

Section 2: Proposed Project and Alternatives

2.1 Introduction

Installation and operation of the proposed communication facilities are described in this section. Project alternatives are also addressed. The identification of alternatives is not required in a CEQA IS; however, alternatives analysis is a fundamental aspect of the NEPA process as required by Section 102(2)(E) of NEPA and the NPS Handbook and Director's Order (DO) 12 (NPS 2001).

Alternatives considered include the proposed project and the No Action Alternative. The majority of the project locations include two or more options for the placement of the proposed telecommunication equipment and the project generally has minimal environmental impacts; therefore, no other feasible alternatives were identified.

2.2 Preferred Alternative (Proposed Project)

2.2.1 PROJECT LOCATION

CITC proposes to install cellular telecommunication infrastructure at 15 locations on the following four Channel Islands:

- San Miguel Island
- Santa Barbara Island
- Santa Cruz Island
- Santa Rosa Island

The 15 project locations are listed in Table 2.2-1 and are shown on Figures 2.2-1 through 2.2-8. The project originally included 18 project locations, but locations 2, 8, and 13 have been removed from the project and are not analyzed in this Draft IS/EA.

All but two of the 15 proposed project locations are under the sole jurisdiction of NPS. The two exceptions are locations 3 and 4. Locations 3 and 4 are on San Miguel Island, which is owned by the U.S. Navy. In addition, the existing facilities at location 4 were built by NOAA. Installation of the proposed telecommunication facilities at locations 3 and 4 would require approval of the U.S. Navy.

Table 2.2-1: Site Locations for Telecommunications Infrastructure Installation	
No.	Location Name
1	Santa Barbara Island Ranger Station
2	Deleted from the proposed project
3	San Miguel Island Ranger Station
4	San Miguel Island Marine Mammal Research Facility
5	Santa Cruz Island Scorpion Housing Area
6	Santa Cruz Island Scorpion Ranch
7	Santa Cruz Island Prisoners Harbor Day Use Area
8	Deleted from the proposed project
9	Santa Cruz Island Smugglers Adobe
10	Santa Cruz Island Smugglers Kiosk
11	Santa Rosa Island Main Ranch
12	Santa Rosa Island Campground
13	Deleted from the proposed project
14	Santa Rosa Island Maintenance Office
15	Santa Rosa Island Johnson's Lee
16	Santa Rosa Island Housing
17	Santa Rosa Island Power Station
18	Santa Rosa Island Ranch Residence

