7. Other Considerations (Phases 1 and 2)

In addition to the environmental review required pursuant to the California Environmental Quality Act (CEQA), a public agency may consider other information and policies in its decision-making process. This section presents information relevant to the California State Lands Commission (CSLC) in its consideration of Pacific Gas & Electric Company's (PG&E) application for a CSLC lease for the Proposed Project. In addition, topics relevant to the California Coastal Commission (CCC) such as sea-level rise are considered. To support CSLC's and CCC's review of the DCPP Decommissioning Project, this section addresses the following five issues:

- Climate Change and Sea-Level Rise
- Commercial Fishing
- Environmental Justice
- State Tide and Submerged Lands Possessing Significant Environmental Values
- Terrorism

The topics of Climate Change and Sea-Level Rise and Commercial Fishing are analyzed to reach CEQA significance conclusions to meet California Coastal Act and CSLC Public Trust Doctrine (right to fish) requirements, respectively. The remaining topics (Environmental Justice, State Tide and Submerged Lands Possessing Significant Environmental Values, and Terrorism) address other issues relevant to the regulatory agencies; these issues do not require CEQA significance conclusions.

7.1 Climate Change and Sea-Level Rise

7.1.1 Environmental Setting

Greenhouse gases (GHGs) play a critical role in the Earth's "radiation budget" by trapping a portion of the infrared radiation emitted from the Earth's surface, which would otherwise escape into space, and is referred to as the greenhouse effect.[62]

The most prominent GHGs contributing to this process include carbon dioxide, methane, and nitrous oxide. Certain refrigerants, including chlorofluorocarbons, hydrochlorofluorocarbons, and hydrofluorocarbons, also contribute to the greenhouse effect. The greenhouse effect keeps the Earth's atmosphere near the surface warmer than it would be otherwise and allows for successful habitation by humans and other life forms. Global climate change is the result of excess GHG emissions from human activities—including fossil fuel combustion, deforestation, and land use change—that trap more heat, resulting in mean global warming.

Recent environmental changes linked to climate change include rising temperatures, shrinking glaciers, thawing permafrost, a lengthened growing season, and shifts in plant and animal ranges (Bedsworth et al., 2018; US Global Change Research Program [USGCRP], 2018; Intergovernmental Panel on Climate Change [IPCC], 2021). Increased concentrations of GHGs in the Earth's atmosphere increase the absorption of radiation and further warm the lower atmosphere. This process increases evaporation rates and temperatures near the surface. This warming results in sea-level rise (SLR) through two main mechanisms. As water warms, water molecules expand and

[62] "Radiation budget" is the amount of energy the Earth receives from the sun in comparison to the amount of energy that is emitted back to outer space.

take up additional space, resulting in a larger volume of water. Warming also melts polar ice caps, resulting in rising sea levels.

In California, an assessment of climate change impacts predicts that temperatures will increase between 5.6 degrees Fahrenheit (°F) and 8.8°F by 2100 based on low and high global GHG emission scenarios (Bedsworth et al., 2018). Predictions of long-term negative environmental impacts in California include worsening of air quality problems; an increase in the frequency of heat waves; a reduction in water supply from the Sierra snowpack; SLR; an increase in wildfires; damage to marine and terrestrial ecosystems; and an increase in the incidence of infectious diseases, asthma, and other human health problems (Bedsworth et al., 2018).

California has an aggressive plan to reduce the state's contribution to climate change through reducing GHG emissions and addressing the effects of climate change. Assembly Bill 32 (AB 32) established a statewide goal to reduce emissions to 1990 levels by 2020 and Senate Bill (SB) 32 further reduces emissions to at least 40 percent below 1990 levels by 2030. To measure progress, the state has developed a series of GHG inventories. The transportation sector is the largest source of GHG emissions in the state, with direct emissions from vehicle tailpipes, off-road transportation sources, and intrastate aviation accounting for almost 40 percent of statewide emissions according to the latest inventory (California Air Resources Board [CARB], 2021). Emissions from the electric power sector make up 14 percent of statewide GHG emissions. Emissions in the electricity sector are primarily driven by natural gas generated electricity. SB 100 or "The 100 Percent Clean Energy Act of 2018" requires that at least 60 percent of California's electricity be renewable by 2030 and all retail electricity sold in California be renewable by 2045. SB 100 requires the California Energy Commission (CEC), California Public Utilities Commission, and CARB to use programs under existing laws to achieve 100 percent clean electricity and issue a joint policy report on SB 100 by 2021 and every four years thereafter. The 2021 Report suggests SB 100 is technically achievable through multiple pathways (CEC, 2021).

The state is also addressing climate change through promoting resiliency and adaptation. SB 379 (California Legislative Information, 2015) requires cities and counties to address climate adaptation and vulnerability in their safety elements. *The Integrated Climate Change Adaptation Planning in San Luis Obispo County Report* (2010) was developed by the Geos Institute, in partnership with the Local Government Commission. Developed through a series of workshops in San Luis Obispo County, the report identifies resources and populations that are most vulnerable to climate change and includes initial adaptation strategies. *The Integrated Climate Change Adaptation Planning in San Luis Obispo County Report* identifies the DCPP as being directly exposed to the impacts of coastal storms, flooding, and erosion exacerbated by SLR, but also points to the heavy fortification of the infrastructure with seawalls.

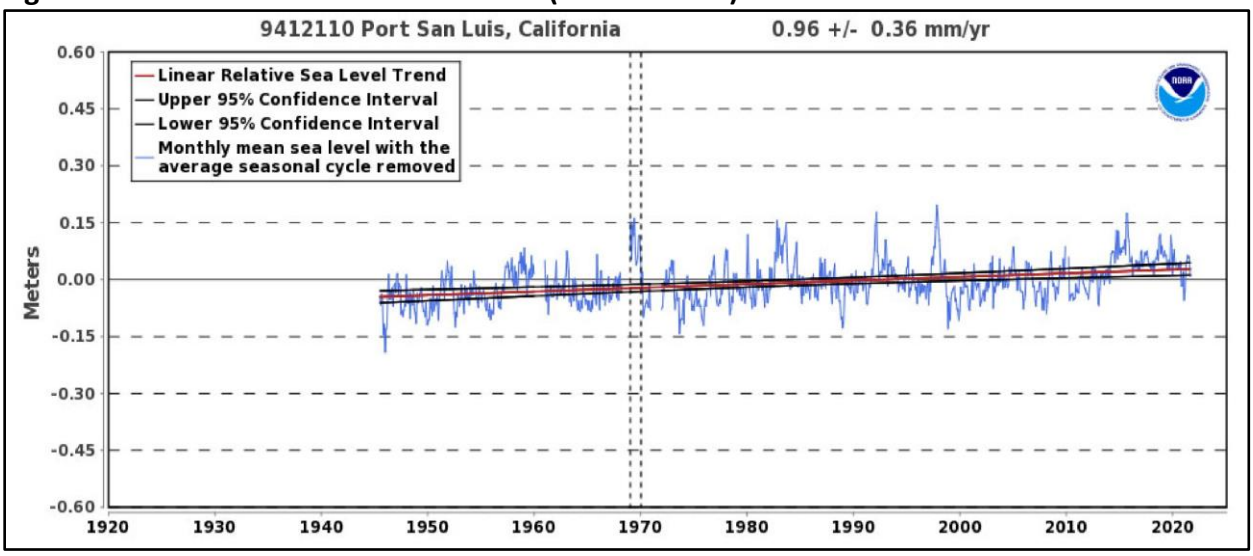
The County of Santa Barbara recently (2020) launched the *One Climate Initiative* (County of Santa Barbara, 2020) to engage the public on a broad range of efforts to reduce GHG emissions and adapt to climate change. The *One Climate Initiative* includes a Climate Vulnerability Assessment and identifies the larger rail system in the County to be vulnerable to the effects of increased storms causing mudslides and flooding along areas of tracks with no alternative routes, which could disrupt rail movements system wide.

Sea-Level Rise

Climate change impacts, including sea-level rise (SLR), are already being felt in our oceans and along the California coast. Climate change and SLR accelerate and exacerbate natural coastal processes, such as the intensity and frequency of storms, erosion, and sediment transport, and currents, wave action, and ocean chemistry. SLR is driven by the melting of polar ice caps and land ice, as well as thermal expansion of sea water. Accelerating rates of SLR are attributed to increasing global temperatures due to climate change. The combination of these conditions will likely result in increased wave runup, storm surge, and flooding in coastal areas. Climate change and SLR will also affect coastal and riverine areas by changing erosion and sedimentation rates. Beaches, coastal landscapes, and sea cliffs exposed to increased wave force, run up, and higher water levels could potentially erode more quickly than before.

A trendline analysis of yearly mean sea level (MSL) data recorded at Port San Luis from 1945 to 2020, shown in Figure 7-1, indicates that the upward trend in MSL is approximately 0.003 foot per year (0.96 millimeter per year), which equates to 0.31 foot in 100 years (NOAA, 2021).

Figure 7-1. Recent Mean Sea Level Trend (Port San Luis)



Source: NOAA, 2021.
Acronyms: mm/yr: millimeters per year

The CCC originally released their SLR policy guidance in August 2015 and then released a science update in November 2018 based on the Ocean Protection Council's (OPC's) 2018 updated *State of California Sea-Level Rise Guidance* (OPC, 2018). The CCC *Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits* document outlines how to address SLR in new and updated Local Coastal Programs and Coastal Development Permits according to the policies of the California Coastal Act (CCC, 2018). While the OPC evaluated multiple emission scenarios, the CCC recommendations only include the high emission scenarios. The projected SLR estimates for both the high and multiple emission scenarios are shown in Table 7-1.

Table 7-1. Projected Sea-Level Rise (in Feet) for Port San Luis

	Probabilistic Projections (in feet)		H++ Scenario *Single Scenario
	Low Risk Aversion	Medium-High Risk Aversion	Extreme Risk Aversion
	Upper limit of "likely range" (~17% probability SLR exceeds…)	*1-in-200 chance (0.5% probability SLR exceeds…)*	*Single scenario (no associated probability)*
2030	0.5	0.7	1.0
2040	0.7	1.2	1.6
2050	1.0	1.8	2.6
2060	1.3	2.5	3.7
2070	1.7	3.3	5.0
2080	2.1	4.3	6.4
2090	2.6	5.3	8.0
2100	3.1	6.7	9.9
2110*	3.2	7.0	11.6
2120	3.7	8.2	13.8
2130	4.3	9.6	16.2
2140	4.8	11.1	18.7
2150	5.4	12.6	21.5

Source: Adapted from OPC, 2018.

* "Most of the available climate model experiments do not extend beyond 2100. The resulting reduction in model availability causes a small dip in projections between 2100 and 2110, as well as a shift in uncertainty estimates […]. Use of 2110 projections should be done with caution and acknowledgment of increased uncertainty around these projections." (OPC, 2018)

7.1.2 Environmental Considerations

Impact SLR-1: Contribute to Sea Level Rise Effects (Class III: Less than Significant)

Climate change has the potential to affect the Proposed Project through SLR and exacerbated coastal erosion and flooding due to climate change. In addition, the Proposed Project has the potential to affect coastal processes, which influence the larger effects of SLR.

DCPP Project Site

As discussed in Section 7.1.1, SLR exacerbating the effects of coastal storms and erosion is the biggest climate threat at the DCPP site. As noted above, the CCC provides standard SLR projections specific to California coastal regions. While the CCC *Sea Level Rise Policy Guidance* (CCC, 2018) is advisory, the CCC encourages projects to be consistent with the guidance to ensure that projects consider SLR in planning, design, and engineering throughout the life of the project and that projects pursue alternatives that minimize risks to the project and to coastal resources. In addition, the CCC bases its SLR projections on the "Best Available SLR Science" and establishes one set of SLR projections for consistent planning.

