

**Peninsular Bighorn Sheep
Construction Monitoring Plan**

**San Diego Gas & Electric, Sunrise Powerlink Project
Imperial and San Diego Counties, California**

Prepared for:

San Diego Gas & Electric Company

Contract Agreement Number
5660014274

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August 23, 2010

INTRODUCTION

This Peninsular Bighorn Sheep Construction Monitoring Plan (CMP) fulfills Species Specific Conservation Measure 24 (SS-CM-24) for Peninsular Bighorn Sheep as outlined in the U.S. Fish and Wildlife Service Biological Opinion (BO) for the Sunrise Powerlink Project (USFWS 2009a). The BO SS-CM-24 is as follows:

A biological consultant approved by the Wildlife Agencies will be retained by SDG&E to collect data on bighorn sheep movements in the area during the construction phase. Prior to construction the biologist shall submit a bighorn sheep monitoring plan that meets the approval of the Wildlife Agencies. Helicopters shall follow regular flight corridors coinciding with the ROW to the maximum extent possible and avoid low-flying "short-cuts" or sight-seeing trips away from the project site. Helicopters shall avoid flying within 0.6 mi (1 km) of bighorn sheep water sources. Helicopter landing areas, vehicle parking sites, and fly yards shall be cited at least 0.6 mi (1 km) from bighorn sheep water sources and other key resource areas identified by the biologist. When bighorn sheep are detected within the I-8 Island, construction operations shall cease until bighorns leave the area as verified by the biologist.

Conservation measure SS-CM-24, deals with the development of the Peninsular Bighorn Sheep Construction Monitoring Plan, and includes some specific measures. Within SS-CM-24, it states that helicopters shall follow regular flight corridors and avoid low-flying "short-cuts" or sight-seeing trips away from the project site. Additionally, helicopters shall not be used within 0.6 miles (1 kilometer) of bighorn sheep water sources. Furthermore, helicopter landing areas, vehicle parking sites and fly yards shall be cited at least 0.6 miles (1 km) from bighorn sheep water sources and other key resources identified by the biologist. These measures are incorporated into the mandatory guidance of this plan.

PROJECT LOCATION IN PENINSULAR BIGHORN SHEEP HABITAT

The U.S. Fish and Wildlife Service issued its biological conference/opinion for the project on January 16, 2009 (USFWS 2009a). The analysis of the direct and indirect effects of the project and conservation measures was based in large part on the original designation of critical habitat. Critical habitat was originally designated for this species on February 1, 2001 (USFWS 2001), and the designation in 2001 closely followed the delineation of suitable Peninsular bighorn sheep habitat developed by the Recovery Team (USFWS 2000, Appendix 1). Since issuance of the biological opinion, following litigation, a revised critical habitat was designated on April 14, 2009 (USFWS 2009b). As a result of the new designation, the amount of critical habitat located in the project area has been reduced. To avoid impacting bighorn sheep in a way not analyzed in the biological opinion, this construction monitoring plan is generally based on the location of suitable bighorn sheep habitat, and not the location of the 2009, revised critical habitat for this endangered species. Therefore, suitable habitat as used in this Construction Monitoring Plan essentially coincides with the location of critical habitat designated in 2001.

In further refining the areas of potential conflict between project activities and bighorn sheep, and focusing monitoring activities where conflicts between project activities and the presence of Peninsular bighorn sheep are most likely to occur, this plan focuses monitoring activities on the suitable bighorn sheep habitat located between and including tower sites EP-255-2 and EP-281; all of which are located in what had been designated as critical habitat in 2001 (USFWS 2001). This area includes what is called the Interstate 8 Island (I-8 Island), an area of consistent bighorn sheep use (Davenport 2010c). It is important to note that some tower sites that will not be

monitored under this plan are also located within suitable bighorn sheep habitat. These tower sites are located near the northeast end of the I-8 Island (i.e., EP 290 to EP294) and near the base of the Coyote Mountains (i.e., EP300-1 to EP312). However, construction activities at these tower sites are to occur during the summer, when the groups of bighorn sheep that seasonally use these areas are located near the southwest corner of the I-8 Island and Carrizo Gorge, respectively. That is, given the location of these two groups of tower sites, Peninsular bighorn sheep are unlikely to occur during the summer construction period. However, if the timing of construction activities shifts to the winter or spring, conflicts between Peninsular bighorn sheep and construction activities may occur. The area covered by this plan is located between Jacumba and Ocotillo, California (Figure 1).

The population of bighorn sheep located within the project area was listed on March 18, 1998, as an endangered, distinct vertebrate population segment, under the Endangered Species Act of 1973, as amended (ESA), and is referred to as the Peninsular bighorn sheep (USFWS 1998). The Peninsular bighorn sheep was previously listed under California's Endangered Species Act on June 27, 1971.

Under Section 9 of the ESA, all persons are prohibited from taking species listed under the ESA without special permit or exemption. Per the implementing regulations for the ESA, the definition of take includes the terms, harm and harass. Section 9 of the ESA provides for both civil and criminal penalties for persons that take a listed species without appropriate permits or exemption. The U. S. Fish and Wildlife Service's biological opinion provides the necessary authorization under section 7 of the ESA for the proposed project's construction and operation. The consultation process determines if the proposed project will jeopardize the continued survival and recovery of a listed species, and if critical habitat will be adversely modified. It is important to note that no incidental take of Peninsular bighorn sheep is allowed under the biological opinion. Therefore, harm or harassment of the Peninsular bighorn sheep must be avoided.

Harm and harass are defined in the implementing regulations for the ESA (50 CFR Part 17). The definitions are as follows:

Harm in the definition of "take" in the ESA means an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. Harass in the definition of "take" in the ESA means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering).

Critical habitat identifies specific areas that have the physical and biological features that are essential to the conservation of the species. These areas may require special management considerations and/or protection. The primary constituent elements for the Peninsular bighorn sheep are those habitat components that are essential for the primary biological needs of feeding, sheltering, reproduction, dispersal and genetic exchange. Areas designated as critical habitat have one or more of these primary constituent elements. It is important to note that the revised critical habitat did not include a large area of habitat that is located within the action area of the project and that is consistently used by ewes and lambs (Davenport 2010c).

As stated previously, the formal consultation-conference on the construction and long-term operation and maintenance program for the Sunrise Powerlink Project, was completed by the Service on January 16, 2009 (USFWS 2009). The non-jeopardy and no adverse modification of

critical habitat conclusions of the biological-conference opinion were based on the implementation of general and species specific conservation measures identified in the project description, including the development and implementation of the Peninsular Bighorn Sheep Construction Monitoring Plan for activities occurring in or over critical habitat of the Peninsular bighorn sheep. All mitigation measures associated with this project that deal directly or indirectly with Peninsular bighorn sheep are provided (Appendices 2, 3, and 4).