Figure 2.2-1: Proposed Project Site Locations

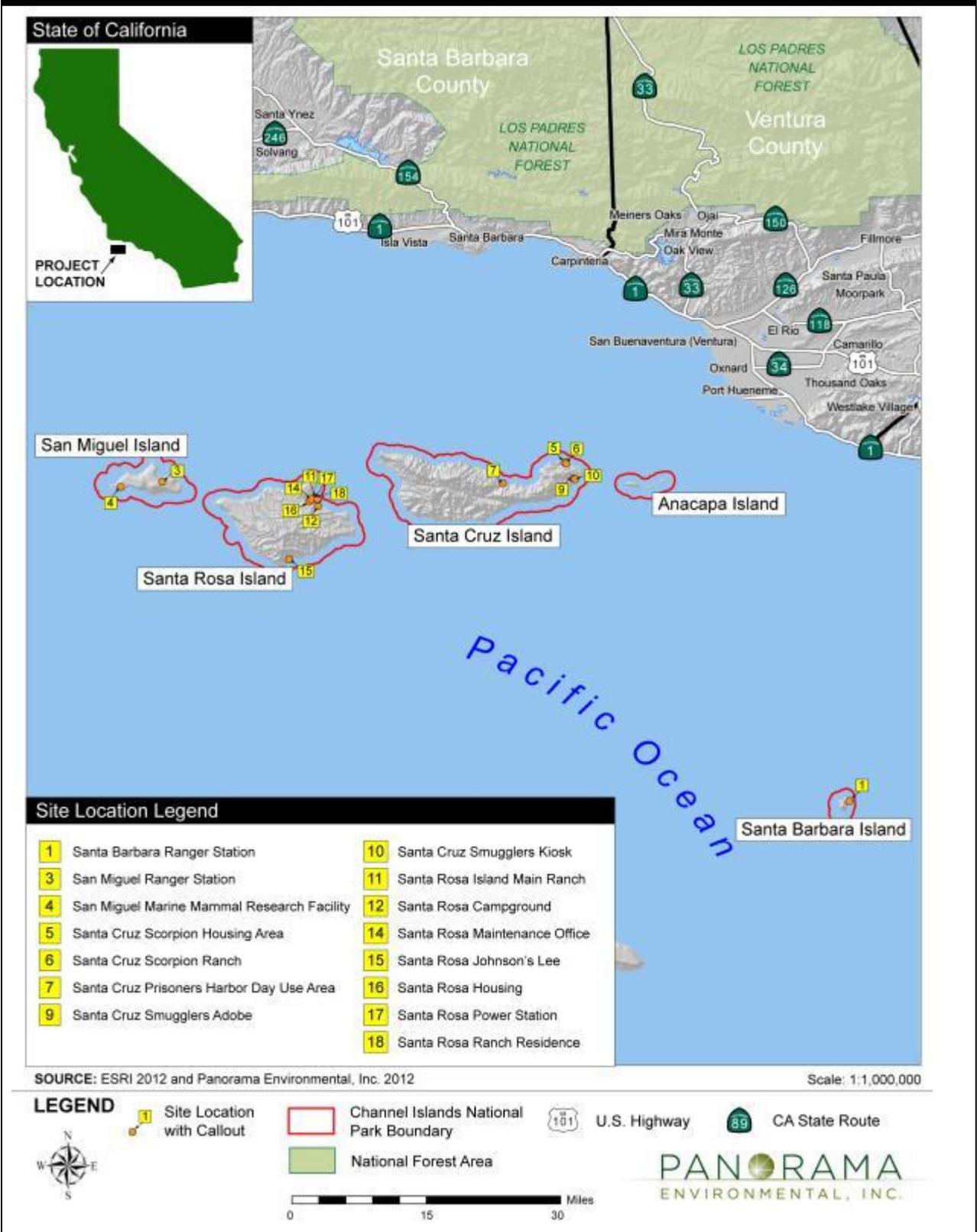


Figure 2.2-2: Proposed Project Site Location 1

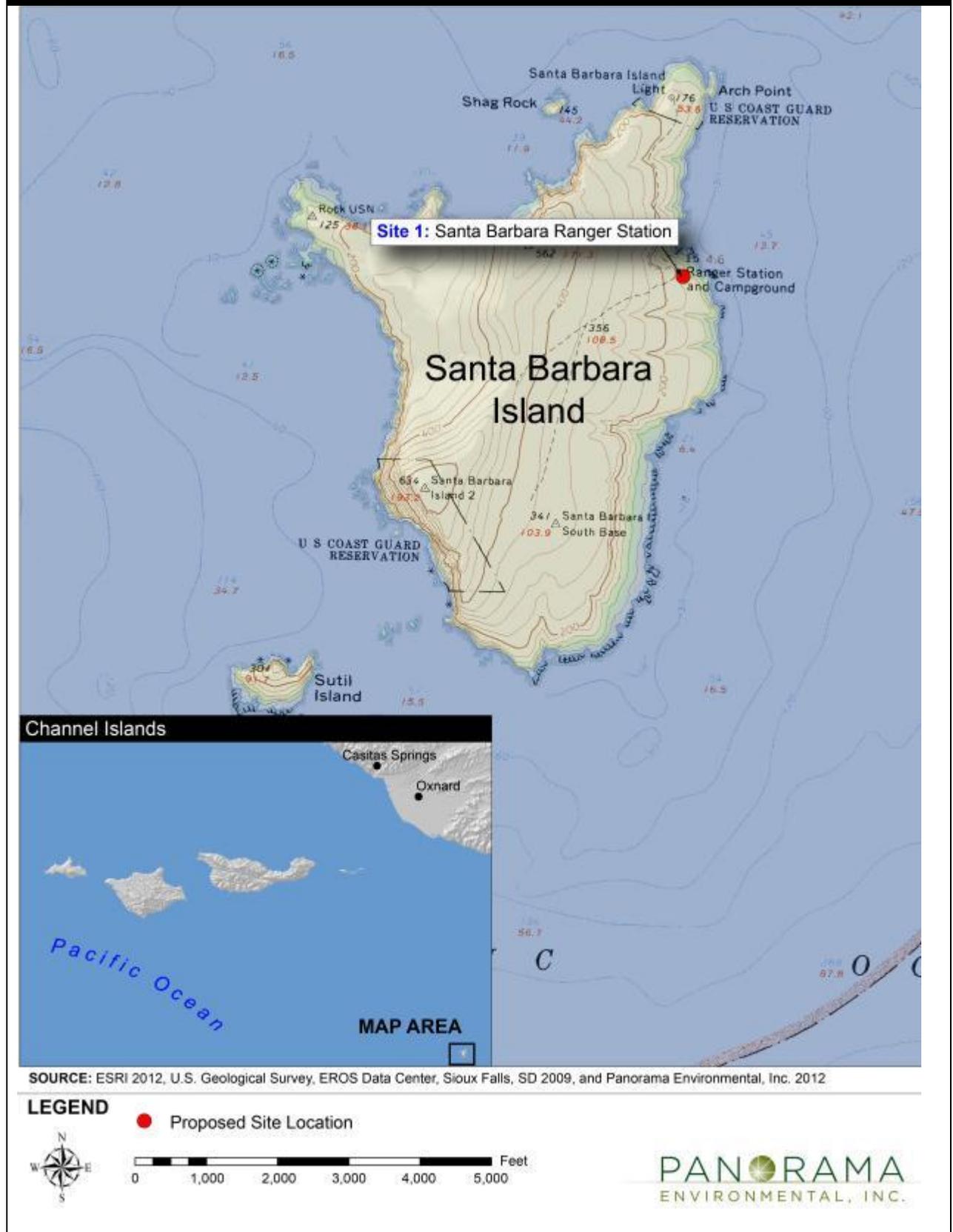


Figure 2.2-3: Proposed Project Site Location 3



SOURCE: ESRI 2012, U.S. Geological Survey, EROS Data Center, Sioux Falls, SD 2009, and Panorama Environmental, Inc. 2012

LEGEND

● Proposed Site Location



0 1,000 2,000 3,000 4,000 5,000 Feet

PANORAMA
ENVIRONMENTAL, INC.