With the exception of Zone 4 (see Figure 2-12) that includes the Discharge Structure, Intake Structure, Marina, and Breakwaters, the DCPP site is set back from the coast on average 60 feet

from the cliffs with elevations ranging from 60 to 150 above mean sea level (MSL) for the lower level (power block is at 85 feet above MSL) and the upper level at elevations around 310 feet above MSL (for the Independent Spent Fuel Storage Installation [ISFSI]); all well above the projected SLR presented in Table 7-1. Therefore, direct flooding of the main DCPP site attributed to SLR would not occur. In addition, because they are set back from the coast and set higher than projected SLR, structures, including infrastructure that is left underground (3 feet or greater), in the upland area would not be affected by SLR-exacerbated erosion. Decommissioning and demolishing structures in the upland portions of DCPP site would have no effect on SLR as most structures are outside of the immediate coastal area and do not affect coastal processes.

While the upland area of the DCPP site is unlikely to be impacted by SLR, the Discharge Structure, Intake Structure, Marina (and boat dock), and Breakwaters are located along the coast and may be affected by SLR. Under the Proposed Project, the Intake Structure, Marina (and boat dock), and Breakwaters would not be demolished and would remain in place. The openings of the Intake Structure would be sealed, and the deck cleared.

The Intake Structure, Marina, and the surrounding road elevations are approximately 20 to 25 feet North American Vertical Datum of 1988 (NAVD88). The elevation of the Breakwaters is approximately 18 to 20 feet NAVD88. Given a local mean higher high water (MHHW) of approximately 5.3 feet NAVD88, and a 0.5 percent probability of SLR exceeding 6.7 feet by 2100, the resulting 2100 MHHW would be approximately 12 feet NAVD88, which is below the pier, roadway, and crest elevations of the Breakwaters. However, with SLR and the smaller freeboard, there is a greater chance of waves overtopping the Breakwaters, resulting in the Breakwaters being less effective and larger waves forming within the Marina basin. Such waves could lead to more localized effects of coastal processes, exposing the closed Intake Structure and Marina (and boat dock) to greater effects from erosion and SLR. While larger waves could form in the cove, the Breakwater would continue to provide sufficient protection from damaging waves and the existing hardened shoreline directly around these structures would reduce the effects of erosion on these built structures.

In addition to direct effects from flooding, SLR may increase the speed of cliff and shoreline erosion. As discussed in Section 4.7.1, under *Littoral Processes*, the cliffs in the area of the DCPP site consist of resistant headlands and sea stacks.[63, 64] The sea cliffs range from 50 degrees to vertical and consist of rock layers, including resistant zeolitized tuff (hard rock made from compressed volcanic ash) and marine sandstone, siltstone, and dolomite. Sea cliff erosion (and associated shoreline retreat) of the bedrock shoreline in the Project area is strongly controlled by the wave erosion process, and coves and pocket beaches have formed where waves have eroded the softer shale and siltstone rock, leaving resistant rock buttresses and headlands (William Lettis & Associates, Inc., 2004). As further discussed in Section 4.8.1, under *Littoral Processes*, based on geological processes alone, a maximum sea cliff retreat over the next 75-year period is anticipated to average 3 meters (10 feet) along the cliffs at the DCPP site. The maximum retreat will be localized along the weaker rock beds and will form narrow slots and gullies in the sea cliff on the order of 1 to 5 meters wide, while other areas will experience lesser

[63] Headlands are areas of the seaside cliffs that are more resistant to erosion than the areas around them, leaving a portion of rocky land projecting into the sea as portions of the cliffs to either side erode.

[64] Sea stacks are columns of rocky land left standing in the sea after the erosion of the cliffs around them.

magnitudes of retreat. SLR has the potential to exacerbate erosion in the weaker areas and accelerate retreat.

The uplands portion of the DCPP site and roadway are set back on average 60 feet from the cliffs and would therefore not be affected by cliff or shoreline erosion exacerbated by SLR. However, the Discharge Structure is set directly within the cliffs, and the Intake Structure and Marina are set along the shoreline southeast of the cliffs.

The Discharge Structure is currently fortified by seawalls. Removing the Discharge Structure and these seawalls as part of the Proposed Project would leave a gap within the existing cliff area that may exacerbate retreat due to SLR in the immediate area by removing a hardened structure that currently provides protection to the cliff immediately behind the structure. As designed, removing the structure would leave a void in the bluff, which would be restored through installation of layers of different materials that blend with the natural stratigraphy of the bluff (see Figures 2-30 and 2-31). As detailed in Table 2-5, this void would be filled with approximately 18,741 cubic yards of material (e.g., 1-ton rocks, ¼-ton rocks, gravel, and topsoil). Rocks would be placed within the void from either a land-based crane or barge-mounted crane using rock tongs specifically designed to place individual or small groups of boulders. In addition, quarry rocks would be placed on either side of where the previous Discharge Structure was located within the intertidal zone to augment the rocky intertidal habitat (see Figure 2-28). The placed rock would provide bluff erosion protection as well as new subtidal and intertidal habitat.

Structures in the coastal zone (e.g., the Intake Structure, Marina, and Breakwaters) potentially impede natural sediment flow, which may worsen the effects of erosion due to SLR. However, there would be no change to existing conditions as these structures would remain in place.

Railyards

The railyards are not located in the direct coastal zone and therefore would not be affected by SLR or coastal erosion. However, climate change is resulting in greater rates of precipitation in shorter amounts of time, which exacerbates the effects of flooding. As discussed in Section 4.11.1, under *Flooding*, the SMVR-SB site is not subject to flooding, but the PBR site is located in a Special Flood Hazard Area Zone AE. Zone AE is an area with one percent annual chance of base (or 100-year) flood and therefore could be subject to inundation from flooding, which could be exacerbated by climate change. This could result in an increased risk of pollutant release attributed to climate change. As discussed in Section 2.3.4, *Modifications and Operations at Rail Facilities*, any non-radiological or non-hazardous waste temporarily stored at the PBR site would be kept at least 1 foot above the projected elevation of the 100-year flood to reduce the risk of secondary exposure. In addition, as identified in Santa Barbara's vulnerability assessment, rail as fixed infrastructure is susceptible to regional disruptions from flooding events including mudslides, which could be exacerbated by climate change.

Conclusion

SLR and coastal erosion may worsen the effect of coastal processes and erosion at portions of the DCPP site, specifically at the Intake Structure, Marina, and Breakwater. However, impacts are expected to be limited due to fortification of the shoreline. Removal of the Discharge Structure

could, however, result in cliff erosion, which may be further exacerbated by SLR. Placement of quarry rock to fill the entire void would reduce any potential impacts.

Increased flooding due to climate change has the potential to affect rail operations at PBR and the rail system as a whole. Rail transport of materials and hazardous waste is highly regulated, and PG&E and the rail lines would comply with all transport regulations. Compliance would manage these risks and ensure safe operations.

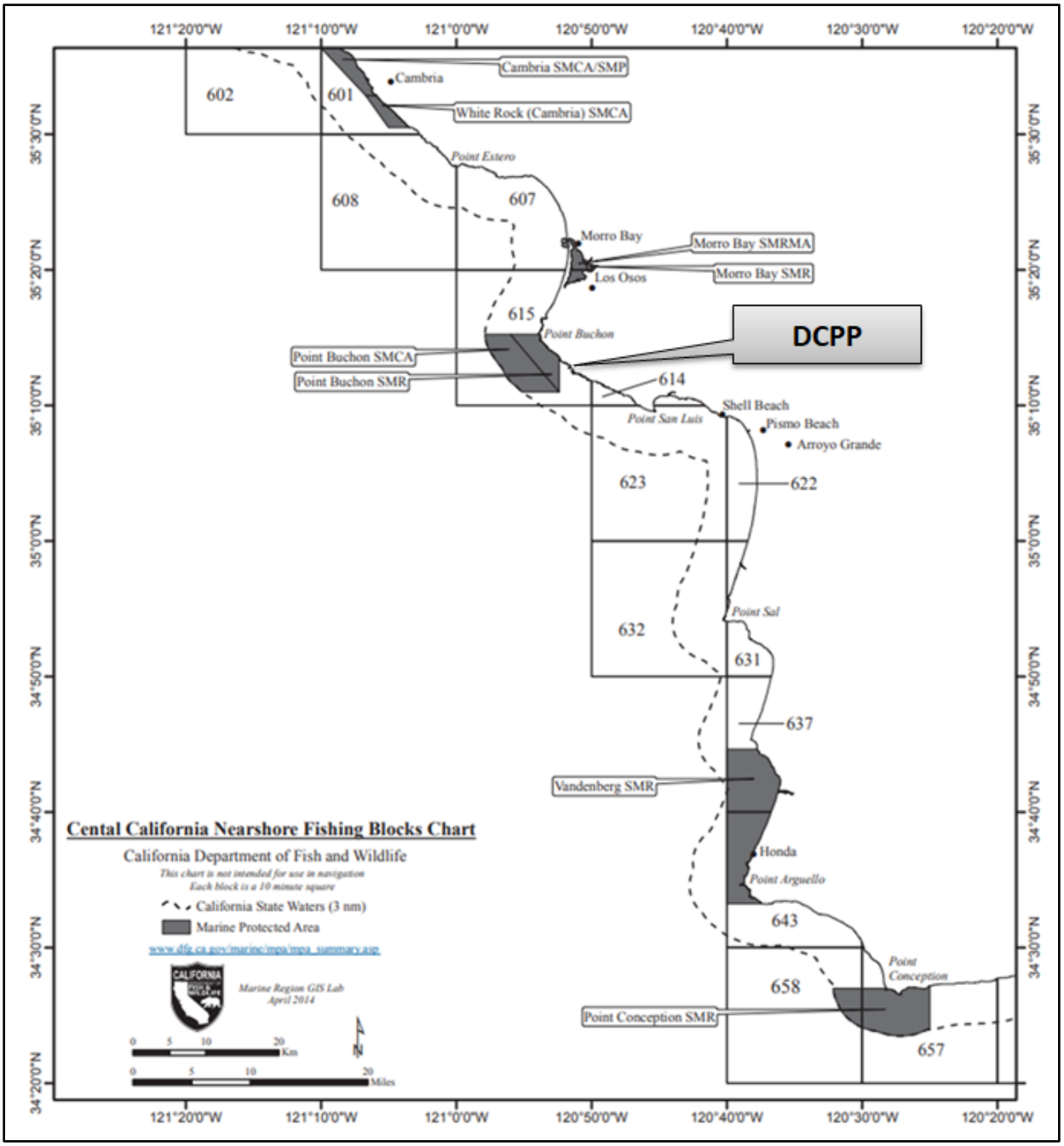
7.2 Commercial Fishing

7.2.1 Environmental Setting

Commercial fishing is an important part of social and economic activities in central California. Along the California coast several gear types and methods are used to target a wide variety of fish and invertebrate species such as hook-and-line, trap, trawl, crab pot, seine, troll, and diving. The following section describes commercial fishing in the vicinity of the DCPP site; the railyards identified for the Proposed Project do not involve any in-water or barge vessel transit. Information for commercial fisheries was provided by the California Department of Fish and Wildlife (CDFW) and includes commercial catch data for blocks in the vicinity of the DCPP site (Figure 7-2). This includes data from nearshore blocks adjacent to the DCPP from 2016 through 2020. Note that data were redacted per CDFW confidentiality policies; these analyses were conducted using the redacted catch block data provided by CDFW.