Species Specific Conservation Measure No. 22 (SS-CM-22), construction activities, including the use of helicopters, in designated critical habitat is limited to outside the lambing season (January 1 through June 30). Additionally, construction activities are also limited to outside the season of greatest water need (June 1 through September 30). Thus, for construction activities located in suitable habitat of the bighorn sheep, the construction window lies between October 1 and December 31. Exceptions to SS-CM-22 may be approved by the wildlife agencies.

The minimization of unnecessary clearing of habitat was an additional reasonable and prudent measure provided through the issuance of a biological opinion by the U.S. Fish and Wildlife Service (USFWS 2009).

Based on numerous surveys completed between January 2009, and March 2010, Peninsular bighorn sheep were observed using habitat within the Interstate 8 Island during all survey events (Davenport 2009a, Davenport 2009b, Davenport 2009c, Davenport 2010a, Davenport 2010b). In addition, during these surveys, Peninsular bighorn sheep and/or their sign have been observed in adjacent habitat located both northwest and southeast of the I-8 Island. Thus, when working in this general area, the presence of Peninsular bighorn sheep shall be assumed. It is important to note that Peninsular bighorn sheep decrease their use of habitat within the I-8 island during the summer and increase their use of this portion of suitable habitat soon after the arrival of winter rains (Davenport 2010b).

The unhindered access of Peninsular bighorn sheep to water during the dry hot summer and early fall is critical to the health of this animal. Thus, avoiding project related disturbance of perennial water sources, and inundated ephemeral water sources, is essential in avoiding adverse impacts to Peninsular bighorn sheep. Within the action area of the project covered by this plan, only one perennial water source is known and it is located southwest of the Hidden Springs off-ramp. This water source is located over 6,000 feet from the nearest tower site, landing zone, or parking area. The other natural water sources within the project area covered by this plan are ephemeral, and do not have surface water until after rain events. However, when ephemeral water sources have water, a 0.6 mile (1 kilometer) no fly buffer will be established around each inundated water source. In addition, work activities will not occur within 500 feet of the water source. The water tanks located along the west bound lanes of Interstate 8 do not appear to be used by Peninsular bighorn sheep.

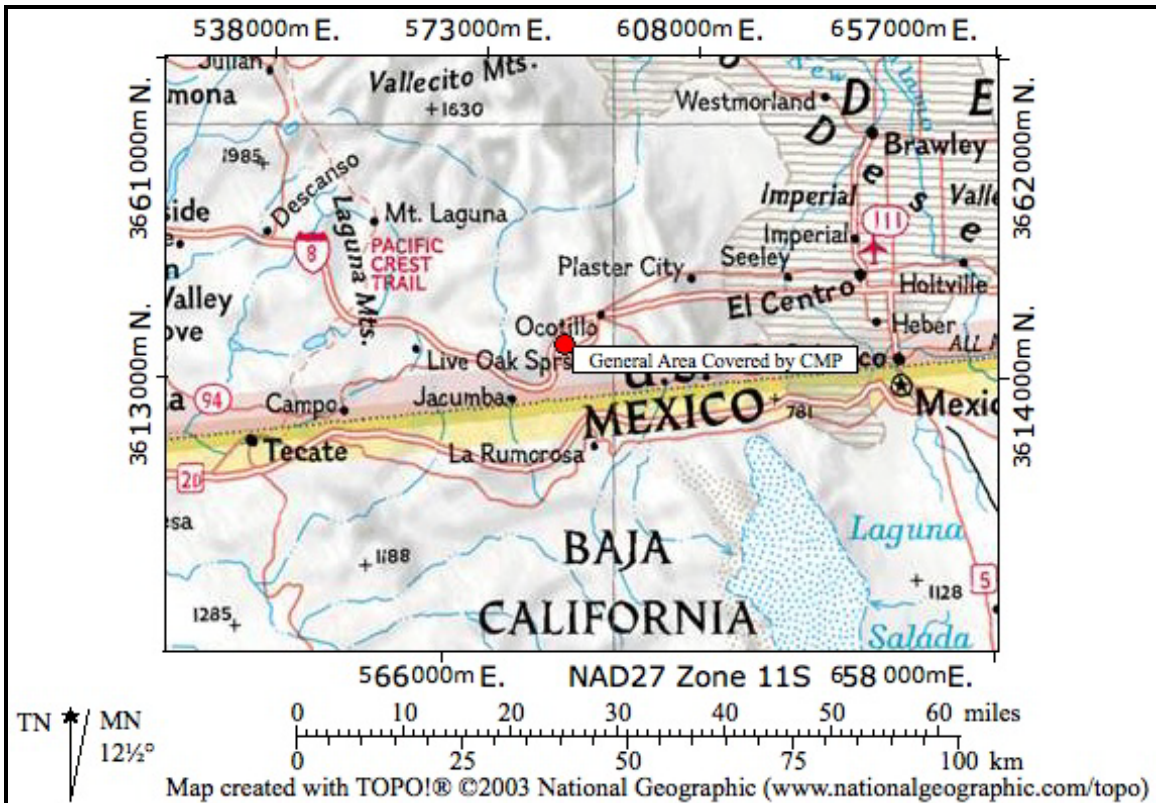


Figure 1. Shows general area covered by the CMP.

The habitat located within and surrounding the I-8 Island is not evenly used by Peninsular bighorn sheep throughout the year. In general, Peninsular bighorn sheep increase their temporal and spatial use of habitat within the I-8 Island following the arrival of winter rains, and within the cooler, wetter season bighorns appear to favor specific locations near the center of the Island. During the warmer, hotter months, bighorns appear to spend more time outside of the I-8 Island, presumably to locate closer to permanent water sources. Based on this uneven temporal and spatial use of habitat within the I-8 Island, an opportunity exists to further reduce the potential for project related conflicts with this species and potential delays by beginning construction on the towers located within the middle of the I-8 Island first, working progressively out to its edge. This reduction in potential conflicts between Peninsular bighorn sheep and project related construction activities will become quite evident following the arrival of winter rains. That is, if construction activities have been completed within the middle portion of the I-8 Island during the warmer, dryer months and prior to the arrival of winter rains, the potential for conflicts between construction and Peninsular bighorn sheep, and the incidence of delays, will have been greatly reduced.

In summary, the purpose of this plan is to provide procedures for avoiding direct or indirect impacts to Peninsular bighorn sheep, a State and Federally protected species, during project activities. Thus, general and specific measures are provided within this document that will facilitate completion of project activities while protecting the Peninsular bighorn sheep.