Figure 2.2-4: Proposed Project Site Location 4

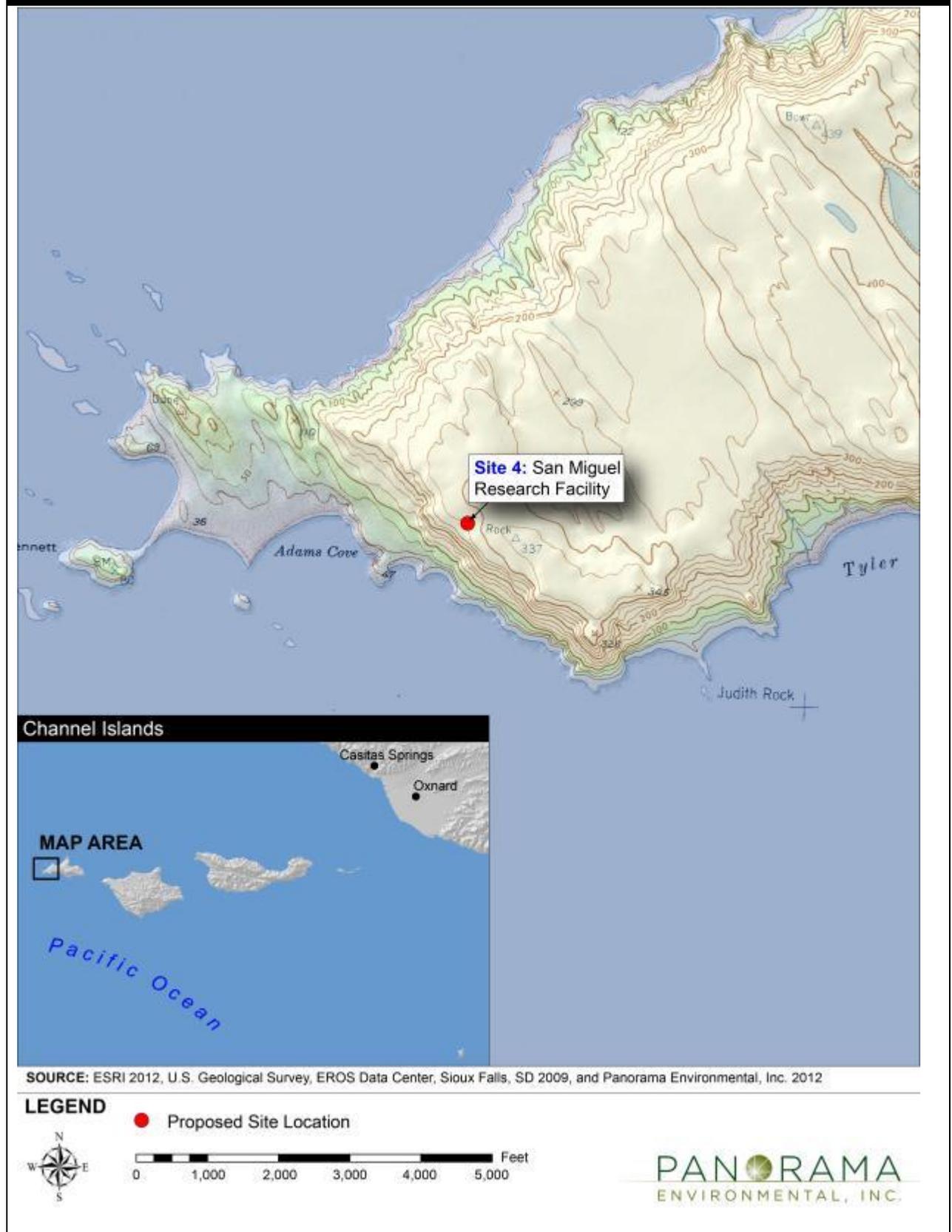


Figure 2.2-5: Proposed Project Site Locations 5, 6, 9, and 10

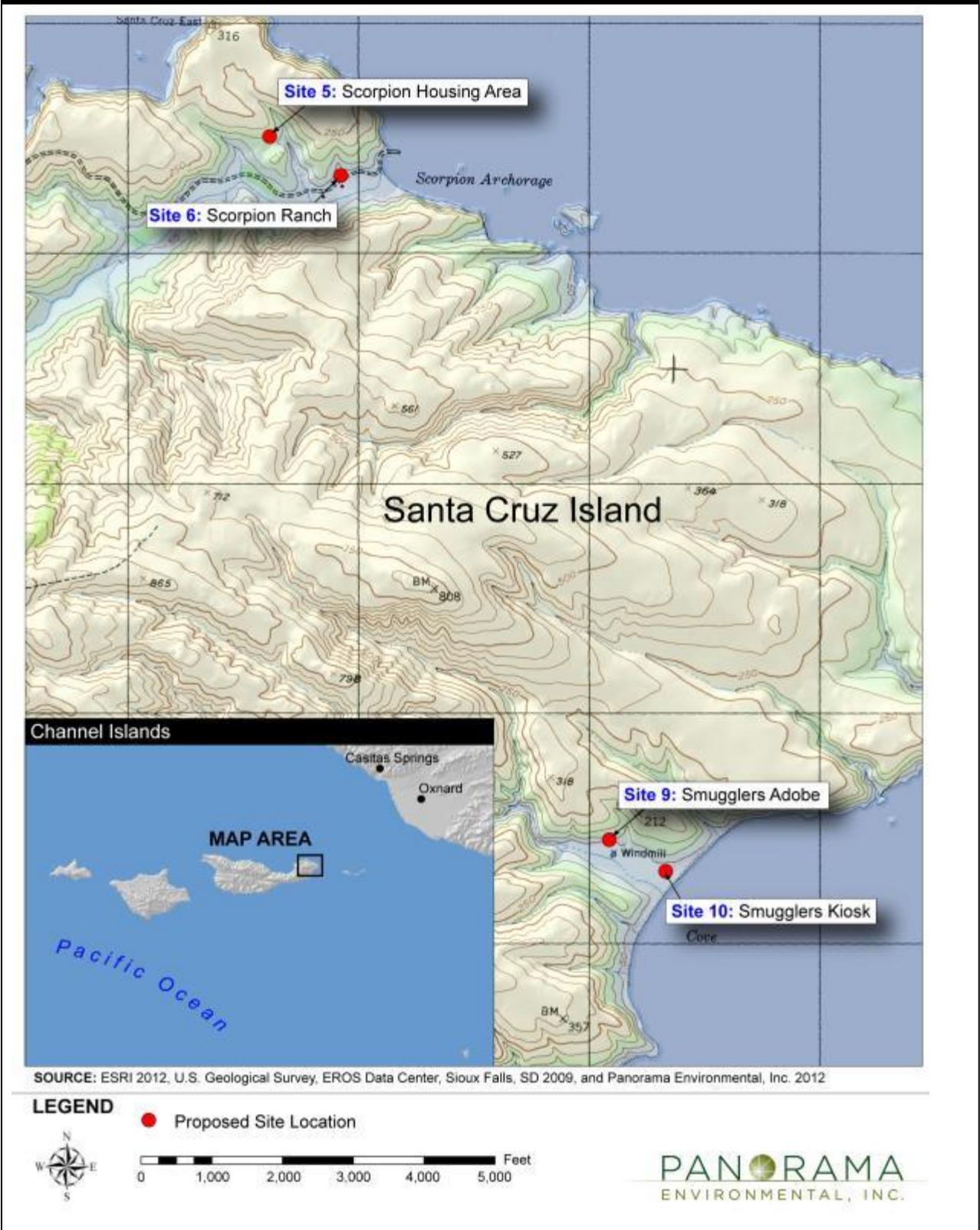


Figure 2.2-6: Proposed Project Site Location 7

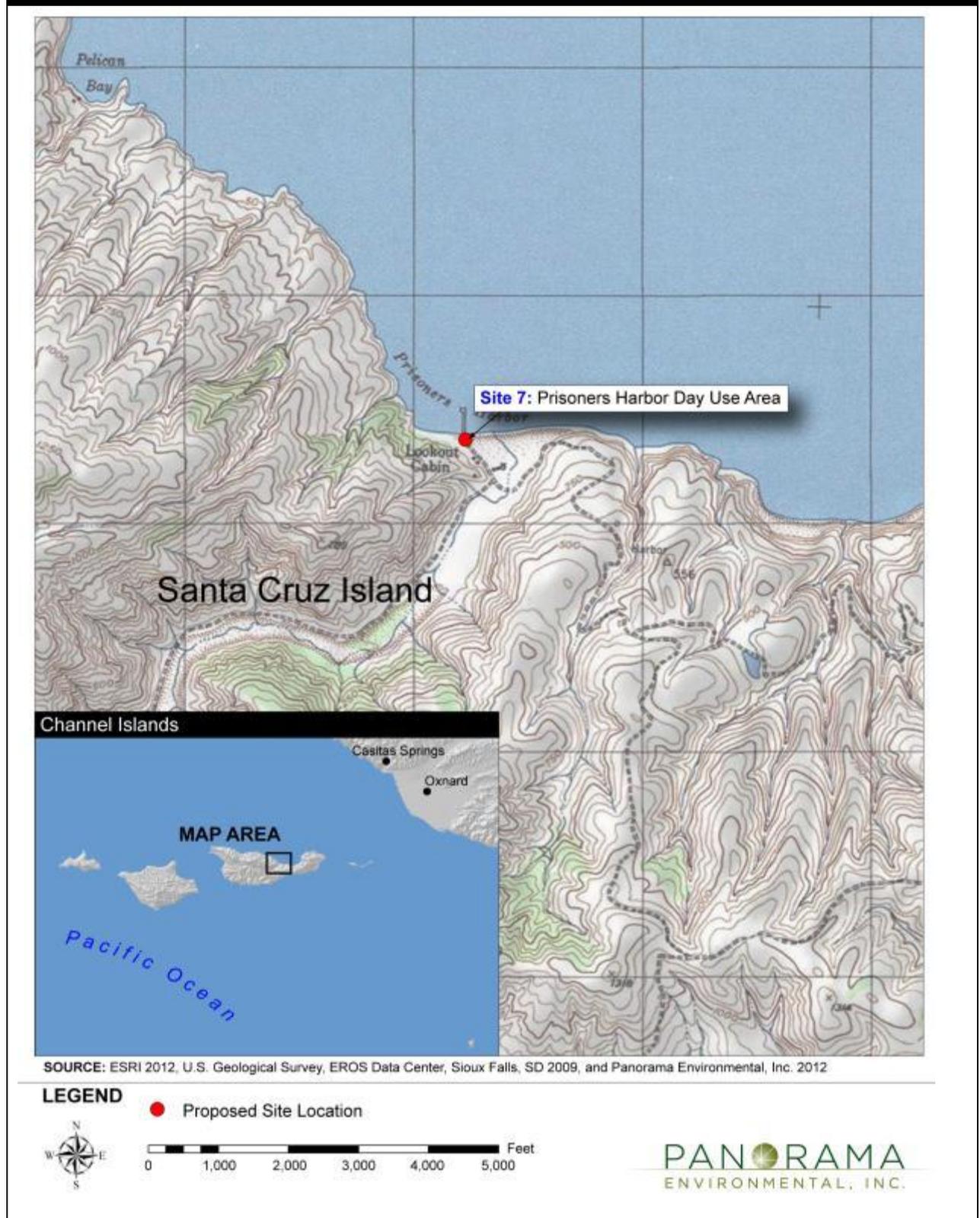


Figure 2.2-7: Proposed Project Site Locations 11, 12, 14, 16, 17, and 18

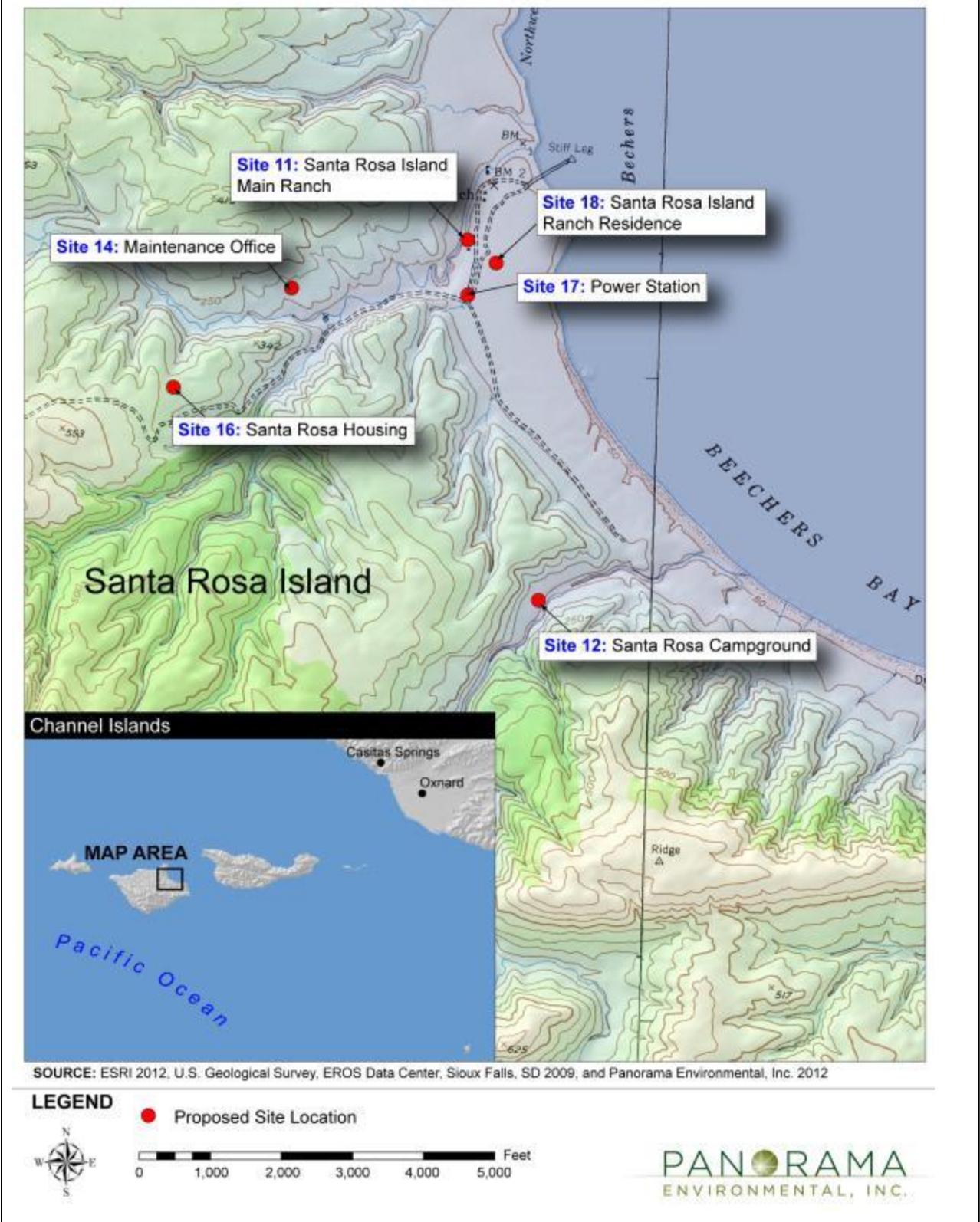
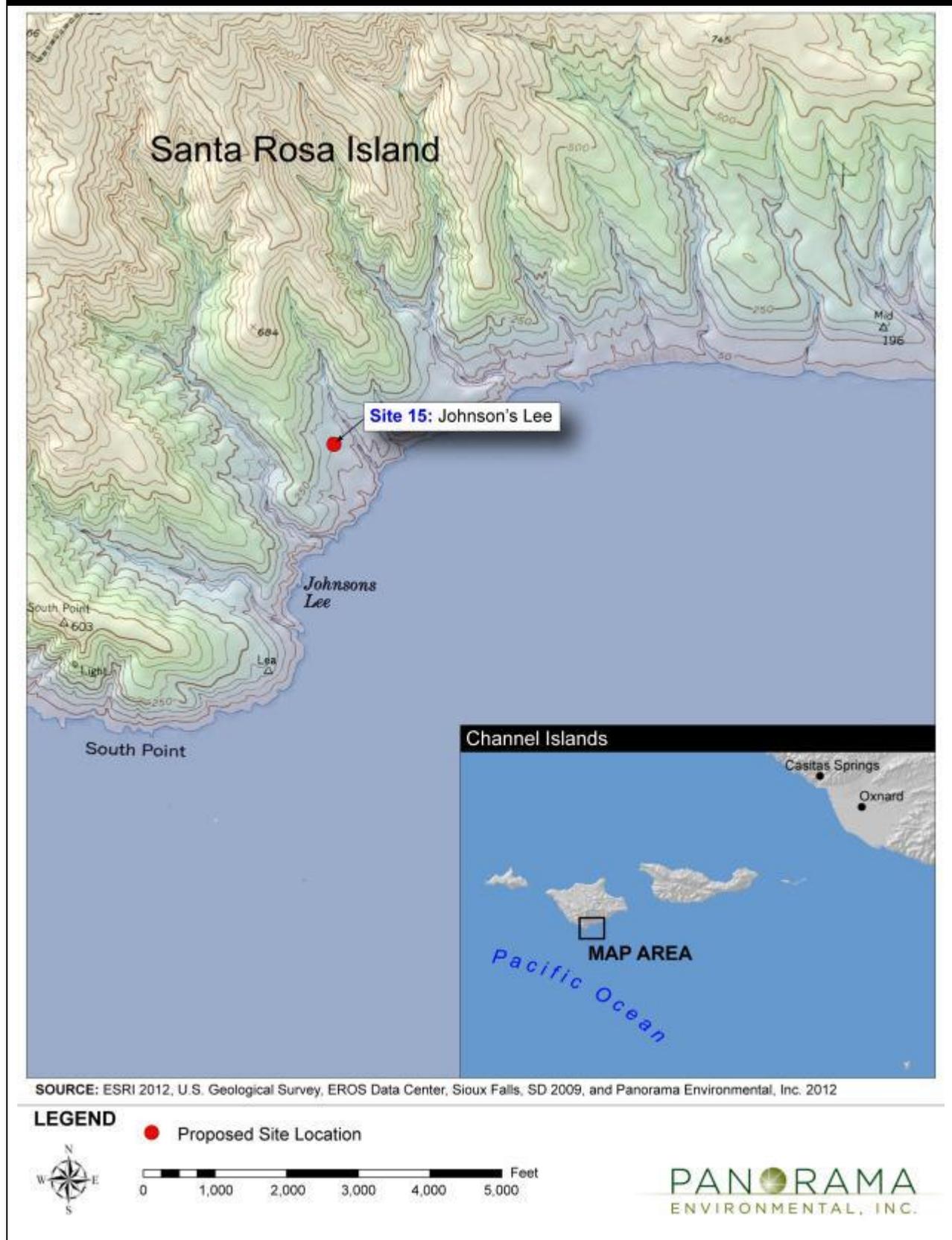


Figure 2.2-8: Proposed Project Site Location 15



2.2.2 PROJECT ELEMENTS

Proposed Telecommunication Facilities

Project Locations 1, 9, and 17

Proposed project locations 1, 9, and 17 would include installation of the standard telecommunication facilities listed below. All of these facilities would be painted as appropriate to minimize visual impacts, with color selection and painting coordinated with NPS.

- A Very Small Aperture Terminal (VSAT) two-way satellite dish antenna, either roof-mounted or ground-mounted, approximately 4 feet in diameter, and painted to minimize visual intrusion
- One of the following two types of antennas:
 - A new omni-directional antenna, a cylindrically-shaped antenna approximately 20 inches long and 2 inches in diameter, typically roof- or pole-mounted, and painted to minimize visual intrusion
 - A new dual-band Yagi antenna, a triangularly-shaped antenna approximately 15.5 inches long and 10.5 inches wide at the base, typically roof- or pole-mounted, and painted to minimize visual intrusion
- Up to 20 new solar panels (including ten replacement panels for the NPS solar energy system and ten panels for the new CITC solar energy system)
 - High-efficiency photovoltaic modules composed of poly-crystalline cells
 - Each tempered, low-reflection, and glass-covered solar panel would measure approximately 39 inches wide by 65 inches long by 2 inches thick and would produce 240 watts
 - Ground-mounted on new aluminum solar panel frameworks with four cement footings that would require excavation approximately 14 inches wide by 36 inches deep
- New, higher capacity, 240-watt solar panels to replace existing, lower capacity, 55-watt NPS solar panels (if requested by NPS)
- An electrical system completely independent of existing NPS power systems
- Cables to connect the various telecommunication facilities
- One or more Global System for Mobile Communication (GSM) wireless phones
- A ground-mounted equipment cabinet that would measure approximately 69 inches tall, 72 inches wide, and 44 inches deep, painted a cream color, that would not require a foundation but would be placed on a 5-foot by 3-foot patch of cleared and level ground
- The following items would be stored in the equipment cabinet:
 - 16 solar panel batteries, each of which would measure approximately 6.5 inches wide by 13.5 inches long by 11 inches tall