The catch block data analyzed in this EIR was collected from Cambria to Point Conception (Figure 7-2). For this analysis, the catch blocks were separated into two segments; the first segment being the DCPP area which includes blocks 614 and 615, and the second segment includes all the other nearshore blocks from Cambria to Point Conception (blocks 601, 602, 607, 608, 622, 623, 631, 632, 637, 643, 657, and 658). Note that the DCPP falls within block 615, which also includes the Point Buchon State Marine Reserve (SMR) and Point Buchon State Marine Conservation Area (SMCA). It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource within the Point Buchon SMR, and only the commercial and recreational take of salmon and albacore is allowed within the Point Buchon SMCA. In addition, there is a US Coast Guard established restricted area that includes all waters of the Pacific Ocean within 2,000 yards of the DCPP that would further restrict commercial or recreational fishing (see Figure 4.16-9, DCPP Site Security Exclusion Zone).

Figure 7-2. CDFW Central California Nearshore Fishing Blocks



Source: CDFW, 2022.

The top nine fisheries, which could include individual species or a group of like-species (i.e., complex), by weight from 2016 through 2020 for CDFW catch blocks encompassing and adjacent to the DCPP site are shown in Table 7-2. Market squid (*Doryteuthis opalescens*) was the largest fishery outside of the DCPP area blocks, representing 91.3 percent of the total weight. Squid was followed by crabs (includes Dungeness [*Cancer magister*] and other crab species) at 5 percent, rockfish complex (includes all *Sebastes* species, greenlings, and lingcod [*Ophiodon elongatus*]) at 1.7 percent, and Chinook salmon (*Oncorhynchus tshawytscha*) at 1.4 percent. The flatfish complex which includes California halibut (*Paralichthys californicus*) and other flatfish, spiny lobster

(*Panulirus interruptus*), white seabass (*Atractoscion nobilis*), red sea urchins (*Strongylocentrotus franciscanus*), and Kellet's whelk (*Kelletia kelletii*), each comprised 0.4 percent or less of the total weight for these blocks (Table 7-2). Within the DCPP area blocks (blocks 614 and 615), rockfish was the largest fishery, comprising 66.5 percent of the total weight, followed by Chinook salmon at 29.9 percent, flatfish at 1.7 percent, crabs at 1.6 percent, and white seabass at 0.2 percent (Table 7-2).

Separately, the top nine fisheries by value from 2016 through 2020 for CDFW catch blocks encompassing and adjacent to the DCPP site are shown in Table 7-3. Similar to fishery by weight, market squid and crabs ranked first and second comprising 53.1 and 19.4 percent of the total value for those blocks outside of the DCPP area, respectively. They were followed by Chinook salmon at 12.8 percent, rockfish at 10.7 percent, and flatfish at 3.0 percent of the total value. Spiny lobster, white seabass, red sea urchins, and Kellet's whelk each comprised 0.5 percent or less of the value for these blocks (Table 7-3). Within the DCPP area blocks (blocks 614 and 615), rockfish ranked first in value at 62.7 percent, followed by Chinook salmon at 35.1 percent, flatfish at 1.6 percent, crabs at 0.4 percent, and white seabass at 0.2 percent of the total value (Table 7-3).

Table 7-2. Fishery Weight by Nearshore Block (2016-2020)

	Blocks 601, 602, 607, 608, 622, 623, 631, 632, 637, 643, 657, 658			Blocks 614 and 615 (DCPP Area)		
Fishery	Weight (pounds)	Proportion	Rank	Weight (pounds)	Proportion	Rank
Market Squid	7,061,498	91.3%	1	-	-	-
Crab Complex [1]	383,867	5.0%	2	5,533	1.6%	4
Rockfish Complex [1]	134,943	1.7%	3	229,429	66.5%	1
Chinook Salmon	106,451	1.4%	4	103,072	29.9%	2
Flatfish Complex [1]	33,288	0.4%	5	5,988	1.7%	3
White Seabass	5,479	0.1%	6	825	0.2%	5
Red Sea Urchin	3,067	0.04%	7	-	-	-
Spiny Lobster	1,520	0.02%	8	-	-	-
Kellet's Whelk	1,298	0.02%	9	-	-	-
Total	7,731,410			344,848		

Source: CDFW, 2022 – Based on redacted data per CDFW confidentiality polices.

[1] Rockfish Complex includes all *Sebastes* species, greenlings, and lingcod. Flatfish Complex includes California halibut and other flatfish species. Crab Complex includes Dungeness and other crab species.

Table 7-3. Fishery Value by Nearshore Block (2016-2020)

	Blocks 601, 602, 607, 608, 622, 623, 631, 632, 637, 643, 657, 658			Blocks 614 and 615 (DCPP Project Area)		
Fishery	Value (dollars)	Proportion	Rank	Value (dollars)	Proportion	Rank
Market Squid	$3,525,537	53.1%	1	-	-	-
Crab Complex [1]	$1,288,591	19.4%	2	$8,337	0.4%	4
Chinook Salmon	$846,498	12.8%	3	$756,972	35.1%	2
Rockfish Complex [1]	$712,234	10.7%	4	$1,352,479	62.7%	1
Flatfish Complex [1]	$195,976	3.0%	5	$35,023	1.6%	3

Table 7-3. Fishery Value by Nearshore Block (2016-2020)

Fishery	Blocks 601, 602, 607, 608, 622, 623, 631, 632, 637, 643, 657, 658			Blocks 614 and 615 (DCPP Project Area)		
	Value (dollars)	Proportion	Rank	Value (dollars)	Proportion	Rank
Spiny Lobster	$31,967	0.5%	6	-	-	-
White Seabass	$29,194	0.4%	7	$4,401	0.2%	5
Red Sea Urchin	$6,602	0.1%	8	-	-	-
Kellet's Whelk	$2,109	0.0%	9	-	-	-
Total	$6,638,709			$2,157,212		

Source: CDFW, 2022 – Based on redacted data per CDFW confidentiality polices.

[1] Rockfish Complex includes all *Sebastes* species, greenlings, and lingcod. Flatfish Complex includes California halibut and other flatfish species. Crab Complex includes Dungeness and other crab species.

7.2.2 Environmental Considerations

Impact CF-1: Result in the loss of commercial fishing opportunities (Class III: Less than Significant).

Commercial fishing in the vicinity of the DCPP site is limited as the US Coast Guard has established a restricted area that includes all waters of the Pacific Ocean within 2,000 yards (1 nautical mile) of the DCPP site (see Figure 4.16-9, *DCPP Site Security Exclusion Zone*). In addition, the Point Buchon SMR and Point Buchon SMCA are located approximately 1 mile offshore and upcoast of the DCPP site, where it is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource within the Point Buchon SMR; and only the commercial and recreational take of salmon and albacore is allowed within the Point Buchon SMCA. Due to these existing restrictions, decommissioning activities would not affect commercial fishing in the general vicinity of the DCPP site.

However, decommissioning activities would increase vessel traffic as waste would be exported from the DCPP site to Oregon by barge during both Phases 1 and 2. Additionally, gravel and rock would be imported from the Port of Long Beach and Santa Catalina Island to support the Discharge Structure removal and restoration activities. This increased vessel traffic may result in potential impacts to existing vessel traffic, both commercial and recreational, as well as ecological receptors (see Section 4.16, *Transportation* and Section 4.4, *Biological Resources-Marine*). While commercial vessel operators, such as commercial fishing vessels, possess advanced communication and navigation capabilities making them adaptable to changing environments, their need to potentially adjust course due to Project-related marine vessel traffic would be an inconvenience, could result in temporarily avoiding the DCPP area or travel route, and/or temporarily relocate fishing efforts. Any possible interaction would take place in a relatively small area as barges would generally travel approximately 50 miles directly offshore from the DCPP, while most of the commercial fishing activity remains close to shore (see Figure 4.16-12, *Fishing Vessel Traffic between the Port of Oakland and Port of Los Angeles*). To comply with existing marine vessel safety regulations (33 CFR Part 160 - Ports and Waterways Safety), the US Coast Guard must be notified regarding any vessel movement connected with the Project's activities (see Section 4.16, *Transportation*). The Applicant and/or its contractor shall also be responsible for providing a Local Notice to Mariners (per US Coast Guard requirements), which may include information such as

the type of vessels, activity, working locations, location of moored vessels, likely transit routes, and approximate dates, durations, and working hours. Therefore, given the public notifications, limited number of barge trips (each tug pulls 2 barges equating to 28 roundtrips), duration (2030-2033), and anticipated barge routes (see Figures 4.16-7 and 4.16-8), these impacts to commercial fishing vessels would be considered negligible and less than significant.

By end of 2029 when all spent nuclear fuel (SNF) is anticipated to be transferred to the ISFSI, the existing security exclusion zone may be reduced or eliminated; however, such a determination would be made by the US Coast Guard and US Department of Transportation. Any reduction or the elimination of the exclusion zone would be considered a benefit to commercial fishing by making previously closed areas open to commercial fishing.

7.3 Environmental Justice

Environmental justice is defined by California law as "the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins, with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Gov. Code, § 65040.12, subd. (e)).

In 2016, Senate Bill (SB) 1000 (Leyva, Chapter 587, Statutes of 2016) was enacted to require local governments with disadvantaged communities, as defined in statute, to incorporate environmental justice into their general plans when two or more general plan elements (sections) are updated. The Governor's Office of Planning and Research (the lead State agency on planning issues) worked with State agencies, local governments, and many partners to update the General Plan Guidelines in 2020 to include guidance for communities on environmental justice (OPR, 2020).

The CSLC adopted an Environmental Justice Policy in December 2018 to ensure that environmental justice is an essential consideration in the CSLC's processes, decisions, and programs (CSLC, 2021). Through its policy, the CSLC reaffirms its commitment to an informed and open process in which all people are treated equitably and with dignity, and in which its decisions are tempered by environmental justice considerations. Among other goals, the policy commits the CSLC to, "Strive to minimize additional burdens on and increase benefits to marginalized and disadvantaged communities resulting from a proposed project or lease" (CSLC, 2021).

In 2019, the CCC adopted an Environmental Justice Policy to provide guidance for Commissioners, staff, and the public on how the CCC will consider environmental justice in coastal development permits. The CCC's Environmental Justice Policy reaffirms the agency's commitment "to identifying and eliminating barriers, including those that unlawfully privatize public spaces, in order to provide for those who may be otherwise deterred from going to the beach or coastal zone" (CCC, 2019). The CCC also recognizes that coastal areas contain cultural significance for tribal communities, and through its Environmental Justice Policy, the CCC "commits to regular and meaningful partnership [with tribes] to ensure that tribes are valued and respected contributors to the management of California's coast" (CCC, 2019).

In keeping with its commitment to environmental sustainability and access to all, California was one of the first states to codify the concept of environmental justice in its statutes. Beyond the

fair treatment principles described in statute, the CSLC believes that it is critical to include individuals who are disproportionately affected by a Proposed Project's effects in the decision-making process. The goal is that, through equal access to the decision-making process, everyone has equal protection from environmental and health hazards and can live, learn, play, and work in a healthy environment.

Consistent with the CSLC's recent 2019 power plant decommissioning EIR prepared for the San Onofre Nuclear Generating Station, the following presents an analysis of environmental justice for the DCPP Decommissioning Project using a similar approach.

7.3.1 Environmental Setting

Geographic Extent of Potential Environmental Justice Impacts

For environmental justice concerns, a 5--mile radius surrounding each of the three Project sites was used (DCPP, PBR, and SMVR-SB sites). This 5--mile radius was selected because most short- and long-term direct and indirect impacts associated with the Proposed Project are reasonably expected to occur within this area. Figures 7-3 through 7-5 present the location of each Project site and the 2019 US Census Tract boundaries contained within a 5-mile radius. At the time this analysis was prepared, 2020 Census Data was not yet available for all the statistical categories presented in Tables 7-4 through 7-12.