MANDATORY GUIDELINES

General

The construction window while within suitable habitat for the Peninsular bighorn sheep shall be October 1 through December 31, unless modified by the regulatory agencies. It is important to note that this construction window overlaps with a period when Peninsular bighorn sheep significantly increase their use of habitat within the I-8 Island. To reduce the potential for adverse impacts to Peninsular bighorn sheep, and construction delays, the construction window for the area covered under this plan should be August-October, or until the arrival of winter rains.

Helicopters shall follow regular flight corridors coinciding with the project right-of-way to the maximum extent possible.

Helicopters shall maintain a minimum altitude of 1,500 feet (457 meters) above the ground unless landing or flying within a currently cleared flight corridor. It is understood that helicopters with full loads and those being used for inserting and extracting crews and equipment will necessarily have to fly below this minimum altitude. It is also understood that these low elevation flights will be along designated flight corridors that will be monitored for bighorn sheep activity during construction activities. The presence of bighorn sheep within the flight corridor may delay low altitude flight activity or require the rerouting of a particular flight.

Low flying (altitude less than 1,500 feet [457 meters]), shortcuts, or sight-seeing trips away from the project area shall be avoided.

Helicopters shall not be used within 0.6 mile (1 kilometer) of bighorn sheep perennial water sources, or inundated ephemeral water sources.

Helicopter landing areas, vehicle parking sites, and fly yards shall not be located within 0.6 mile (1 kilometer) of bighorn sheep perennial water sources or other key resource areas as identified by the lead bighorn sheep biologist.

As previously mentioned, resident bighorn sheep distribution and preference for certain locations appears to change seasonally. However, bighorns have been observed within the I-8 Island during all seasons of the year. Therefore, it will be necessary to use bio-monitors (bighorn sheep biologists) to minimize or avoid the adverse effects of construction activities. One bighorn sheep biologist shall not cover more than three construction crews working on adjacent tower sites at a time, and at least one bighorn sheep biologist shall be present on-site during all construction activities. Therefore, for nine construction crews, three bighorn sheep biologists shall be present. Additional construction crews will require additional bighorn sheep biologists as appropriate. Furthermore, if the work sites are not adjacent to each other and the lead bighorn sheep biologist determines that an additional biologist or biologists are necessary to adequately prevent impacts to bighorn sheep, additional bighorn sheep biologists shall be present during work activities. The number of additional bighorn sheep biologists shall be decided by the lead bighorn sheep biologist in consultation with the San Diego Gas & Electric's Project biologist. All assistant biologists will be given site- and project-specific orientation and training by the lead bighorn sheep biologist prior to engaging in decision-making activities.

When bighorn sheep are detected close to project activities, construction operations shall cease until the bighorn sheep have moved a sufficient distance away from project activities. For ground based crews, including those involved with drilling and hydraulic rock splitting, that distance shall be 500 feet (152 meters). For helicopter operations, that distance shall be 1,500 feet (457 meters). Alternatively, if the bighorn sheep biologist determines that project activities are unlikely to adversely affect the animals, then project activities can proceed. If not present, the on-site bighorn sheep biologist shall be contacted immediately for guidance on how to proceed at that time.

To assist in preventing direct and indirect impacts to Peninsular bighorn sheep due to project related activities, a perimeter survey of habitat within and adjacent to the I-8 Island will be completed for this species the day before, and the morning of, planned work activities. The number, age, sex, and location of all Peninsular bighorn sheep observed during this survey will be documented.

A monthly report indicating the particular work sites, the on-site PBHS Biologist per site, the results of pre-surveys at each work site, the need and use of any additional avoidance measures, and the results of the perimeter survey will be completed.

Survey Crews and Site Visits

Ground Based

Prior to entrance into the I-8 Island, as well as other areas identified as restricted use (Figure 2), the project lead will schedule a pre-survey of the work area or areas with the lead Peninsular bighorn sheep biologist (PBHS Biologist). Scheduling of the pre-survey or surveys shall occur at least 48 hours in advance of the scheduled work and include information regarding the location of work areas, the sequence of work, as well as the number of work crews. An on-site PBHS Biologist will be assigned to the work crew(s). The pre-survey shall be completed by the on-site PBHS Biologist of each work area prior to the work crew entering the I-8 Island or other restricted use areas. Following the pre-survey, the on-site PBHS Biologist conducting a particular pre-survey will either provide or deny clearance to proceed to the work area. Denial to proceed will be based on the presence of Peninsular bighorn sheep within or adjacent to the scheduled work area. Adjacent means within 500 feet (152 meters) of the access route and/or actual work area. In the event of denied clearance to proceed, the on-site PBHS Biologist will provide recommendations, if available, that would allow project activities to proceed. Such recommendations may include delayed entry, changes in access routes, or other measures to avoid disturbing the bighorn sheep.

Entry Procedure

- With the lead PBHS Biologist, and at least 48 hours in advance of planned work activity, schedule pre-survey of planned work areas located in areas of restricted entry; indicate location of work areas, sequence of work, and number and type of work crews.
- Do not enter restricted areas without prior approval from the on-site PBHS Biologist.
- Wait for clearance and guidance from on-site PBHS Biologist.
- If cleared to enter, proceed to project work area along pre-determined route.
- The on-site PBHS Biologist may determine it necessary to accompany crew.
- If denied entrance from the on-site PBHS Biologist, do not enter restricted area.
- If an altered entry approach, or timing of work would allow the completion of the planned tasks, follow recommendations of on-site PBHS Biologist.

- Approval to enter a restricted area is only valid for the day of planned activities.
- Repeat entry procedure for each day of planned activities within the restricted areas.

Work Activity

When bighorn sheep are detected close to project activities, construction operations shall cease until the bighorn sheep have moved a sufficient distance away from project activities. For ground based crews, including those involved with drilling and hydraulic rock splitting, that distance shall be 500 feet (152 meters). For helicopter operations, that distance shall be 1,500 feet (457 meters). Alternatively, if the bighorn sheep biologist determines that project activities are unlikely to adversely affect the animals, then project activities can proceed. If not present, the on-site bighorn sheep biologist shall be contacted immediately for guidance on how to proceed at that time.