- A new pico¹ cell telecommunication box containing an inverter and controller for the telecommunications system, measuring approximately 13 inches long, 11 inches wide, and 2 inches thick
- A 6,000-British Thermal Unit (BTU) air conditioner to maintain optimal temperatures for the batteries and pico cell telecommunication box
- Safety signs that would be visible on all of the telecommunication equipment

Location 1 would also include the installation of an upgraded weather station, which would include a wind sensor, barometric pressure sensor, and humidity sensor. Manufacturer's specifications for each of the proposed project elements are included in Appendix A.

All proposed telecommunication equipment at locations 1, 9, and 17 would be mounted using screws and brackets on existing poles, exterior walls, or roofs of existing structures wherever possible. Cables to connect the various telecommunication facilities would be run along the surface of existing structures where feasible, or would be installed in either aboveground or underground conduit. The length of cable conduit to be installed at each project location would not exceed approximately 10 feet. Solar panels would be installed in new frame structures, either on existing roofs or on the ground. Alternatively, if NPS requests replacement of existing solar panels for the independent NPS power system, and if such replacement of existing solar panels frees up space for the proposed CITC solar panels, then the proposed solar panels would be mounted on existing frame structures.

Project Locations 3, 4, 5, 6, 7, 14, 15, and 16

Proposed project locations 3, 4, 5, 6, 7, 14, 15, and 16 would include the installation of an all-in-one unit, as shown in Appendix A. Each of these project locations currently contains a site of cleared, packed, and level earth that would be a suitable site for the proposed all-in-one unit, and no ground disturbance, vegetation clearing, or earthwork would be required. The all-in-one unit would contain all of the project elements listed for locations 1, 9, and 17, but all of these project elements would be contained in one ground-mounted unit. This all-in-one unit would occupy an 8-foot by 8-foot area, and would not require a foundation, as the all-in-one unit would sit flat on the ground. The all-in-one unit would include the following facilities:

- A ground-mounted² VSAT antenna secured by portable permanent weights
- An omni-directional or Yagi antenna pole-mounted on an 8-foot-tall pole
- A cabinet measuring approximately 69 inches tall, 72 inches wide, and 44 inches deep and containing 16 batteries and a pico cell telecommunication box
- Four solar panels mounted on top of the new cabinet
- Safety signs visible on all of the telecommunication equipment

¹ A pico cell is a wireless communication system typically covering a small area, such as in-building (e.g., offices, shopping malls, and train stations).