US Census Bureau Statistics

Tables 7-4 through 7-12 present income, employment, and race data of the regional and 5-mile radius area of the three Project sites (DCPP, PBR, and SMVR-SB sites). The data presented in these tables is based on the most recently available information from the US Census Bureau.

Tables 7-4 through 7-12 utilize 2014-2019 American Community Survey (ACS) estimates. Because ACS estimates come from a sample population, a certain level of variability is associated with the estimates. Supporting documentation on ACS data accuracy and statistical testing can be found on the ACS website in the Data and Documentation section available here: https://www.census.gov/programs-surveys/acs.html. For purposes of this analysis, US Census ACS data was utilized to provide current data, consistency between the data used to identify minority and low-income populations, and consistency between the different geographies presented. For these reasons, US Census ACS data is considered best available for representing the demographic makeup of affected communities in the Project area. Use of published US Census ACS data estimates is commonly used by CSLC and other CEQA Lead Agencies in compliance with California Government Code Section 65040.12 and Public Resources Code Section 72000.

The following discusses notable population, income, and race statistics for each of the three Project sites, as shown in Tables 7-4 through 7-12.

- **DCPP Site**: As shown in Tables 7-4 and 7-5, neither of the Census Tracts contain a low-income population or minority population substantially greater than that of either San Luis Obispo County or California as a whole. As shown in Table 7-6, the primary industry of employment within Census Tract 116 is education and health care services, while the primary industry of

employment within Census Tract 130 is entertainment, recreation and food services, with both the retail trade and agricultural/mining sectors also being primary employers.

- **PBR Site**: As shown in Table 7-7, Census Tract 120 contains a low-income population substantially greater than both San Luis Obispo County and California as a whole. As shown in Table 7-8, no tracts contain a minority population substantially greater than that of either San Luis Obispo County or California as a whole. As shown in Table 7-9, the primary industry of employment within Census Tract 120 is education and health care services.
- **SMVR-SB Site**: As shown in Table 7-10, Census Tracts 21.03, 23.03, 23.04, 24.02, 24.03, 24.04, and 25.02 all contain a low-income population substantially greater than both Santa Barbara County and California as a whole. As shown in Table 7-11, Census Tracts 23.06, 25.02, and 26.06 contain a minority population greater than the Santa Barbara County overall minority percentage. As shown in Table 7-12, the primary industry of employment within low-income tracts is agriculture.

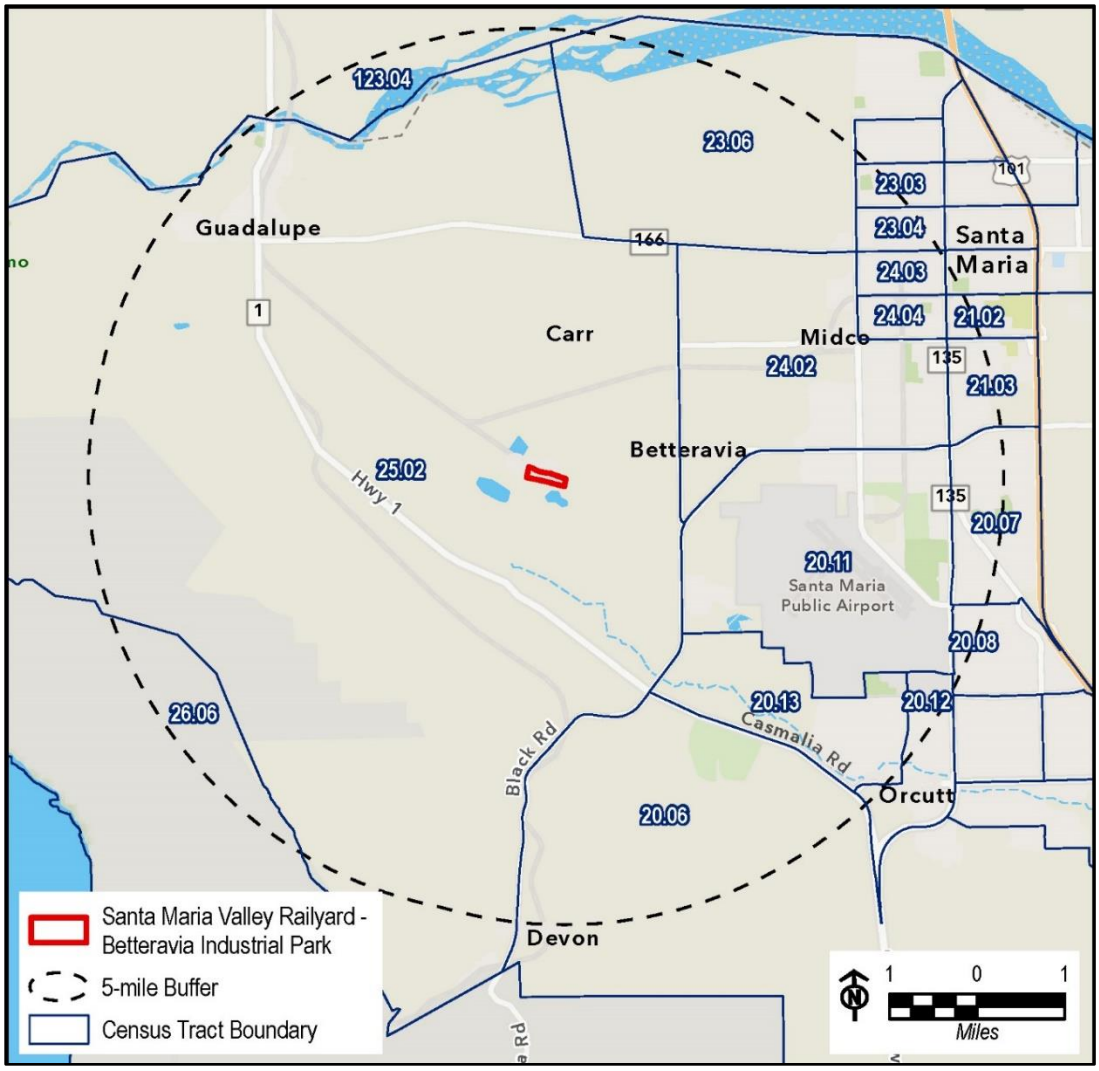
Figure 7-3. DCPP 5-Mile Radius, Census Tracts

Source: PG&E, 2021; US Census, 2019.

Figure 7-4. PBR 5-Mile Radius, Census Tracts

Source: PG&E, 2021; US Census, 2019.

Figure 7-5. SMVR-SB 5-Mile Radius, Census Tracts



Source: PG&E, 2021; US Census, 2019.

Table 7-4. US Census Income and Population Statistics for California, San Luis Obispo County, and DCPP 5-Mile Radius

Geography	Total Population	Median Household Income	Low-Income Population[1] (Percent of Total)
California	39,283,497	$106,916	13.4%
San Luis Obispo County	282,165	$96,196	12.5%
Census Tract 116	3,908	$173,412	5.1%
Census Tract 130	2,741	$100,537	4.9%

Source: US Census, 2021.
[1] Represents the population identified as "Income in the past 12 months below poverty level."

Table 7-5. US Census Race Statistics for California, San Luis Obispo County, and DCPP 5-Mile Radius

Geography	Hispanic or Latino[1] (Percent of Total Population)	Alone (Percent of Total Population)				
		White	Black	American Indian	Asian	Other/Mix
California	40.3%	59.7%	5.8%	0.8%	14.5%	19.2%
San Luis Obispo County	14.5%	85.5%	1.9%	0.9%	3.6%	8.1%
Census Tract 116	8.1%	91.9%	0.0%	0.0%	3.5%	4.6%
Census Tract 130	4.8%	95.2%	0.2%	0.4%	4.1%	0.1%

Source: US Census, 2019.
[1] Represents all population not identified as another race "Alone" (White Alone, Black Alone, etc.)

Table 7-6. US Census Employment Statistics for California, San Luis Obispo County, and DCPP 5-Mile Radius

Geography	Employment by Industry (Percentage of Total Workforce)												
	Agriculture, Forestry, Fishing and Hunting, Mining	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation and Warehousing, and Utilities	Information	Finance and Insurance, and Real Estate and Rental and Leasing	Professional, Scientific, and Management, and Administrative and Waste Management Services	Educational Services and Health Care and Social Assistance	Arts, Entertainment, and Recreation, and Accommodation and Food Services	Other Services, except Public Administration	Public Administration
California	2.2%	6.3%	9.1%	2.8%	10.5%	5.3%	2.9%	6.0%	13.7%	21.0%	10.4%	5.2%	4.4%
San Luis Obispo County	3.2%	8.1%	7.1%	2.1%	11.4%	4.4%	1.6%	4.7%	10.8%	23.1%	12.8%	5.1%	5.5%
Census Tract 116	2.2%	9.5%	8.0%	3.1%	9.7%	4.0%	0.0%	13.1%	11.5%	24.9%	9.1%	3.1%	1.8%
Census Tract 130	16.5%	10.8%	2.2%	1.9%	16.8%	2.0%	0.0%	4.0%	9.0%	13.1%	17.9%	3.4%	2.3%

Source: US Census, 2019.

Table 7-7. US Census Income and Population Statistics for California, San Luis Obispo County, and PBR 5-Mile Radius

Geography	Total Population	Median Household Income	Low-Income Population[1] (Percent of Total)
California	39,283,497	$106,916	13.4%
San Luis Obispo County	282,165	$96,196	12.5%
Census Tract 115.03	3,375	$134,776	3.8%
Census Tract 116	3,908	$173,412	5.1%
Census Tract 117.01	4,432	$111,821	9.1%
Census Tract 117.04	3,729	$123,139	7.4%
Census Tract 118	7,469	$118,148	4.8%
Census Tract 119.01	3,270	$92,144	5.7%
Census Tract 119.02	8,589	$86,133	7.3%
Census Tract 120	7,700	$90,022	17.6%
Census Tract 121.02	5,835	$76,602	8.3%
Census Tract 122	7,033	$81,002	12.9%
Census Tract 123.02	5,686	$146,577	10.1%
Census Tract 123.04	10,975	$113,717	4.4%

Source: US Census, 2019.
N/A Data Unavailable from US Census
[1] Represents the population identified as "Income in the past 12 months below poverty level."

Table 7-8. US Census Race Statistics for California, San Luis Obispo County, and PBR 5-Mile Radius

Geography	Hispanic or Latino[1] (Percent of Total Population)	Alone (Percent of Total Population)				
		White	Black	American Indian	Asian	Other/Mix
California	40.3%	59.7%	5.8%	0.8%	14.5%	19.2%
San Luis Obispo County	14.5%	85.5%	1.9%	0.9%	3.6%	8.1%
Census Tract 115.03	11.5%	88.5%	1.7%	0.3%	3.6%	5.8%
Census Tract 116	8.1%	91.9%	0.0%	0.0%	3.5%	4.6%
Census Tract 117.01	14.2%	85.8%	4.5%	0.0%	2.5%	7.2%
Census Tract 117.04	9.0%	91.0%	0.8%	0.7%	0.9%	6.6%
Census Tract 118	7.6%	92.4%	0.1%	0.5%	3.0%	4.0%
Census Tract 119.01	11.7%	88.3%	0.0%	0.0%	3.2%	8.5%
Census Tract 119.02	21.8%	78.2%	1.9%	3.1%	5.4%	11.3%
Census Tract 120	18.7%	81.3%	2.2%	0.2%	1.6%	14.6%
Census Tract 121.02	21.6%	78.4%	1.6%	1.1%	7.0%	11.8%
Census Tract 122	21.6%	78.4%	1.1%	1.2%	6.8%	12.6%
Census Tract 123.02	6.6%	93.4%	1.8%	0.3%	1.3%	3.2%
Census Tract 123.04	16.2%	83.8%	0.3%	1.2%	2.3%	12.4%

Source: US Census, 2019.