Aerial Assisted

The minimum flight elevation over the ground while over suitable habitat for Peninsular bighorn sheep shall be 1,500 feet (457 meters) unless landing or flying over an area currently approved for low elevation flight or landing by the on-site PBHS Biologist. Prior to entrance into or over the I-8 Island or other suitable habitat of the Peninsular bighorn sheep (Figure 2), the project lead will schedule a pre-survey of the work area or areas with the lead PBHS Biologist. The work area will include the actual work site or sites, as well as landing zones and flight routes where the minimum flight height over the ground is below 1,500 feet. Scheduling of the pre-survey shall occur at least 48 hours in advance of the scheduled work and include information regarding the location of work area or areas, the sequence of work activity, as well as the number of work crews. An on-site PBHS Biologist will be assigned per work crew(s). The pre-survey will be completed by the on-site PBHS Biologist prior to the pilot or work crew entering the I-8 Island. Following the pre-survey of a work area, the on-site PBHS Biologist will either approve or deny clearance to proceed to a work area. Denial to proceed at a particular site will be based on the presence of Peninsular bighorn sheep within the scheduled work area, including the low altitude flight path to the work site. Adjacent means within 1,500 feet (457 meters) of the flight route or landing zone. For related ground based activities, adjacent means within 500 feet (152 meters) of the access route, or actual work area. In the event of denied clearance to proceed, the on-site PBHS Biologist will provide recommendations, if available, that would allow project activities to proceed. Such recommendations may include delayed entry, changes in flight and access routes, or other measures that result in avoidance of disturbance to the Peninsular bighorn sheep.

When not on a designated and cleared flight path over suitable habitat of the Peninsular bighorn sheep, helicopters shall maintain a minimum altitude of at least 1,500 feet (457 meters) above the ground.

Entry Procedure (for all flight activity below an altitude of 1,500 feet [457 meters] above the ground)

- With the lead PBHS Biologist, and at least 48 hours in advance of planned activity, schedule pre-survey of planned work areas, landing-zones, and low altitude flight-paths (below 1,500 feet) located in restricted areas.
- Do not enter restricted areas without prior approval.
- When flights or portions of flights are anticipated to occur below 1,500 feet (457 meters), or within 1,500 feet (457 meters) of adjacent hill sides within the restricted areas, get prior approval from the on-site PBHS Biologist.

- Wait for clearance of planned work area(s) and guidance from the on-site PBHS Biologist
- If cleared to enter, proceed to project work area along pre-determined route.
- Under some circumstances, the on-site PBHS Biologist may determine it necessary to accompany crew.
- If denied entrance from the on-site PBHS Biologist, do not enter restricted area, wait for guidance.
- If an altered entry approach, or timing of work would allow the completion of the planned tasks, follow recommendations of on-site PBHS Biologist.
- Approval to enter a restricted area is only valid for the day of planned activities.
- Repeat entry procedure for each day of planned activities within the restricted areas.

Work Activity

When bighorn sheep are detected close to project activities, construction operations shall cease until the bighorn sheep have moved a sufficient distance away from project activities. For ground based crews, including those involved with drilling and hydraulic rock splitting, that distance shall be 500 feet (152 meters). For helicopter operations, that distance shall be 1,500 feet (457 meters). Alternatively, if the bighorn sheep biologist determines that project activities are unlikely to adversely affect the animals, then project activities can proceed. If not present, the on-site bighorn sheep biologist shall be contacted immediately for guidance on how to proceed at that time.

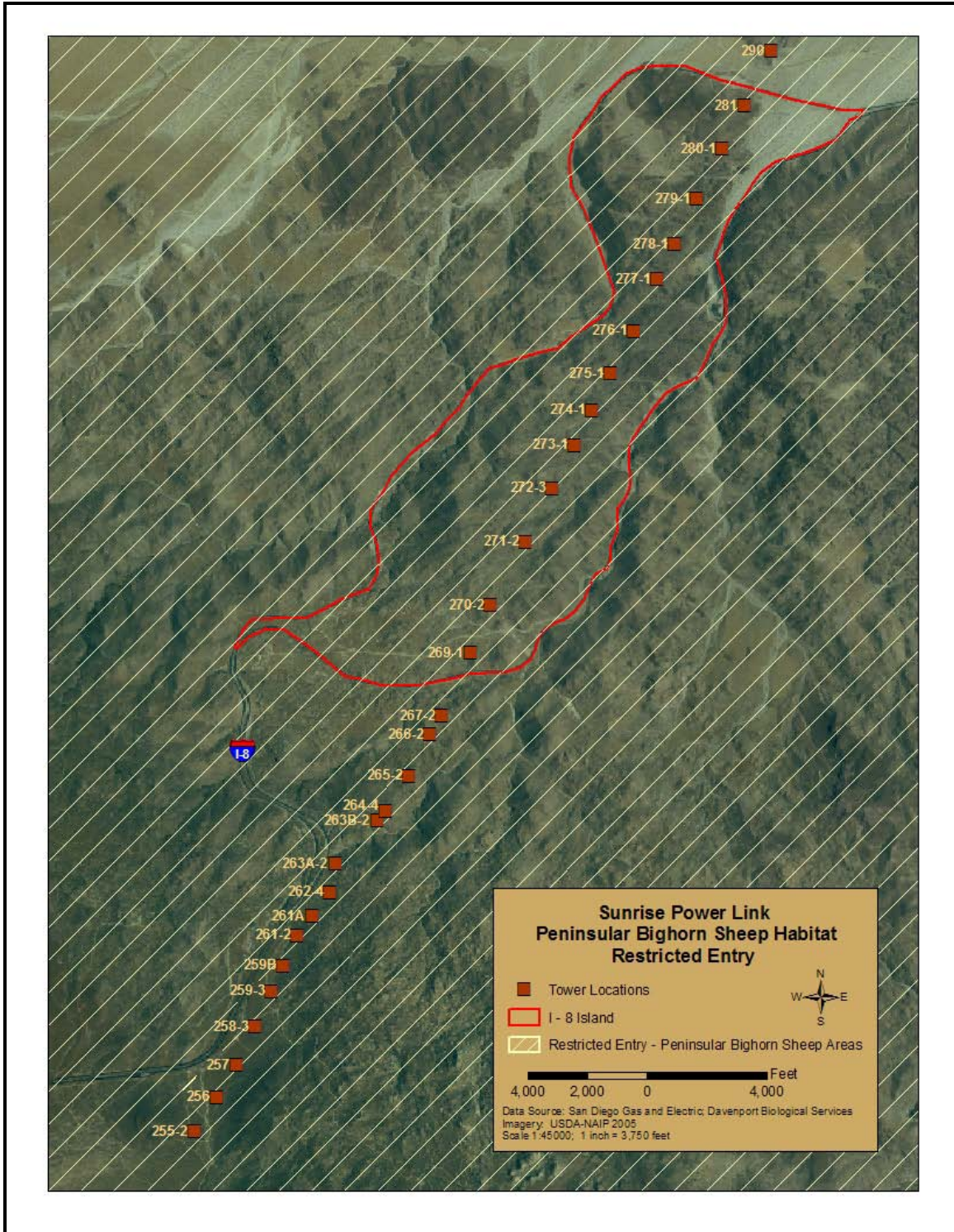


Figure 2. Shows I-8 Island and other restricted entry areas within project corridor (It is important to note that tower site 290 will not be monitored if construction occurs during the summer and/or early fall due to the unlikely presence of bighorn sheep).