² Installation of ground-mounted equipment would not require any ground disturbing activities, as the equipment would sit on the ground surface.

- Fencing around the perimeter of the all-in-one unit to screen the unit from view; this fencing would be compatible with any existing fencing in the proximity of the all-in-one unit and would be reviewed and approved by NPS prior to installation

The all-in-one units would serve the identical functions as the equipment proposed for locations 1, 9, and 17; however, because the all-in-one units would have fewer solar panels than the solar panel arrays at locations 1, 9, and 17, the batteries for the all-in-one units would take longer to charge to full capacity. The project locations using all-in-one units may, therefore, experience reductions in service capacity during periods of prolonged inclement weather. The capacity for emergency communications would have the highest priority among the communication services provided by the proposed project, and the capacity for emergency communications would be maintained at all times.

GSM Phones

GSM wireless phones could be placed anywhere within the signal radius of the proposed telecommunication equipment. The signal radius would vary according to topography and other conditions at each proposed location, but would generally be within an approximately 0.5-mile radius around the telecommunication equipment. One or more solar-powered GSM payphones would be installed at a majority of the project locations with the exception of locations 9, 11, and 14. These payphones may be wall-mounted on existing structures. Alternatively, where use of existing structures is not practical or feasible, GSM payphones may be mounted either aboveground on concrete block requiring no digging or ground disturbance, or on new poles inserted in the ground, as shown in Appendix A.

Location 11 would include the installation of GSM handheld phones and GSM wireless desk phones instead of a GSM payphone. The GSM desk phones would be installed inside the existing structures at location 11. The GSM wireless desk phones are shown in Appendix A.

Proposed Telecommunication Installation Locations

Specific location details and infrastructure requirements are provided below. Additional information and photographs of each of the project sites are included in the application submitted by CITC, included in Appendix A.

Location 1 – Santa Barbara Island Ranger Station

Existing Elements

This site includes a ranger station office, a maintenance shop, and a ground-mounted solar panel array using twenty 55-watt solar panels located behind the maintenance shop. The rear of the maintenance shop also has a wall-mounted VSAT dish antenna that provides limited Internet service. The existing Internet service is very slow and is available for government use only; no personal email or Internet access is currently available at this location.

Proposed Elements

The proposed project would involve installation of the standard telecommunication facilities, a GSM solar payphone, and a weather station. The proposed project would supply up to two government telephone lines and a government Internet connection, as well as a non-government

Internet connection and a GSM payphone for non-NPS researchers. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location. The project would include installation of a new ground-mounted VSAT antenna behind the ranger station. This VSAT antenna would be mounted on a 6-foot-tall pole and would remain hidden from ocean view behind the ranger station. This new pole would require hand excavation of a 36-inch-deep and 14-inch-wide hole, which would be filled with cement to provide a foundation for the pole. The project would also include installation of a new omni-directional antenna mounted on a new 8-foot-tall pole, also located behind the ranger station. This new pole would require hand excavation of a 36-foot-deep and 14-foot-wide hole, which would be filled with cement to provide a foundation for the pole. No vegetation would need to be cleared or disturbed for the installation of this new pole.

Location 1 would involve the removal of the 20 existing NPS 55-watt solar panels, and the installation of 20 new, 240-watt solar panels within the existing frame structure. Ten of the new solar panels would be dedicated to the existing NPS system, increasing the total energy NPS produces at this location by 1,300 watts to a total of 2,400 watts. The remaining ten new solar panels would provide power to the new CITC system. Though all 20 solar panels would share the same framework, the NPS and CITC electrical systems would remain unconnected and would not co-mingle. A total of 16 batteries for the new solar panels would be stored in a new, ground-mounted enclosure that would be located behind the existing solar panel array behind the maintenance shop. The proposed site for the cabinet is on cleared and level ground; therefore, no vegetation would be disturbed for the installation of this cabinet, and no earthwork would be required. The new pico cell telecommunication box would be located in the same cabinet as the solar panel batteries. Cable to connect the proposed telecommunication facilities would be placed in either aboveground or underground conduit. Hand trenching would be used for installation of any underground conduit, which would be placed parallel to existing NPS underground conduit, resulting in disturbance of previously disturbed ground.

The new GSM solar payphone would be placed near the campground as a standalone facility with either an aboveground or a belowground concrete foundation. In the aboveground option, the GSM payphone would be mounted on a 2-foot by 2-foot concrete block placed on the ground. No trenching or other earthwork activities would be required for this aboveground concrete block. In the belowground option, the GSM payphone would be mounted on a pole with an underground concrete foundation. This belowground foundation would require excavation of a 30-inch-diameter, 3-foot-deep hole for the creation of the foundation, and the concrete foundation would not be visible once construction is completed. The standalone GSM payphone would be approximately 7 feet tall under either foundation option.

Installation activities at the Santa Barbara Ranger Station site also would include upgrades to the existing weather station for helicopters and the wireless point-to-point link from Arch Point at the northern end of Santa Barbara Island to the Santa Barbara Ranger Station. The weather station and wireless point-to-point link provide video and weather information for NPS personnel related to clearance and weather conditions for helicopter landing and takeoff at the islands. The weather station equipment to be installed at this location would include a wind sensor, barometric pressure sensor, and humidity sensor. Specifications for all of this equipment are included in Appendix A.

Location 2 – Anacapa Island Ranger Station

This location has been deleted from the proposed project and is therefore not described or analyzed in this Draft IS/EA.

Location 3 – San Miguel Island Ranger Station**Existing Elements**

This facility includes NPS office space and residential accommodations for a ranger, a biologist, and up to four researchers in a bunkhouse. A solar heating system is located on the roof on the southwest side of the ranger station. A tractor shed is located east of the ranger station and a fox building is located to the immediate southeast of the ranger station.

Proposed Elements

The proposed project would involve installation of an all-in-one unit, a GSM solar payphone, and, optionally, a web camera. The proposed project would supply up to two government telephone lines and a government Internet connection, as well as a non-government Internet connection and a GSM payphone for non-NPS researchers. There also is a possibility that an island resident may request a personal telephone line and/or Internet connection, and the proposed telecommunication facilities would provide for this additional telephone lines and Internet connection. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location.

An all-in-one unit containing all of the standard telecommunication facilities would be placed within an 8-foot by 8-foot area at a selected site anywhere near the San Miguel Ranger Station as determined by NPS. Suitable sites exist that contain an area of cleared, packed, and level earth, requiring no ground disturbance, vegetation clearing, or earthwork. Suggested staging areas and locations are shown in Appendix A. A new GSM payphone would be installed as either a mounted unit on the southwest face of the ranger station or as a standalone unit near the campground facilities.

The San Miguel Island Ranger Station site may also require installation of a roof-mounted camera with a clear view of Green Mountain. This camera would allow remote log-on by NPS personnel to see if there is fog or other inclement weather over Green Mountain. Fog and other inclement weather conditions over Green Mountain can inhibit aircraft flight between the San Miguel Island Ranger Station and the Point Bennett research facility on the island. The camera would be mounted near the ground-mounted cabinet, and would face a direction that allows for the best view of the area for determining weather conditions. The camera would be connected to a web interface that would allow the camera to pan and tilt to provide desired views. Although this proposal includes installing a camera, NPS may later decide that the camera is unnecessary at this location.

Location 4 – San Miguel Island Marine Mammal Research Facility**Existing Elements**

The Marine Mammal Research Facility is located on San Miguel Island at Point Bennett and is owned and operated by NOAA. The station is occupied throughout the summer and

intermittently during the rest of the year by NOAA staff, and is shared throughout the year with NPS staff conducting terrestrial surveys on the island. The facility consists of an office, a biologist research bunkhouse, and a tool shed. A pair of wind turbines is located behind the tool shed.

Proposed Elements

The proposed project would involve installation of an all-in-one unit and a GSM solar payphone. The proposed project would supply at least one government telephone line and Internet service, as well as a personal telephone line and separate Internet service for non-NPS researchers who are not authorized to use the NPS network. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location.