Table 7-9. US Census Employment Statistics for California, San Luis Obispo County, and PBR 5-Mile Radius

Geography	Employment by Industry (Percentage of Total Workforce)												
	Agriculture, Forestry, Fishing and Hunting, Mining	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation and Warehousing, and Utilities	Information	Finance and Insurance, and Real Estate and Rental and Leasing	Professional, Scientific, and Management, and Administrative and Waste Management Services	Educational Services and Health Care and Social Assistance	Arts, Entertainment, and Recreation, and Accommodation and Food Services	Other Services, except Public Administration	Public Administration
California	2.2%	6.3%	9.1%	2.8%	10.5%	5.3%	2.9%	6.0%	13.7%	21.0%	10.4%	5.2%	4.4%
San Luis Obispo County	3.2%	8.1%	7.1%	2.1%	11.4%	4.4%	1.6%	4.7%	10.8%	23.1%	12.8%	5.1%	5.5%
Census Tract 115.03	2.0%	6.8%	6.8%	3.2%	6.6%	3.1%	1.0%	5.1%	17.9%	26.8%	12.0%	4.5%	4.0%
Census Tract 116	2.2%	9.5%	8.0%	3.1%	9.7%	4.0%	0.0%	13.1%	11.5%	24.9%	9.1%	3.1%	1.8%
Census Tract 117.01	0.8%	1.7%	3.5%	0.0%	13.7%	6.1%	0.8%	6.1%	11.1%	27.6%	20.3%	4.0%	4.1%
Census Tract 117.04	1.8%	5.0%	8.5%	2.1%	5.6%	5.2%	1.1%	3.6%	19.5%	24.4%	13.7%	5.5%	4.0%
Census Tract 118	0.0%	5.1%	6.2%	0.9%	6.6%	5.5%	1.6%	8.3%	15.5%	24.3%	11.4%	8.3%	6.2%
Census Tract 119.01	1.0%	5.4%	2.9%	2.1%	8.8%	8.0%	3.9%	4.6%	7.7%	23.9%	20.6%	6.2%	4.7%
Census Tract 119.02	1.5%	8.0%	5.4%	2.2%	9.3%	8.3%	0.7%	5.3%	7.9%	22.1%	14.8%	4.6%	9.9%
Census Tract 120	0.0%	6.6%	6.9%	3.8%	16.0%	5.7%	5.5%	3.3%	6.8%	24.9%	9.3%	5.9%	5.3%
Census Tract 121.02	0.4%	5.7%	4.3%	1.4%	7.0%	9.1%	1.5%	3.3%	15.9%	26.3%	19.5%	2.6%	2.9%
Census Tract 122	5.1%	15.1%	5.1%	4.2%	16.5%	4.8%	0.0%	3.7%	6.1%	14.5%	16.8%	4.1%	4.0%
Census Tract 123.02	8.8%	9.6%	6.9%	0.9%	4.9%	4.2%	0.0%	8.3%	22.2%	19.9%	6.3%	1.8%	6.1%
Census Tract 123.04	6.2%	11.7%	4.4%	2.0%	10.0%	5.0%	0.4%	10.7%	5.1%	27.0%	6.2%	11.7%	4.4%

Source: US Census, 2019.
[1] Represents all population not identified as another race "Alone" (White Alone, Black Alone, etc.)

Table 7-10. US Census Income and Population Statistics for California, Santa Barbara County, and SMVR-SB 5-Mile Radius

Geography	Total Population	Median Household Income	Low-Income Population[1] (Percent of Total)
California	39,538,223	$106,916	13.4%
Santa Barbara County	444,829	$106,421	13.5%
Census Tract 20.06	2,805	$152,519	6.6%
Census Tract 20.07	10,983	$92,041	5.1%
Census Tract 20.08	7,074	$109,457	5.2%
Census Tract 20.11	6,302	$92,205	7.6%
Census Tract 20.12	3,196	$104,871	6.9%
Census Tract 20.13	2,716	$141,947	2.8%
Census Tract 21.02	2,398	$86,875	10.7%
Census Tract 21.03	4,495	$65,509	18.0%
Census Tract 23.03	6,601	$80,996	16.2%
Census Tract 23.04	6,041	$59,883	17.9%
Census Tract 23.06	9,003	$85,115	3.7%
Census Tract 24.02	13,173	$72,658	17.8%
Census Tract 24.03	6,850	$56,886	25.2%
Census Tract 24.04	8,949	$57,324	24.4%
Census Tract 25.02	7,573	$62,299	17.7%
Census Tract 26.06	3,400	$78,193	3.4%
Census Tract 123.04*	10,975	$113,717	4.4%

Source: US Census, 2019. * Located within San Luis Obispo County

[1] Represents the population identified as "Income in the past 12 months below poverty level."

Table 7-11. US Census Race Statistics for California, Santa Barbara County, and SMVR-SB 5-Mile Radius

Geography	Hispanic or Latino[1] (Percent of Total Population)	Alone (Percent of Total Population)				
		White	Black	American Indian	Asian	Other/Mix
California	40.3%	59.7%	5.8%	0.8%	14.5%	19.2%
Santa Barbara County	22.5%	77.5%	2.0%	1.0%	5.6%	13.8%
Census Tract 20.06	16.7%	83.3%	0.6%	1.6%	4.3%	10.2%
Census Tract 20.07	20.7%	79.3%	1.7%	0.7%	7.8%	10.5%
Census Tract 20.08	14.8%	85.2%	2.7%	2.1%	2.8%	7.2%
Census Tract 20.11	22.3%	77.7%	1.9%	0.5%	4.1%	15.8%
Census Tract 20.12	15.4%	84.6%	0.2%	0.0%	6.2%	8.9%
Census Tract 20.13	17.3%	82.7%	3.6%	0.3%	2.7%	10.8%
Census Tract 21.02	15.3%	84.7%	1.0%	0.0%	0.5%	13.8%
Census Tract 21.03	17.4%	82.6%	0.6%	0.4%	8.2%	8.3%
Census Tract 23.03	18.5%	81.5%	0.3%	0.9%	3.5%	13.8%
Census Tract 23.04	15.7%	84.3%	0.2%	2.8%	4.4%	8.2%
Census Tract 23.06	26.0%	74.0%	0.0%	1.4%	12.9%	11.7%
Census Tract 24.02	16.0%	84.0%	2.5%	1.6%	5.2%	6.7%
Census Tract 24.03	12.2%	87.8%	0.0%	0.2%	0.0%	12.0%
Census Tract 24.04	14.2%	85.8%	1.7%	0.4%	1.1%	11.0%
Census Tract 25.02	23.7%	76.3%	0.7%	2.0%	3.9%	17.1%
Census Tract 26.06	36.3%	63.7%	10.8%	0.8%	4.6%	20.1%
Census Tract 123.04*	16.2%	83.8%	0.3%	1.2%	2.3%	12.4%

Source: US Census, 2019. * Located within San Luis Obispo County

[1] Represents all population not identified as another race "Alone" (White Alone, Black Alone, etc.)

Table 7-12. US Census Employment Statistics for California, Santa Barbara County, and SMVR-SB 5-Mile Radius

Geography	Employment by Industry (Percentage of Total Workforce)												
	Agriculture, Forestry, Fishing and Hunting, Mining	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation and Ware-housing, and Utilities	Information	Finance and Insurance, and Real Estate and Rental and Leasing	Professional, Scientific, and Management, and Administrative and Waste Management Services	Educational Services and Health Care and Social Assistance	Arts, Entertainment, and Recreation, and Accommodation and Food Services	Other Services, except Public Administration	Public Administration
California	2.2%	6.3%	9.1%	2.8%	10.5%	5.3%	2.9%	6.0%	13.7%	21.0%	10.4%	5.2%	4.4%
Santa Barbara County	9.1%	5.8%	6.8%	1.8%	9.6%	3.0%	1.8%	4.6%	12.1%	23.2%	12.5%	5.5%	4.1%
Census Tract 20.06	28.8%	4.8%	4.4%	0.0%	9.4%	5.5%	0.2%	4.1%	10.9%	14.2%	6.8%	4.2%	6.7%
Census Tract 20.07	2.7%	8.4%	5.5%	1.7%	13.0%	6.1%	4.9%	5.0%	3.1%	22.5%	9.0%	9.7%	8.3%
Census Tract 20.08	0.8%	12.9%	3.8%	2.1%	12.5%	3.9%	1.0%	5.1%	10.7%	26.8%	8.8%	6.3%	5.3%
Census Tract 20.11	11.7%	8.5%	9.7%	3.5%	9.8%	2.3%	0.7%	4.8%	8.3%	20.1%	11.4%	5.0%	4.4%
Census Tract 20.12	1.4%	13.4%	7.3%	1.9%	8.2%	4.2%	0.0%	3.6%	8.4%	23.9%	13.8%	5.1%	9.0%
Census Tract 20.13	4.4%	3.1%	7.6%	0.0%	7.3%	1.8%	2.2%	15.4%	10.0%	32.0%	7.2%	1.1%	7.8%
Census Tract 21.02	19.8%	7.1%	3.0%	1.6%	12.9%	5.3%	0.0%	7.2%	7.7%	14.0%	10.8%	3.0%	7.7%
Census Tract 21.03	33.4%	6.9%	4.0%	1.2%	6.6%	3.9%	2.0%	1.4%	10.7%	16.4%	6.4%	3.1%	4.0%
Census Tract 23.03	40.0%	7.0%	4.4%	0.7%	7.9%	3.0%	0.6%	1.1%	9.9%	10.9%	9.0%	3.5%	2.0%
Census Tract 23.04	46.2%	5.2%	6.0%	1.1%	8.5%	2.1%	0.0%	0.6%	6.5%	7.0%	9.7%	6.4%	0.7%
Census Tract 23.06	12.8%	6.2%	8.2%	2.0%	14.8%	4.9%	0.8%	1.8%	8.4%	19.1%	10.6%	6.6%	3.8%
Census Tract 24.02	24.5%	5.2%	4.4%	4.1%	10.5%	7.3%	0.9%	3.7%	5.8%	16.6%	8.2%	2.8%	5.9%
Census Tract 24.03	55.7%	5.0%	0.7%	2.1%	4.3%	0.7%	0.0%	0.5%	7.2%	8.7%	8.9%	6.0%	0.3%
Census Tract 24.04	58.5%	2.4%	4.4%	6.4%	2.4%	1.3%	0.0%	3.3%	5.0%	10.1%	4.0%	0.8%	1.5%
Census Tract 25.02	29.6%	4.9%	6.0%	6.2%	9.7%	1.0%	1.7%	4.3%	6.1%	18.4%	4.2%	4.8%	3.2%
Census Tract 26.06	0.6%	2.7%	1.7%	0.0%	12.0%	1.8%	0.7%	3.4%	5.5%	12.3%	10.6%	2.4%	46.4%
Census Tract 123.04*	6.2%	11.7%	4.4%	2.0%	10.0%	5.0%	0.4%	10.7%	5.1%	27.0%	6.2%	11.7%	4.4%

Source: US Census, 2019. * Located within San Luis Obispo County

7.3.1.1 California Office of Environmental Health Hazard Assessment (OEHHA) CalEnviroScreen Results

CalEnviroScreen is a screening tool that evaluates the burden of pollution from multiple sources in communities while accounting for potential vulnerability to the adverse effects of pollution (CalEnviroScreen, 2021). CalEnviroScreen ranks Census Tracts in California based on potential exposures to pollutants, adverse environmental conditions, socioeconomic factors, and prevalence of certain health conditions. The CalEnviroScreen model uses the following formula to calculate an overall score for a particular census tract:

[Pollution Burden] x [Population Characteristics] = CalEnviroScreen Score

Pollution Burden and Population Characteristics each has a maximum score of 10; therefore, the maximum CalEnviroScreen Score is 100 (10 x 10 = 100). Census Tracts (and population within) that are scored by CalEnviroScreen between 75 and 100 are considered disadvantaged communities within a statewide context. [65]

Figures 7-6 through 7-8 present the CalEnviroScreen scores for each 2020 US Census Tract contained within a 5-mile radius of the three Project sites (DCPP, PBR, and SMVR-SB sites). It must be noted that CalEnviroScreen utilizes 2020 Census Tracts, which are different from the 2019 Census Tracts utilized in Tables 7-4 through 7-12 (where 2020 Census data was unavailable at the time of this analysis).