Construction Activities

This includes all tower-construction activities associated with the project located in PBHS habitat.

General

When bighorn sheep are detected close to project activities, construction operations shall cease until the bighorn sheep have moved a sufficient distance away from project activities. For ground based crews, including those involved with drilling and hydraulic rock splitting, that distance shall be 500 feet (152 meters). For helicopter operations, that distance shall be 1,500 feet (457 meters). Alternatively, if the bighorn sheep biologist determines that project activities are unlikely to adversely affect the animals, then project activities can proceed. If not present, the on-site bighorn sheep biologist shall be contacted immediately for guidance on how to proceed at that time.

Ground Based

Prior to entrance into the I-8 Island, as well as other areas identified as restricted use (Figure 2), the project lead will schedule a pre-survey of the work area or areas with the lead PBHS Biologist. Scheduling of the pre-survey or surveys shall occur at least 48 hours in advance of the scheduled work and include information regarding the location of work areas, the sequence of work, as well as the number of work crews. An on-site PBHS Biologist will be assigned to the work crew(s). The pre-survey shall be completed by the on-site PBHS Biologist of each work area prior to the work crew entering the I-8 Island or other restricted use areas. Following the pre-survey, the on-site PBHS Biologist conducting a particular pre-survey will either provide or deny clearance to proceed to the work area. Denial to proceed will be based on the presence of Peninsular bighorn sheep within or adjacent to the scheduled work area. Adjacent means within 500 feet (152 meters) of the access route and/or actual work area. In the event of denied clearance to proceed, the on-site PBHS Biologist will provide recommendations, if available, that would allow project activities to proceed. Such recommendations may include delayed entry, changes in access routes, or other measures to avoid disturbing the bighorn sheep.

Entry Procedure

- With the lead PBHS Biologist, and at least 48 hours in advance of planned work activity, schedule pre-survey of planned work areas located in areas of restricted entry; indicate location of work areas, sequence of work, and number and type of work crews.
- Do not enter restricted areas without prior approval from the on-site PBHS Biologist.
- Wait for clearance and guidance from on-site PBHS Biologist.
- If cleared to enter, proceed to project work area along pre-determined route.
- The on-site PBHS Biologist may determine it necessary to accompany crew.
- If denied entrance from the on-site PBHS Biologist, do not enter restricted area.
- If an altered entry approach, or timing of work would allow the completion of the planned tasks, follow recommendations of on-site PBHS Biologist.
- Approval to enter a restricted area is only valid for the day of planned activities.
- Repeat entry procedure for each day of planned activities within the restricted areas.

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When bighorn sheep are detected close to project activities, construction operations shall cease until the bighorn sheep have moved a sufficient distance away from project activities. For ground based crews, including those involved with drilling and hydraulic rock splitting, that distance shall be 500 feet (152 meters). For helicopter operations, that distance shall be 1,500 feet (457 meters). Alternatively, if the bighorn sheep biologist determines that project activities are unlikely to adversely affect the animals, then project activities can proceed. If not present, the on-site bighorn sheep biologist shall be contacted immediately for guidance on how to proceed at that time.

Aerial Assisted

When not on a designated and cleared flight path over suitable habitat of the Peninsular bighorn sheep, helicopters shall maintain a minimum altitude of at least 1,500 feet (457 meters) above the ground.

The minimum flight elevation over the ground while over suitable habitat for Peninsular bighorn sheep shall be 1,500 feet (457 meters) unless landing or flying over an area currently approved for low elevation flight or landing by the on-site PBHS Biologist. Prior to entrance into or over the I-8 Island or other suitable habitat of the Peninsular bighorn sheep (Figure 2), the project lead will schedule a pre-survey of the work area or areas with the lead PBHS Biologist. The work area will include the actual work site or sites, as well as landing zones and flight routes where the minimum flight height over the ground is below 1,500 feet. Scheduling of the pre-survey shall occur at least 48 hours in advance of the scheduled work and include information regarding the location of work area or areas, the sequence of work activity, as well as the number of work crews. An on-site PBHS Biologist will be assigned per work crew(s). The pre-survey will be completed by the on-site PBHS Biologist prior to the pilot or work crew entering the I-8 Island. Following the pre-survey of a work area, the on-site PBHS Biologist will either approve or deny clearance to proceed to a work area. Denial to proceed at a particular site will be based on the presence of Peninsular bighorn sheep within the scheduled work area, including the low altitude flight path to the work site. Adjacent, means within 1,500 feet (457 meters) of the flight route or landing zone. For related ground based activities, adjacent means within 500 feet (152 meters) of the access route, or actual work area. In the event of denied clearance to proceed, the on-site PBHS Biologist will provide recommendations, if available, that would allow project activities to proceed. Such recommendations may include delayed entry, changes in flight and access routes, or other measures that result in avoidance of disturbance to the Peninsular bighorn sheep.

When not on a designated and cleared flight path over suitable habitat of the Peninsular bighorn sheep, helicopters shall maintain a minimum altitude of at least 1,500 feet (457 meters) above the ground.

Entry Procedure (for all flight activity below an altitude of 1,500 feet [457 meters])

- With the lead PBHS Biologist, and at least 48 hours in advance of planned activity, schedule pre-survey of planned work areas, landing-zones, and low altitude flight-paths (below 1,500 feet) located in restricted areas.
- Do not enter restricted areas without prior approval.
- When flights or portions of flights are anticipated to occur below 1,500 feet (457 meters) or within 1,500 feet (457 meters) of adjacent hill sides within the restricted areas, get prior approval from the on-site PBHS Biologist.

- Wait for clearance of planned work area(s) and guidance from the on-site PBHS Biologist.
- If cleared to enter, proceed to project work area along pre-determined route.
- Under some circumstances, the on-site PBHS Biologist may determine it necessary to accompany crew.
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RECOMMENDED TOWER CONSTRUCTION SEQUENCE

As discussed previously, Peninsular bighorn sheep shift their spatial and temporal use of habitat within the I-8 Island on a seasonal basis. The following recommended construction sequence is designed to significantly reduce the potential for conflict between construction activities and Peninsular bighorn sheep. The construction sequence of the towers progresses from the middle of the I-8 Island, to its perimeter. This assumes initiation of construction in September.

