not hinder commercial fishermen's ability to contribute to the local economy. Therefore, socioeconomic impacts related to commercial fishing would be less than significant.

Recreational Fishing

As stated under Alternative 1 above, recreational fishing activities are associated with personal enjoyment and are not considered to affect an individual's economic well-being. Therefore, recreational fishing is only evaluated from a social perspective.

Under Alternative 2, periodic closures of various areas within the PMSR would need to occur. As discussed previously, civilians would be notified of these closures 24 hours in advance of the closure through a NTM issued by the NAWCWD, in addition to daily VHF-FM Marine Radio (Channel 16) broadcasts. As such, recreational fisherman would be able to plan their fishing trips accordingly. Further, the closures associated with the testing and training activities would not restrict use of the entire PMSR but smaller, more focused areas. Thus, while recreational fisherman would not have access to certain areas during closures, they would likely be able to move to another area nearby and continue their fishing activities. As a result of the increase in tempo of Alternative 2 compared to the baseline (see Table 2-2), the number of closures could increase as well. Closures would be short in duration and would not result in long-term inaccessibility of an area to fishermen. As a result, while closures associated with Alternative 2 would increase when compared to the baseline, they would not reduce recreational fishermen's enjoyment of the PMSR. Therefore, socioeconomic impacts related to recreational fishing would be less than significant.

Subsistence Fishing

As stated in Section 3.11.4.2.3 (Subsistence Fishing), subsistence fishing is generally assumed to occur close to the coastline, from beaches, piers, or small boats. As such, subsistence fishing activities is assumed to occur near public beaches and not in the open waters of the PMSR. These areas are not anticipated to be closed as a result of the testing and training activities associated with Alternative 2. Therefore, no socioeconomic impacts would occur to subsistence fishing as a result of Alternative 2.

3.11.5.3.4 Tourism

Local residents and visitors who use the area within and around the PMSR would be subject to the same closures as commercial and recreational fishermen. Whale watching and cruise/commercial tour companies, as well as equipment rental companies in the area, could be economically impacted by closures of the PMSR for testing and training activities associated with Alternative 2. Further, personal enjoyment of the area could be impacted by closures of the PMSR. While the number of closures under Alternative 2 could increase when compared to the baseline (see Table 2-2), tourism activities would still be able to occur as normal within the PMSR. The NAWCWD would issue a NTM 24 hours in advance of Navy activities that require exclusive use of an area, in addition to daily VHF-FM Marine Radio (Channel 16) broadcasts. This would give companies time to plan their whale watching and cruise routes accordingly. Rental equipment would likely include kayaks, surfboards, and other recreational equipment that would be used closer to shore, and their use would not be impacted by Navy closures. Further, closures would be short in duration and would impact only specific areas of the PMSR, not the entire range, and do not typically affect common tourism areas. Therefore, socioeconomic impacts related to tourism would be less than significant.

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