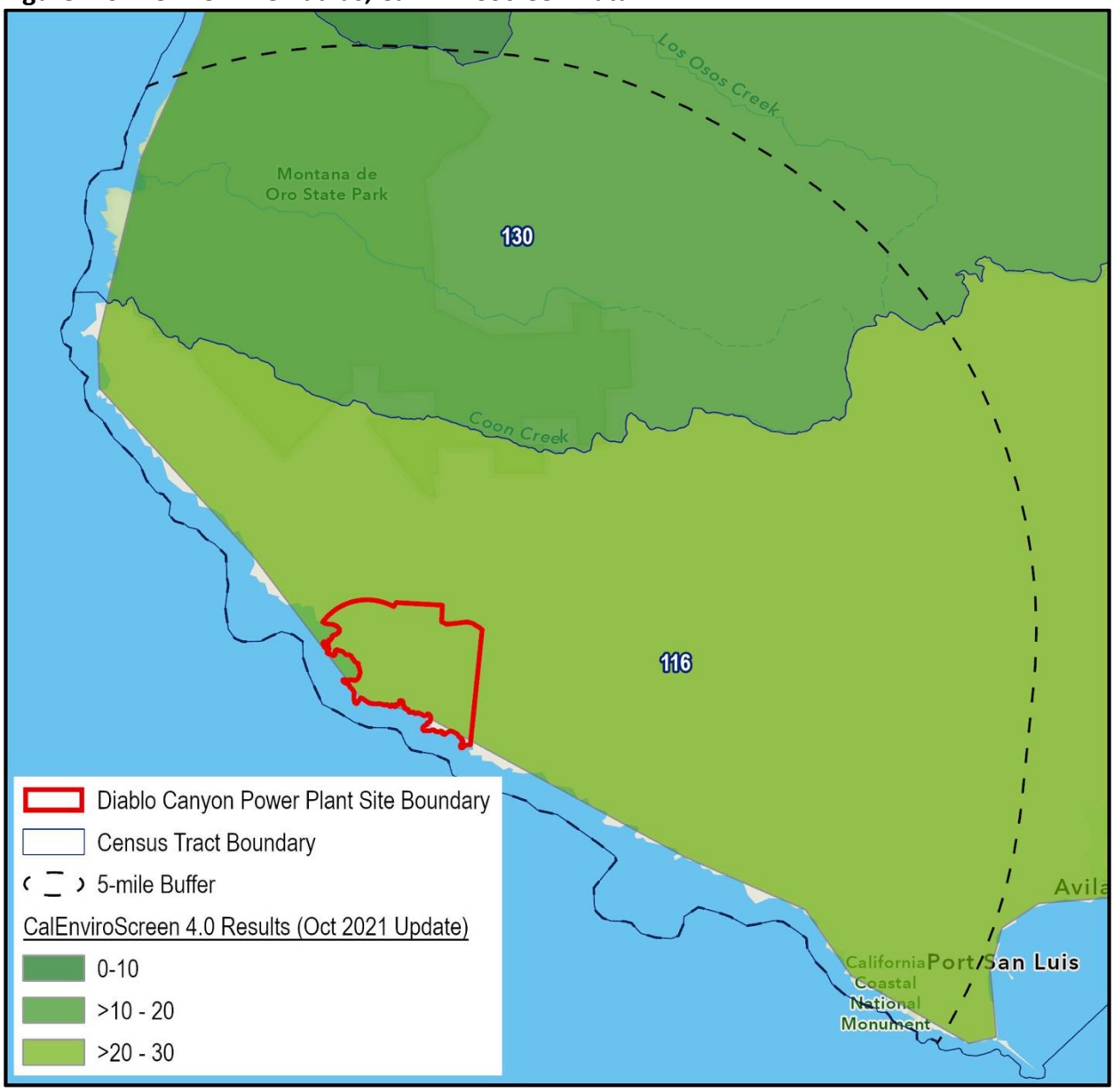
As shown, both the DCPP (Figure 7-6) and PBR sites (Figure 7-7) and surrounding 5-mile radius do not contain any population considered disadvantaged, as identified by CalEnviroScreen. However, the 5-mile radius surrounding the SMVR-SB site contains several Census Tracts with disadvantaged population (as shown in Figure 7-8):

- 2020 Census Tracts 25.03 and 25.04 have a CalEnviroScreen score between 80 and 90. For the purposes of this analysis, these tracts are considered disadvantaged communities. These 2020 Census Tracts are the same as 2019 Census Tract 25.02 shown on Figure 7-5.

2020 Census Tracts 24.07, 24.08, 24.09, and 24.10 have a CalEnviroScreen score between 70 and 80. Even though these Tracts could have a score below 75, for the purposes of this analysis they are all considered disadvantaged communities. These 2020 Census Tracts are the same as 2019 Census Tracts 24.02, 24.03, and 24.04 shown on Figure 7-5.

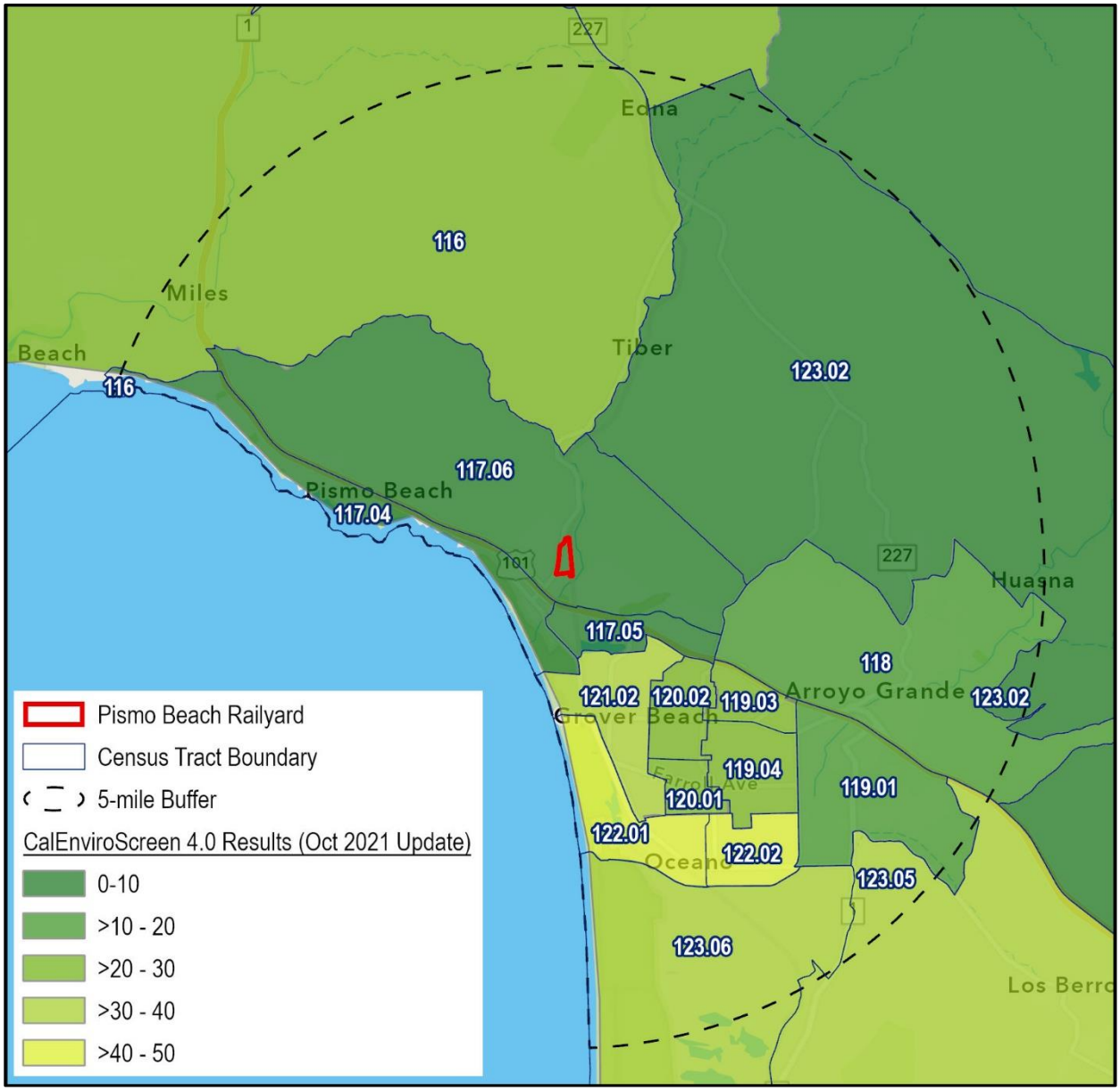
[65] The term "disadvantaged community" is commonly associated with minority and low-income populations in several California laws (e.g., Safe Drinking Water Act, Affordable Housing and Sustainable Communities Program [Pub. Resources Code, div. 44, part 1, § 75200]). Additionally, the California Legislature passed SB 535 (De León, Chapter 830, Statutes of 2012), regarding the Greenhouse Gas Reduction Fund, which requires the California Environmental Protection Agency (CalEPA) to implement a more comprehensive approach to identifying disadvantaged communities within the State through the use of public health and environmental hazard criteria in addition to socioeconomic data. Through this refined approach, the State definition of disadvantaged communities was expanded to include areas that are disproportionately impacted by environmental pollution and negative public health effects.