- 1) EP 273 and EP 274
- 2) EP 272 and EP 275
- 3) EP 271 and EP 276
- 4) EP 270 and EP 277
- 5) EP 269 and EP 278
- 6) EP 268 and EP 279
- 7) EP 267 and EP 280

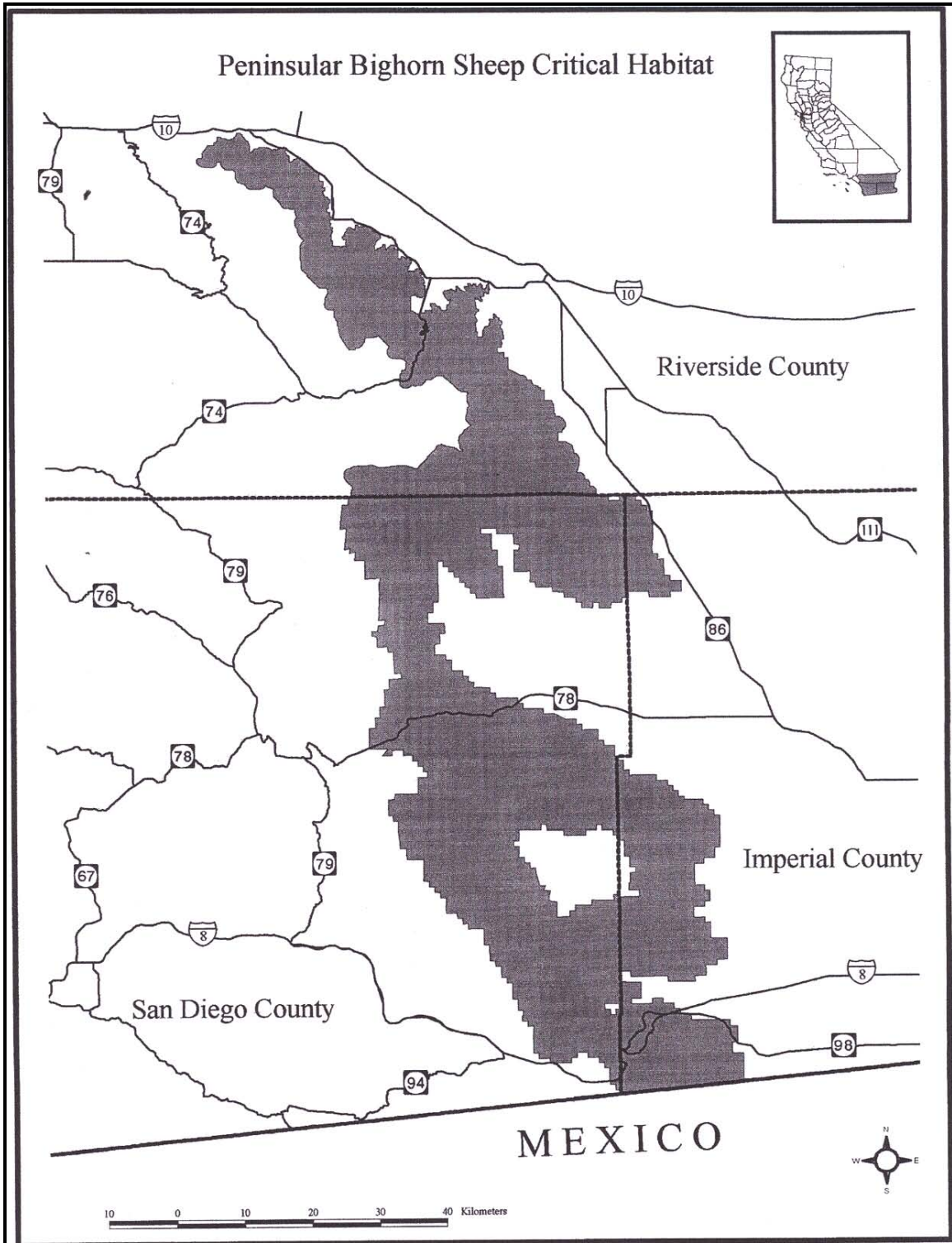
REPORTING STANDARDS

The lead PBHS biologist will prepare daily monitoring reports that will be submitted to the Environmental Field Monitor Manager, The Environmental Field Monitor Manager will submit the daily reports on a weekly basis to the CPUC. The Environmental Field Manager will also submit a summary of the daily reports on a monthly basis to the CPUC.

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Appendix 1. Peninsular Bighorn Sheep Critical Habitat (USFWS 2001)



Appendix 2. Applicant Proposed Measures (Aspen 2009)

BIO-APM-1: SDG&E would perform any detailed on-the-ground protocol surveys with regard to specific sensitive plant or wildlife species whose habitat would be impacted by the project based on final design in accordance with federal or State regulations or statutes. SDG&E would submit results of these surveys to the USFWS and CDFG. (SDG&E)

BIO-APM-2: Prior to construction, all SDG&E's contractors, subcontractors and project personnel would receive training regarding the appropriate work practices necessary to effectively implement the biological APMs and to comply with the applicable environmental laws and regulations including appropriate wildlife avoidance, and impact minimization procedures, the importance of these resources and the purpose and necessity of protecting them; and methods for protecting sensitive ecological resources. (SDG&E)

BIO-APM-3: Except when not feasible due to physical or safety constraints, all Project vehicle movement would be restricted to existing and constructed roads as a part of the project and determined and marked by SDG&E in advance for the contractor, contractor-acquired accesses, or public roads. (SDG&E)

BIO-APM-4: The area limits of Project construction and survey activities would be predetermined based on temporary and permanent disturbance areas noted on final design engineering drawings with activity restricted to and confined within those limits. Survey personnel shall keep survey vehicles on existing roads. During Project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat would require prior approval from the project biological resource monitor in conformance with the APMs. Hiking off roads or paths for survey data collection is allowed year-round as long as other APMs are met. No paint or permanent discoloring agents would be applied to rocks or vegetation to indicate limits of survey or construction activity where any sensitive biological resources or wildlife habitats are encountered in the field. (SDG&E)

BIO-APM-5: To the extent feasible, access roads would be built at right angles to the streambeds and washes; where not feasible for access roads to cross at right angles, SDG&E would limit roads constructed parallel to streambeds or washes to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on "waters of the U.S." or waters of the State. Streambed crossings and roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. Culverts would be installed where needed for right angle crossings, but rock crossings would be utilized across most right angle drainage crossings. All construction and maintenance activities would be conducted in a manner that would minimize disturbance to vegetation, drainage channels and stream banks (e.g., structures would not be located within a stream channel, construction activities would avoid sensitive features). (SDG&E)

BIO-APM-6: In the construction, operation, and maintenance of the project, SDG&E would comply with all applicable environmental laws and regulations, including, without limitation, those regulating and protecting wildlife and its habitat. (SDG&E)

BIO-APM-7: Littering is not allowed. Project personnel would not deposit or leave any food or waste in the project area, and no biodegradable or non-biodegradable debris would remain in the right-of-way following completion of construction. (SDG&E)

Appendix 2., continued

BIO-APM-8: Prior to construction, plant population boundaries designated as sensitive would be clearly delineated. Flagged areas would be avoided to the extent practicable during construction activities in that area. (SDG&E)