An all-in-one unit containing all of the standard telecommunication facilities would be placed within an 8-foot by 8-foot area at a selected site anywhere near the San Miguel Island Marine Mammal Research Facility as selected by NPS. Suitable sites exist that contain an area of cleared, packed, and level earth, requiring no ground disturbance, vegetation clearing, or earthwork. Suggested staging areas and locations are shown in Appendix A. A new GSM payphone would be installed as either a mounted unit on front of the tool shed next to the shed doors or a standalone unit.

As with the San Miguel Island Ranger Station, the San Miguel Island Marine Mammal Research Facility site also may require installation of a roof-mounted camera with a view of Green Mountain. The new camera would provide live viewing of the weather near this location. The camera would be mounted near the ground-mounted cabinet, and would face a direction that allows for the best view of the area for determining weather conditions. The camera would be connected to a web interface that would allow the camera to pan and tilt to provide desired views. Though this proposal includes a camera, NPS may later decide that the camera is unnecessary at this location.

Location 5 – Santa Cruz Island Scorpion Housing Area

Existing Elements

This site is the main NPS facility on the island's eastern side. It includes a housing area, a maintenance facility, and a nearby campground. There are 12 structures clustered within the Scorpion Housing Area. The housing area receives power from solar panel arrays located on half of the building. Half of the batteries and inverters for the NPS solar panels are stored within a utility trailer and the other half are contained in a structure connected to the rear of the kitchen building. This area has limited Internet and telecommunications connectivity to the mainland by an existing VSAT dish antenna and directional Yagi antenna, and no cellular telephone service is currently available.

Proposed Elements

The proposed project would involve installation of an all-in-one unit and a GSM solar payphone. The proposed project would supply at least one government telephone line and a government Internet connection. The project may also include separate Internet service for non-NPS researchers and two personal phone lines. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location.

An all-in-one unit containing all of the standard telecommunication facilities would be placed within an 8-foot by 8-foot area at a selected site anywhere near the Santa Cruz Island Scorpion Housing area as selected by NPS. Suitable sites exist that contain an area of cleared, packed, and level earth, requiring no ground disturbance, vegetation clearing, or earthwork. Suggested staging areas and locations are shown in Appendix A. A new GSM payphone would be installed at the kitchen/living room building, either wall-mounted on the exterior of the building or placed in the building interior. No ground-disturbing activities would be required for installation of the GSM payphone.

Location 6 – Santa Cruz Island Scorpion Ranch

Existing Elements

This location contains three main buildings: a tool shed, an information kiosk, and detached restroom facilities. The upper level of the Santa Cruz Island Scorpion Ranch (the only two-story building at this location) is currently being adapted for NPS ranger office space. Power for the site is provided by solar panels mounted on an immediately adjacent hillside. The associated batteries and other equipment for the NPS solar panel array are located in a wood box below the solar array.

Proposed Elements

The proposed project would involve installation of an all-in-one unit and a GSM solar payphone. The new facilities would provide at least one government telephone line and a government Internet connection, as well as a payphone for visitors. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location.

An all-in-one unit containing all of the standard telecommunication facilities would be placed within an 8-foot by 8-foot area at a site anywhere near the Santa Cruz Island Scorpion Ranch Corral and Maintenance area as selected by NPS. The corral and maintenance area are located approximately 500 feet west of the Scorpion Ranch. Suitable sites exist that contain an area of cleared, packed, and level earth, requiring no ground disturbance, vegetation clearing, or earthwork. Suggested staging areas and locations are shown in Appendix A.

A GSM payphone would be a standalone facility located near the existing corral. The GSM standalone facility would be mounted with either an aboveground or belowground concrete foundation. In the aboveground option, the GSM payphone would be mounted on a 2-foot by 2-foot concrete block placed on the ground. No trenching or other earthwork activities would be required for this aboveground concrete block. In the belowground option, the GSM payphone would be mounted on a pole with an underground concrete foundation. This belowground foundation would require excavation of a 30-inch-diameter, 3-foot-deep hole for the creation of the foundation, and the concrete foundation would not be visible once construction is completed. The standalone GSM payphone would be approximately 7 feet tall under either foundation option.

Location 7 – Santa Cruz Island Prisoners Harbor Day Use Area

Existing Elements

There is a large pier at this location, as well as a bulletin kiosk near the beach area. Two other structures, including a scale house and a warehouse, are located a short distance away from the pier and kiosk.

Proposed Elements

The proposed project would involve installation of an all-in-one unit and a GSM solar payphone. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location. An all-in-one unit containing all of the standard telecommunication facilities would be placed within an 8-foot by 8-foot area near an existing well and maintenance lot located approximately 2,000 feet southeast of the Prisoners Harbor area. This existing lot is used by NPS staff for maintenance and is outside the view of the structures in the Prisoners Harbor area, including the information kiosk. An alternative suitable site can be located and selected by NPS that contains an area of cleared, packed, and level earth, requiring no ground disturbance, vegetation clearing, or earthwork. Suggested staging areas and locations are shown in Appendix A.

A GSM payphone would be installed as a standalone facility with either an aboveground or a belowground concrete foundation. In the aboveground option, the GSM payphone would be mounted on a 2-foot by 2-foot concrete block placed on the ground. No trenching or other earthwork activities would be required for this aboveground concrete block. In the belowground option, the GSM payphone would be mounted on a pole with an underground concrete foundation. This belowground foundation would require excavation of a 30-inch-diameter; 3-foot-deep hole for the creation of the foundation, and the concrete foundation would not be visible once construction is completed. The standalone GSM payphone would be approximately 7 feet tall under either foundation option.

Location 8 – Santa Cruz Island Del Norte Ranch

This location has been deleted from the proposed project and is therefore not described or analyzed in this Draft IS/EA.

Location 9 – Santa Cruz Island Smugglers Adobe

Existing Elements

This location contains the two-story Smugglers Ranch House and an adjacent, detached structure containing restroom facilities. An existing NPS solar panel array is located on the hillside directly behind the restroom building. A pump house is also located at this location. An information kiosk is located a short distance away from the ranch house.

This site is not regularly staffed. It is occasionally used as a spike camp³ for projects in the area. Boats that come ashore at this location sometimes have difficulty landing in the surf. Therefore, the site would be a practical location for an emergency telephone for visitors and distressed boaters.

Proposed Elements

Standard telecommunication facilities would be installed at this site. No GSM payphone would be installed at location 9. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location.

New VSAT and Yagi antennas would be installed at this site. The VSAT antenna would be ground-mounted behind the restroom facilities. The foundation for the VSAT antenna would require excavation of a hole approximately 14 inches wide and 36 inches deep. The proposed site for the VSAT antenna is on cleared ground; therefore, no vegetation would be disturbed for the installation of this antenna. The Yagi antenna would be roof-mounted on the eave at the rear of the restroom facilities.

Location 9 would involve the removal of the ten existing NPS 55-watt solar panels, and the installation of ten new, 240-watt solar panels within the existing frame structure. Five of the new solar panels would be dedicated to the existing NPS system, increasing the total energy NPS produces at this location by 650 watts to a total of 1,200 watts. The remaining five new solar panels would provide power to the new CITC system. Though all ten solar panels would share the same framework, the NPS and CITC electrical systems would remain unconnected and would not co-mingle. A total of 16 batteries for the new solar panels would be stored in a new ground-mounted cabinet that would be placed on an existing concrete foundation at the rear of the restroom facility. The new pico cell telecommunication box would be located in the same cabinet as the solar panel batteries. Cable to connect the proposed telecommunication facilities would be placed in either aboveground conduit or underground conduit. Hand trenching would be used for installation of any underground conduit.

Location 10 – Santa Cruz Island Smugglers Kiosk

Existing Elements

There is a bulletin kiosk near this location. The kiosk would not be used for the proposed telecommunication equipment installation at this location.

Proposed Elements

A GSM payphone would be installed as a standalone facility near the bulletin kiosk, mounted either on an aboveground or a belowground concrete foundation. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location. In the aboveground option, the GSM payphone would be mounted on a 2-foot by 2-foot concrete block placed on the ground. No trenching or other earthwork activities would be required for this aboveground concrete block. In the belowground option, the GSM payphone would be mounted on a pole with an underground concrete foundation. This belowground

³ A spike camp is a remote camp lacking logistical support and amenities, often consisting of just a pup tent or backpacking tent.

foundation would require excavation of a 30-inch-diameter, 3-foot-deep hole for the creation of the foundation, and the concrete foundation would not be visible once construction is completed. The standalone GSM payphone would be approximately 7 feet tall under either foundation option. No other telecommunication infrastructure would be installed at this site.