Figure 7-6. DCPP 5-Mile Radius, CalEnviroScreen Data



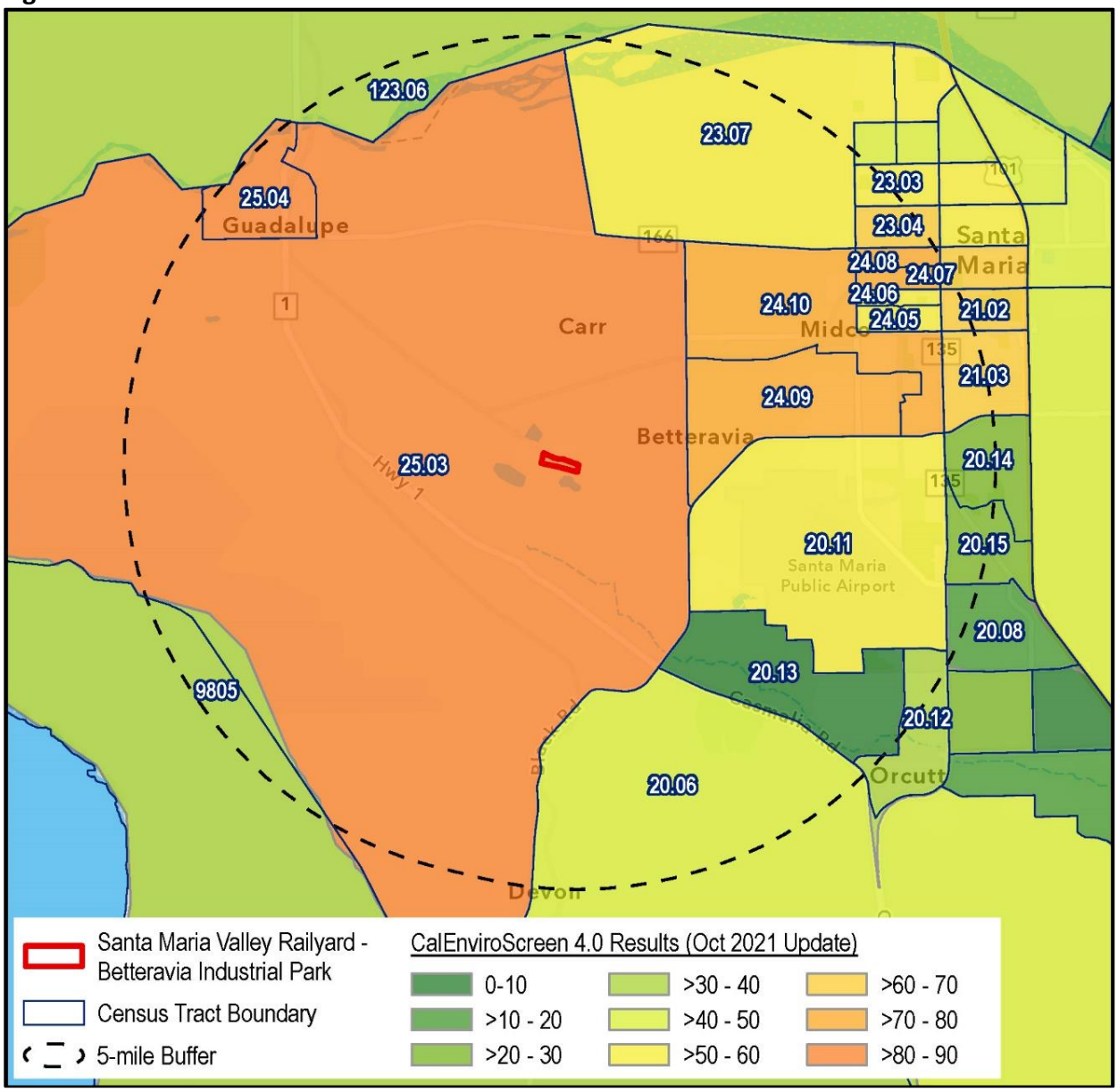
Source: PG&E, 2021; US Census, 2021; OEHHA, 2021.

Figure 7-7. PBR 5-Mile Radius: CalEnviroScreen Data



Source: PG&E, 2021; US Census, 2021; OEHHA, 2021.

Figure 7-8. SMVR-SB 5-Mile Radius: CalEnviroScreen Data



Source: PG&E, 2021; US Census, 2021; OEHHA, 2021.

7.3.2 Environmental Considerations

Six Census Tracts located within a five-mile radius of the SMVR-SB site are identified by CalEnviroScreen as disadvantaged communities. As discussed in Section 7.3.1, there are no Census Tracts that contain predominately disadvantaged populations within five miles of the DCPP and PBR sites. The following analysis addresses the extent to which the Proposed Project's impacts described in Chapter 4 would disproportionately affect disadvantaged communities near the SMVR-SB site.

Aesthetics

The Proposed Project would create new sources of light and glare at the SMVR-SB site from Phase 1 transport activities (see Section 4.1.4, *Aesthetics*). Temporary lighting would be installed at the SMVR-SB railyard to accommodate nighttime activities, including the unloading of truck shipments of waste and loading of this waste onto rail cars. The populations who would be affected by temporary lighting have been identified as disadvantaged communities (i.e., Census Tracts 25.03, 24.09, and 24.10). Implementation of MM AES-1 (*SMVR Lighting Guidelines*) (Section 4.1) would be necessary to prevent a measured increase in illumination onto adjacent properties. MM AES-1 identifies lighting standards that are required at the SMVR-SB site to sufficiently reduce impacts to a level that is less than significant. With implementation of MM AES-1, there would be no disproportionate adverse effects to a disadvantaged community.

Air Quality

As discussed in Section 4.2.4, *Air Quality*, a Health Risk Assessment was prepared to evaluate adverse health risk effects associated with use of the SMVR-SB site. There are no schools near the SMVR-SB site that could be exposed to substantial pollutant concentrations. The results of the Health Risk Assessment for the Proposed Project determined that the maximum exposed individual at a residential location at the SMVR-SB site would experience an excess cancer risk of 1.28 chances in one million, and the maximum exposed individual at a worker location would experience an excess cancer risk of 0.62 chances in one million. Both cancer risks do not exceed the threshold of 10 excess cancer cases in a million (see Section 4.2.4). The cancer risk impact for the SMVR-SB reflects the Proposed Project's use of equipment meeting Tier 4 emission standards (Applicant Commitment [AC] AQ-2) and Tier 4 Interim equipment for smaller equipment and limiting idling of diesel equipment or vehicles (AC AQ-3) to minimize pollutant concentrations. As such, the Proposed Project would not disproportionately affect disadvantaged communities nearest to the SMVR-SB site.

Hazards

Both radiological waste (Class A, B, C) and non-radiological hazardous waste could be transported to the SMVR-SB site during Phase 1. Section 4.10.4, *Hazardous and Radiological Materials*, discusses the types of transport activities for which the railyards are currently used, which includes transport of hazardous liquids and materials. Shipments to the SMVR-SB site would be subject to routine hazardous material handling, transport, and disposal regulations described in Section 4.10.4. The analysis in Section 4.10.4 concludes that transport of radiological and non-radiological hazardous waste to the SMVR-SB site would not create a significant hazard to the public. While the community that surrounds the SMVR-SB site is considered disadvantaged, the routine transport of waste through this operating railyard would not disproportionately impact a disadvantaged community.

Noise

During Phase 1, site modifications at the SMVR-SB site would require the use of equipment such as a truck, forklift, spike driver, generator, and various hand tools, and waste loading activities would include trucking activity. Both construction and operations would expose sensitive recep-

tors to increased noise levels. The closest sensitive receptors to the SMVR-SB site are located approximately 1.3 miles away, and the noise level of construction and operations would comply with both the Santa Barbara County Municipal Code Noise Restrictions and the daytime and nighttime criteria of the City of Santa Maria noise ordinance. The predicted construction noise level at the nearest sensitive receptor is 41 dBA, which is lower than the measured ambient noise levels in the vicinity. Additionally, truck route noise levels to the SMVR-SB site were modeled to estimate the increase in noise levels over existing ambient noise levels. Project truck traffic would result in an increase of 0.4 dBA or less in the ambient noise levels, which is not perceptible (less than 3 dBA). As the maximum noise level increase along the truck route to the SMVR-SB site would not be perceptible, noise would not have disproportionate adverse effects to a disadvantaged community.

Access Restrictions

Section 4.15, *Recreation and Public Access*, describes the Proposed Project's impacts on public access to recreational resources. No coastal access or public recreational areas are near the SMVR-SB, as it is a highly industrial area. As such, truck traffic traveling to the SMVR-SB would not impede any access points to recreational or coastal areas.

Section 4.12, *Land Use, Planning, and Agriculture*, discusses activities that would disrupt existing land uses, such as access to public areas. Modular transporters or other oversize vehicles could temporarily limit public access along proposed routes, which would include Betteravia Road to access the SMVR-SB site. Affected land uses along Betteravia Road include residences, commercial uses, schools, and a police department. Populations along the transport routes would be impacted by temporary access restrictions and have been identified as disadvantaged communities (i.e., Census Tracts 24.09, 24.10, and 25.03). However, MM TRA-2 (*Specialty Heavy-Haul Transport Vehicle Transportation Management Plan*), MM TRA-3 (*Decommissioning Liaison*), MM TRA-4 (*Advance Notification of Decommissioning*), MM TRA-5 (*Quarterly Decommissioning Updates*), and EM-2 (*Project Plan, Updating, Tracking, and Reporting*) would be implemented. The transportation management plan would minimize effects on land uses along transport routes by identifying parking restrictions, maintaining emergency travel lanes, and providing public notification in advance of road closures. Providing advance notice and quarterly decommissioning updates to residents, property owners, and businesses would reduce adverse impacts associated with temporary access restrictions. As such, the Proposed Project would not disproportionately affect disadvantaged communities located along transport routes to the SMVR-SB site.

Section 4.16, *Transportation*, discusses railyard modifications and impacts to access during Phase 1. There would be no significant transportation-related impact to the communities surrounding the SMVR-SB site associated with railyard modifications, as driveway upgrades would follow applicable roadway and design standards. During operation of the SMVR-SB site, trucking activity would require temporary and intermittent road closures that may affect emergency access. MMs TRA-1 through TRA-5 (*Truck Transportation Outside of Peak Hours*, *Specialty Heavy-Haul Transport Vehicle Transportation Management Plan*, *Decommissioning Liaison*, *Advance Notification of Decommissioning*, and *Quarterly Decommissioning Updates*) would require the preparation and implementation of a plan specifying off-peak hours for truck traffic, a traffic management

plan in consultation with jurisdictions responsible for the relevant public rights-of-way, and public notification of decommissioning activities. With implementation of MMs TRA-1 through TRA-5, there would be no disproportionate adverse effects to a disadvantaged community regarding trucking activities.

7.4 State Tide and Submerged Lands Possessing Significant Environmental Values

The Proposed Project includes lands recognized as possessing significant environmental values within the California State Lands Commission (CSLC) Significant Lands Inventory, pursuant to Public Resources Code section 6370 et seq. The DCPP site is located in the Significant Lands Inventory as parcel number 40-062-810, which includes the tide lands of the Pacific Ocean lying below the ordinary high-water mark from Lion Rock to Pecho Creek (CSLC, 2022). The subject lands are classified in use category Class B, which authorizes limited use. The parcel was identified as having significant environmental values regarding biological resources, fishery or wildlife, and wildlife support (CSLC, 1975).

CSLC has jurisdiction over State-owned sovereign lands adjacent to the DCPP site, which includes portions of the facility that extend onto filled and unfilled tide and submerged lands of the Pacific Ocean. On June 28, 2016, CSLC authorized lease PRC 9347.1, a general lease for industrial use on sovereign lands, for continued use and maintenance of DCPP facilities and structures located on sovereign lands, including the Discharge Structure, Intake Structure, Breakwaters, Marina (which includes the boat dock and rip rap along the shore of the Marina), storage facility, office facilities, intake electrical room, intake maintenance shop, equipment storage pad, and spare tri-bar storage.

The Proposed Project includes removal of the Discharge Structure as part of Phase 1 activities with retention of the Breakwaters, and Intake Structure (with modifications). A new lease or amendment to lease PRC 9347.1 would be required to implement the Proposed Project. Removal of the Discharge Structure would require the construction of cofferdams within the discharge area to isolate the work area from the Pacific Ocean and create dry work conditions, causing temporary impacts to this area. The Intake Structure and surrounding area would be modified to allow for the loading of barges for waste transportation. A fendering system would be installed on the Intake Structure for barges as well as various mooring points on the structure and breakwater tri-bar. The water circulation tunnels associated with the Intake and Discharge Structures would be filled with controlled low strength material (CLSM) generated from clean, crushed concrete generated from structure demolition. Following removal of the Discharge Structure, restoration activities would focus on the re-establishment of intertidal habitats. The Proposed Project may potentially result in significant and unavoidable impacts associated with the potential transplantation of black abalone during construction, but this activity would not remove habitat. Although the Proposed Project would result in temporary impacts to this area's significant environmental values, the long-term improvements achieved by the decommissioning of the DCPP facility are expected to be beneficial. The CSLC will make the final determination as to effects on State-owned sovereign lands.