BIO-APM-9: Brush clearing around any Project facilities (e.g., structures, substations) for fire protection, visual inspection or Project surveying, in areas which have been previously cleared or maintained within a two-year or shorter period shall not require a pre-activity survey. In areas not cleared or maintained within a two-year period, brush clearing shall not be conducted during the breeding season without a pre-activity survey for vegetation containing active nests, burrows, or dens. (SDG&E)

BIO-APM-10: No wildlife, including rattlesnakes, may be harmed except to protect life and limb. Firearms shall be prohibited in all project areas except for those used by security personnel. (SDG&E)

BIO-APM-11: Feeding of wildlife is not allowed. (SDG&E)

BIO-APM-12: Project personnel are not allowed to bring pets to any project area in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive animal diseases to native wildlife populations. (SDG&E)

BIO-APM-13: Plant or wildlife species may not be collected for pets or any other reason. (SDG&E)

BIO-APM-14: If the biological resource monitor is not qualified to remove the entrapped wildlife, a recognized wildlife rescue agency (such as Project Wildlife) may be employed to remove the wildlife and transport them safely to other suitable habitats. (SDG&E)

BIO-APM-15: Emergency repairs may be required during the construction and maintenance of the project to address situations (e.g., downed lines, slides, slumps, major subsidence, etc.) that potentially or immediately threaten the integrity of the project facilities. During emergency repairs the APMs shall be followed to the fullest extent practicable. Once the emergency has been abated, any unavoidable environmental damage would be reported to the project biological construction monitor, who would promptly submit a written report of such impacts to the USFWS and CDFG and any other government agencies having jurisdiction over the emergency actions. If required by the government agencies, the biological construction monitor would develop a reasonable and feasible mitigation plan consistent with the APMs and any permits previously issued for the project by the governmental agencies. (SDG&E)

BIO-APM-16: Environmentally sensitive tree trimming locations for the project would be identified in SDG&E's existing vegetation management database utilized by trim contractors. Trimming would be scheduled during non-sensitive (i.e., outside breeding or nesting) times. Where riparian areas with overstory vegetation are crossed, tree removal (i.e., clear-cut) widths would be varied where feasible to minimize visual landscape contrast and to maintain habitat diversity at established wildlife corridor edges. Where tree removal widths cannot be varied, SDG&E would consult with the USFWS and CDFG to develop alternative tree removal options that could reasonably maintain edge diversity. (SDG&E)

Appendix 2., continued

BIO-APM-17: All new access roads or spur roads constructed as part of the project that are not required as permanent access for future Project maintenance and operation would be permanently closed. Mowing of vegetation can be an effective method for protecting the vegetative understory while at the same time creating access to the work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing would be necessary to maintain permanent access. The project biological construction monitor shall conduct checks on mowing procedures to ensure that mowing for temporary or permanent access roads is limited to a 14-foot-wide area on straight portions of the road and a 16- to 20-foot-wide area at turns, and that the mowing height is no less than 4 inches from finished grade. (SDG&E)

BIO-APM-18: In areas designated as sensitive by SDG&E or the resource agencies, to the extent feasible structures and access roads would be designed to minimize impacts to sensitive features. These areas of sensitive features include but are not limited to high-value wildlife habitats, sensitive vegetation communities, and high value plant habitats, and/or to allow conductors to clearly span the features, within limits of standard structure design. If the sensitive features cannot be completely avoided, structures and access roads would be placed to minimize the disturbance to the extent feasible. When it is not feasible to avoid constructing poles or access roads in high value wildlife habitats, SDG&E would perform a site survey to determine presence or absence of endangered species in sensitive habitats. SDG&E would submit results of this survey to the USFWS and consult on mitigation measures for potential impacts, prior to constructing structures or access roads. However, this survey would not replace the need for SDG&E to perform detailed on-the-ground surveys as otherwise required by BIO-APM-1. Where it is not feasible for access roads to avoid sensitive water resource features, such as streambed crossings, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, roads constructed parallel to streambeds would be limited to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on “waters of the U.S.” Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. (SDG&E)

BIO-APM-19: Restoration and habitat enhancement and mitigation measures developed during the consultation period with the BLM under Section 7 of the Endangered Species Act (ESA) would be implemented and complied with as specified in the Biological Opinion (BO) of the USFWS. The Section 7 process would be used to obtain an incidental take authorization through a compensation-based mitigation program for permanent impacts to occupied sensitive plant and animal habitat at a ratio of 1:1 or 2:1 based on site-specific studies, as outlined in BIO-APM-1. The Section 7 process may include consideration of SDG&E’s existing NCCP mitigation credits as compensation for project impacts. (SDG&E)

BIO-APM-20: In construction areas where re-contouring is not required, vegetation shall be left in place wherever possible to avoid excessive root damage and allow for re-sprouting. (SDG&E)

BIO-APM-21: Structures shall be constructed to conform to “Suggested Practices for Raptor Protection on Power Lines” (Raptor Research Foundation, Inc. 1981), to minimize impacts to raptors. (SDG&E)

Appendix 2., continued

BIO-APM-22: Salvage may include removal and stockpiling for replanting.

BIO-APM-23: Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed. Topsoil located in areas containing sensitive habitat shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil located in developed or disturbed areas is excluded from this APM. (SDG&E)

BIO-APM-24: Covers shall be secured in place and shall be strong enough to prevent livestock or wildlife from falling through.

BIO-APM-25: Disturbed soils shall be revegetated.

BIO-APM-26: Excavations shall be sloped on one end to provide an escape route for small mammals and reptiles.

BIO-APM-27: 1. Prior to construction, SDG&E shall remove all existing raptor nests from structures that would be affected by project construction.
2: Removal of nests shall occur outside the raptor breeding season (January to July).
3. If it is necessary to remove an existing raptor nest during the breeding season, a qualified biologist shall survey the nest prior to removal to determine if the nest is active. A nest would be considered active if it contains eggs or fledglings. If the nest does not contain eggs or nestlings and is inactive, it shall be removed promptly. If a nest is determined to be active, the nest shall not be removed and the biologist shall monitor the nest to ensure nesting activities/breeding activities are not disrupted. If the biological monitor determines that project activities are disturbing or disrupting nesting activities, the monitor shall make feasible recommendations to reduce the noise and/or disturbance in the vicinity of the nest. (SDG&E)

BIO-APM-28: Potential roost trees that must be removed will be surveyed and identified in the field for application for the following procedures:

Before felling the tree:

1. Trees should be removed under the warmest possible conditions.
2. Peel any section of the exfoliating bark off the tree gently and search for any roosting bats underneath.
3. Create noise and vibrations on the tree itself. Noise and vibrations include:
 - a. Running chain saw and making shallow cuts in the trunk (where bark has been peeled off).
 - b. Striking the tree base with fallen limbs or tools such as hammers.