Location 11 – Santa Rosa Island Main Ranch

Existing Elements

This location contains the following eight structures:

- Foreman's house
- School house/residence
- Branding shed
- Scale house
- Bunkhouse
- Horse barn
- Generator barn
- Upper ranch house

The ranch house was subject to a right of use and occupancy through 2011. This use has expired and ranch is now managed by NPS.

Proposed Elements

Telephone and Internet service may be requested by NPS for one or more buildings on the site. This service would be accommodated by providing GSM handheld phones and/or GSM wireless desk phones that would work throughout this historic district area. A GSM signal would be provided via the VSAT antenna placed at location 17. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location. No other telecommunication facilities are proposed for installation at this location.

Location 12 – Santa Rosa Island Campground

Existing Elements

This location includes 14 campground shelters, which are small wooden sheds that provide campers with protection from the elements, as well as a building containing restroom facilities. There are currently no telecommunication services or NPS solar panels at this location.

Proposed Elements

The proposed project would involve installation of a GSM solar payphone. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location. The GSM payphone would be installed as a standalone facility near the campground trailhead entrance. The GSM payphone would be mounted either on an aboveground or a belowground concrete foundation. In the aboveground option, the GSM payphone would be mounted on a 2-foot by 2-foot concrete block placed on the ground. No trenching or other earthwork activities would be required for this aboveground concrete block. In

the belowground option, the GSM payphone would be mounted on a pole with an underground concrete foundation. This belowground foundation would require excavation of a 30-inch-diameter, 3-foot-deep hole for the creation of the foundation, and the concrete foundation would not be visible once construction is completed. The standalone GSM payphone would be approximately 7 feet tall under either foundation option. No other telecommunication infrastructure would be installed at this site. All GSM service would be provided by nearby location 17.

Location 13 – Santa Rosa Island Air Quality Shed

This location has been deleted from the proposed project and is therefore not described or analyzed in this Draft IS/EA.

Location 14 – Santa Rosa Island Maintenance Office

Existing Elements

The Santa Rosa Island Maintenance Office location includes a maintenance office and garage for the island's fire suppression equipment. A stucco shed, located near the maintenance office, is used for propane storage.

Proposed Elements

The proposed project would involve installation of an all-in-one unit. The services provided at this site would include a telephone line, government Internet access, and a remote monitoring security camera. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location. Currently, remote security monitoring of the maintenance building and vicinity is not possible because the site is located in a valley surrounded by high hills. A GSM payphone would not be installed at location 14.

A ground-mounted all-in-one unit could be located anywhere near the maintenance office. The exact location of an all-in-one unit would be subject to the review and approval by NPS. No telecommunication equipment would be attached to the maintenance office or any other existing structures at the site.

The new camera would monitor the grounds and water towers, and would provide live viewing of the weather near this location. The camera would be mounted near the ground-mounted cabinet, and would face a direction that allows for the best view of the area for determining weather conditions. The camera would be connected to a web interface that would allow the camera to pan and tilt to provide desired views.

Location 15 – Santa Rosa Island Johnson's Lee

Existing Elements

The Johnson's Lee building, a vehicle and equipment storage structure, is located at this site.

Proposed Elements

The proposed project would involve installation of an all-in-one unit and a GSM payphone. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location. A ground-mounted all-in-one unit would be located near the

Johnson's Lee storage building. Suitable sites exist that contain an area of cleared, packed, and level earth, requiring no ground disturbance, vegetation clearing, or earthwork. Suggested staging areas and locations are shown in Appendix A. No GSM desk phones are proposed for this location at this time, and all equipment at this location would be installed at CITC's expense.

A GSM payphone would be wall-mounted on the right-facing side of the building. Otherwise, no telecommunication equipment would be attached to the Johnson's Lee storage building or any other existing structures at the site.

Location 16 – Santa Rosa Island Housing

Existing Elements

This location is occupied by permanent island staff, as well as visiting project crews and researchers. There are four housing buildings, two garage buildings, and several small structures and sheds at this location.

Proposed Elements

The proposed project would involve installation of an all-in-one unit and a GSM payphone. The proposed project would supply three government telephone lines (for rangers, maintenance, and resource management staff) and a government Internet connection. The project also would include up to two personal telephone lines and a non-government Internet connection for researchers and non-NPS staff. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location.

A ground-mounted all-in-one unit would be located behind the garage as shown in Appendix A. Alternative suitable sites exist that contain an area of cleared, packed, and level earth, requiring no ground disturbance, vegetation clearing, or earthwork. Suggested staging areas and locations are shown in Appendix A. A GSM payphone would be wall-mounted on the left-facing side of the building. Otherwise, no telecommunication equipment would be attached to the garage or any other existing structures at the site.

Location 17 – Santa Rosa Island Power Station

Existing Elements

Santa Rosa Island Power Station consists of two adjacent buildings that contain the energy generation facilities for the ranch area on Santa Rosa Island. Solar panels are installed on the roofs of both buildings for energy generation. There is an additional bank of solar panels mounted in frames on the ground on the left-facing side of the two buildings.

Proposed Elements

The proposed project would involve installation of standard telecommunication facilities and a GSM payphone. These new facilities would provide service and coverage to location 11. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location.

A VSAT antenna would be ground-mounted on the left-facing side of the main building in front of the existing solar panels. The concrete foundation for the VSAT antenna would require excavation

of a hole approximately 14 inches wide and 36 inches deep. The proposed site for the VSAT antenna is on cleared ground; therefore, no vegetation would be disturbed for the installation of this antenna. An omni-directional antenna would be placed at the top of a new 8-foot-tall, wall-mounted pole that would be placed at the right corner of the main building.

Location 17 would involve the removal of the 20 existing NPS 55-watt solar panels, and the installation of 20 new, 240-watt solar panels within the existing frame structure. Ten of the new solar panels would be dedicated to the existing NPS system, increasing the total energy NPS produces at this location by 1,300 watts to a total of 2,400 watts. The remaining ten new solar panels would provide power to the new CITC system. Though all 20 solar panels would share the same framework, the NPS and CITC electrical systems would remain unconnected and would not co-mingle. A total of 16 batteries for the new solar panels would be stored in a new, ground-mounted enclosure that would be located behind the existing solar panel array behind the maintenance shop. The proposed site for the cabinet is on cleared and level ground; therefore, no vegetation would be disturbed for the installation of this cabinet, and no earthwork would be required. The new pico cell telecommunication box would be located in the same cabinet as the solar panel batteries. Cable to connect the proposed telecommunication facilities would be placed in either aboveground or underground conduit. Hand trenching would be used for installation of any underground conduit, which would be placed parallel to existing NPS underground conduit, resulting in disturbance of previously disturbed ground. A GSM payphone would be wall-mounted on the right-facing side of the building near the front door.

Location 18 – Santa Rosa Island Ranch Residence

Existing Elements

Santa Rosa Island Ranch Residence consists of a single-story private residence. A wooden rail fence in front of the residence encloses a small yard that is landscaped with a grass lawn. A dish antenna for television reception is located on the front of the building; however, this dish antenna is no longer in service. The residence is located 600 feet west of the shore on relatively flat terrain, with a row of screening trees to the immediate west. No ranching or other agricultural activities take place at this location.

Proposed Elements

The proposed project would involve installation of a GSM payphone, which would be wall-mounted on the front-facing side of the residence. No other telecommunication facilities would be installed at location 18. Additionally, any private or government GSM cell phones would be capable of connecting to the GSM signal provided at this location.

2.2.3 INSTALLATION/CONSTRUCTION METHODS

Transportation to Project Locations

Installation of the proposed telecommunication equipment would require bringing teams of installation crews, telecommunication equipment, and tools to each of the 15 project locations. Equipment and materials would be shuttled from the mainland to the intended island via boat or helicopter, depending on the site location. The applicant intends to shuttle all materials from the

mainland to the islands using normally scheduled boat trips from the park concessionaire⁴. The applicant would use a privately chartered boat in the event that park concessionaire boats are not running at desired dates or times, are unavailable, or additional trips are needed beyond typically scheduled boat trips. All private charter trips would need to be approved and permitted by NPS. As a third option, the applicant may also use normally scheduled NPS boat trips to shuttle construction workers and equipment to the various islands; however, NPS boats do not travel to each island on a daily basis, nor do these boats always have space available to accommodate the transport of construction crews and materials. Use of NPS transportation to and from the islands would be performed on a cost reimbursement basis. NPS vehicles would be used in most cases to convey the materials from the boat landing site to the installation sites. Use of NPS vehicles would be on a cost reimbursement basis. A helicopter would be chartered to carry the materials from either the mainland to the installation site or from the boat landing site to the installation site in those cases where NPS vehicles are not available or where there are no roads to the installation site. All helicopter access would need to be approved and permitted by NPS. It is anticipated that NPS vehicles would be available to access most installation sites and that helicopter use would be rare.