7.5 Terrorism

Terrorism is a serious threat to the welfare of the public and is a concern when considering the safety of long-term storage of SNF and transport of radioactive materials. The US Nuclear Regulatory Commission (NRC) ensures safeguards and security for nuclear facilities, high-level radioactive waste facilities, and other radioactive materials and activities. NRC responsibilities include safeguarding from terrorism, especially after the terrorist attack of September 11, 2001, which led to more stringent security requirements. The transport of radioactive materials during decommissioning and storage of radioactive materials after decommissioning could be potential targets for terrorism threats.

Terrorism is not a required topic under CEQA. However, in 2006, the US Court of Appeals for the 9th Circuit (*San Luis Obispo Mothers for Peace, et. al v. Nuclear Regulatory Commission*) held that failure to address the environmental impacts of a terrorist attack on a nuclear power facility in an Environmental Impact Statement (EIS) prepared under the National Environmental Policy Act (NEPA) was not reasonable (9th Circuit, 2006). In this ruling, the Court held that the numeric probability of a terrorist attack need not be precisely quantifiable in order for its potential environmental impacts to be considered. Rather, the Court found, the proper inquiry is whether the risk of an attack is significant. If so, then NEPA requires taking a "hard look" at the environmental consequences of a terrorist attack. Although CEQA guidelines do not specifically address the issue of terrorism, CEQA was developed as a California counterpart to NEPA. Therefore, given these court rulings and public concern regarding terrorist attacks on regional infrastructure, this section has been developed to qualitatively address environmental consequences that could result from a potential terrorist attack.

It should be noted that given the uncertain nature of terrorist attacks (i.e., location, timing, and other factors), there are challenges in determining reasonable thresholds for the likelihood of an attack or the associated environmental consequences. However, the following discussion attempts to present the potential scenario and associated consequences as they relate to the likelihood of the DCPP becoming the target of a terrorist attack.

7.5.1 Background

National Infrastructure Protection Plan. The US Department of Homeland Security's Cybersecurity and Infrastructure Security Agency developed the National Infrastructure Protection Plan (NIPP) to provide an approach for integrating the country's many critical infrastructure and key resources (CIKR) protection initiatives into a single national effort. The NIPP does not provide or recommend specific measures to protect individual resources; however, it does establish national priorities, goals, and requirements for CIKR protection to direct federal funding and resource application.

The NIPP considers a broad range of terrorist objectives, intentions, and capabilities to assess the threat to various components of CIKR. Based on that assessment, terrorists may contemplate attacks against CIKR to achieve three general types of effects (US Department of Homeland Security, 2006):

- **Direct Infrastructure Effects**: Disruption or arrest of critical functions through direct attacks on an asset, system or network, such as an attack on a substation or transmission tower.
- **Indirect Infrastructure Effects**: Cascading disruption and financial consequences for the government, society, and economy through public and private sector reactions to an attack. This type of effect could occur if the disruption of electrical service, resulting from an attack on the DCPP, consequently resulted in adverse impacts to a sensitive facility such as a hospital, airport, security facility, etc.
- **Exploitation of Infrastructure**: Exploitation of elements of a particular infrastructure to disrupt or destroy another target or produce cascading consequences. Such attacks use CIKR elements as a weapon to strike other targets, thereby allowing terrorist organizations to magnify their capabilities far beyond what could be achieved using their own limited resources.

US Nuclear Regulatory Commission. The Energy Reorganization Act of 1974 created the NRC to ensure public health and safety from radioactive materials and nuclear power. The NRC is focused on reactor safety oversight and reactor license renewal of existing plants, materials safety oversight and materials licensing, and waste management of high- and low-level wastes. The NRC is also responsible for addressing the protection of nuclear materials from terrorists and safely managing high- and low-level radioactive wastes (NRC, 2021a).

The NRC ensures safeguards and security by regulating licensees' accounting systems for special nuclear and source materials and security programs and contingency plans. These responsibilities include the following (NRC, 2021b).

- **Domestic Safeguards:** The NRC's domestic safeguards program ensures that special nuclear material in the US is not stolen or diverted from civilian facilities for illegal and harmful uses. Safeguards to protect against sabotage, theft, and diversion include physical protection of facilities at both fixed sites and during transportation and material control and accounting for special nuclear material (NRC, 2020a). Appendix G.2, *Radioactive Materials Transportation Experience and Risk Assessments*, provides background information and a discussion on regulations for the transport of nuclear material.
- **Information Security:** The NRC protects classified and sensitive unclassified information for the physical protection and safeguarding of nuclear materials and facilities to ensure that information is protected from unauthorized disclosure (NRC, 2020b).
- **Cybersecurity:** The NRC has implemented infrastructure changes, enhanced interagency interfaces, performed enhanced inspections, and developed a cybersecurity roadmap to protect information technology systems used in the operation of nuclear power plants (NRC, 2020c).
- **Radioactive Material Security:** The NRC regulates the use of radioactive material to provide appropriate safety and security requirements for radioactive material and to prevent the malicious use of radioactive material (NRC, 2020d). According to Appendix G.2, *Radioactive Materials Transportation Experience and Risk Assessments*, to address the terrorist attacks on September 11, 2001, the NRC enhanced security requirements for transporting radioactive material by requiring the following:
  - additional pre-planning and coordination with affected states,
  - additional advance notification of shipments,

  - enhanced control and monitoring,
  - trustworthiness checks for individuals involved with the shipment, and
  - stronger security controls over shipment routes and schedules.

- **Required Reporting for Clearance Holders:** NRC employees, contractors, licensee personnel, licensee contractors, and other entities holding security clearances from the NRC must report to the Security Executive Agent Directive (SEAD 3) and the NRC Personnel Security Program (MD 12.3). SEAD 3 is designed to strengthen the security of information by establishing reporting requirements for personnel with access to classified information or who hold a sensitive position, and MD 12.3 is a policy that provides assurance that cleared personnel are reliable and trustworthy to have access to NRC facilities, classified information, sensitive NRC information and equipment, nuclear power facilities, and special nuclear material (NRC, 2022).
- **Insider Threat Program for Licensees:** The National Industrial Security Program Operating Manual Insider Threat Program covers contractors and licensees who have access to classified information.
- **Background Checks:** NRC requires licensee criminal history records checks and firearms background check information.

The decommissioning of DCPP is covered by the NRC's 2002 Final Generic Environmental Impact Statement (GEIS) on Decommissioning of Nuclear Facilities Supplement (GEIS Supplement; NUREG-0586) (NRC, 2002). The GEIS Supplement is a comprehensive generic (i.e., programmatic) EIS that covers the potential environmental impacts likely to arise during decommissioning. According to the GEIS Supplement, the likelihood for a large radiological release impacting public health and safety from a decommissioned facility is considerably lower than the likelihood of a release from an operating reactor. This is because potential accidents associated with reactor operation are no longer relevant after the reactor fuel has been removed. Radiological accidents considered in licensing nuclear power plants are classified as design basis accidents and severe (beyond design basis) accidents. Design basis accidents are those accidents that both the licensee and the NRC staff evaluate to ensure that the plant can withstand normal and abnormal potential accidents without undue hazard to the health and safety of the public. Severe accidents are those that are beyond the design basis of the plant and are more severe than design basis accidents because they may result in substantial damage to the fuel. Design basis accidents primarily focus on reactor operation and are not applicable to plants undergoing decommissioning. The only design basis accidents or severe accidents (beyond design basis) applicable to a decommissioning plant are those involving the spent fuel pool. These potential accidents are evaluated to establish the design basis for the preventive and mitigative safety systems of the spent fuel storage facility (NRC, 2002).

7.5.2 Potential Environmental Consequences

The DCPP facility would be dismantled and decommissioned at the expiration of its 10 CFR Part 50 facility operating licenses, and electrical generation would cease. Because the DCPP facility would no longer be an operating nuclear power plant, the potential for it to be a target for a terrorist attack would greatly decrease. Therefore, the level of security would be reduced following decommissioning. During decommissioning, Class A, B, and C radioactive waste from

the reactor pressure vessels and internals and radiological contaminated large components would be hauled by truck and/or rail out of state for disposal. Some radiological materials, such as SNF and Greater than Class C (GTCC) waste, would be stored at the DCPP site in the previously approved ISFSI (not part of the Proposed Project) and the new on-site GTCC Waste Storage Facility, respectively.

In the unlikely event that a terrorist attack occurs to the ISFSI, GTCC Waste Storage Facility, trucks, or rail cars carrying radioactive waste, radioactive materials could be released, exposing people and the environment to potentially harmful levels of radiation that could last for many decades. Potential consequences of a terrorist attack could include contamination within the surrounding area, injuries, loss of life, and property damage. According to the GEIS for Continued Storage of Spent Nuclear Fuel (NUREG-2157), the environmental consequences of a successful attack on a spent fuel pool beyond the licensed life for operation of a reactor are large; however, the very low probability of a successful attack ensures that the environmental risk is small. Similarly, for an operational ISFSI during continued storage, the environmental risk of a successful radiological sabotage attack is small (NRC, 2014). Given the strict security measures and personnel presence at the DCPP site during and after decommissioning, the likelihood of a successful terrorist attack would be very low.

A terrorist attack at an operational power plant could also impair energy production, potentially affecting the statewide or nationwide electrical grid. However, a terrorist attack at the DCPP would not affect energy production, as the DCPP facility would no longer be generating electricity. No impact regarding energy production at the DCPP would occur because of a terrorist attack.

Strict security measures would continue to be required at the DCPP facility, for waste transport via heavy haul trucks, and at either of the SMVR sites. Because non-hazardous and non-radiological materials would be shipped to the PBR site, security measures would not be required at the PBR site. High-level security requirements at the DCPP facility currently consist of a long-range outdoor Firing Range and other various structures, systems, and components. During Phase 1, site security modifications would be required to support decommissioning. The need for large-scale security measures would gradually reduce as nuclear generating activities cease. However, PG&E will continue to provide security for the ISFSI in adherence to NRC requirements. Security requirements during decommissioning would consist of a staffed Security Building and an indoor Firing Range.

Security at either SMVR facility would be required for the duration of time when each shipment is received and temporarily stored at the SMVR site. Security during receipt and storage of the Class A, B, and C wastes would be maintained pursuant to 49 CFR 172.820. Security personnel would be present at either site when waste shipments are received and temporarily stored on site. Additionally, PG&E intends to install security measures such as a temporary 8-foot-high chain link perimeter fencing with barbed wire and privacy screen attached for adherence with federal regulations, lighting, security cameras, and security personnel. For safety reasons and based on federal preemption, details of other security modifications will not be discussed in this document or other public forums. To address security during receipt and storage of the Class A, B, and C wastes at the SMVR sites, PG&E is required to develop a Security Plan per 49 CFR

172.802. The plan is required to include the definition of the personnel and duties for each position responsible for implementing the Security Plan. The Security Plan would be reviewed at least annually and revised and/or updated as necessary. The most recent version of the Security Plan would be made available to the employees responsible for implementing it (Cornell Law School, 2010). With the presence of security staff, infrastructure, and guidance of a Security Plan, the likelihood of a terrorist attack would be very low.