Felling the tree:

4. Disturbance should be near-continuous for ten minutes, and then another ten minutes should pass, before the tree is felled.
5. When cutting sections of the bole, if any hollows or cavities (such as woodpecker holes) are discovered, be especially careful to check for the presence of bats in those areas. Cut slowly and carefully at all times. If possible, section

Appendix 2., continued

bole near cavities to focus noise and vibrations, and open hollows by sectioning off a side. (SDG&E)

BIO-APM-29: Reduce construction night lighting on sensitive habitats. Exterior lighting within the project area adjacent to preserved habitat shall be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from preserved habitat to the maximum extent practicable. Vehicle traffic associated with project activities would be kept to a minimum volume and speed to prevent mortality of nocturnal wildlife species that may be moving about. (SDG&E)

Appendix 3. Mitigation Measures (Aspen 2009)

B-7c: Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat. With regard to timing of activities, construction and maintenance activities (including the use of helicopters) in bighorn sheep critical habitat shall be limited to outside the lambing season and the period of greatest water need, or a minimum ceiling of 1,500 feet for helicopter flights shall be maintained. The lambing season is January 1 through June 30. The period of greatest water need is May through September. Construction and maintenance activities in PBS critical habitat may occur during the lambing season and/or period of greatest water need if prior approval is obtained from the Wildlife Agencies.

To help reconnect PBS subpopulations and at least partially offset impacts to the overall population of PBS caused by the project, the Applicant shall:

Fund the design and construction of an overpass (for sheep) or tunnel (for vehicles) to facilitate PBS movement across a highway at a location determined by the USFWS (in coordination with State Parks and CDFG. Tunnel or overpass design must be approved by the Wildlife Agencies.

Fund removal of tamarisk and fences for the life of the project, and install and maintain water sources at locations determined by the USFWS (in coordination with State Parks and CDFG)

Fund a minimum 10-year-long program to monitor the effects of the project on PBS behavior, movements, and dispersal in the project corridor (ten years is needed to measure the influence of the project while factoring in rainfall cycles, vegetative productivity, and drought). This program would be implemented by the Wildlife Agencies and State Parks following construction.

Furthermore, the Applicant shall provide compensation for direct loss of critical habitat at a 5:1 ratio for permanent impacts and at a 3:1 ratio (including a combination of onsite restoration and offsite purchase) for temporary impacts with PBS critical habitat or other habitat acceptable to the Wildlife Agencies, BLM, and State Parks (for critical habitat in ABDSP). Impacts to PBS critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred. For the Proposed Project, the required mitigation for PBS impacts includes offsite purchase of 525.7 acres and onsite restoration of 111.81 acres. The determination of impact acreage shall be based on the definition of critical habitat in effect as of the time of publication of the Final EIR/EIS.

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, and State Parks for all acquired PBS habitat. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) prior to the initiation of any activities which may impact (directly or indirectly) PBS or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired PBS habitat. The Habitat Management Plan shall include, but shall not be limited to:

Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) PBS habitat approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP)

Appendix 3., continued

B7-c (cont.)

Baseline biological data for all acquired PBS habitat

Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP) to provide in-perpetuity management

A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan

Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)

Appendix 4. US Fish and Wildlife Service Species Specific Conservation Measures (USFWS 2009)

SS-CM-22: Construction activities (including the use of helicopters) in bighorn sheep designated critical habitat will be limited to outside the lambing season (January 1 through June 30) and the period of greatest water need (June 1 through September 30) as defined in the Recovery Plan. Construction activities in designated critical habitat may occur during the lambing season and/or period of greatest water need if prior approval is obtained from the Wildlife Agencies.

SS-CM-23: Compensation for the loss of occupied bighorn sheep habitat will be implemented as follows. Permanent impacts to designated critical habitat will include 5:1 offsite acquisition and preservation of critical habitat. Temporary impacts to designated critical habitat will include 1:1 on-site restoration and 2:1 offsite acquisition and preservation of critical habitat. Any acquired habitat will be approved by the CPUC, BLM, and Wildlife Agencies.

SS-CM-24: A biological consultant approved by the Wildlife Agencies will be retained by SDG&E to collect data on bighorn sheep movements in the area during the construction phase. Prior to construction the biologist shall submit a bighorn sheep monitoring plan that meets the approval of the Wildlife Agencies. Helicopters shall follow regular flight corridors coinciding with the ROW to the maximum extent possible and avoid low-flying "short-cuts" or sight-seeing trips away from the project site. Helicopters shall avoid flying within 0.6 mi (1 km) of bighorn sheep water sources. Helicopter landing areas, vehicle parking sites, and fly yards shall be cited at least 0.6 mi (1 km) from bighorn sheep water sources and other key resource areas identified by the biologist. When bighorn sheep are detected within the I-8 Island, construction operations shall cease until bighorns leave the area as verified by the biologist.

SS-CM-25: To help reconnect desert bighorn sheep subpopulations and at least partially offset impacts to the overall population caused by the project, SDG&E will:

Fund the design and construction of an overpass or underpass (for sheep), or tunnel (for vehicles) to facilitate desert bighorn sheep movement across a highway at a location determined by the Service (in coordination with CDFG). Tunnel or overpass design must be approved by the Wildlife Agencies, and construction of the facility will be completed prior to connecting and energizing the proposed project to the grid.

Fund, design, and construct a system of fences to prevent bighorn sheep from crossing on the surface of westbound Interstate 8. The fencing shall be designed in consultation with Caltrans and the Wildlife Agencies to facilitate bighorn sheep movement through/across the island using structures currently present, such as the bridges spanning Devil's Canyon, and the culverts/low bridge along eastbound Interstate 8.

Fund removal of tamarisk, fountain grass, other invasive species, and hazardous fences for the life of the project in the action area, and install and maintain water sources per direction and at locations specified by the Wildlife Agencies for the life of the project.

Fund a minimum 10-year-long program to monitor the effects of the project on bighorn sheep behavior, movements, and dispersal in the area from Carrizo Gorge south to the international boundary (10 years is needed to measure the influence of the project while factoring in rainfall cycles, vegetative productivity, and drought). This program will be designed and implemented by the Wildlife Agencies following construction. Funding for

Appendix 4., continued

the project will be provided prior to completion of project construction and is estimated to cost \$150,000 per year in 2008 dollars.

The project proponent will provide sufficient funds to CDFG, or a third party designated by CDFG, to ensure five complete biennial aerial surveys from Carrizo Gorge to the international boundary, for the 10-year period beginning with the scheduled 2010 CDFG survey.

Water used for operation and maintenance purposes will not be obtained from water sources used by bighorn sheep or other wildlife.