Accommodations are not available on the islands for the installation crews except in cases of emergency, such as when inclement weather prevents a return trip to the mainland. Temporary overnight accommodations can be provided at most of the ranger stations on the five islands in such circumstances. Construction crews would return to the mainland at the end of each day under most circumstances; however, if nearby camping accommodations are available and NPS approves of their use, then construction crews would camp overnight at such accommodations. The applicant would pay all necessary park fees to use these campsites.

The uncertainty of available boat trips could affect the size of installation crews. A two-person installation crew would typically be used for equipment installation at each location. A three-person crew would be used for equipment installation over a shorter time period if the boat schedules were to restrict the time available at a given site due to logistical reasons.

Staging Areas

Project construction and installation would require a temporary staging area for equipment at each project site. Each temporary staging area would need to be approximately 16 square feet in area, and would be used for a maximum of 48 hours. These temporary storage areas would ideally be located within 10 feet of the site of equipment installation. All temporary storage areas would need to be reviewed and approved by NPS staff prior to use. Proposed staging areas for each of the 15 project locations are shown in Appendix A.

Cleared areas that are paved, covered with gravel, or covered with packed and cleared earth are available for equipment staging at each location. These cleared areas are considered fully disturbed areas and part of existing NPS facilities. All tools, equipment, and materials required for project installation would be staged on paved or cleared areas. Cleared areas may be covered with

⁴ Total weight of the standard telecommunication system with batteries is approximately 1,800 pounds; weight of the rack is approximately 120 pounds; and weight of the solar GSM payphone with stand is approximately 200 pounds.

gravel or bare earth but, in all cases, would be fully disturbed and free of vegetation. No ground disturbance would be required for the staging of telecommunication equipment.

Installation Crew and Schedule

Each of the 15 sites would require between 2 and 2.5 working days for a two- or three-person crew to complete equipment installation. The hours of installation may vary each day due to boat transportation schedules, but would be approximately 8 hours a day. Installation crew members would typically return to the mainland at the end of each day, and return to the island on the next available boat the following day to continue or finish installation at each site. Therefore, the entire installation process would require between 30 and 37.5 work days to complete using only two-person crews. Installation may require fewer days to complete if construction crews are able to stay on the islands overnight at the various camping areas. Installation activities would be conducted over approximately four months due to the irregular schedule of boat transportation and the likelihood of schedule interruptions due to inclement weather.

Installation Equipment

Installation equipment would include a ladder and hand tools, including battery-operated power tools. The majority of the proposed telecommunication facilities, as previously described, would be mounted on existing structures using screws and brackets.

Some of the installation sites may require limited ground disturbance for preparation of temporary equipment storage areas and installation of telecommunications equipment such as solar panel racks, equipment storage cabinets, and pole-mounted pay phones. Additional temporary ground disturbance may be required at select locations (i.e., locations 1, 9, and 17) for underground conduit installation. Archaeological clearance by NPS or oversight by an on-site archaeological monitor would be required for all ground-disturbing activities.

Equipment installed at locations within the Scorpion, Prisoners Harbor, and Smugglers drainages (i.e., locations 6, 7, 9, and 10) would be placed above historical flood levels in consultation with Channel Islands NPS staff. Plans would be submitted to NPS showing the orientation of the equipment in relation to the floodplain for NPS review and approval.

A Spill Prevention, Control, and Countermeasure (SPCC) plan would be developed and implemented prior to the commencement of installation activities. The purpose of the plan would be to address minor fuel leaks and spills from equipment.

To protect the islands from spread of invasive species, the following measures would be taken:

- All plants or seeds used to revegetate any areas disturbed during project installation activities would be native plants.
- All equipment and materials brought to the islands would be free of invasive species.
- Workers would wash boots, tools, and supplies of attached soils or dust prior to entry into the Channel Islands National Park.
- No cardboard boxes would be brought onto the islands unless they contain new, unopened equipment or supplies.

Ground-disturbing Activities

Equipment installation that requires ground disturbance would be avoided to the extent possible. Ground mounting of equipment, where equipment would be placed on the ground surface and no ground disturbing activities would be required, would be the preferred option. Ground-mounted equipment would be placed on paved areas or previously disturbed ground wherever possible. Where ground-mounting of equipment is not possible and ground disturbing activities would be required, cement would be used for foundations and water for cement mixing would either come from local sources or would be transported from the mainland as directed by NPS staff. All ground-disturbing and excavation activities would be performed by hand tools brought to the site by the two- or three-person construction crew. Vegetation removal for installation of ground-mounted equipment and foundations would be avoided to the extent possible, and would not involve the removal or trimming of any trees or bushes.

2.2.4 OPERATION AND MAINTENANCE

CITC would conduct routine maintenance of new telecommunication facilities as needed. Maintenance would be performed if telecommunication equipment is damaged or a customer reports a service problem. Maintenance workers would likely access facilities via regularly scheduled concessionaire boat trips to the islands. A private helicopter may be chartered to bring maintenance personnel to and from the islands if maintenance to the communication link is considered vital by NPS and repairs must be performed in an expedient manner. CITC would notify all subscribers of any expected service outage due to scheduled maintenance. Subscribers would be called after repairs to verify that service has been restored.

2.3 No Project Alternative

The No Project Alternative would involve no physical changes to the existing facilities on the Channel Islands, and would maintain the same level of telecommunication service on the islands as currently exists. Under the No Project Alternative, telephone and Internet connections among the islands and between the islands and the mainland would remain limited at best. No installation workers or new telecommunication equipment would be brought to the islands, and no new telecommunication infrastructure would be installed at any locations on the islands. No new physical impacts would result as a part of the No Project Alternative.

2.4 Alternatives Considered But Dismissed

The only alternatives that have been considered in this analysis are the various options that are part of the proposed project, and the No Project Alternative. The Channel Islands have unique constraints, such as their isolation from the mainland, that limit effective methods of providing telecommunication capabilities to these islands. Therefore, no other development alternatives were identified for consideration in this analysis.

2.5 Comparison of Alternatives

Two alternatives have been considered in this project: the proposed project (with multiple implementation options) and the No Project Alternative. Whereas the proposed project would involve installing new telecommunication equipment at 15 locations on four of the Channel Islands, the No Project Alternative would not involve any actions other than the continued routine maintenance of the existing, limited telecommunication equipment. None of the other actions proposed under the proposed project would occur under the No Project Alternative.

2.6 Environmentally Preferable Alternative

Only two project alternatives have been analyzed in this IS/EA: the proposed project (with multiple implementation options) and the No Project Alternative. As described in Chapter 3, the proposed project would involve some minor, but adverse impacts on the environment.

The No Project Alternative would have no new negative effects on the environment. Under the No Project Alternative, none of the actions proposed would take place and, therefore, none of the impacts outlined in Chapter 3 of this IS/EA would occur. The No Project Alternative would, therefore, be the environmentally superior alternative.

The No Project Alternative would not meet any of the objectives of the project, however, and would not improve communication capability among the islands and between the islands and the mainland. This lack of improved communication would result in no change to the number of boat and aircraft trips initiated to the various islands that are forced to turn back due to inclement weather. Without improved communication between the islands and the mainland, current island weather conditions would not be available to people seeking transport to the islands, and the number of failed or aborted trips each year would remain unchanged. It is uncertain how many such failed or aborted trips to the islands would be prevented by the proposed project.

2.7 Actions Common to All Project Alternatives

There are no actions common to both the proposed project and the No Project Alternative.

2.8 Mitigation Measures Common to All Alternatives

There are no mitigation measures shared by the proposed project and the No Project Alternative.

2.9 Mitigation Measures Specific to Alternatives

All of the mitigation measures described in this IS/EA are unique to the proposed project and are listed in both the Mitigated Negative Declaration and in Section 3: Affected Environment and Environmental Consequences.

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